



Main Catalogue 2014

Standard Programme

Multi-bladed Reamers and Counterboring Tools

BECK
MAPAL GROUP

Welcome to the World of Precision!

Founded in 1906 by August Beck as a mechanical workshop for fixed tools, today August Beck Präzisionswerkzeuge GmbH & Co. KG in Winterlingen, Germany is a specialist in the precision machining of bores with multi-bladed reamers.

Countersinking tools round out the program. We have made a name for ourselves around the world with this portfolio, our many years of experience and our special expertise. Today, BECK stands for the high quality and precision of our products.

A broad selection of standardised reaming and countersinking tools are available for our customers for process-reliable and cost effective production. We offer a unique range of standard tools, starting with standardised DIN/ISO reamers made of HSS-E or carbide, to high-performance reamers of solid carbide or with soldered blades, and even modern replaceable head systems.

This ensures that, depending on the material to be machined, the required tolerance and the planned production volume, suitable tools are always available from our versatile range of products for the discerning BECK customer.

All quality products from BECK are "Made in Germany". For the majority of our standard products we guarantee in-stock availability, and even intermediate dimensions and special tolerances can be supplied at short notice.

In addition, BECK also produces a large number of custom tools offering advantages in the production of larger quantities in terms of cost effectiveness and productivity. New developments are continually broadening our product program to meet the increasing demands of modern production and to offer solutions for high-performance machining and new materials.



www.tool-traders-partner.com

The tool specialists for the trade.

August Beck GmbH & Co. KG in Winterlingen, Germany, is a member of the "tool-traders-partner" association and takes the advantages of this strong community to the benefit of its customers and the quality of its products. For further information see the last pages of this catalogue or visit us on the internet at www.tool-traders-partner.com.

When it comes to precision reaming and countersinking, we are your partner – fast, safe, reliable!

High Performance Reamers

Modern Production

Replaceable Head Systems

Innovations

Machine Reamers

Regrinding Service

Hand Reamers

Technical Consulting

Taper Reamers

Partnership

Counterboring Tools

Inventory & Availability

Countersinking Tools

Qualified Employees



Multi-bladed Reamers & Counter



High Performance Reamers type MR 01, 02, 03

- With internal coolant supply
- Blades made of carbide or cermet
- Coating depending on the application
- Fixed, expandable and finely adjustable design

For through bore

Page 12-15

For blind bore

Page 16-19



High Performance Reamers type RR 01

- With internal coolant supply
- Blades made of cermet or solid cermet head
- Fixed and expandable design

For through bore

Page 22-27

For blind bore

Page 28-31



Multi-tooth Reamers type VR 01

- With internal coolant supply
- Blades made of carbide, CBN, PCD or cermet
- Solid carbide version for \varnothing 5.700-12.200 mm
- Coating depending on the application

For through bore

Page 34-41



High Performance Reamers type HNC

- With internal coolant supply
- Solid carbide designs with various coatings
- Solid cermet version for \varnothing 3.701-12.100 mm

For through bore

Page 44-53

For blind bore

Page 54-62

PcBN reamers for through bore & blind bore

Page 63-65



Replaceable Head Reamers type XR

- With internal coolant supply
- Blades made of carbide, PCD or cermet
- Solid carbide version for \varnothing 8.000-40.200 mm
- Coating depending on the application

For through bore

Page 68-71

For blind bore

Page 72-75

Replaceable head holder and assembly accessories

Page 76-77

boring Tools – Table of Contents



Machine Reamers without IC

- Designs made of carbide and HSS-E as per DIN or similar DIN
- Miniature reamers from \varnothing 0.6 mm and up
- Various designs, also with soldered blades
- Special bridge reamers, helical reamers, shell reamers

Carbide designs	Page	80-105
HSS-E designs	Page	106-165



Hand Reamers and Taper Reamers

- Design made of HSS as per DIN or works standard
- Adjustable versions
- Multi-part sets
- Spare blades and accessory parts

Hand reamers	Page	168-181
Taper reamers	Page	182-185



Core Drills

- Design made of HSS as per DIN
- Series in finish size, under size and configurable

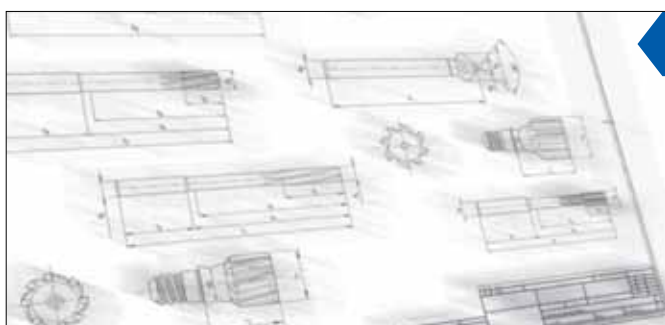
Core drills	Page	188-199
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Countersinking and Deburring

- Designs in solid carbide, HSS and HSS-E
- Various coatings depending on the application
- Designs as per DIN, similar DIN or works standard

Countersinks & Hand deburring tools	Page	202-214
Counterbores & Pilots	Page	215-223



Technical Information

Machining values MR 01, MR 02, MR 03	Page	226
Machining values RR 01	Page	227
Machining values VR 01	Page	227
Machining values HNC, HCS	Page	228-229
Machining values XR 01, XR 06	Page	230-231
Machining values Machine Reamers without IC	Page	232-233
Machining values Countersinks	Page	234-235

Overview: Preferred Series

Preferred series		
Product code	Standard	Page
010010	DIN 206	168-169
010011	DIN 206	172-173
011010	DIN 859	176
011011	DIN 859	176-177
012011	WN 50	180
012013	WN 50	181
012014	WN 50	181
012015	Sets WN 50	181
012016	Sets WN 50	181
020011	DIN 9	184
021010	DIN 2179	182
021011	DIN 2180	183
024011	DIN 204	185
030010	DIN 311	155
030110	DIN 208	149
030111	DIN 208	150-151
030310	DIN 208	153
030505	DIN 212-3	106-109
030507	DIN 212-3	111
030510	DIN 212-1/2	112
030511	DIN 212-1/2	113-115
030513	DIN 212-1/2	118-144
030610	DIN 212-1/2	145
030716	DIN 8089	147
030810	WN 141	156
030811	WN 142	158
031211	DIN 219	160-161
031310	DIN 219	163
031610	DIN 217	165
031611	DIN 217	165
031612	DIN 217	165
033111	DIN 208	150
033511	DIN 212-2	116
040200	DIN 8093-1	88
040201	DIN 8093-1	89
040210	DIN 8093-2	80
040211	DIN 8093-2	83-85
040230	DIN 8090	91
040240	Similar DIN 8093	82
040245	Similar DIN 8093	87
040260	HNC	44-45
040261	HNC	54-55
040311	Similar DIN 8050	99
040325	RR 01	22
040326	RR 01	24
040327	RR 01	26
040340	RR 01	28
040341	RR 01	30
040356	PcBN	63
040360	HCS	52-53
040366	PcBN	64
040370	VR 01	36-37
040372	VR 01	36-37
040374	VR 01	38-39

Preferred series		
Product code	Standard	Page
040376	VR 01	38-39
040378	VR 01	38-39
040382	VR 01	36-37
040390	VR 01	34
040420	DIN 8094	93
040421	DIN 8094	96
040422	DIN 8094	94
040423	DIN 8094	97
040511	Similar DIN 8051	101
040512	WN 280	103
040910	DIN 8054	104
041020	Similar DIN 335	202
041021	Similar DIN 335	203
041610	MR 01	12
041611	MR 01	12
041612	MR 01	12
041613	MR 01	12
041650	MR 01	16
041651	MR 01	16
041652	MR 01	16
041653	MR 01	16
041710	MR 02	13
041711	MR 02	13
041712	MR 02	13
041713	MR 02	13
041750	MR 02	17
041751	MR 02	17
041752	MR 02	17
041753	MR 02	17
041810	MR 03	14
041811	MR 03	14
041812	MR 03	14
041813	MR 03	14
041850	MR 03	18
041851	MR 03	18
041852	MR 03	18
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043211	DIN 8093-2	83-85
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043251	HNC-AL	58-59
043260	HNC-Speed	44-45
043261	HNC-Speed	54-55
043265	HNC-Short	61
043270	HNC-VA	44-45
043271	HNC-VA	54-55
043272	HNC-TI	46-47
043273	HNC-TI	56-57
043280	HNC-HT	48-49
043281	HNC-HT	58-59
043290	HNC-Diamond	44-45
043291	HNC-Diamond	54-55
050010	DIN 344	188
050011	DIN 344	189
050110	DIN 343	191-192

Preferred series		
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050310	DIN 222	197
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050610	DIN 334	213
050810	DIN 335	209
051010	WN 180	214
051011	WN 181	210
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051111	DIN 334	212
051207	DIN 335	205
051209	DIN 335	204
051210	DIN 335	204
051211	DIN 335	208
051212	DIN 335	206
051218	DIN 335	206
051220	DIN 335	204
051309	DIN 335	207
051310	DIN 335	207
051510	DIN 373	215
051511	DIN 373	216
051512	DIN 373	217
051513	DIN 373	218
051514	DIN 373	218
051515	DIN 373	218
051610	DIN 375	221
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051711	WN 178	220
053207	DIN 335	205
053210	DIN 335	204
053212	DIN 335	204
053218	DIN 335	206
053220	DIN 335	206
053310	DIN 335	207
053320	DIN 334	211
053510	DIN 373	215
053511	DIN 373	216
081605	XR 01	68
081610	XR 01	68
081611	XR 01	68
081612	XR 01	68
081618	XR 01	68
081631	XR 06	70
081650	XR 01	72
081651	XR 01	72
081652	XR 01	72
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081659	XR 01	72
081661	XR 06	74
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and Configurable Series

Configurable series		
Product code	Standard	Page
010010	DIN 206	170-171
010011	DIN 206	174-175
011010	DIN 859	178
011011	DIN 859	178-179
030110	DIN 208	152
030111	DIN 208	152
030310	DIN 208	154
030505	DIN 212-3	110
030510	DIN 212-1/2	117
030511	DIN 212-1/2	117
030610	DIN 212-1/2	146
030716	DIN 8089	148
030810	WN 141	157
030811	WN 142	159
031211	DIN 219	162
031310	DIN 219	164
033111	DIN 208	152
033511	DIN 212-2	117
040200	DIN 8093-1	90
040201	DIN 8093-1	90
040210	DIN 8093-2	81
040211	DIN 8093-2	86
040230	DIN 8090	92
040245	Similar DIN 8093	87
040260	HNC	50
040261	HNC	60
040311	Similar DIN 8050	100
040325	RR 01	23
040326	RR 01	25
040327	RR 01	27
040340	RR 01	29
040341	RR 01	31
040356	PcBN	65
040360	HCS	53

Configurable series		
Product code	Standard	Page
040366	PcBN	65
040370	VR 01	40-41
040372	VR 01	40-41
040374	VR 01	40-41
040376	VR 01	40-41
040378	VR 01	40-41
040382	VR 01	40-41
040390	VR 01	35
040420	DIN 8094	95
040421	DIN 8094	98
040422	DIN 8094	95
040423	DIN 8094	98
040511	Similar DIN 8051	102
040910	DIN 8054	105
041610	MR 01	15
041611	MR 01	15
041612	MR 01	15
041613	MR 01	15
041650	MR 01	19
041651	MR 01	19
041652	MR 01	19
041653	MR 01	19
041710	MR 02	15
041711	MR 02	15
041712	MR 02	15
041713	MR 02	15
041750	MR 02	19
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041752	MR 02	19
041753	MR 02	19
041810	MR 03	15
041811	MR 03	15
041812	MR 03	15
041813	MR 03	15

Configurable series		
Product code	Standard	Page
041850	MR 03	19
041851	MR 03	19
041852	MR 03	19
041853	MR 03	19
043211	DIN 8093-2	86
043250	HNC-AL	51
043251	HNC-AL	60
043260	HNC-Speed	50
043261	HNC-Speed	60
043265	HNC-Short	62
043270	HNC-VA	50
043271	HNC-VA	60
043272	HNC-TI	50
043273	HNC-TI	60
043280	HNC-HT	51
043281	HNC-HT	60
043290	HNC-Diamond	50
043291	HNC-Diamond	60
050010	DIN 344	190
050110	DIN 343	195-196
050310	DIN 222	199
081605	XR 01	69
081610	XR 01	69
081611	XR 01	69
081612	XR 01	69
081618	XR 01	69
081631	XR 06	71
081650	XR 01	73
081651	XR 01	73
081652	XR 01	73
081655	XR 01	73
081659	XR 01	73
081661	XR 06	75

Special Tools

The continuing development of High-Performance Reamers together with the modern production facilities at BECK, offer the best preconditions also for the creation of special solutions.

Starting from semi-standard versions with, for example, special tolerances, modified working lengths or modified cutting materials and cutting leads, the specialists at BECK can also design application-specific reamers.

Multi-step Reamers, for example, offer further improvements in productivity and profitability.



General Information

Explanation of Symbols



Through bore



Internal coolant supply for through bore



Blind bore



Internal coolant supply for blind bore



Works standard



Cylindrical shank as per DIN 6335-HA



DIN standard or similar DIN standard



Connection for BECK replaceable head system



Steel < 700 N/mm²



Cu-/Zn-/Mg-alloys



Steel 700-900 N/mm²



Aluminium alloys (Si < 7 %)



Steel 900-1200 N/mm²



Aluminium alloys (Si > 7 %)



Stainless and corrosion-resistant steels < 700 N/mm²



Plastics



Stainless and corrosion-resistant steels > 700 N/mm²



Plastics, reinforced



Grey cast iron



Titanium



Spheroidal graphite cast iron (up to GGG50)



Hardened materials < 63 HRC



Spheroidal graphite cast iron (> GGG50)

General Information on the Catalogue

We supply exclusively on the basis of our Terms of Delivery and Payment (see www.august-beck.de). With the release of this catalogue, the corresponding previous catalogue versions are superseded. Changes and deviations from standards reserved. No claims shall be derived from printing errors in technical data. Reprinting, in whole or in part, is not permitted without our express approval.

Explanation of the Dimensions

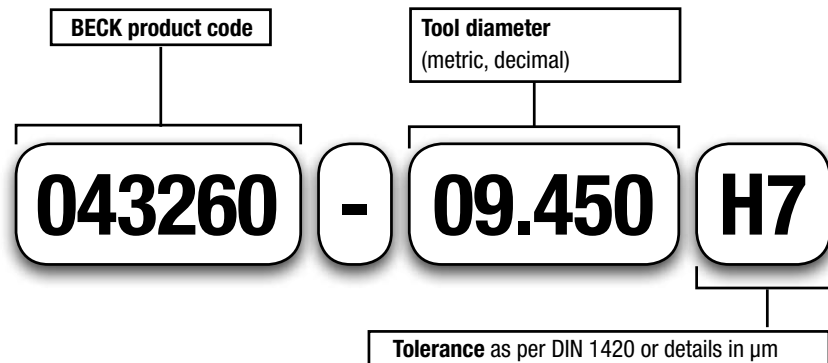
d_1 = Tool diameter
 d_2 = Shank diameter
 d_3 = Smallest tool diameter
 l_1 = Total length of the tool

l_2 = Cutting length
 l_3 = Length of the tool shank
 l_4 = Projection length
 l_5 = Usable working depth

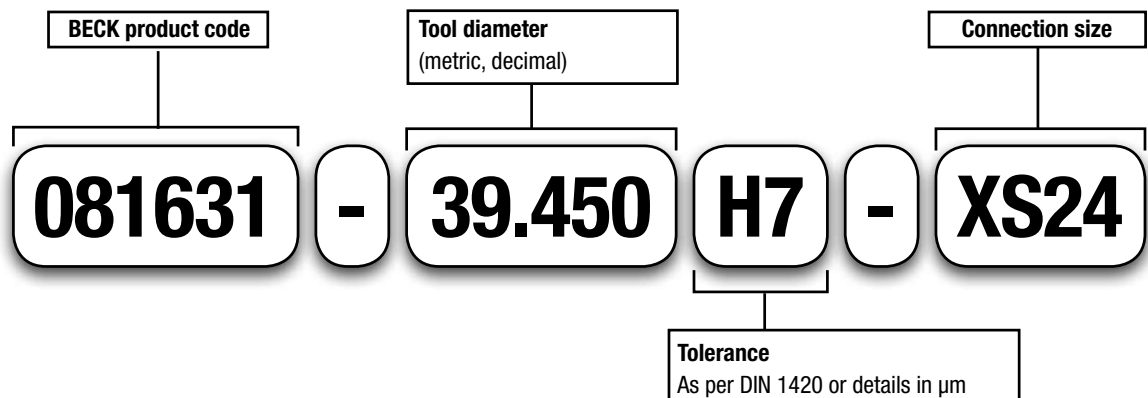
x_s = Connection size
 sw = Wrench size
 z = Number of cutting edges
 MK = Morse taper size

Ordering Examples

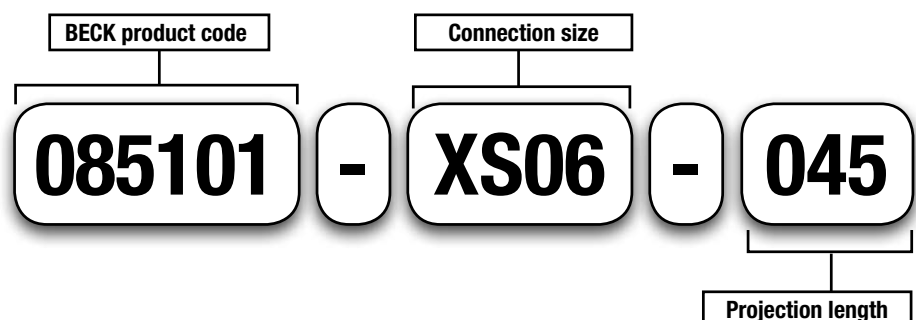
Ordering Example for Configurable Reamers



Ordering Example for Configurable Replaceable Head Reamers XR



Ordering Example for Replaceable Head Holders XS





High Performance Reamers MR 01, MR 02, MR 03 Standard Programme

Flexible application

Alternative to solid carbide tools from \varnothing 20 mm

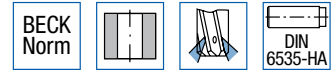
Variable models and cutting materials

Also as expandable and finely adjustable variants



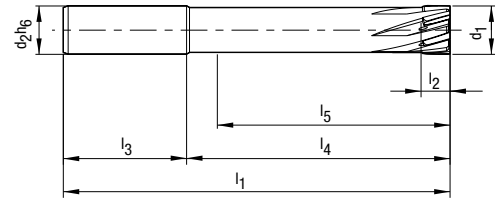
MR 01 | 041610, 041611, 041612, 041613

Preferred series fixed design, with brazed blades, for through bore, internal coolant supply



Design

Diameter: 8.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Left-hand fluted
 Number of cutting edges: 4 – 8
 Geometry: HPC Geometry
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
041610	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
041611	Carbide	BSP	■	■	■	★	★	■	■	■						★	★
041612	Cermet	Uncoated	■	■	☐				■	☐							
041613	Cermet	Coated	■	■	■			■	■	■							

Dimensions								041610		041611		041612		041613	
d ₁	d ₂ h ₆	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
8.00	12	120	8	45	75	70	4	30480651	○	30480686	○	30480723	○	30480761	○
8.50	12	120	8	45	75	70	4	30480652	○	30480687	○	30480724	○	30480762	○
9.00	12	120	8	45	75	70	4	30480653	○	30480688	○	30480725	○	30480763	○
9.50	12	120	8	45	75	70	4	30480654	○	30480689	○	30480726	○	30480764	○
10.00	12	120	8	45	75	70	6	30480655	○	30480690	○	30480727	○	30480765	○
10.50	12	120	8	45	75	70	6	30480656	○	30480691	○	30480728	○	30480766	○
11.00	12	120	8	45	75	70	6	30480657	○	30480692	○	30480729	○	30480767	○
11.50	12	120	8	45	75	70	6	30480658	○	30480693	○	30480730	○	30480768	○
12.00	16	140	8	48	92	87	6	30480659	○	30480694	○	30480731	○	30480769	○
12.50	16	140	8	48	92	87	6	30480660	○	30480695	○	30480732	○	30480770	○
13.00	16	140	8	48	92	87	6	30480661	○	30480696	○	30480733	○	30480771	○
14.00	16	140	8	48	92	87	6	30479663	○	30480697	○	30480734	○	30480772	○
15.00	16	140	8	48	92	87	6	30480662	○	30480698	○	30480735	○	30480773	○
16.00	16	140	8	48	92	87	6	30480663	○	30480699	○	30480736	○	30480774	○
17.00	16	140	8	48	92	87	6	30480664	○	30480700	○	30480737	○	30480775	○
18.00	20	160	12	50	110	105	6	30480665	○	30480701	○	30480738	○	30480776	○
19.00	20	160	12	50	110	105	6	30480666	○	30480702	○	30480739	○	30480777	○
20.00	20	160	12	50	110	105	6	30480667	○	30480703	○	30480740	○	30480778	○
21.00	20	160	12	50	110	105	6	30480668	○	30480704	○	30480741	○	30480779	○
22.00	20	160	12	50	110	105	6	30400729	○	30480705	○	30480742	○	30480780	○
23.00	20	180	12	50	130	125	6	30480669	○	30480706	○	30480743	○	30480781	○
24.00	20	180	12	50	130	125	6	30480670	○	30480707	○	30480744	○	30480782	○
25.00	20	180	12	50	130	125	6	30480671	○	30480708	○	30480745	○	30480783	○
26.00	20	180	12	50	130	125	6	30480672	○	30480709	○	30480746	○	30480784	○
27.00	20	180	12	50	130	125	6	30400730	○	30480710	○	30480747	○	30480785	○
28.00	25	200	12	56	144	139	6	30480673	○	30480711	○	30480748	○	30480786	○
29.00	25	200	12	56	144	139	6	30480674	○	30480712	○	30480749	○	30480787	○
30.00	25	200	12	56	144	139	8	30480675	○	30480713	○	30480750	○	30480788	○
31.00	25	200	12	56	144	139	8	30480676	○	30480714	○	30480751	○	30480789	○
32.00	25	200	12	56	144	139	8	30480677	○	30477650	○	30480752	○	30480790	○
33.00	25	200	12	56	144	139	8	30480678	○	30480715	○	30480753	○	30480791	○
34.00	25	200	12	56	144	139	8	30480679	○	30480716	○	30480754	○	30480792	○
35.00	25	200	12	56	144	139	8	30480680	○	30480717	○	30480755	○	30480793	○
36.00	25	200	12	56	144	139	8	30480681	○	30480718	○	30480756	○	30480794	○
37.00	25	200	12	56	144	139	8	30480682	○	30480719	○	30480757	○	30480795	○
38.00	25	200	12	56	144	139	8	30480683	○	30480720	○	30480758	○	30480796	○
39.00	25	200	12	56	144	139	8	30480684	○	30480721	○	30480759	○	30480797	○
40.00	25	200	12	56	144	139	8	30480685	○	30480722	○	30480760	○	30480798	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

☐ Limited material suitability.

★ Suitability only with special blade geometry and coating.

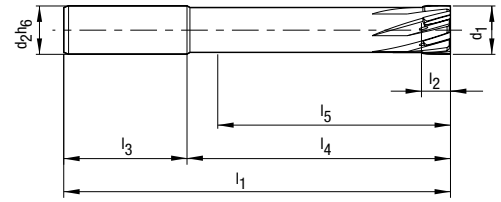
MR 02 | 041710, 041711, 041712, 041713

Preferred series expandable design, with brazed blades, for through bore, internal coolant supply



Design

Diameter: 8.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Left-hand fluted
 Number of cutting edges: 4 – 8
 Geometry: HPC Geometry
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
041710	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
041711	Carbide	BSP	■	■	■	★	★	■	■	■						★	★
041712	Cermet	Uncoated	■	■	☐				■	☐							
041713	Cermet	Coated	■	■	■			■	■	■							

Dimensions								041710		041711		041712		041713	
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
8.00	12	120	8	45	75	70	4	30481120	○	30481158	○	30481196	○	30481234	○
8.50	12	120	8	45	75	70	4	30481121	○	30481159	○	30481197	○	30481235	○
9.00	12	120	8	45	75	70	4	30481122	○	30481160	○	30481198	○	30481236	○
9.50	12	120	8	45	75	70	4	30481123	○	30481161	○	30481199	○	30481237	○
10.00	12	120	8	45	75	70	6	30481124	○	30481162	○	30481200	○	30481238	○
10.50	12	120	8	45	75	70	6	30481125	○	30481163	○	30481201	○	30481239	○
11.00	12	120	8	45	75	70	6	30481126	○	30481164	○	30481202	○	30481240	○
11.50	12	120	8	45	75	70	6	30481127	○	30481165	○	30481203	○	30481241	○
12.00	16	140	8	48	92	87	6	30481128	○	30481166	○	30481204	○	30481242	○
12.50	16	140	8	48	92	87	6	30481129	○	30481167	○	30481205	○	30481243	○
13.00	16	140	8	48	92	87	6	30481130	○	30481168	○	30481206	○	30481244	○
14.00	16	140	8	48	92	87	6	30481131	○	30481169	○	30481207	○	30481245	○
15.00	16	140	8	48	92	87	6	30481132	○	30481170	○	30481208	○	30481246	○
16.00	16	140	8	48	92	87	6	30481133	○	30481171	○	30481209	○	30481247	○
17.00	16	140	8	48	92	87	6	30481134	○	30481172	○	30481210	○	30481248	○
18.00	20	160	12	50	110	105	6	30481135	○	30481173	○	30481211	○	30481249	○
19.00	20	160	12	50	110	105	6	30481136	○	30481174	○	30481212	○	30481250	○
20.00	20	160	12	50	110	105	6	30481137	○	30481175	○	30481213	○	30488593	○
21.00	20	160	12	50	110	105	6	30481138	○	30481176	○	30481214	○	30481252	○
22.00	20	160	12	50	110	105	6	30481139	○	30481177	○	30481215	○	30481253	○
23.00	20	180	12	50	130	125	6	30481140	○	30481178	○	30481216	○	30481254	○
24.00	20	180	12	50	130	125	6	30481141	○	30481179	○	30481217	○	30481255	○
25.00	20	180	12	50	130	125	6	30481142	○	30481180	○	30481218	○	30481256	○
26.00	20	180	12	50	130	125	6	30481143	○	30481181	○	30481219	○	30481257	○
27.00	20	180	12	50	130	125	6	30481144	○	30481182	○	30481220	○	30481258	○
28.00	25	200	12	56	144	139	6	30481145	○	30481183	○	30481221	○	30481259	○
29.00	25	200	12	56	144	139	6	30481146	○	30481184	○	30481222	○	30481260	○
30.00	25	200	12	56	144	139	8	30481147	○	30481185	○	30481223	○	30481261	○
31.00	25	200	12	56	144	139	8	30481148	○	30481186	○	30481224	○	30481262	○
32.00	25	200	12	56	144	139	8	30481149	○	30481187	○	30481225	○	30481263	○
33.00	25	200	12	56	144	139	8	30481150	○	30481188	○	30481226	○	30481264	○
34.00	25	200	12	56	144	139	8	30481151	○	30481189	○	30481227	○	30481265	○
35.00	25	200	12	56	144	139	8	30481152	○	30481190	○	30481228	○	30481266	○
36.00	25	200	12	56	144	139	8	30481153	○	30481191	○	30481229	○	30481267	○
37.00	25	200	12	56	144	139	8	30481154	○	30481192	○	30481230	○	30481268	○
38.00	25	200	12	56	144	139	8	30481155	○	30481193	○	30481231	○	30481269	○
39.00	25	200	12	56	144	139	8	30481156	○	30481194	○	30481232	○	30481270	○
40.00	25	200	12	56	144	139	8	30481157	○	30481195	○	30481233	○	30481271	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

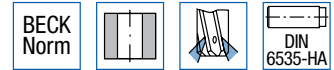
■ Outstanding material suitability.

☐ Limited material suitability.

★ Suitability only with special blade geometry and coating.

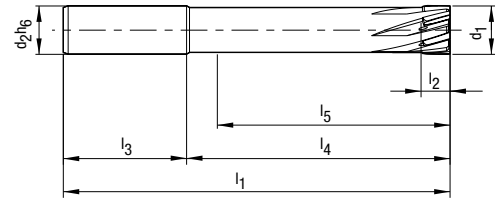
MR 03 | 041810, 041811, 041812, 041813

Preferred series finely adjustable design, with brazed blades, for through bore, internal coolant supply



Design

Diameter: 8.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Left-hand fluted
 Number of cutting edges: 4 – 8
 Geometry: HPC Geometry
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
041810	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
041811	Carbide	BSP	■	■	■	★	★	■	■	■						★	★
041812	Cermet	Uncoated	■	■	☐				■	☐							
041813	Cermet	Coated	■	■	■			■	■	■							

Dimensions								041810		041811		041812		041813	
d ₁	d ₂ h ₆	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
8.00	12	120	8	45	75	70	4	30481579	○	30481618	○	30481656	○	30481694	○
8.50	12	120	8	45	75	70	4	30481580	○	30481619	○	30481657	○	30481695	○
9.00	12	120	8	45	75	70	4	30481581	○	30481620	○	30481658	○	30481696	○
9.50	12	120	8	45	75	70	4	30481582	○	30481621	○	30481659	○	30481697	○
10.00	12	120	8	45	75	70	6	30481583	○	30481622	○	30481660	○	30481698	○
10.50	12	120	8	45	75	70	6	30481584	○	30481623	○	30481661	○	30481699	○
11.00	12	120	8	45	75	70	6	30481585	○	30481624	○	30481662	○	30481700	○
11.50	12	120	8	45	75	70	6	30481586	○	30481625	○	30481663	○	30481701	○
12.00	16	140	8	48	92	87	6	30481587	○	30481626	○	30481664	○	30481702	○
12.50	16	140	8	48	92	87	6	30481588	○	30481627	○	30481665	○	30481703	○
13.00	16	140	8	48	92	87	6	30481589	○	30481628	○	30481666	○	30481704	○
14.00	16	140	8	48	92	87	6	30481590	○	30481629	○	30481667	○	30481705	○
15.00	16	140	8	48	92	87	6	30481591	○	30481630	○	30481668	○	30481706	○
16.00	16	140	8	48	92	87	6	30481592	○	30481631	○	30481669	○	30481707	○
17.00	16	140	8	48	92	87	6	30481593	○	30481632	○	30481670	○	30481708	○
18.00	20	160	12	50	110	105	6	30481594	○	30481633	○	30481671	○	30481709	○
19.00	20	160	12	50	110	105	6	30481595	○	30481634	○	30481672	○	30481710	○
20.00	20	160	12	50	110	105	6	30481596	○	30481635	○	30481673	○	30481711	○
21.00	20	160	12	50	110	105	6	30481597	○	30481636	○	30481674	○	30481712	○
22.00	20	160	12	50	110	105	6	30481598	○	30481637	○	30481675	○	30481713	○
23.00	20	180	12	50	130	125	6	30481600	○	30481638	○	30481676	○	30481714	○
24.00	20	180	12	50	130	125	6	30481601	○	30481639	○	30481677	○	30481715	○
25.00	20	180	12	50	130	125	6	30481602	○	30481640	○	30481678	○	30481716	○
26.00	20	180	12	50	130	125	6	30481603	○	30481641	○	30481679	○	30481717	○
27.00	20	180	12	50	130	125	6	30481604	○	30481642	○	30481680	○	30481718	○
28.00	25	200	12	56	144	139	6	30481605	○	30481643	○	30481681	○	30481719	○
29.00	25	200	12	56	144	139	6	30481606	○	30481644	○	30481682	○	30481720	○
30.00	25	200	12	56	144	139	8	30481607	○	30481645	○	30481683	○	30481721	○
31.00	25	200	12	56	144	139	8	30481608	○	30481646	○	30481684	○	30481722	○
32.00	25	200	12	56	144	139	8	30481609	○	30481647	○	30481685	○	30481723	○
33.00	25	200	12	56	144	139	8	30481610	○	30481648	○	30481686	○	30481724	○
34.00	25	200	12	56	144	139	8	30481611	○	30481649	○	30481687	○	30481725	○
35.00	25	200	12	56	144	139	8	30481612	○	30481650	○	30481688	○	30481726	○
36.00	25	200	12	56	144	139	8	30481613	○	30481651	○	30481689	○	30481727	○
37.00	25	200	12	56	144	139	8	30481614	○	30481652	○	30481690	○	30481728	○
38.00	25	200	12	56	144	139	8	30481615	○	30481653	○	30481691	○	30481729	○
39.00	25	200	12	56	144	139	8	30481616	○	30481654	○	30481692	○	30481730	○
40.00	25	200	12	56	144	139	8	30481617	○	30481655	○	30481693	○	30481731	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

☐ Limited material suitability.

★ Suitability only with special blade geometry and coating.

MR 01, 02, 03 - Configurable | 04161x, 04171x, 04181x

Configurable series, fixed, expandable, finely adjustable design,
with brazed blades, for through bore, internal coolant supply



MR 01, MR 02, MR 03

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
041610	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
041611	Carbide	BSP	■	■	■	★	★	■	■	■						★	★
041612	Cermet	Uncoated	■	■	☐				■	☐							
041613	Cermet	Coated	■	■	■			■	■	■							
041710	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
041711	Carbide	BSP	■	■	■	★	★	■	■	■						★	★
041712	Cermet	Uncoated	■	■	☐				■	☐							
041713	Cermet	Coated	■	■	■			■	■	■							
041810	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
041811	Carbide	BSP	■	■	■	★	★	■	■	■						★	★
041812	Cermet	Uncoated	■	■	☐				■	☐							
041813	Cermet	Coated	■	■	■			■	■	■							

Dimensions								
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
7.700 - 8.200	12	120	8	45	75	70	4	○
8.201 - 8.700	12	120	8	45	75	70	4	○
8.701 - 9.200	12	120	8	45	75	70	4	○
9.201 - 9.700	12	120	8	45	75	70	4	○
9.701 - 10.200	12	120	8	45	75	70	6	○
10.201 - 10.700	12	120	8	45	75	70	6	○
10.701 - 11.200	12	120	8	45	75	70	6	○
11.201 - 11.700	12	120	8	45	75	70	6	○
11.701 - 12.200	16	140	8	48	92	87	6	○
12.201 - 12.700	16	140	8	48	92	87	6	○
12.701 - 13.200	16	140	8	48	92	87	6	○
13.201 - 14.200	16	140	8	48	92	87	6	○
14.201 - 15.200	16	140	8	48	92	87	6	○
15.201 - 16.200	16	140	8	48	92	87	6	○
16.201 - 17.200	16	140	8	48	92	87	6	○
17.201 - 18.200	20	160	12	50	110	105	6	○
18.201 - 19.200	20	160	12	50	110	105	6	○
19.201 - 20.200	20	160	12	50	110	105	6	○
20.201 - 21.200	20	160	12	50	110	105	6	○
21.201 - 22.200	20	160	12	50	110	105	6	○
22.201 - 23.200	20	180	12	50	130	125	6	○
23.201 - 24.200	20	180	12	50	130	125	6	○
24.201 - 25.200	20	180	12	50	130	125	6	○
25.201 - 26.200	20	180	12	50	130	125	6	○
26.201 - 27.200	20	180	12	50	130	125	6	○
27.201 - 28.200	25	200	12	56	144	139	6	○
28.201 - 29.200	25	200	12	56	144	139	6	○
29.201 - 30.200	25	200	12	56	144	139	8	○
30.201 - 31.200	25	200	12	56	144	139	8	○
31.201 - 32.200	25	200	12	56	144	139	8	○
32.201 - 33.200	25	200	12	56	144	139	8	○
33.201 - 34.200	25	200	12	56	144	139	8	○
34.201 - 35.200	25	200	12	56	144	139	8	○
35.201 - 36.200	25	200	12	56	144	139	8	○
36.201 - 37.200	25	200	12	56	144	139	8	○
37.201 - 38.200	25	200	12	56	144	139	8	○
38.201 - 39.200	25	200	12	56	144	139	8	○
39.201 - 40.200	25	200	12	56	144	139	8	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

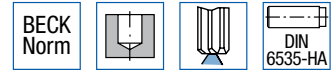
■ Outstanding material suitability.

☐ Limited material suitability.

★ Suitability only with special blade geometry and coating.

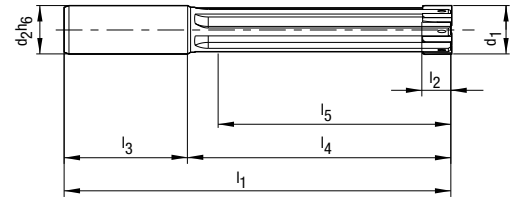
MR 01 | 041650, 041651, 041652, 041653

Preferred series fixed design, with brazed blades, for blind bore, internal coolant supply



Design

Diameter: 8.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 4 – 8
 Geometry: HPC Geometry
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
041650	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
041651	Carbide	BSP	■	■	■	★	★	■	■	■						★	★
041652	Cermet	Uncoated	■	■	☐				■	☐							
041653	Cermet	Coated	■	■	■			■	■	■							

Dimensions								041650		041651		041652		041653	
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
8.00	12	120	8	45	75	64	4	30480799	○	30480837	○	30480875	○	30480913	○
8.50	12	120	8	45	75	64	4	30480800	○	30480838	○	30480876	○	30480914	○
9.00	12	120	8	45	75	64	4	30480801	○	30480839	○	30480877	○	30480915	○
9.50	12	120	8	45	75	65	4	30480802	○	30480840	○	30480878	○	30480916	○
10.00	12	120	8	45	75	65	6	30480803	○	30480841	○	30480879	○	30480917	○
10.50	12	120	8	45	75	65	6	30480804	○	30480842	○	30480880	○	30480918	○
11.00	12	120	8	45	75	65	6	30480805	○	30480843	○	30480881	○	30480919	○
11.50	12	120	8	45	75	65	6	30480806	○	30480844	○	30480882	○	30480920	○
12.00	16	140	8	48	92	80	6	30480807	○	30480845	○	30480883	○	30480921	○
12.50	16	140	8	48	92	80	6	30480808	○	30480846	○	30480884	○	30480922	○
13.00	16	140	8	48	92	80	6	30480809	○	30480847	○	30480885	○	30480923	○
14.00	16	140	8	48	92	80	6	30480810	○	30480848	○	30480886	○	30480924	○
15.00	16	140	8	48	92	80	6	30480811	○	30480849	○	30480887	○	30480925	○
16.00	16	140	8	48	92	80	6	30480812	○	30480850	○	30480888	○	30480926	○
17.00	16	140	8	48	92	80	6	30480813	○	30480851	○	30480889	○	30480927	○
18.00	20	160	12	50	110	98	6	30480814	○	30480852	○	30480890	○	30480928	○
19.00	20	160	12	50	110	99	6	30480815	○	30480853	○	30480891	○	30480929	○
20.00	20	160	12	50	110	100	6	30480816	○	30480854	○	30480892	○	30480930	○
21.00	20	160	12	50	110	100	6	30480817	○	30480855	○	30480893	○	30480931	○
22.00	20	160	12	50	110	100	6	30480818	○	30480856	○	30480894	○	30480932	○
23.00	20	180	12	50	130	120	6	30480819	○	30480857	○	30480895	○	30480933	○
24.00	20	180	12	50	130	120	6	30480820	○	30480858	○	30480896	○	30480934	○
25.00	20	180	12	50	130	120	6	30480821	○	30480859	○	30480897	○	30480935	○
26.00	20	180	12	50	130	120	6	30480822	○	30480860	○	30480898	○	30480936	○
27.00	20	180	12	50	130	120	6	30480823	○	30480861	○	30480899	○	30480937	○
28.00	25	200	12	56	144	130	6	30480824	○	30480862	○	30480900	○	30480938	○
29.00	25	200	12	56	144	130	6	30480825	○	30480863	○	30480901	○	30480939	○
30.00	25	200	12	56	144	130	8	30480826	○	30480864	○	30480902	○	30480940	○
31.00	25	200	12	56	144	130	8	30480827	○	30480865	○	30480903	○	30480941	○
32.00	25	200	12	56	144	130	8	30480828	○	30480866	○	30480904	○	30480942	○
33.00	25	200	12	56	144	130	8	30480829	○	30480867	○	30480905	○	30480943	○
34.00	25	200	12	56	144	130	8	30480830	○	30480868	○	30480906	○	30480944	○
35.00	25	200	12	56	144	130	8	30480831	○	30480869	○	30480907	○	30480945	○
36.00	25	200	12	56	144	130	8	30480832	○	30480870	○	30480908	○	30480946	○
37.00	25	200	12	56	144	130	8	30480833	○	30480871	○	30480909	○	30480947	○
38.00	25	200	12	56	144	130	8	30480834	○	30480872	○	30480910	○	30480948	○
39.00	25	200	12	56	144	130	8	30480835	○	30480873	○	30480911	○	30480949	○
40.00	25	200	12	56	144	130	8	30480836	○	30480874	○	30480912	○	30480950	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

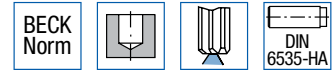
■ Outstanding material suitability.

☐ Limited material suitability.

★ Suitability only with special blade geometry and coating.

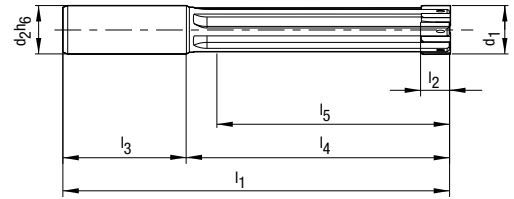
MR 02 | 041750, 041751, 041752, 041753

Preferred series expandable design, with brazed blades, for blind bore, internal coolant supply



Design

Diameter: 8.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 4 – 8
 Geometry: HPC Geometry
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
041750	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
041751	Carbide	BSP	■	■	■	★	★	■	■	■						★	★
041752	Cermet	Uncoated	■	■	☐				■	☐							
041753	Cermet	Coated	■	■	■			■	■	■							

Dimensions								041750		041751		041752		041753	
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
8.00	12	120	8	45	75	64	4	30481272	○	30481310	○	30481349	○	30481387	○
8.50	12	120	8	45	75	64	4	30481273	○	30481311	○	30481350	○	30481388	○
9.00	12	120	8	45	75	64	4	30481274	○	30481312	○	30481351	○	30481389	○
9.50	12	120	8	45	75	65	4	30481275	○	30481313	○	30481352	○	30481390	○
10.00	12	120	8	45	75	65	6	30481276	○	30481314	○	30481353	○	30481391	○
10.50	12	120	8	45	75	65	6	30481277	○	30481315	○	30481354	○	30481392	○
11.00	12	120	8	45	75	65	6	30481278	○	30481316	○	30481355	○	30481393	○
11.50	12	120	8	45	75	65	6	30481279	○	30481317	○	30481356	○	30481394	○
12.00	16	140	8	48	92	80	6	30481280	○	30481318	○	30481357	○	30481395	○
12.50	16	140	8	48	92	80	6	30481281	○	30481319	○	30481358	○	30481396	○
13.00	16	140	8	48	92	80	6	30481282	○	30481320	○	30481359	○	30481397	○
14.00	16	140	8	48	92	80	6	30481283	○	30481321	○	30481360	○	30481398	○
15.00	16	140	8	48	92	80	6	30481284	○	30481322	○	30481361	○	30481399	○
16.00	16	140	8	48	92	80	6	30481285	○	30481323	○	30481362	○	30481400	○
17.00	16	140	8	48	92	80	6	30481286	○	30481324	○	30481363	○	30481401	○
18.00	20	160	12	50	110	98	6	30481287	○	30481325	○	30481364	○	30481402	○
19.00	20	160	12	50	110	99	6	30481288	○	30481326	○	30481365	○	30481403	○
20.00	20	160	12	50	110	100	6	30481289	○	30481327	○	30481366	○	30481404	○
21.00	20	160	12	50	110	100	6	30481290	○	30481328	○	30481367	○	30481405	○
22.00	20	160	12	50	110	100	6	30481291	○	30481329	○	30481368	○	30481406	○
23.00	20	180	12	50	130	120	6	30481292	○	30481330	○	30481369	○	30481407	○
24.00	20	180	12	50	130	120	6	30481293	○	30481331	○	30481370	○	30481408	○
25.00	20	180	12	50	130	120	6	30481294	○	30481332	○	30481371	○	30481409	○
26.00	20	180	12	50	130	120	6	30481295	○	30481333	○	30481372	○	30481410	○
27.00	20	180	12	50	130	120	6	30481296	○	30481334	○	30481373	○	30481411	○
28.00	25	200	12	56	144	130	6	30481297	○	30481335	○	30481374	○	30481412	○
29.00	25	200	12	56	144	130	6	30481298	○	30481336	○	30481375	○	30481413	○
30.00	25	200	12	56	144	130	8	30481299	○	30481337	○	30481376	○	30481414	○
31.00	25	200	12	56	144	130	8	30481300	○	30481338	○	30481377	○	30481415	○
32.00	25	200	12	56	144	130	8	30481301	○	30481339	○	30481378	○	30481416	○
33.00	25	200	12	56	144	130	8	30481302	○	30481341	○	30481379	○	30481417	○
34.00	25	200	12	56	144	130	8	30481303	○	30481342	○	30481380	○	30481418	○
35.00	25	200	12	56	144	130	8	30481304	○	30481343	○	30481381	○	30481419	○
36.00	25	200	12	56	144	130	8	30481305	○	30481344	○	30481382	○	30481420	○
37.00	25	200	12	56	144	130	8	30481306	○	30481345	○	30481383	○	30481421	○
38.00	25	200	12	56	144	130	8	30481307	○	30481346	○	30481384	○	30481422	○
39.00	25	200	12	56	144	130	8	30481308	○	30481347	○	30481385	○	30481423	○
40.00	25	200	12	56	144	130	8	30481309	○	30481348	○	30481386	○	30481424	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

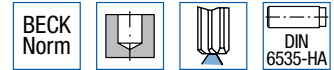
■ Outstanding material suitability.

☐ Limited material suitability.

★ Suitability only with special blade geometry and coating.

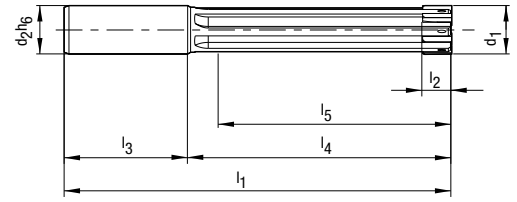
MR 03 | 041850, 041851, 041852, 041853

Preferred series finely adjustable design, with brazed blades, for blind bore, internal coolant supply



Design

Diameter: 8.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 4 – 8
 Geometry: HPC Geometry
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
041850	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
041851	Carbide	BSP	■	■	■	★	★	■	■	■						★	★
041852	Cermet	Uncoated	■	■	☐				■	☐							
041853	Cermet	Coated	■	■	■			■	■	■							

Dimensions								041850		041851		041852		041853	
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
8.00	12	120	8	45	75	64	4	30481732	○	30481770	○	30481808	○	30481846	○
8.50	12	120	8	45	75	64	4	30481733	○	30481771	○	30481809	○	30481847	○
9.00	12	120	8	45	75	64	4	30481734	○	30481772	○	30481810	○	30481848	○
9.50	12	120	8	45	75	65	4	30481735	○	30481773	○	30481811	○	30481849	○
10.00	12	120	8	45	75	65	6	30481736	○	30481774	○	30481812	○	30481850	○
10.50	12	120	8	45	75	65	6	30481737	○	30481775	○	30481813	○	30481851	○
11.00	12	120	8	45	75	65	6	30481738	○	30481776	○	30481814	○	30481853	○
11.50	12	120	8	45	75	65	6	30481739	○	30481777	○	30481815	○	30481854	○
12.00	16	140	8	48	92	80	6	30481740	○	30481778	○	30481816	○	30481855	○
12.50	16	140	8	48	92	80	6	30481741	○	30481779	○	30481817	○	30481856	○
13.00	16	140	8	48	92	80	6	30481742	○	30481780	○	30481818	○	30481857	○
14.00	16	140	8	48	92	80	6	30481743	○	30481781	○	30481819	○	30481858	○
15.00	16	140	8	48	92	80	6	30481744	○	30481782	○	30481820	○	30481859	○
16.00	16	140	8	48	92	80	6	30481745	○	30481783	○	30481821	○	30481860	○
17.00	16	140	8	48	92	80	6	30481746	○	30481784	○	30481822	○	30481861	○
18.00	20	160	12	50	110	98	6	30481747	○	30481785	○	30481823	○	30481862	○
19.00	20	160	12	50	110	99	6	30481748	○	30481786	○	30481824	○	30481863	○
20.00	20	160	12	50	110	100	6	30481749	○	30481787	○	30481825	○	30481864	○
21.00	20	160	12	50	110	100	6	30481750	○	30481788	○	30481826	○	30481865	○
22.00	20	160	12	50	110	100	6	30481751	○	30481789	○	30481827	○	30481866	○
23.00	20	180	12	50	130	120	6	30481752	○	30481790	○	30481828	○	30481867	○
24.00	20	180	12	50	130	120	6	30481753	○	30481791	○	30481829	○	30481868	○
25.00	20	180	12	50	130	120	6	30481754	○	30481792	○	30481830	○	30481869	○
26.00	20	180	12	50	130	120	6	30481755	○	30481793	○	30481831	○	30481870	○
27.00	20	180	12	50	130	120	6	30481756	○	30481794	○	30481832	○	30481871	○
28.00	25	200	12	56	144	130	6	30481757	○	30481795	○	30481833	○	30481872	○
29.00	25	200	12	56	144	130	6	30481758	○	30481796	○	30481834	○	30481873	○
30.00	25	200	12	56	144	130	8	30481759	○	30481797	○	30481835	○	30481874	○
31.00	25	200	12	56	144	130	8	30481760	○	30481798	○	30481836	○	30481875	○
32.00	25	200	12	56	144	130	8	30481761	○	30481799	○	30481837	○	30481876	○
33.00	25	200	12	56	144	130	8	30481762	○	30481800	○	30481838	○	30481877	○
34.00	25	200	12	56	144	130	8	30481763	○	30481801	○	30481839	○	30481878	○
35.00	25	200	12	56	144	130	8	30481764	○	30481802	○	30481840	○	30481879	○
36.00	25	200	12	56	144	130	8	30481765	○	30481803	○	30481841	○	30481880	○
37.00	25	200	12	56	144	130	8	30481766	○	30481804	○	30481842	○	30481881	○
38.00	25	200	12	56	144	130	8	30481767	○	30481805	○	30481843	○	30481882	○
39.00	25	200	12	56	144	130	8	30481768	○	30481806	○	30481844	○	30481883	○
40.00	25	200	12	56	144	130	8	30481769	○	30481807	○	30481845	○	30481884	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

☐ Limited material suitability.

★ Suitability only with special blade geometry and coating.

MR 01, 02, 03 - Configurable | 04165x, 04175x, 04185x

Configurable series, fixed, expandable, finely adjustable design,
with brazed blades, for blind bore, internal coolant supply



MR 01, MR 02, MR 03

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
041650	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
041651	Carbide	BSP	■	■	■	★	★	■	■	■						★	★
041652	Cermet	Uncoated	■	■	☐				■	☐							
041653	Cermet	Coated	■	■	■			■	■	■							
041750	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
041751	Carbide	BSP	■	■	■	★	★	■	■	■						★	★
041752	Cermet	Uncoated	■	■	☐				■	☐							
041753	Cermet	Coated	■	■	■			■	■	■							
041850	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
041851	Carbide	BSP	■	■	■	★	★	■	■	■						★	★
041852	Cermet	Uncoated	■	■	☐				■	☐							
041853	Cermet	Coated	■	■	■			■	■	■							

Dimensions								
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
7.700 - 8.200	12	120	8	45	75	64	4	○
8.201 - 8.700	12	120	8	45	75	64	4	○
8.701 - 9.200	12	120	8	45	75	64	4	○
9.201 - 9.700	12	120	8	45	75	65	4	○
9.701 - 10.200	12	120	8	45	75	65	6	○
10.201 - 10.700	12	120	8	45	75	65	6	○
10.701 - 11.200	12	120	8	45	75	65	6	○
11.201 - 11.700	12	120	8	45	75	65	6	○
11.701 - 12.200	16	140	8	48	92	80	6	○
12.201 - 12.700	16	140	8	48	92	80	6	○
12.701 - 13.200	16	140	8	48	92	80	6	○
13.201 - 14.200	16	140	8	48	92	80	6	○
14.201 - 15.200	16	140	8	48	92	80	6	○
15.201 - 16.200	16	140	8	48	92	80	6	○
16.201 - 17.200	16	140	8	48	92	80	6	○
17.201 - 18.200	20	160	12	50	110	98	6	○
18.201 - 19.200	20	160	12	50	110	99	6	○
19.201 - 20.200	20	160	12	50	110	100	6	○
20.201 - 21.200	20	160	12	50	110	100	6	○
21.201 - 22.200	20	160	12	50	110	100	6	○
22.201 - 23.200	20	180	12	50	130	120	6	○
23.201 - 24.200	20	180	12	50	130	120	6	○
24.201 - 25.200	20	180	12	50	130	120	6	○
25.201 - 26.200	20	180	12	50	130	120	6	○
26.201 - 27.200	20	180	12	50	130	120	6	○
27.201 - 28.200	25	200	12	56	144	130	6	○
28.201 - 29.200	25	200	12	56	144	130	6	○
29.201 - 30.200	25	200	12	56	144	130	8	○
30.201 - 31.200	25	200	12	56	144	130	8	○
31.201 - 32.200	25	200	12	56	144	130	8	○
32.201 - 33.200	25	200	12	56	144	130	8	○
33.201 - 34.200	25	200	12	56	144	130	8	○
34.201 - 35.200	25	200	12	56	144	130	8	○
35.201 - 36.200	25	200	12	56	144	130	8	○
36.201 - 37.200	25	200	12	56	144	130	8	○
37.201 - 38.200	25	200	12	56	144	130	8	○
38.201 - 39.200	25	200	12	56	144	130	8	○
39.201 - 40.200	25	200	12	56	144	130	8	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

☐ Limited material suitability.

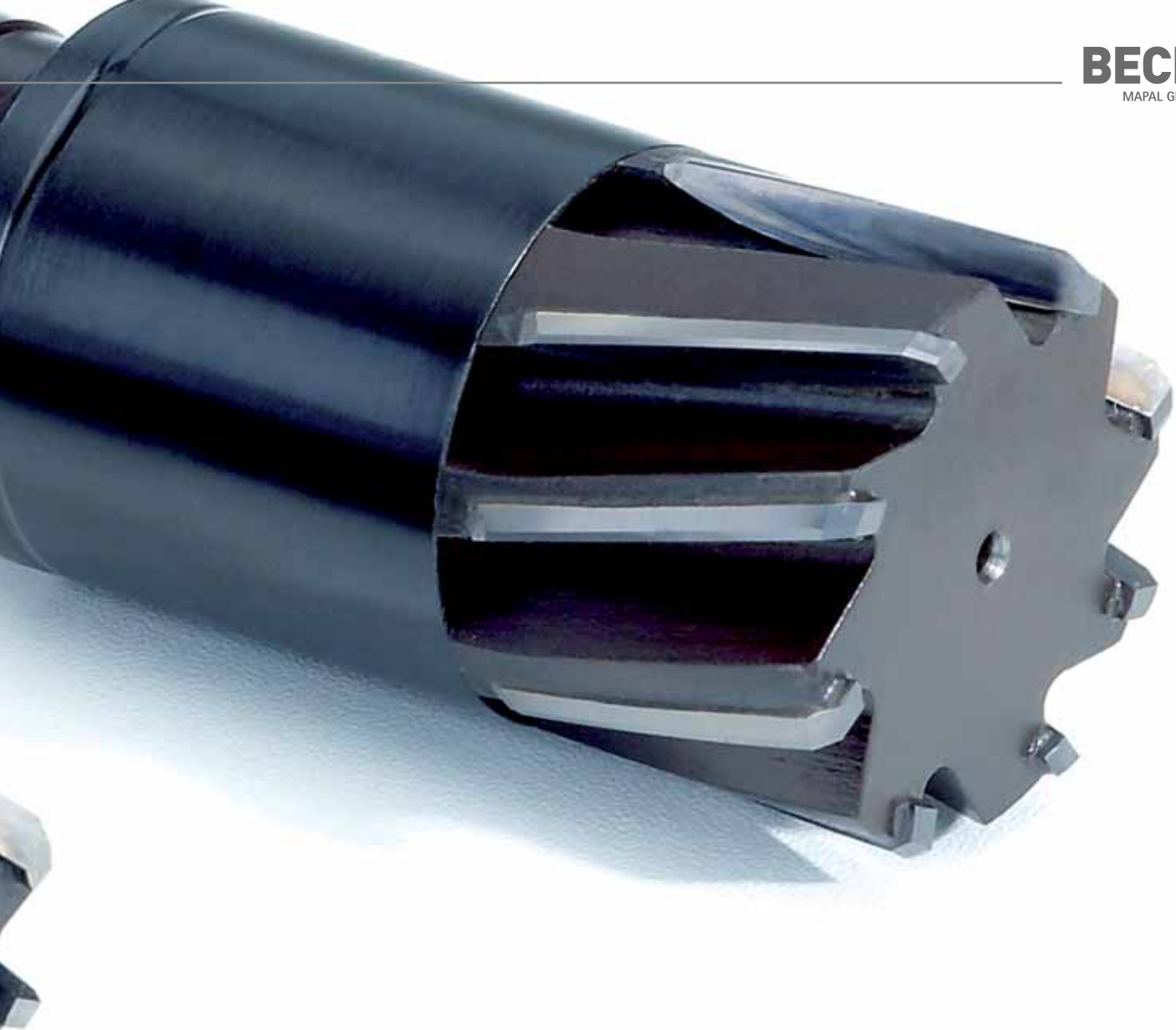
★ Suitability only with special blade geometry and coating.



High Performance Reamers RR 01

Standard Programme

Suitable for steel and cast
High availability from stock
Extremely unequal spacing
Also as expandable variant



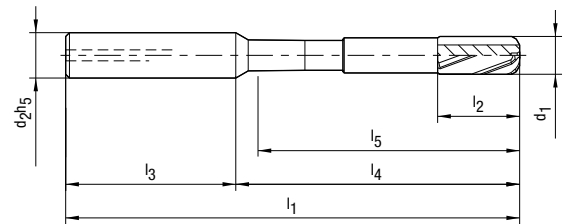
RR 01 | 040325

Preferred series for through bore, with special HPC blade geometry, solid cermet head, internal coolant supply



Design

Diameter:	4.00 – 20.00 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	4 – 8
Geometry:	HPC geometry, EU spacing
Dimensions:	Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040325	Cermet	Uncoated	■	■	□				■	□							

Dimensions									040325	
d ₁	Tol.	d ₂ h ₅	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
4.00	H7	10	80	14	40	40	33	4	30109599	●
4.50	H7	10	80	14	40	40	33	4	30109601	●
5.00	H7	12	85	14	45	40	33	4	30109603	●
5.50	H7	12	85	14	45	40	33	4	30109605	●
6.00	H7	12	85	14	45	40	33	4	30109607	●
6.50	H7	12	105	14	45	60	52	6	30109609	●
7.00	H7	12	110	18	45	65	57	6	30109611	●
7.50	H7	12	110	18	45	65	57	6	30109613	●
8.00	H7	12	110	18	45	65	57	6	30109615	●
8.50	H7	12	120	18	45	75	67	6	30109617	●
9.00	H7	12	120	22	45	75	67	6	30109619	●
9.50	H7	12	120	22	45	75	67	6	30109621	●
10.00	H7	12	120	22	45	75	68	6	30109623	●
10.50	H7	12	120	22	45	75	68	6	30109625	●
11.00	H7	12	120	22	45	75	68	6	30109627	●
12.00	H7	12	120	22	45	75	68	6	30109631	●
13.00	H7	16	130	22	48	82	74	6	30109633	●
14.00	H7	16	130	23	48	82	74	6	30109635	●
15.00	H7	16	130	23	48	82	74	6	30109637	●
16.00	H7	16	130	26	48	82	74	6	30109639	●
17.00	H7	16	160	26	48	112	105	8	30109641	●
18.00	H7	16	160	26	48	112	105	8	30109643	●
19.00	H7	16	160	26	48	112	105	8	30109645	●
20.00	H7	16	160	26	48	112	105	8	30109647	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

RR 01 - Configurable | 040325

Configurable series for through bore, with special HPC blade geometry, solid cermet head, internal coolant supply



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040325	Cermet	Uncoated	■	■	□				■	□							

Dimensions								
d ₁	d ₂ h5	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
3.850 - 4.350	10	80	14	40	40	33	4	○
4.351 - 4.900	10	80	14	40	40	33	4	○
4.901 - 5.300	12	85	14	45	40	33	4	○
5.301 - 5.700	12	85	14	45	40	33	4	○
5.701 - 6.200	12	85	14	45	40	33	4	○
6.201 - 6.700	12	105	14	45	60	52	6	○
6.701 - 7.200	12	110	18	45	65	57	6	○
7.201 - 7.700	12	110	18	45	65	57	6	○
7.701 - 8.200	12	110	18	45	65	57	6	○
8.201 - 8.700	12	120	18	45	75	67	6	○
8.701 - 9.200	12	120	22	45	75	67	6	○
9.201 - 9.700	12	120	22	45	75	67	6	○
9.701 - 10.200	12	120	22	45	75	68	6	○
10.201 - 10.700	12	120	22	45	75	68	6	○
10.700 - 11.200	12	120	22	45	75	68	6	○
11.201 - 12.200	12	120	22	45	75	68	6	○
12.201 - 13.200	16	130	22	48	82	74	6	○
13.201 - 14.200	16	130	23	48	82	74	6	○
14.201 - 15.200	16	130	23	48	82	74	6	○
15.201 - 16.200	16	130	26	48	82	74	6	○
16.201 - 17.200	16	160	26	48	112	105	8	○
17.201 - 18.200	16	160	26	48	112	105	8	○
18.201 - 19.200	16	160	26	48	112	105	8	○
19.201 - 20.200	16	160	26	48	112	105	8	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

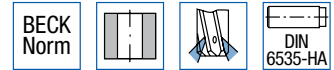
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

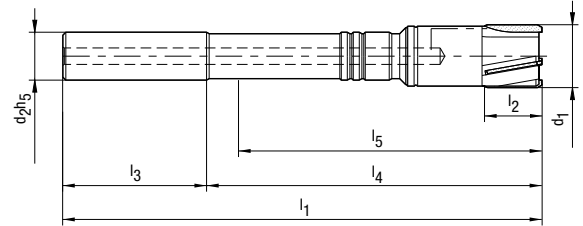
RR 01 | 040326

Preferred series for through bore, with special HPC blade geometry, brazed blades made of cermet, internal coolant supply



Design

Diameter: 21.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Left-hand fluted
 Number of cutting edges: 6 – 8
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040326	Cermet	Uncoated	■	■	□				■	□							

Dimensions									040326	
d ₁	Tol.	d ₂ h ₅	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
21.00	H7	16	160	19	48	112	105	6	30109651	●
22.00	H7	16	160	22	48	112	105	6	30109653	●
23.00	H7	20	180	22	50	130	122	6	30109655	●
24.00	H7	20	180	22	50	130	122	6	30109657	●
25.00	H7	20	180	22	50	130	122	6	30109659	●
26.00	H7	20	180	22	50	130	122	6	30109661	●
27.00	H7	20	180	25	50	130	122	6	30109663	●
28.00	H7	25	180	25	56	124	116	6	30109665	●
29.00	H7	25	180	25	56	124	116	6	30109667	●
30.00	H7	25	200	25	56	144	136	8	30109669	●
31.00	H7	25	200	25	56	144	136	8	30109671	●
32.00	H7	25	200	25	56	144	136	8	30109673	●
33.00	H7	25	200	25	56	144	136	8	30109675	●
34.00	H7	25	200	25	56	144	136	8	30109677	●
35.00	H7	25	200	25	56	144	136	8	30109679	●
36.00	H7	25	200	25	56	144	136	8	30109681	●
37.00	H7	25	200	25	56	144	136	8	30109683	●
38.00	H7	25	200	25	56	144	136	8	30109685	●
39.00	H7	25	200	25	56	144	136	8	30109687	●
40.00	H7	25	200	25	56	144	136	8	30109689	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

RR 01 - Configurable I 040326

Configurable series for through bore, with special HPC blade geometry, brazed blades made of cermet, internal coolant supply



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040326	Cermet	Uncoated	■	■	□				■	□							

Dimensions								
d ₁	d ₂ h5	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
20.201 - 21.200	16	160	19	48	112	105	6	○
21.201 - 22.200	16	160	22	48	112	105	6	○
22.201 - 23.200	20	180	22	50	130	122	6	○
23.201 - 24.200	20	180	22	50	130	122	6	○
24.201 - 25.200	20	180	22	50	130	122	6	○
25.201 - 26.200	20	180	22	50	130	122	6	○
26.201 - 27.200	20	180	25	50	130	122	6	○
27.201 - 28.200	25	180	25	56	124	116	6	○
28.201 - 29.200	25	180	25	56	124	116	6	○
29.201 - 30.200	25	200	25	56	144	136	8	○
30.201 - 31.200	25	200	25	56	144	136	8	○
31.201 - 32.200	25	200	25	56	144	136	8	○
32.201 - 33.200	25	200	25	56	144	136	8	○
33.201 - 34.200	25	200	25	56	144	136	8	○
34.201 - 35.200	25	200	25	56	144	136	8	○
35.201 - 36.200	25	200	25	56	144	136	8	○
36.201 - 37.200	25	200	25	56	144	136	8	○
37.201 - 38.200	25	200	25	56	144	136	8	○
38.201 - 39.200	25	200	25	56	144	136	8	○
39.201 - 40.200	25	200	25	56	144	136	8	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

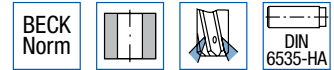
○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

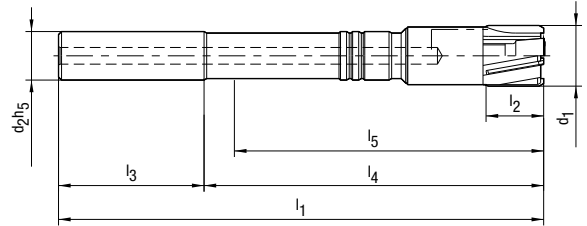
RR 01 | 040327



Preferred series for through bore, with special HPC blade geometry, brazed blades made of cermet, internal coolant supply, expandable using front screw by approx. 0.03 mm.

Design

Diameter: 8.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Left-hand fluted
 Number of cutting edges: 4 – 8
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040327	Cermet	Uncoated	■	■	□				■	□							

Dimensions									040327	
d ₁	Tol.	d ₂ h5	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
8.00	H7	6	110	12	36	74	68	4	30109691	●
8.50	H7	6	110	12	36	74	68	4	30109693	○
9.00	H7	6	110	12	36	74	68	6	30109695	●
9.50	H7	8	120	12	36	84	78	6	30109697	○
10.00	H7	8	120	12	36	84	78	6	30109699	●
10.50	H7	8	120	12	36	84	78	6	30242818	○
11.00	H7	8	120	12	36	84	78	6	30109701	●
11.50	H7	8	120	12	36	84	78	6	30242824	○
12.00	H7	10	140	12	40	100	93	6	30109703	●
12.50	H7	10	140	12	40	100	93	6	30242825	○
13.00	H7	10	140	12	40	100	93	6	30109705	●
14.00	H7	12	140	16	45	95	88	6	30109707	●
15.00	H7	12	140	16	45	95	88	6	30109709	●
16.00	H7	14	160	19	45	115	108	6	30109711	●
17.00	H7	14	160	19	45	115	108	6	30109713	●
18.00	H7	16	160	19	48	112	105	6	30109715	●
19.00	H7	16	160	19	48	112	105	6	30109717	●
20.00	H7	16	160	19	48	112	105	6	30109719	●
21.00	H7	16	160	19	48	112	105	6	30109721	●
22.00	H7	16	160	22	48	112	105	6	30109723	●
23.00	H7	20	180	22	50	130	122	6	30109725	●
24.00	H7	20	180	22	50	130	122	6	30109727	●
25.00	H7	20	180	22	50	130	122	6	30109729	●
26.00	H7	20	180	22	50	130	122	6	30109731	●
27.00	H7	20	180	25	50	130	122	6	30109733	●
28.00	H7	25	180	25	56	124	116	6	30109735	●
29.00	H7	25	180	25	56	124	116	6	30109737	●
30.00	H7	25	200	25	56	144	136	6	30109739	●
31.00	H7	25	200	25	56	144	136	6	30109741	●
32.00	H7	25	200	25	56	144	136	6	30109743	●
33.00	H7	25	200	25	56	144	136	6	30109745	●
34.00	H7	25	200	25	56	144	136	8	30109747	●
35.00	H7	25	200	25	56	144	136	8	30109749	●
36.00	H7	25	200	25	56	144	136	8	30109751	●
37.00	H7	25	200	25	56	144	136	8	30109753	●
38.00	H7	25	200	25	56	144	136	8	30109755	●
39.00	H7	25	200	25	56	144	136	8	30109757	●
40.00	H7	25	200	25	56	144	136	8	30109759	●

All dimensions in mm.
 For machining values see end of catalogue.
 Information on special designs and other coatings on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

RR 01 - Configurable I 040327

Configurable series for through bore, with special HPC blade geometry,
 brazed blades made of cermet, internal coolant supply, expandable using front screw by approx. 0.03 mm.



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040327	Cermet	Uncoated	■	■	□				■	□							

Dimensions								
d ₁	d ₂ h5	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
7.701 - 8.200	6	110	12	36	74	68	4	○
8.201 - 8.700	6	110	12	36	74	68	4	○
8.701 - 9.200	6	110	12	36	74	68	6	○
9.201 - 9.700	8	120	12	36	84	78	6	○
9.701 - 10.200	8	120	12	36	84	78	6	○
10.201 - 10.700	8	120	12	36	84	78	6	○
10.701 - 11.200	8	120	12	36	84	78	6	○
11.201 - 11.700	8	120	12	36	84	78	6	○
11.701 - 12.200	10	140	12	40	100	93	6	○
12.201 - 12.700	10	140	12	40	100	93	6	○
12.701 - 13.200	10	140	12	40	100	93	6	○
13.201 - 14.200	12	140	16	45	95	88	6	○
14.201 - 15.200	12	140	16	45	95	88	6	○
15.201 - 16.200	14	160	19	45	115	108	6	○
16.201 - 17.200	14	160	19	45	115	108	6	○
17.201 - 18.200	16	160	19	48	112	105	6	○
18.201 - 19.200	16	160	19	48	112	105	6	○
19.201 - 20.200	16	160	19	48	112	105	6	○
20.201 - 21.200	16	160	19	48	112	105	6	○
21.201 - 22.200	16	160	22	48	112	105	6	○
22.201 - 23.200	20	180	22	50	130	122	6	○
23.201 - 24.200	20	180	22	50	130	122	6	○
24.201 - 25.200	20	180	22	50	130	122	6	○
25.201 - 26.200	20	180	22	50	130	122	6	○
26.201 - 27.200	20	180	25	50	130	122	6	○
27.201 - 28.200	25	180	25	56	124	116	6	○
28.201 - 29.200	25	180	25	56	124	116	6	○
29.201 - 30.200	25	200	25	56	144	136	6	○
30.201 - 31.200	25	200	25	56	144	136	6	○
31.201 - 32.200	25	200	25	56	144	136	6	○
32.201 - 33.200	25	200	25	56	144	136	6	○
33.201 - 34.200	25	200	25	56	144	136	8	○
34.201 - 35.200	25	200	25	56	144	136	8	○
35.201 - 36.200	25	200	25	56	144	136	8	○
36.201 - 37.200	25	200	25	56	144	136	8	○
37.201 - 38.200	25	200	25	56	144	136	8	○
38.201 - 39.200	25	200	25	56	144	136	8	○
39.201 - 40.200	25	200	25	56	144	136	8	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

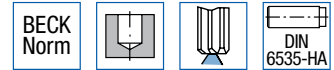
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

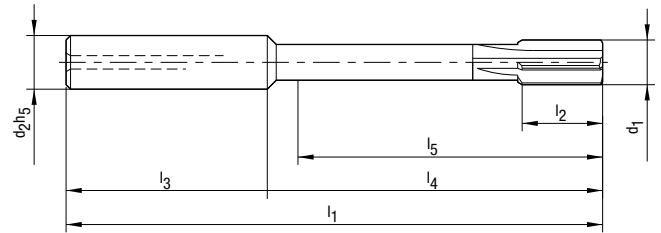
RR 01 | 040340

Preferred series for blind bore, with special HPC blade geometry, solid cermet head, internal coolant supply



Design

Diameter: 4.00 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 4 – 6
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040340	Cermet	Uncoated	■	■	□				■	□							

Dimensions									040340	
d ₁	Tol.	d ₂ h5	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
4.00	H7	10	80	12	40	40	33	4	30109761	●
4.50	H7	10	80	12	40	40	33	4	30109763	●
5.00	H7	12	85	12	45	40	33	4	30109765	●
5.50	H7	12	85	12	45	40	33	4	30109767	●
6.00	H7	12	85	12	45	40	33	4	30109769	●
6.50	H7	12	105	12	45	60	53	6	30109771	●
7.00	H7	12	110	16	45	65	58	6	30109773	●
7.50	H7	12	110	16	45	65	58	6	30109775	●
8.00	H7	12	110	16	45	65	58	6	30109777	●
8.50	H7	12	120	19	45	75	68	6	30109779	●
9.00	H7	12	120	19	45	75	68	6	30109781	●
9.50	H7	12	120	19	45	75	68	6	30109783	●
10.00	H7	12	120	19	45	75	68	6	30109785	●
10.50	H7	12	120	19	45	75	68	6	30109787	●
11.00	H7	12	120	19	45	75	68	6	30109789	●
12.00	H7	12	120	19	45	75	68	6	30109793	●
13.00	H7	16	130	19	48	82	75	6	30109795	●
14.00	H7	16	130	19	48	82	75	6	30109797	●
15.00	H7	16	130	19	48	82	75	6	30109799	●
16.00	H7	16	130	19	48	82	75	6	30109801	●
17.00	H7	16	160	22	48	112	105	6	30109803	●
18.00	H7	16	160	22	48	112	105	6	30109805	●
19.00	H7	16	160	22	48	112	105	6	30109807	●
20.00	H7	16	160	22	48	112	105	6	30109809	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

RR 01 - Configurable I 040340

Configurable series for blind bore, with special HPC blade geometry, solid cermet head, internal coolant supply



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040340	Cermet	Uncoated	■	■	□				■	□							

Dimensions								
d ₁	d ₂ h5	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
3.850 - 4.350	10	80	12	40	40	33	4	○
4.351 - 4.900	10	80	12	40	40	33	4	○
4.901 - 5.300	12	85	12	45	40	33	4	○
5.301 - 5.700	12	85	12	45	40	33	4	○
5.701 - 6.200	12	85	12	45	40	33	4	○
6.201 - 6.700	12	105	12	45	60	53	6	○
6.701 - 7.200	12	110	16	45	65	58	6	○
7.201 - 7.700	12	110	16	45	65	58	6	○
7.701 - 8.200	12	110	16	45	65	58	6	○
8.201 - 8.700	12	120	19	45	75	68	6	○
8.701 - 9.200	12	120	19	45	75	68	6	○
9.201 - 9.700	12	120	19	45	75	68	6	○
9.701 - 10.200	12	120	19	45	75	68	6	○
10.201 - 10.700	12	120	19	45	75	68	6	○
10.701 - 11.200	12	120	19	45	75	68	6	○
11.201 - 12.200	12	120	19	45	75	68	6	○
12.201 - 13.200	16	130	19	48	82	75	6	○
13.201 - 14.200	16	130	19	48	82	75	6	○
14.201 - 15.200	16	130	19	48	82	75	6	○
15.201 - 16.200	16	130	19	48	82	75	6	○
16.201 - 17.200	16	160	22	48	112	105	6	○
17.201 - 18.200	16	160	22	48	112	105	6	○
18.201 - 19.200	16	160	22	48	112	105	6	○
19.201 - 20.200	16	160	22	48	112	105	6	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

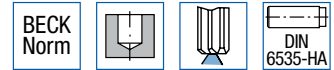
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

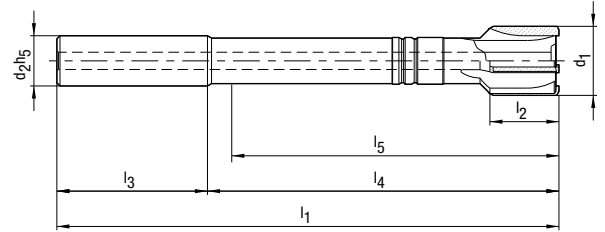
RR 01 | 040341

Preferred series for blind bore, with special HPC blade geometry, brazed blades made of cermet, internal coolant supply



Design

Diameter: 21.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 6 – 8
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040341	Cermet	Uncoated	■	■	□				■	□							

Dimensions									040341	
d ₁	Tol.	d ₂ h ₅	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
21.00	H7	16	160	19	48	112	102	6	30109811	●
22.00	H7	16	160	22	48	112	102	6	30109813	●
23.00	H7	20	180	22	50	130	120	6	30109815	●
24.00	H7	20	180	22	50	130	120	6	30109817	●
25.00	H7	20	180	22	50	130	120	6	30109819	●
26.00	H7	20	180	22	50	130	120	6	30109821	●
27.00	H7	20	180	25	50	130	120	6	30109823	●
28.00	H7	25	180	25	56	124	114	6	30109825	●
29.00	H7	25	180	25	56	124	114	6	30109827	●
30.00	H7	25	200	25	56	144	134	6	30109829	●
31.00	H7	25	200	25	56	144	134	6	30109831	●
32.00	H7	25	200	25	56	144	134	6	30109833	●
33.00	H7	25	200	25	56	144	134	6	30109835	●
34.00	H7	25	200	25	56	144	134	6	30109837	●
35.00	H7	25	200	25	56	144	134	8	30109839	●
36.00	H7	25	200	25	56	144	134	8	30109841	●
37.00	H7	25	200	25	56	144	134	8	30109843	●
38.00	H7	25	200	25	56	144	134	8	30109845	●
39.00	H7	25	200	25	56	144	134	8	30109847	●
40.00	H7	25	200	25	56	144	134	8	30109849	●

All dimensions in mm.
 For machining values see end of catalogue.
 Information on special designs and other coatings on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

RR 01 - Configurable I 040341

Configurable series for blind bore, with special HPC blade geometry, brazed blades made of cermet, internal coolant supply



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040341	Cermet	Uncoated	■	■	□				■	□							

Dimensions								
d ₁	d ₂ h5	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
20.201 - 21.200	16	160	19	48	112	102	6	○
21.201 - 22.200	16	160	22	48	112	102	6	○
22.201 - 23.200	20	180	22	50	130	120	6	○
23.201 - 24.200	20	180	22	50	130	120	6	○
24.201 - 25.200	20	180	22	50	130	120	6	○
25.201 - 26.200	20	180	22	50	130	120	6	○
26.201 - 27.200	20	180	25	50	130	120	6	○
27.201 - 28.200	25	180	25	56	124	114	6	○
28.201 - 29.200	25	180	25	56	124	114	6	○
29.201 - 30.200	25	200	25	56	144	134	6	○
30.201 - 31.200	25	200	25	56	144	134	6	○
31.201 - 32.200	25	200	25	56	144	134	6	○
32.201 - 33.200	25	200	25	56	144	134	6	○
33.201 - 34.200	25	200	25	56	144	134	6	○
34.201 - 35.200	25	200	25	56	144	134	8	○
35.201 - 36.200	25	200	25	56	144	134	8	○
36.201 - 37.200	25	200	25	56	144	134	8	○
37.201 - 38.200	25	200	25	56	144	134	8	○
38.201 - 39.200	25	200	25	56	144	134	8	○
39.201 - 40.200	25	200	25	56	144	134	8	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

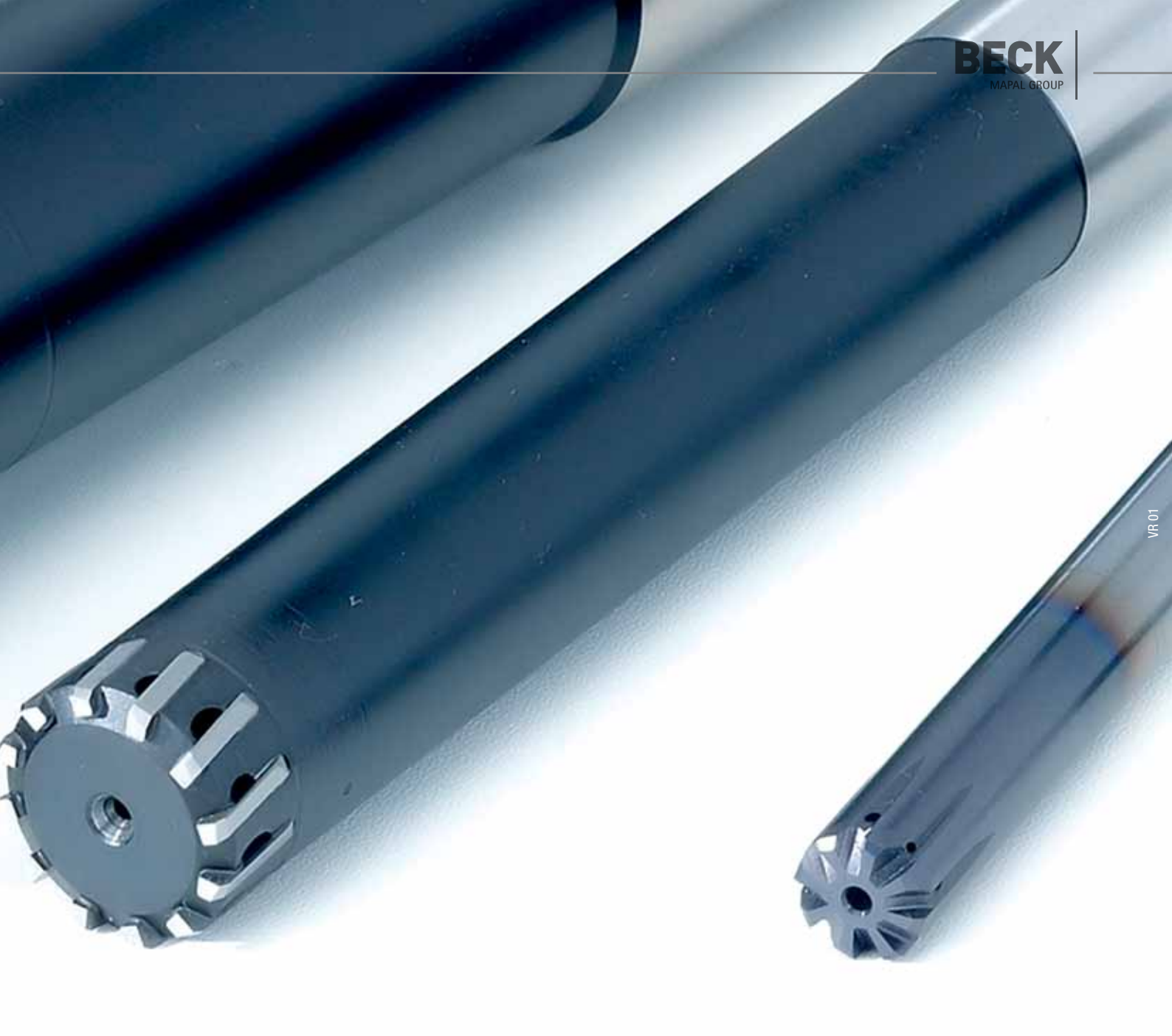
★ Suitability only with special blade geometry and coating.



High Performance Reamers VR 01

Standard Programme

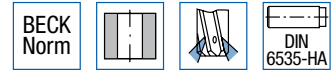
High number of cutting edges due to no chip space
Extremely high feeds possible
High cylindrical precision
Cost-effective due to retipping



VR 01

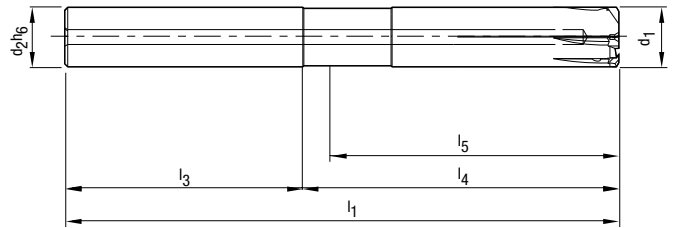
VR 01 | 040390

Preferred series of solid carbide for through bore, with special HPC blade geometry, internal coolant supply



Design

Diameter: 6.00 – 12.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 6 – 10
 Geometry: HPC Geometry
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040390	Solid carbide	BSP	■	■	■			■	■	■							

Dimensions								040390	
d ₁	Tol.	d ₂ h ₆	l ₁	l ₃	l ₄	l ₅	z	Order No.	Stock
6.00	H7	6	75	36	39	31	6	30308418	●
6.50	H7	8	100	36	64	56	8	30311639	○
7.00	H7	8	100	36	64	56	8	30311643	○
7.50	H7	8	100	36	64	56	8	30311644	○
8.00	H7	8	100	36	64	56	8	30308420	●
8.50	H7	10	100	40	60	52	8	30311645	○
9.00	H7	10	100	40	60	52	8	30311646	○
9.50	H7	10	120	40	80	72	8	30311647	○
10.00	H7	10	120	40	80	72	8	30308424	●
10.50	H7	12	120	45	75	67	10	30311649	○
11.00	H7	12	120	45	75	67	10	30311650	○
11.50	H7	12	120	45	75	67	10	30311652	○
12.00	H7	12	120	45	75	67	10	30308427	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

VR 01 - Configurable I 040390

Configurable series of solid carbide for through bore,
 with special HPC blade geometry, internal coolant supply



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040390	Solid carbide	BSP	■	■	■			■	■	■							

Dimensions							
d ₁	d ₂ h6	l ₁	l ₃	l ₄	l ₅	z	Stock
5.700 - 6.200	6	75	36	39	31	6	○
6.201 - 6.700	8	100	36	64	56	8	○
6.701 - 7.200	8	100	36	64	56	8	○
7.201 - 7.700	8	100	36	64	56	8	○
7.701 - 8.200	8	100	36	64	56	8	○
8.201 - 8.700	10	100	40	60	52	8	○
8.701 - 9.200	10	100	40	60	52	8	○
9.201 - 9.700	10	120	40	80	72	8	○
9.701 - 10.200	10	120	40	80	72	8	○
10.201 - 10.700	12	120	45	75	67	10	○
10.701 - 11.200	12	120	45	75	67	10	○
11.201 - 11.700	12	120	45	75	67	10	○
11.701 - 12.200	12	120	45	75	67	10	○

VR 01

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

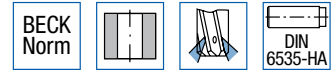
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

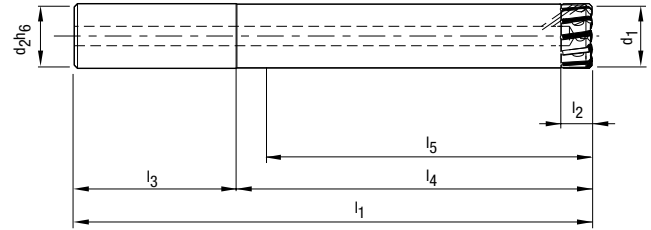
VR 01 | 040370, 040382, 040372

Preferred series for through bore, with brazed blades, special HPC blade geometry, internal coolant supply



Design

Diameter: 10.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Left-hand fluted
 Number of cutting edges: 6 – 18
 Geometry: HPC Geometry
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040370	Carbide	Uncoated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
040382	Carbide	BSP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
040372	Cermet	Uncoated	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				<input checked="" type="checkbox"/>	<input type="checkbox"/>							

Dimensions									040370		040382		040372	
d ₁	Tol.	d ₂ h ₆	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock
10.00	H7	12	120	9	45	75	67	6	30611604	○	30308439	○	30611721	○
10.50	H7	12	120	9	45	75	67	6	30611605	○	30611663	○	30611722	○
11.00	H7	12	120	9	45	75	67	6	30611606	○	30611664	○	30611723	○
11.50	H7	12	120	9	45	75	67	6	30611607	○	30611665	○	30611724	○
12.00	H7	12	120	9	45	75	67	8	30252427	○	30308440	○	30259464	○
12.50	H7	16	130	9	48	82	74	8	30611608	○	30611666	○	30438339	○
13.00	H7	16	130	9	48	82	74	8	30611609	○	30611667	○	30611725	○
13.50	H7	16	130	9	48	82	74	8	30611610	○	30611668	○	30611726	○
14.00	H7	16	130	9	48	82	74	10	30377395	○	30308442	○	30611727	○
14.50	H7	16	130	9	48	82	74	10	30611611	○	30611669	○	30611728	○
15.00	H7	16	130	9	48	82	74	10	30587598	○	30611670	○	30611729	○
15.50	H7	16	130	9	48	82	74	10	30611612	○	30611671	○	30611730	○
16.00	H7	16	130	9	48	82	74	10	30611613	○	30611672	○	30611731	○
16.50	H7	20	160	9	50	110	102	10	30611614	○	30611673	○	30611732	○
17.00	H7	20	160	9	50	110	102	10	30611615	○	30611674	○	30611733	○
17.50	H7	20	160	9	50	110	102	10	30611616	○	30611675	○	30611734	○
18.00	H7	20	160	9	50	110	102	12	30611617	○	30611676	○	30277002	○
18.50	H7	20	160	9	50	110	102	12	30611618	○	30611677	○	30611735	○
19.00	H7	20	160	9	50	110	102	12	30611619	○	30611678	○	30611736	○
19.50	H7	20	160	9	50	110	102	12	30611620	○	30611679	○	30611737	○
20.00	H7	20	160	9	50	110	102	12	30611621	○	30611680	○	30276094	○
20.50	H7	20	160	9	50	110	102	12	30611622	○	30611681	○	30611738	○
21.00	H7	20	160	9	50	110	102	12	30611623	○	30611682	○	30611739	○
21.50	H7	20	160	9	50	110	102	12	30611624	○	30611683	○	30611740	○
22.00	H7	20	160	9	50	110	102	14	30611625	○	30611684	○	30267795	○
22.50	H7	20	180	9	50	130	122	14	30611626	○	30611685	○	30611741	○
23.00	H7	20	180	9	50	130	122	14	30611627	○	30611686	○	30611742	○
23.50	H7	20	180	9	50	130	122	14	30611628	○	30611687	○	30611743	○
24.00	H7	20	180	9	50	130	122	14	30611629	○	30611688	○	30611744	○
24.50	H7	20	180	9	50	130	122	14	30611630	○	30611689	○	30611745	○
25.00	H7	20	180	9	50	130	122	16	30611631	○	30611690	○	30611746	○
25.50	H7	20	180	9	50	130	122	16	30611632	○	30611691	○	30611747	○
26.00	H7	20	180	9	50	130	122	16	30611633	○	30611692	○	30611748	○
26.50	H7	20	180	9	50	130	122	16	30611634	○	30611693	○	30611749	○
27.00	H7	20	180	9	50	130	122	16	30611635	○	30611694	○	30611750	○
27.50	H7	20	180	9	50	130	122	16	30611636	○	30611695	○	30611751	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

VR 01 | 040370, 040382, 040372

Preferred series for through bore, with brazed blades,
special HPC blade geometry, internal coolant supply



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040370	Carbide	Uncoated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
040382	Carbide	BSP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
040372	Cermet	Uncoated	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				<input checked="" type="checkbox"/>	<input type="checkbox"/>							

Dimensions									040370		040382		040372	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock
28.00	H7	25	180	9	56	124	116	16	30611637	○	30611696	○	30276093	○
28.50	H7	25	180	9	56	124	116	16	30611638	○	30611697	○	30611752	○
29.00	H7	25	180	9	56	124	116	16	30611639	○	30611698	○	30611753	○
29.50	H7	25	200	9	56	144	136	16	30611640	○	30611699	○	30611754	○
30.00	H7	25	200	9	56	144	136	16	30611641	○	30611700	○	30611755	○
30.50	H7	25	200	9	56	144	136	16	30611642	○	30611701	○	30611756	○
31.00	H7	25	200	9	56	144	136	16	30611643	○	30611702	○	30611757	○
31.50	H7	25	200	9	56	144	136	16	30611644	○	30611703	○	30611758	○
32.00	H7	25	200	9	56	144	136	18	30611645	○	30611704	○	30611759	○
32.50	H7	25	200	9	56	144	136	18	30611646	○	30611705	○	30611760	○
33.00	H7	25	200	9	56	144	136	18	30611647	○	30611706	○	30611761	○
33.50	H7	25	200	9	56	144	136	18	30611649	○	30611707	○	30611762	○
34.00	H7	25	200	9	56	144	136	18	30611650	○	30611708	○	30611763	○
34.50	H7	25	200	9	56	144	136	18	30611651	○	30611709	○	30611764	○
35.00	H7	25	200	9	56	144	136	18	30611652	○	30611710	○	30611765	○
35.50	H7	25	200	9	56	144	136	18	30611653	○	30611711	○	30611766	○
36.00	H7	32	200	9	60	140	132	18	30611654	○	30611712	○	30611767	○
36.50	H7	32	200	9	60	140	132	18	30611655	○	30611713	○	30611768	○
37.00	H7	32	200	9	60	140	132	18	30611656	○	30611714	○	30611769	○
37.50	H7	32	200	9	60	140	132	18	30611657	○	30611715	○	30611770	○
38.00	H7	32	200	9	60	140	132	18	30611658	○	30611716	○	30611771	○
38.50	H7	32	200	9	60	140	132	18	30611659	○	30611717	○	30611772	○
39.00	H7	32	200	9	60	140	132	18	30611660	○	30611718	○	30287266	○
39.50	H7	32	200	9	60	140	132	18	30611661	○	30611719	○	30611773	○
40.00	H7	32	200	9	60	140	132	18	30611662	○	30611720	○	30611774	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

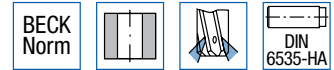
■ Outstanding material suitability.

○ Limited material suitability.

★ Suitability only with special blade geometry and coating.

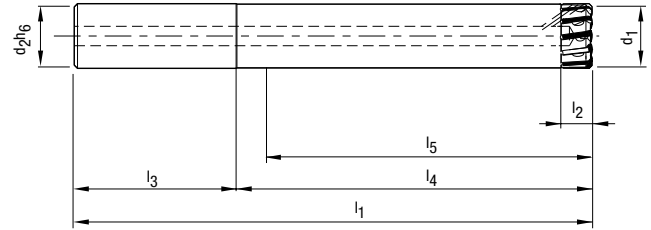
VR 01 | 040376, 040378, 040374

Preferred series for through bore, with brazed blades, special HPC blade geometry, internal coolant supply



Design

Diameter: 10.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Left-hand fluted
 Number of cutting edges: 6 – 18
 Geometry: HPC Geometry
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040376	CBN	Uncoated						■									
040378	CBN	Uncoated															■
040374	PCD	Uncoated									■	■	■				

Dimensions									040376		040378		040374	
d ₁	Tol.	d ₂ h ₆	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock
10.00	H7	12	120	9	45	75	67	6	30611775	○	30277654	○	30611896	○
10.50	H7	12	120	9	45	75	67	6	30611776	○	30611836	○	30611897	○
11.00	H7	12	120	9	45	75	67	6	30611777	○	30611837	○	30611898	○
11.50	H7	12	120	9	45	75	67	6	30611778	○	30611838	○	30611899	○
12.00	H7	12	120	9	45	75	67	8	30611779	○	30611839	○	30271606	○
12.50	H7	16	130	9	48	82	74	8	30611780	○	30611840	○	30611900	○
13.00	H7	16	130	9	48	82	74	8	30611781	○	30611841	○	30611901	○
13.50	H7	16	130	9	48	82	74	8	30611782	○	30611842	○	30611902	○
14.00	H7	16	130	9	48	82	74	10	30611783	○	30611843	○	30611903	○
14.50	H7	16	130	9	48	82	74	10	30611784	○	30611844	○	30611904	○
15.00	H7	16	130	9	48	82	74	10	30611785	○	30611845	○	30611905	○
15.50	H7	16	130	9	48	82	74	10	30611786	○	30611846	○	30611906	○
16.00	H7	16	130	9	48	82	74	10	30611787	○	30611847	○	30359823	○
16.50	H7	20	160	9	50	110	102	10	30611788	○	30611848	○	30611907	○
17.00	H7	20	160	9	50	110	102	10	30611789	○	30611849	○	30611908	○
17.50	H7	20	160	9	50	110	102	10	30611790	○	30611850	○	30611909	○
18.00	H7	20	160	9	50	110	102	12	30611791	○	30611851	○	30611910	○
18.50	H7	20	160	9	50	110	102	12	30611792	○	30611852	○	30611911	○
19.00	H7	20	160	9	50	110	102	12	30611793	○	30611853	○	30611912	○
19.50	H7	20	160	9	50	110	102	12	30611794	○	30611854	○	30611913	○
20.00	H7	20	160	9	50	110	102	12	30611795	○	30611855	○	30611914	○
20.50	H7	20	160	9	50	110	102	12	30611796	○	30611856	○	30611915	○
21.00	H7	20	160	9	50	110	102	12	30611797	○	30611857	○	30611916	○
21.50	H7	20	160	9	50	110	102	12	30611798	○	30611858	○	30611917	○
22.00	H7	20	160	9	50	110	102	14	30611799	○	30611859	○	30611918	○
22.50	H7	20	180	9	50	130	122	14	30611800	○	30611860	○	30611919	○
23.00	H7	20	180	9	50	130	122	14	30611801	○	30611861	○	30611920	○
23.50	H7	20	180	9	50	130	122	14	30611802	○	30611862	○	30611921	○
24.00	H7	20	180	9	50	130	122	14	30611803	○	30611863	○	30611922	○
24.50	H7	20	180	9	50	130	122	14	30611804	○	30611864	○	30611923	○
25.00	H7	20	180	9	50	130	122	16	30611805	○	30611865	○	30611924	○
25.50	H7	20	180	9	50	130	122	16	30611806	○	30611866	○	30611925	○
26.00	H7	20	180	9	50	130	122	16	30611807	○	30611867	○	30611926	○
26.50	H7	20	180	9	50	130	122	16	30611808	○	30611868	○	30611927	○
27.00	H7	20	180	9	50	130	122	16	30611809	○	30611869	○	30611928	○
27.50	H7	20	180	9	50	130	122	16	30611810	○	30611870	○	30611929	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

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○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

○ Limited material suitability.

★ Suitability only with special blade geometry and coating.

VR 01 | 040376, 040378, 040374

Preferred series for through bore, with brazed blades,
special HPC blade geometry, internal coolant supply



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040376	CBN	Uncoated						■									
040378	CBN	Uncoated															■
040374	PCD	Uncoated									■	■	■				

Dimensions									040376		040378		040374	
d ₁	Tol.	d ₂ h ₆	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock
28.00	H7	25	180	9	56	124	116	16	30611811	○	30611871	○	30611930	○
28.50	H7	25	180	9	56	124	116	16	30611812	○	30611872	○	30611931	○
29.00	H7	25	180	9	56	124	116	16	30611813	○	30611873	○	30611932	○
29.50	H7	25	200	9	56	144	136	16	30611814	○	30611874	○	30611933	○
30.00	H7	25	200	9	56	144	136	16	30611815	○	30611875	○	30611934	○
30.50	H7	25	200	9	56	144	136	16	30611816	○	30611876	○	30611935	○
31.00	H7	25	200	9	56	144	136	16	30611817	○	30611877	○	30611936	○
31.50	H7	25	200	9	56	144	136	16	30611818	○	30611878	○	30611937	○
32.00	H7	25	200	9	56	144	136	18	30611819	○	30611879	○	30611938	○
32.50	H7	25	200	9	56	144	136	18	30611820	○	30611880	○	30611939	○
33.00	H7	25	200	9	56	144	136	18	30611821	○	30611881	○	30611940	○
33.50	H7	25	200	9	56	144	136	18	30611822	○	30611882	○	30611941	○
34.00	H7	25	200	9	56	144	136	18	30611823	○	30611883	○	30611942	○
34.50	H7	25	200	9	56	144	136	18	30611824	○	30611884	○	30611943	○
35.00	H7	25	200	9	56	144	136	18	30611825	○	30611885	○	30611944	○
35.50	H7	25	200	9	56	144	136	18	30611826	○	30611886	○	30611945	○
36.00	H7	32	200	9	60	140	132	18	30611827	○	30611887	○	30611946	○
36.50	H7	32	200	9	60	140	132	18	30611828	○	30611888	○	30611947	○
37.00	H7	32	200	9	60	140	132	18	30611829	○	30611889	○	30611948	○
37.50	H7	32	200	9	60	140	132	18	30611830	○	30611890	○	30611949	○
38.00	H7	32	200	9	60	140	132	18	30611831	○	30611891	○	30611950	○
38.50	H7	32	200	9	60	140	132	18	30611832	○	30611892	○	30611951	○
39.00	H7	32	200	9	60	140	132	18	30611833	○	30611893	○	30611952	○
39.50	H7	32	200	9	60	140	132	18	30611834	○	30611894	○	30611953	○
40.00	H7	32	200	9	60	140	132	18	30611835	○	30611895	○	30611954	○

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★ Suitability only with special blade geometry and coating.

VR 01 - Configurable

040370, 040382, 040372, 040376, 040378, 040374

Configurable series for through bore, with brazed blades, special HPC blade geometry, internal coolant supply



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040370	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
040382	Carbide	BSP	■	■	■	☐	☐	■	■	■							
040372	Cermet	Uncoated	■	■	☐				■	☐							
040376	CBN	Uncoated						■									
040378	CBN	Uncoated															■
040374	PCD	Uncoated									■	■	■				

Dimensions									
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock	
9.760 - 10.250	12	120	9	45	75	67	6	○	
10.251 - 10.750	12	120	9	45	75	67	6	○	
10.751 - 11.250	12	120	9	45	75	67	6	○	
11.251 - 11.750	12	120	9	45	75	67	6	○	
11.751 - 12.250	12	120	9	45	75	67	8	○	
12.251 - 12.750	16	130	9	48	82	74	8	○	
12.751 - 13.250	16	130	9	48	82	74	8	○	
13.251 - 13.750	16	130	9	48	82	74	8	○	
13.751 - 14.250	16	130	9	48	82	74	10	○	
14.251 - 14.750	16	130	9	48	82	74	10	○	
14.751 - 15.250	16	130	9	48	82	74	10	○	
15.251 - 15.750	16	130	9	48	82	74	10	○	
15.751 - 16.250	16	130	9	48	82	74	10	○	
16.251 - 16.750	20	160	9	50	110	102	10	○	
16.751 - 17.250	20	160	9	50	110	102	10	○	
17.251 - 17.750	20	160	9	50	110	102	10	○	
17.751 - 18.250	20	160	9	50	110	102	12	○	
18.251 - 18.750	20	160	9	50	110	102	12	○	
18.751 - 19.250	20	160	9	50	110	102	12	○	
19.251 - 19.750	20	160	9	50	110	102	12	○	
19.751 - 20.250	20	160	9	50	110	102	12	○	
20.251 - 20.750	20	160	9	50	110	102	12	○	
20.751 - 21.250	20	160	9	50	110	102	12	○	
21.251 - 21.750	20	160	9	50	110	102	12	○	
21.751 - 22.250	20	160	9	50	110	102	14	○	
22.251 - 22.750	20	180	9	50	130	122	14	○	
22.751 - 23.250	20	180	9	50	130	122	14	○	
23.251 - 23.750	20	180	9	50	130	122	14	○	
23.751 - 24.250	20	180	9	50	130	122	14	○	
24.251 - 24.750	20	180	9	50	130	122	14	○	
24.751 - 25.250	20	180	9	50	130	122	16	○	
25.251 - 25.750	20	180	9	50	130	122	16	○	
25.751 - 26.250	20	180	9	50	130	122	16	○	
26.251 - 26.750	20	180	9	50	130	122	16	○	
26.751 - 27.250	20	180	9	50	130	122	16	○	
27.251 - 27.750	20	180	9	50	130	122	16	○	
27.751 - 28.250	25	180	9	56	124	116	16	○	
28.251 - 28.750	25	180	9	56	124	116	16	○	
28.751 - 29.250	25	180	9	56	124	116	16	○	
29.251 - 29.750	25	200	9	56	144	136	16	○	
29.751 - 30.250	25	200	9	56	144	136	16	○	
30.251 - 30.750	25	200	9	56	144	136	16	○	

All dimensions in mm.

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VR 01 - Configurable

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Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040370	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
040382	Carbide	BSP	■	■	■	☐	☐	■	■	■							
040372	Cermet	Uncoated	■	■	☐				■	☐							
040376	CBN	Uncoated						■									
040378	CBN	Uncoated															■
040374	PCD	Uncoated									■	■	■				

Dimensions									
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock	
30.751 - 31.250	25	200	9	56	144	136	16	○	
31.251 - 31.750	25	200	9	56	144	136	16	○	
31.751 - 32.250	25	200	9	56	144	136	18	○	
32.251 - 32.750	25	200	9	56	144	136	18	○	
32.751 - 33.250	25	200	9	56	144	136	18	○	
33.251 - 33.750	25	200	9	56	144	136	18	○	
33.751 - 34.250	25	200	9	56	144	136	18	○	
34.251 - 34.750	25	200	9	56	144	136	18	○	
34.751 - 35.250	25	200	9	56	144	136	18	○	
35.251 - 35.750	25	200	9	56	144	136	18	○	
35.751 - 36.250	32	200	9	60	140	132	18	○	
36.251 - 36.750	32	200	9	60	140	132	18	○	
36.751 - 37.250	32	200	9	60	140	132	18	○	
37.251 - 37.750	32	200	9	60	140	132	18	○	
37.751 - 38.250	32	200	9	60	140	132	18	○	
38.251 - 38.750	32	200	9	60	140	132	18	○	
38.751 - 39.250	32	200	9	60	140	132	18	○	
39.251 - 39.750	32	200	9	60	140	132	18	○	
39.751 - 40.250	32	200	9	60	140	132	18	○	

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High Performance Reamers HNC

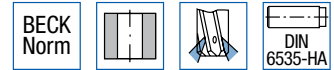
Standard Programme

Extremely unequal spacing
Cost-effective for $\text{Ø } 3 - 20 \text{ mm}$
High availability from stock
Special designs for various materials



HNC / PGBN

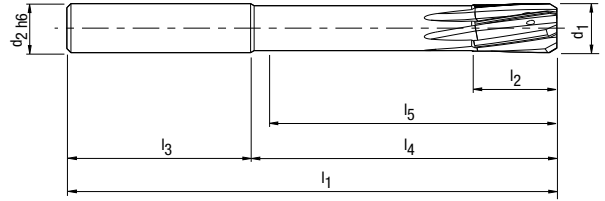
HNC I 040260 | HNC-Speed I 043260 HNC-VA I 043270 | HNC-Diamond I 043290



Preferred series for through bore, internal coolant supply

Design

Diameter: 3.00 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 4 – 8
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040260	Solid carbide	Uncoated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
043260	Solid carbide	BSP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
043270	Solid carbide	BVA				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
043290	Solid carbide	Diamond coated													<input checked="" type="checkbox"/>		

Dimensions									HNC 040260		HNC-Speed 043260		HNC-VA 043270		HNC-Diamond 043290	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
3.00	H7	4	65	12	28	37	34	4	30402429	○	30402444	○				
3.20	H7	4	65	12	28	37	34	4	30402431	○	30402446	○				
3.50	H7	4	65	12	28	37	34	4	30402433	○	30402448	○				
3.97	+0.004	6	75	12	36	39	34	4	30131192	●	30131436	●	30195076	○		
3.98	+0.004	6	75	12	36	39	34	4	30131194	●	30131438	●	30195079	○		
3.99	+0.004	6	75	12	36	39	34	4	30131196	●	30131440	●	30195080	○		
4.00	H7	6	75	12	36	39	34	4	30131198	●	30131442	●	30195082	○	30476709	○
4.01	+0.004	6	75	12	36	39	34	4	30131200	●	30131444	●	30195083	○		
4.02	+0.004	6	75	12	36	39	34	4	30131202	●	30131446	●	30195085	○		
4.03	+0.004	6	75	12	36	39	34	4	30131204	●	30131448	●	30195086	○		
4.50	H7	6	75	12	36	39	34	4	30131206	●	30131450	●	30195087	○	30476711	○
4.97	+0.004	6	75	12	36	39	35	4	30131208	●	30131452	●	30195089	○		
4.98	+0.004	6	75	12	36	39	35	4	30131210	●	30131454	●	30195090	○		
4.99	+0.004	6	75	12	36	39	35	4	30131212	●	30131456	●	30195092	○		
5.00	H7	6	75	12	36	39	35	4	30131214	●	30131458	●	30195094	○	30476714	○
5.01	+0.004	6	75	12	36	39	35	4	30131216	●	30131460	●	30195095	○		
5.02	+0.004	6	75	12	36	39	35	4	30131218	●	30131462	●	30195097	○		
5.03	+0.004	6	75	12	36	39	35	4	30131220	●	30131464	●	30195098	○		
5.50	H7	6	75	12	36	39	35	4	30131222	●	30131466	●	30195101	○	30476718	○
5.97	+0.004	6	75	12	36	39	35	4	30131224	●	30131468	●	30195102	○		
5.98	+0.004	6	75	12	36	39	35	4	30131226	●	30131470	●	30195104	○		
5.99	+0.004	6	75	12	36	39	35	4	30131228	●	30131472	●	30195106	○		
6.00	H7	6	75	12	36	39	35	4	30131230	●	30131474	●	30195108	○	30476719	○
6.01	+0.004	6	75	12	36	39	35	4	30131232	●	30131476	●	30195109	○		
6.02	+0.004	6	75	12	36	39	35	4	30131234	●	30131478	●	30195111	○		
6.03	+0.004	6	75	12	36	39	35	4	30131236	●	30131480	●	30195112	○		
6.50	H7	8	100	16	36	64	59	6	30131238	●	30131482	●	30195113	○	30412526	○
7.00	H7	8	100	16	36	64	59	6	30131240	●	30131484	●	30195115	○	30476727	○
7.50	H7	8	100	16	36	64	60	6	30131242	●	30131486	●	30195116	○	30476728	○
7.97	+0.004	8	100	16	36	64	60	6	30131244	●	30131488	●	30195117	○		
7.98	+0.004	8	100	16	36	64	60	6	30131246	●	30131490	●	30195119	○		
7.99	+0.004	8	100	16	36	64	60	6	30131248	●	30131492	●	30195121	○		
8.00	H7	8	100	16	36	64	60	6	30131250	●	30131494	●	30195122	○	30476729	○
8.01	+0.004	8	100	16	36	64	60	6	30131252	●	30131496	●	30195123	○		
8.02	+0.004	8	100	16	36	64	60	6	30131254	●	30131498	●	30195124	○		
8.03	+0.004	8	100	16	36	64	60	6	30131256	●	30131500	●	30195125	○		

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□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC I 040260 | HNC-Speed I 043260 HNC-VA I 043270 | HNC-Diamond I 043290

Preferred series for through bore, internal coolant supply



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040260	Solid carbide	Uncoated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
043260	Solid carbide	BSP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
043270	Solid carbide	BVA				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
043290	Solid carbide	Diamond coated													<input checked="" type="checkbox"/>		

Dimensions									HNC 040260		HNC-Speed 043260		HNC-VA 043270		HNC-Diamond 043290	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
8.50	H7	10	100	20	40	60	55	6	30131258	●	30131502	●	30195127	○	30476730	○
9.00	H7	10	100	20	40	60	55	6	30131260	●	30131504	●	30195132	○	30412525	○
9.50	H7	10	120	20	40	80	76	6	30131262	●	30131506	●	30195133	○	30476732	○
9.97	+0.004	10	120	20	40	80	76	6	30131264	●	30131508	●	30195134	○		
9.98	+0.004	10	120	20	40	80	76	6	30131266	●	30131510	●	30195135	○		
9.99	+0.004	10	120	20	40	80	76	6	30131268	●	30131512	●	30195136	○		
10.00	H7	10	120	20	40	80	76	6	30131270	●	30131514	●	30195138	○	30412529	○
10.01	+0.004	10	120	20	40	80	76	6	30131272	●	30131516	●	30195140	○		
10.02	+0.004	10	120	20	40	80	76	6	30131274	●	30131518	●	30195142	○		
10.03	+0.004	10	120	20	40	80	76	6	30131276	●	30131520	●	30195143	○		
10.50	H7	12	120	20	45	75	70	6	30131278	●	30131522	●	30195144	○	30476693	○
11.00	H7	12	120	20	45	75	70	6	30131280	●	30131524	●	30195146	○	30476694	○
11.50	H7	12	120	20	45	75	71	6	30131282	●	30131526	●	30195147	○	30476695	○
11.97	+0.004	12	120	20	45	75	71	6	30131284	●	30131528	●	30195148	○		
11.98	+0.004	12	120	20	45	75	71	6	30131286	●	30131530	●	30195150	○		
11.99	+0.004	12	120	20	45	75	71	6	30131288	●	30131532	●	30195153	○		
12.00	H7	12	120	20	45	75	71	6	30131290	●	30131534	●	30195155	○	30412530	○
12.01	+0.004	12	120	20	45	75	71	6	30131292	●	30131536	●	30195159	○		
12.02	+0.004	12	120	20	45	75	71	6	30131294	●	30131538	●	30195165	○		
12.03	+0.004	12	120	20	45	75	71	6	30131296	●	30131540	●	30195168	○		
13.00	H7	14	130	22	45	85	80	6	30131298	●	30131542	●	30195169	○	30476696	○
14.00	H7	14	130	22	45	85	80	6	30131300	●	30131544	●	30195170	○	30466585	○
15.00	H7	16	130	22	48	82	77	6	30131302	●	30131546	●	30195172	○	30476699	○
16.00	H7	16	150	25	48	102	97	6	30131304	●	30131548	●	30195175	○	30476702	○
17.00	H7	18	150	25	48	102	97	8	30131306	●	30131550	●	30195178	○	30476704	○
18.00	H7	18	150	25	48	102	97	8	30131308	●	30131552	●	30195182	○	30476706	○
19.00	H7	20	150	25	50	100	95	8	30131310	●	30131554	●	30195185	○	30476707	○
20.00	H7	20	150	25	50	100	95	8	30131312	●	30131556	●	30195188	○	30412531	○

HNC / PcBN

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

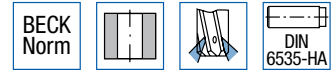
○ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC-TI | 043272

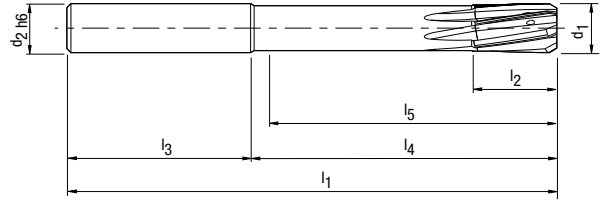
Preferred series for through bore, internal coolant supply

NEW



Design

Diameter: 3.97 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 4 – 8
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
043272	Solid carbide	BTI														■	

Dimensions									HNC-TI – 043272	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
3.97	+0.004	6	75	12	36	39	34	4	30585253	○
3.98	+0.004	6	75	12	36	39	34	4	30585254	○
3.99	+0.004	6	75	12	36	39	34	4	30585255	○
4.00	H7	6	75	12	36	39	34	4	30585228	○
4.01	+0.004	6	75	12	36	39	34	4	30585256	○
4.02	+0.004	6	75	12	36	39	34	4	30585257	○
4.03	+0.004	6	75	12	36	39	34	4	30585258	○
4.50	H7	6	75	12	36	39	34	4	30585229	○
4.97	+0.004	6	75	12	36	39	35	4	30585259	○
4.98	+0.004	6	75	12	36	39	35	4	30585260	○
4.99	+0.004	6	75	12	36	39	35	4	30585261	○
5.00	H7	6	75	12	36	39	35	4	30585230	○
5.01	+0.004	6	75	12	36	39	35	4	30585262	○
5.02	+0.004	6	75	12	36	39	35	4	30585263	○
5.03	+0.004	6	75	12	36	39	35	4	30585264	○
5.50	H7	6	75	12	36	39	35	4	30585231	○
5.97	+0.004	6	75	12	36	39	35	4	30585265	○
5.98	+0.004	6	75	12	36	39	35	4	30585266	○
5.99	+0.004	6	75	12	36	39	35	4	30585267	○
6.00	H7	6	75	12	36	39	35	4	30585232	○
6.01	+0.004	6	75	12	36	39	35	4	30585268	○
6.02	+0.004	6	75	12	36	39	35	4	30585269	○
6.03	+0.004	6	75	12	36	39	35	4	30585270	○
6.50	H7	8	100	16	36	64	59	6	30585233	○
7.00	H7	8	100	16	36	64	59	6	30585234	○
7.50	H7	8	100	16	36	64	60	6	30585235	○
7.97	+0.004	8	100	16	36	64	60	6	30585271	○
7.98	+0.004	8	100	16	36	64	60	6	30585272	○
7.99	+0.004	8	100	16	36	64	60	6	30585273	○
8.00	H7	8	100	16	36	64	60	6	30585236	○
8.01	+0.004	8	100	16	36	64	60	6	30585274	○
8.02	+0.004	8	100	16	36	64	60	6	30585275	○
8.03	+0.004	8	100	16	36	64	60	6	30585276	○
8.50	H7	10	100	20	40	60	55	6	30585237	○
9.00	H7	10	100	20	40	60	55	6	30585238	○
9.50	H7	10	120	20	40	80	76	6	30585239	○
9.97	+0.004	10	120	20	40	80	76	6	30585277	○
9.98	+0.004	10	120	20	40	80	76	6	30585278	○

All dimensions in mm.
 For machining values see end of catalogue.
 Information on special designs and other coatings on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

HNC-TI | 043272

Preferred series for through bore, internal coolant supply

NEW

 BECK
 Norm

 DIN
 6535-HA

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
043272	Solid carbide	BTI														■	

Dimensions									HNC-TI – 043272	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
9.99	+0.004	10	120	20	40	80	76	6	30585279	○
10.00	H7	10	120	20	40	80	76	6	30585240	○
10.01	+0.004	10	120	20	40	80	76	6	30585280	○
10.02	+0.004	10	120	20	40	80	76	6	30585281	○
10.03	+0.004	10	120	20	40	80	76	6	30585282	○
10.50	H7	12	120	20	45	75	70	6	30585241	○
11.00	H7	12	120	20	45	75	70	6	30585242	○
11.50	H7	12	120	20	45	75	71	6	30585243	○
11.97	+0.004	12	120	20	45	75	71	6	30585283	○
11.98	+0.004	12	120	20	45	75	71	6	30585284	○
11.99	+0.004	12	120	20	45	75	71	6	30585285	○
12.00	H7	12	120	20	45	75	71	6	30585244	○
12.01	+0.004	12	120	20	45	75	71	6	30585286	○
12.02	+0.004	12	120	20	45	75	71	6	30585287	○
12.03	+0.004	12	120	20	45	75	71	6	30585288	○
13.00	H7	14	130	22	45	85	80	6	30585245	○
14.00	H7	14	130	22	45	85	80	6	30585246	○
15.00	H7	16	130	22	48	82	77	6	30585247	○
16.00	H7	16	150	25	48	102	97	6	30585248	○
17.00	H7	18	150	25	48	102	97	8	30585249	○
18.00	H7	18	150	25	48	102	97	8	30585250	○
19.00	H7	20	150	25	50	100	95	8	30585251	○
20.00	H7	20	150	25	50	100	95	8	30585252	○

HNC / PcBN

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

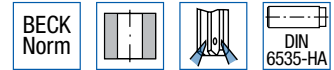
□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC-AL | 043250

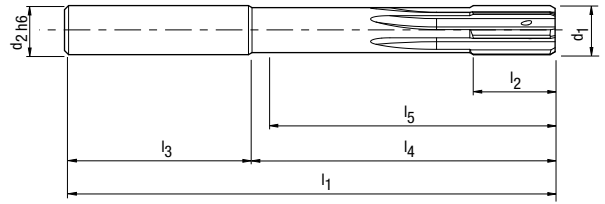
HNC-HT | 043280

Preferred series for through bore, internal coolant supply



Design

Diameter: 3.97 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 4 – 6
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
043250	Solid carbide	BAL										■	■				
043280	Solid carbide	BHV															■

Dimensions										HNC-AL – 043250		HNC-HT – 043280	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z		Order No.	Stock	Order No.	Stock
3.97	+0.004	6	75	12	36	39	34	4				30300822	○
3.98	+0.004	6	75	12	36	39	34	4				30300837	○
3.99	+0.004	6	75	12	36	39	34	4				30300838	○
4.00	H7	6	75	12	36	39	34	4		30384144	○	30300839	○
4.01	+0.004	6	75	12	36	39	34	4				30300844	○
4.02	+0.004	6	75	12	36	39	34	4				30300853	○
4.03	+0.004	6	75	12	36	39	34	4				30300861	○
4.50	H7	6	75	12	36	39	34	4		30384145	○	30300865	○
4.97	+0.004	6	75	12	36	39	35	4				30300866	○
4.98	+0.004	6	75	12	36	39	35	4				30300867	○
4.99	+0.004	6	75	12	36	39	35	4				30300868	○
5.00	H7	6	75	12	36	39	35	4		30385390	○	30300869	○
5.01	+0.004	6	75	12	36	39	35	4				30300871	○
5.02	+0.004	6	75	12	36	39	35	4				30300873	○
5.03	+0.004	6	75	12	36	39	35	4				30300875	○
5.50	H7	6	75	12	36	39	35	4		30385391	○	30300876	○
5.97	+0.004	6	75	12	36	39	35	4				30300877	○
5.98	+0.004	6	75	12	36	39	35	4				30300878	○
5.99	+0.004	6	75	12	36	39	35	4				30300879	○
6.00	H7	6	75	12	36	39	35	4		30385392	○	30300882	○
6.01	+0.004	6	75	12	36	39	35	4				30300884	○
6.02	+0.004	6	75	12	36	39	35	4				30300885	○
6.03	+0.004	6	75	12	36	39	35	4				30300911	○
6.50	H7	8	100	16	36	64	59	6		30385393	○	30300912	○
7.00	H7	8	100	16	36	64	59	6		30385394	○	30300913	○
7.50	H7	8	100	16	36	64	60	6		30385396	○	30300914	○
7.97	+0.004	8	100	16	36	64	60	6				30300955	○
7.98	+0.004	8	100	16	36	64	60	6				30300957	○
7.99	+0.004	8	100	16	36	64	60	6				30300959	○
8.00	H7	8	100	16	36	64	60	6		30385397	○	30228276	○
8.01	+0.004	8	100	16	36	64	60	6				30300960	○
8.02	+0.004	8	100	16	36	64	60	6				30300961	○
8.03	+0.004	8	100	16	36	64	60	6				30300962	○
8.50	H7	10	100	20	40	60	55	6		30385398	○	30300963	○
9.00	H7	10	100	20	40	60	55	6		30385401	○	30300964	○
9.50	H7	10	120	20	40	80	76	6		30385403	○	30300965	○
9.97	+0.004	10	120	20	40	80	76	6				30300966	○
9.98	+0.004	10	120	20	40	80	76	6				30300967	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC-AL | 043250

HNC-HT | 043280

Preferred series for through bore, internal coolant supply



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
043250	Solid carbide	BAL										■	■				
043280	Solid carbide	BHV															■

Dimensions									HNC-AL – 043250		HNC-HT – 043280	
d ₁	Tol.	d ₂ h ₆	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock
9.99	+0.004	10	120	20	40	80	76	6			30300968	○
10.00	H7	10	120	20	40	80	76	6	30385405	○	30300972	○
10.01	+0.004	10	120	20	40	80	76	6			30300974	○
10.02	+0.004	10	120	20	40	80	76	6			30300976	○
10.03	+0.004	10	120	20	40	80	76	6			30300977	○
10.50	H7	12	120	20	45	75	70	6	30385407	○	30300979	○
11.00	H7	12	120	20	45	75	70	6	30385408	○	30300980	○
11.50	H7	12	120	20	45	75	71	6	30385409	○	30300982	○
11.97	+0.004	12	120	20	45	75	71	6			30300983	○
11.98	+0.004	12	120	20	45	75	71	6			30300985	○
11.99	+0.004	12	120	20	45	75	71	6			30300986	○
12.00	H7	12	120	20	45	75	71	6	30385410	○	30228277	○
12.01	+0.004	12	120	20	45	75	71	6			30300994	○
12.02	+0.004	12	120	20	45	75	71	6			30300995	○
12.03	+0.004	12	120	20	45	75	71	6			30300996	○
13.00	H7	14	130	22	45	85	80	6	30385411	○	30300998	○
14.00	H7	14	130	22	45	85	80	6	30385413	○	30300999	○
15.00	H7	16	130	22	48	82	77	6	30385415	○	30301001	○
16.00	H7	16	150	25	48	102	97	6	30385416	○	30228279	○
17.00	H7	18	150	25	48	102	97	6	30385418	○	30301002	○
18.00	H7	18	150	25	48	102	97	6	30385421	○	30301003	○
19.00	H7	20	150	25	50	100	95	6	30385423	○	30301004	○
20.00	H7	20	150	25	50	100	95	6	30385425	○	30301005	○

HNC / PGBN

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC I 040260 | HNC-Speed I 043260 HNC-VA I 043270 | HNC-Diamond I 043290 HNC-TI I 043272



Configurable series for through bore, spiral fluted, internal coolant supply

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040260	Solid carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
043260	Solid carbide	BSP	■	■	■			■	■	■							
043270	Solid carbide	BVA				■	■										
043290	Solid carbide	Diamond coated													■		
043272	Solid carbide	BTI														■	

Dimensions								
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
2.800 - 3.030	4	65	12	28	37	34	4	○
3.031 - 3.350	4	65	12	28	37	34	4	○
3.351 - 3.700	4	65	12	28	37	34	4	○
3.701 - 4.200	6	75	12	36	39	34	4	○
4.201 - 4.700	6	75	12	36	39	34	4	○
4.701 - 5.200	6	75	12	36	39	35	4	○
5.201 - 5.700	6	75	12	36	39	35	4	○
5.701 - 6.200	6	75	12	36	39	35	4	○
6.201 - 6.700	8	100	16	36	64	59	6	○
6.701 - 7.200	8	100	16	36	64	59	6	○
7.201 - 7.700	8	100	16	36	64	60	6	○
7.701 - 8.200	8	100	16	36	64	60	6	○
8.201 - 8.700	10	100	20	40	60	55	6	○
8.701 - 9.200	10	100	20	40	60	55	6	○
9.201 - 9.700	10	120	20	40	80	76	6	○
9.701 - 10.200	10	120	20	40	80	76	6	○
10.201 - 10.700	12	120	20	45	75	70	6	○
10.701 - 11.200	12	120	20	45	75	70	6	○
11.201 - 11.700	12	120	20	45	75	71	6	○
11.701 - 12.200	12	120	20	45	75	71	6	○
12.201 - 13.200	14	130	22	45	85	80	6	○
13.201 - 14.200	14	130	22	45	85	80	6	○
14.201 - 15.200	16	130	22	48	82	77	6	○
15.201 - 16.200	16	150	25	48	102	97	6	○
16.201 - 17.200	18	150	25	48	102	97	8	○
17.201 - 18.200	18	150	25	48	102	97	8	○
18.201 - 19.200	20	150	25	50	100	95	8	○
19.201 - 20.200	20	150	25	50	100	95	8	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

☐ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC-AL | 043250

HNC-HT | 043280

Configurable series for through bore, straight fluted, internal coolant supply



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040250	Solid carbide	BAL										■	■				
043280	Solid carbide	BHV															■

Dimensions								
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
3.701 - 4.200	6	75	12	36	39	34	4	○
4.201 - 4.700	6	75	12	36	39	34	4	○
4.701 - 5.200	6	75	12	36	39	35	4	○
5.201 - 5.700	6	75	12	36	39	35	4	○
5.701 - 6.200	6	75	12	36	39	35	4	○
6.201 - 6.700	8	100	16	36	64	59	6	○
6.701 - 7.200	8	100	16	36	64	59	6	○
7.201 - 7.700	8	100	16	36	64	60	6	○
7.701 - 8.200	8	100	16	36	64	60	6	○
8.201 - 8.700	10	100	20	40	60	55	6	○
8.701 - 9.200	10	100	20	40	60	55	6	○
9.201 - 9.700	10	120	20	40	80	76	6	○
9.701 - 10.200	10	120	20	40	80	76	6	○
10.201 - 10.700	12	120	20	45	75	70	6	○
10.701 - 11.200	12	120	20	45	75	70	6	○
11.201 - 11.700	12	120	20	45	75	71	6	○
11.701 - 12.200	12	120	20	45	75	71	6	○
12.201 - 13.200	14	130	22	45	85	80	6	○
13.201 - 14.200	14	130	22	45	85	80	6	○
14.201 - 15.200	16	130	22	48	82	77	6	○
15.201 - 16.200	16	150	25	48	102	97	6	○
16.201 - 17.200	18	150	25	48	102	97	6	○
17.201 - 18.200	18	150	25	48	102	97	6	○
18.201 - 19.200	20	150	25	50	100	95	6	○
19.201 - 20.200	20	150	25	50	100	95	6	○

HNC / PGBN

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

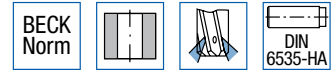
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

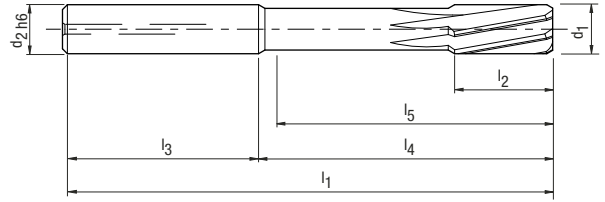
HCS I 040360

Preferred series for through bore, internal coolant supply
 Variants for blind bore on request



Design

Diameter: 3.97 – 12.03 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 4 – 6
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040360	Cermet	Uncoated	■	■	□				■	□							

Dimensions									HCS – 040360	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
3.97	+0.004	6	70	10	36	34	29	4	30194481	●
3.98	+0.004	6	70	10	36	34	29	4	30194756	●
3.99	+0.004	6	70	10	36	34	29	4	30194757	●
4.00	H7	6	70	10	36	34	29	4	30194758	●
4.01	+0.004	6	70	10	36	34	29	4	30194759	●
4.02	+0.004	6	70	10	36	34	29	4	30194761	●
4.03	+0.004	6	70	10	36	34	29	4	30194762	●
4.50	H7	6	70	10	36	34	29	4	30194763	●
4.97	+0.004	6	70	10	36	34	29	4	30194779	●
4.98	+0.004	6	70	10	36	34	29	4	30194801	●
4.99	+0.004	6	70	10	36	34	29	4	30194802	●
5.00	H7	6	70	10	36	34	29	4	30194803	●
5.01	+0.004	6	70	10	36	34	29	4	30194804	●
5.02	+0.004	6	70	10	36	34	29	4	30194805	●
5.03	+0.004	6	70	10	36	34	29	4	30194808	●
5.50	H7	6	70	10	36	34	29	4	30194809	●
5.97	+0.004	6	70	10	36	34	29	6	30194810	●
5.98	+0.004	6	70	10	36	34	29	6	30194813	●
5.99	+0.004	6	70	10	36	34	29	6	30194815	●
6.00	H7	6	70	10	36	34	29	6	30194816	●
6.01	+0.004	6	70	10	36	34	29	6	30194817	●
6.02	+0.004	6	70	10	36	34	29	6	30194818	●
6.03	+0.004	6	70	10	36	34	29	6	30194819	●
6.50	H7	8	75	15	36	39	34	6	30194820	●
7.00	H7	8	75	15	36	39	34	6	30194822	●
7.50	H7	8	75	15	36	39	34	6	30194823	●
7.97	+0.004	8	75	15	36	39	34	6	30194825	●
7.98	+0.004	8	75	15	36	39	34	6	30194827	●
7.99	+0.004	8	75	15	36	39	34	6	30194828	●
8.00	H7	8	75	15	36	39	34	6	30194829	●
8.01	+0.004	8	75	15	36	39	34	6	30194830	●
8.02	+0.004	8	75	15	36	39	34	6	30194832	●
8.03	+0.004	8	75	15	36	39	34	6	30194833	●
8.50	H7	10	75	15	40	35	30	6	30194834	●
9.00	H7	10	75	15	40	35	30	6	30194835	●
9.50	H7	10	75	15	40	35	30	6	30194837	●
9.97	+0.004	10	100	20	40	60	55	6	30194838	●
9.98	+0.004	10	100	20	40	60	55	6	30194840	●

All dimensions in mm.
 For machining values see end of catalogue.
 Information on special designs and other coatings on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

HCS I 040360

Preferred series for through bore, internal coolant supply

Variants for blind bore on request



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040360	Cermet	Uncoated	■	■	□				■	□							

Dimensions									HCS – 040360	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
9.99	+0.004	10	100	20	40	60	55	6	30194842	●
10.00	H7	10	100	20	40	60	55	6	30194843	●
10.01	+0.004	10	100	20	40	60	55	6	30194844	●
10.02	+0.004	10	100	20	40	60	55	6	30194845	●
10.03	+0.004	10	100	20	40	60	55	6	30194846	●
10.50	H7	12	100	20	45	55	50	6	30194847	●
11.00	H7	12	100	20	45	55	50	6	30194848	●
11.50	H7	12	100	20	45	55	50	6	30194849	●
11.97	+0.004	12	100	20	45	55	50	6	30194851	●
11.98	+0.004	12	100	20	45	55	50	6	30194852	●
11.99	+0.004	12	100	20	45	55	50	6	30194853	●
12.00	H7	12	100	20	45	55	50	6	30194854	●
12.01	+0.004	12	100	20	45	55	50	6	30194855	●
12.02	+0.004	12	100	20	45	55	50	6	30194856	●
12.03	+0.004	12	100	20	45	55	50	6	30194857	●

HCS I 040360

Configurable series for through bore, spiral fluted, internal coolant supply, variants for blind bore on request

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040360	Cermet	Uncoated	■	■	□				■	□							

Dimensions									Stock
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z		Stock
3.701 - 4.200	6	70	10	36	34	29	4		○
4.201 - 4.700	6	70	10	36	34	29	4		○
4.701 - 5.200	6	70	10	36	34	29	4		○
5.201 - 5.700	6	70	10	36	34	29	4		○
5.701 - 6.200	6	70	10	36	34	29	6		○
6.201 - 6.700	8	75	15	36	39	34	6		○
6.701 - 7.200	8	75	15	36	39	34	6		○
7.201 - 7.700	8	75	15	36	39	34	6		○
7.701 - 8.200	8	75	15	36	39	34	6		○
8.201 - 8.700	10	75	15	40	35	30	6		○
8.701 - 9.200	10	75	15	40	35	30	6		○
9.201 - 9.700	10	75	15	40	35	30	6		○
9.701 - 10.200	10	100	20	40	60	55	6		○
10.201 - 10.700	12	100	20	45	55	50	6		○
10.701 - 11.200	12	100	20	45	55	50	6		○
11.201 - 11.700	12	100	20	45	55	50	6		○
11.701 - 12.100	12	100	20	45	55	50	6		○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

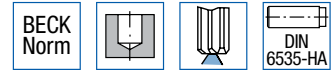
○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

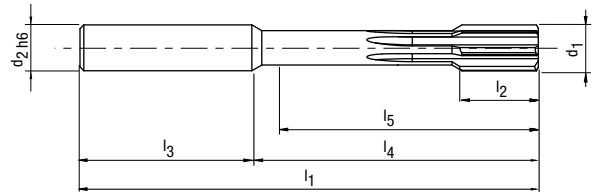
HNC I 040261 | HNC-Speed I 043261 HNC-VA I 043271 | HNC-Diamond I 043291



Preferred series for blind bore, internal coolant supply

Design

Diameter: 3.00 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 4 – 6
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040261	Solid carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
043261	Solid carbide	BSP	■	■	■			■	■	■							
043271	Solid carbide	BVA				■	■										
043291	Solid carbide	Diamond coated													■		

Dimensions									HNC 040261		HNC-Speed 043261		HNC-VA 043271		HNC-Diamond 043291	
d ₁	Tol.	d ₂ h ₆	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
3.00	H7	4	65	12	28	37	33	4	30402436	○	30402456	○				
3.20	H7	4	65	12	28	37	33	4	30402437	○	30402457	○				
3.50	H7	4	65	12	28	37	33	4	30402440	○	30402458	○				
3.97	+0.004	6	75	12	36	39	34	4	30131314	●	30131558	●	30131802	○		
3.98	+0.004	6	75	12	36	39	34	4	30131316	●	30131560	●	30131804	○		
3.99	+0.004	6	75	12	36	39	34	4	30131318	●	30131562	●	30131806	○		
4.00	H7	6	75	12	36	39	34	4	30131320	●	30131564	●	30131808	○	30601845	○
4.01	+0.004	6	75	12	36	39	34	4	30131322	●	30131566	●	30131810	○		
4.02	+0.004	6	75	12	36	39	34	4	30131324	●	30131568	●	30131812	○		
4.03	+0.004	6	75	12	36	39	34	4	30131326	●	30131570	●	30131814	○		
4.50	H7	6	75	12	36	39	34	4	30131328	●	30131572	●	30131816	○	30495398	○
4.97	+0.004	6	75	12	36	39	34	4	30131330	●	30131574	●	30131818	○		
4.98	+0.004	6	75	12	36	39	34	4	30131332	●	30131576	●	30131820	○		
4.99	+0.004	6	75	12	36	39	34	4	30131334	●	30131578	●	30131822	○		
5.00	H7	6	75	12	36	39	34	4	30131336	●	30131580	●	30131824	○	30601846	○
5.01	+0.004	6	75	12	36	39	34	4	30131338	●	30131582	●	30131826	○		
5.02	+0.004	6	75	12	36	39	34	4	30131340	●	30131584	●	30131828	○		
5.03	+0.004	6	75	12	36	39	34	4	30131342	●	30131586	●	30131830	○		
5.50	H7	6	75	12	36	39	34	4	30131344	●	30131588	●	30131832	○	30601847	○
5.97	+0.004	6	75	12	36	39	34	4	30131346	●	30131590	●	30131834	○		
5.98	+0.004	6	75	12	36	39	34	4	30131348	●	30131592	●	30131836	○		
5.99	+0.004	6	75	12	36	39	34	4	30131350	●	30131594	●	30131838	○		
6.00	H7	6	75	12	36	39	34	4	30131352	●	30131596	●	30131840	○	30498850	○
6.01	+0.004	6	75	12	36	39	34	4	30131354	●	30131598	●	30131842	○		
6.02	+0.004	6	75	12	36	39	34	4	30131356	●	30131600	●	30131844	○		
6.03	+0.004	6	75	12	36	39	34	4	30131358	●	30131602	●	30131846	○		
6.50	H7	8	100	16	36	64	58	6	30131360	●	30131604	●	30131848	○	30601848	○
7.00	H7	8	100	16	36	64	58	6	30131362	●	30131606	●	30131850	○	30601849	○
7.50	H7	8	100	16	36	64	58	6	30131364	●	30131608	●	30131852	○	30601850	○
7.97	+0.004	8	100	16	36	64	58	6	30131366	●	30131610	●	30131854	○		
7.98	+0.004	8	100	16	36	64	58	6	30131368	●	30131612	●	30131856	○		
7.99	+0.004	8	100	16	36	64	58	6	30131370	●	30131614	●	30131858	○		
8.00	H7	8	100	16	36	64	58	6	30131372	●	30131616	●	30131860	○	30546131	○
8.01	+0.004	8	100	16	36	64	58	6	30131374	●	30131618	●	30131862	○		
8.02	+0.004	8	100	16	36	64	58	6	30131376	●	30131620	●	30131864	○		
8.03	+0.004	8	100	16	36	64	58	6	30131378	●	30131622	●	30131866	○		

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

☐ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC I 040261 | HNC-Speed I 043261 HNC-VA I 043271 | HNC-Diamond I 043291



Preferred series for blind bore, internal coolant supply

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040261	Solid carbide	Uncoated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
043261	Solid carbide	BSP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
043271	Solid carbide	BVA				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
043291	Solid carbide	Diamond coated													<input checked="" type="checkbox"/>		

Dimensions									HNC 040261		HNC-Speed 043261		HNC-VA 043271		HNC-Diamond 043291	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
8.50	H7	10	100	20	40	60	54	6	30131380	●	30131624	●	30131868	○	30601851	○
9.00	H7	10	100	20	40	60	54	6	30131382	●	30131626	●	30131870	○	30601852	○
9.50	H7	10	120	20	40	80	74	6	30131384	●	30131628	●	30131872	○	30601853	○
9.97	+0.004	10	120	20	40	80	74	6	30131386	●	30131630	●	30131874	○		
9.98	+0.004	10	120	20	40	80	74	6	30131388	●	30131632	●	30131876	○		
9.99	+0.004	10	120	20	40	80	74	6	30131390	●	30131634	●	30131878	○		
10.00	H7	10	120	20	40	80	74	6	30131392	●	30131636	●	30131880	○	30419221	○
10.01	+0.004	10	120	20	40	80	74	6	30131394	●	30131638	●	30131882	○		
10.02	+0.004	10	120	20	40	80	74	6	30131396	●	30131640	●	30131884	○		
10.03	+0.004	10	120	20	40	80	74	6	30131398	●	30131642	●	30131886	○		
10.50	H7	12	120	20	45	75	68	6	30131400	●	30131644	●	30131888	○	30601854	○
11.00	H7	12	120	20	45	75	68	6	30131402	●	30131646	●	30131890	○	30601855	○
11.50	H7	12	120	20	45	75	68	6	30131404	●	30131648	●	30131892	○	30601856	○
11.97	+0.004	12	120	20	45	75	68	6	30131406	●	30131650	●	30131894	○		
11.98	+0.004	12	120	20	45	75	68	6	30131408	●	30131652	●	30131896	○		
11.99	+0.004	12	120	20	45	75	68	6	30131410	●	30131654	●	30131898	○		
12.00	H7	12	120	20	45	75	68	6	30131412	●	30131656	●	30131900	○	30466230	○
12.01	+0.004	12	120	20	45	75	68	6	30131414	●	30131658	●	30131902	○		
12.02	+0.004	12	120	20	45	75	68	6	30131416	●	30131660	●	30131904	○		
12.03	+0.004	12	120	20	45	75	68	6	30131418	●	30131662	●	30131906	○		
13.00	H7	14	130	22	45	85	78	6	30131420	●	30131664	●	30131908	○	30601857	○
14.00	H7	14	130	22	45	85	78	6	30131422	●	30131666	●	30131910	○	30601858	○
15.00	H7	16	130	22	48	82	75	6	30131424	●	30131668	●	30131912	○	30601859	○
16.00	H7	16	150	25	48	102	95	6	30131426	●	30131670	●	30131914	○	30601860	○
17.00	H7	18	150	25	48	102	95	6	30131428	●	30131672	●	30131916	○	30601861	○
18.00	H7	18	150	25	48	102	95	6	30131430	●	30131674	●	30131918	○	30601862	○
19.00	H7	20	150	25	50	100	92	6	30131432	●	30131676	●	30131920	○	30601863	○
20.00	H7	20	150	25	50	100	92	6	30131434	●	30131678	●	30131922	○	30497749	○

HNC / PcBN

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC-TI | 043273

Preferred series for blind bore, internal coolant supply

NEW

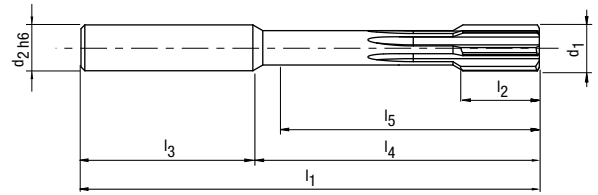
BECK
Norm



DIN
6535-HA

Design

Diameter: 3.97 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 4 – 6
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
043273	Solid carbide	BTI														■	

Dimensions									HNC-TI – 043273	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
3.97	+0.004	6	75	12	36	39	34	4	30585314	○
3.98	+0.004	6	75	12	36	39	34	4	30585315	○
3.99	+0.004	6	75	12	36	39	34	4	30585316	○
4.00	H7	6	75	12	36	39	34	4	30585289	○
4.01	+0.004	6	75	12	36	39	34	4	30585317	○
4.02	+0.004	6	75	12	36	39	34	4	30585318	○
4.03	+0.004	6	75	12	36	39	34	4	30585319	○
4.50	H7	6	75	12	36	39	34	4	30585290	○
4.97	+0.004	6	75	12	36	39	34	4	30585320	○
4.98	+0.004	6	75	12	36	39	34	4	30585321	○
4.99	+0.004	6	75	12	36	39	34	4	30585322	○
5.00	H7	6	75	12	36	39	34	4	30585291	○
5.01	+0.004	6	75	12	36	39	34	4	30585323	○
5.02	+0.004	6	75	12	36	39	34	4	30585324	○
5.03	+0.004	6	75	12	36	39	34	4	30585325	○
5.50	H7	6	75	12	36	39	34	4	30585292	○
5.97	+0.004	6	75	12	36	39	34	4	30585326	○
5.98	+0.004	6	75	12	36	39	34	4	30585327	○
5.99	+0.004	6	75	12	36	39	34	4	30585328	○
6.00	H7	6	75	12	36	39	34	4	30585293	○
6.01	+0.004	6	75	12	36	39	34	4	30585329	○
6.02	+0.004	6	75	12	36	39	34	4	30585330	○
6.03	+0.004	6	75	12	36	39	34	4	30585331	○
6.50	H7	8	100	16	36	64	58	6	30585294	○
7.00	H7	8	100	16	36	64	58	6	30585295	○
7.50	H7	8	100	16	36	64	58	6	30585296	○
7.97	+0.004	8	100	16	36	64	58	6	30585332	○
7.98	+0.004	8	100	16	36	64	58	6	30585333	○
7.99	+0.004	8	100	16	36	64	58	6	30585334	○
8.00	H7	8	100	16	36	64	58	6	30585297	○
8.01	+0.004	8	100	16	36	64	58	6	30585335	○
8.02	+0.004	8	100	16	36	64	58	6	30585336	○
8.03	+0.004	8	100	16	36	64	58	6	30585337	○
8.50	H7	10	100	20	40	60	54	6	30585298	○
9.00	H7	10	100	20	40	60	54	6	30585299	○
9.50	H7	10	120	20	40	80	74	6	30585300	○
9.97	+0.004	10	120	20	40	80	74	6	30585338	○
9.98	+0.004	10	120	20	40	80	74	6	30585339	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC-TI | 043273

Preferred series for blind bore, internal coolant supply

NEW

 BECK
 Norm

 DIN
 6535-HA

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
043273	Solid carbide	BTI														■	

Dimensions									HNC-TI – 043273	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
9.99	+0.004	10	120	20	40	80	74	6	30585340	○
10.00	H7	10	120	20	40	80	74	6	30585301	○
10.01	+0.004	10	120	20	40	80	74	6	30585341	○
10.02	+0.004	10	120	20	40	80	74	6	30585342	○
10.03	+0.004	10	120	20	40	80	74	6	30585343	○
10.50	H7	12	120	20	45	75	68	6	30585302	○
11.00	H7	12	120	20	45	75	68	6	30585303	○
11.50	H7	12	120	20	45	75	68	6	30585304	○
11.97	+0.004	12	120	20	45	75	68	6	30585344	○
11.98	+0.004	12	120	20	45	75	68	6	30585345	○
11.99	+0.004	12	120	20	45	75	68	6	30585346	○
12.00	H7	12	120	20	45	75	68	6	30585305	○
12.01	+0.004	12	120	20	45	75	68	6	30585347	○
12.02	+0.004	12	120	20	45	75	68	6	30585348	○
12.03	+0.004	12	120	20	45	75	68	6	30585349	○
13.00	H7	14	130	22	45	85	78	6	30585306	○
14.00	H7	14	130	22	45	85	78	6	30585307	○
15.00	H7	16	130	22	48	82	75	6	30585308	○
16.00	H7	16	150	25	48	102	95	6	30585309	○
17.00	H7	18	150	25	48	102	95	6	30585310	○
18.00	H7	18	150	25	48	102	95	6	30585311	○
19.00	H7	20	150	25	50	100	92	6	30585312	○
20.00	H7	20	150	25	50	100	92	6	30585313	○

HNC / PGBN

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

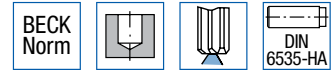
□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC-AL | 043251

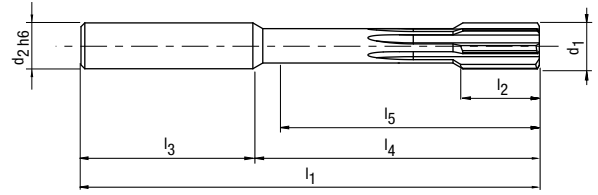
HNC-HT | 043281

Preferred series for blind bore, internal coolant supply



Design

Diameter: 3.97 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 4 – 6
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
043251	Solid carbide	BAL										■	■				
043281	Solid carbide	BHV															■

Dimensions										HNC-AL – 043251		HNC-HT – 043281	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	
3.97	+0.004	6	75	12	36	39	34	4			30301217	○	
3.98	+0.004	6	75	12	36	39	34	4			30301219	○	
3.99	+0.004	6	75	12	36	39	34	4			30301220	○	
4.00	H7	6	75	12	36	39	34	4	30385429	○	30301222	○	
4.01	+0.004	6	75	12	36	39	34	4			30301223	○	
4.02	+0.004	6	75	12	36	39	34	4			30301224	○	
4.03	+0.004	6	75	12	36	39	34	4			30301225	○	
4.50	H7	6	75	12	36	39	34	4	30385431	○	30301226	○	
4.97	+0.004	6	75	12	36	39	34	4			30301227	○	
4.98	+0.004	6	75	12	36	39	34	4			30301228	○	
4.99	+0.004	6	75	12	36	39	34	4			30301229	○	
5.00	H7	6	75	12	36	39	34	4	30385433	○	30301234	○	
5.01	+0.004	6	75	12	36	39	34	4			30301236	○	
5.02	+0.004	6	75	12	36	39	34	4			30301237	○	
5.03	+0.004	6	75	12	36	39	34	4			30301365	○	
5.50	H7	6	75	12	36	39	34	4	30385434	○	30301366	○	
5.97	+0.004	6	75	12	36	39	34	4			30301369	○	
5.98	+0.004	6	75	12	36	39	34	4			30301372	○	
5.99	+0.004	6	75	12	36	39	34	4			30301373	○	
6.00	H7	6	75	12	36	39	34	4	30385436	○	30301374	○	
6.01	+0.004	6	75	12	36	39	34	4			30301375	○	
6.02	+0.004	6	75	12	36	39	34	4			30301376	○	
6.03	+0.004	6	75	12	36	39	34	4			30301377	○	
6.50	H7	8	100	16	36	64	58	6	30385439	○	30301378	○	
7.00	H7	8	100	16	36	64	58	6	30385440	○	30301379	○	
7.50	H7	8	100	16	36	64	58	6	30385441	○	30301380	○	
7.97	+0.004	8	100	16	36	64	58	6			30301381	○	
7.98	+0.004	8	100	16	36	64	58	6			30301382	○	
7.99	+0.004	8	100	16	36	64	58	6			30301383	○	
8.00	H7	8	100	16	36	64	58	6	30385442	○	30228281	○	
8.01	+0.004	8	100	16	36	64	58	6			30301384	○	
8.02	+0.004	8	100	16	36	64	58	6			30301387	○	
8.03	+0.004	8	100	16	36	64	58	6			30301388	○	
8.50	H7	10	100	20	40	60	54	6	30385443	○	30301389	○	
9.00	H7	10	100	20	40	60	54	6	30385444	○	30301390	○	
9.50	H7	10	120	20	40	80	74	6	30385445	○	30301391	○	
9.97	+0.004	10	120	20	40	80	74	6			30301392	○	
9.98	+0.004	10	120	20	40	80	74	6			30301393	○	

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

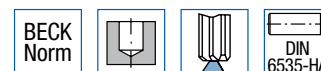
□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC-AL | 043251

HNC-HT | 043281

Preferred series for blind bore, internal coolant supply



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
043251	Solid carbide	BAL										■	■				
043281	Solid carbide	BHV															■

Dimensions										HNC-AL – 043251		HNC-HT – 043281	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock	
9.99	+0.004	10	120	20	40	80	74	6			30301394	○	
10.00	H7	10	120	20	40	80	74	6	30385446	○	30301395	○	
10.01	+0.004	10	120	20	40	80	74	6			30301398	○	
10.02	+0.004	10	120	20	40	80	74	6			30301399	○	
10.03	+0.004	10	120	20	40	80	74	6			30301400	○	
10.50	H7	12	120	20	45	75	68	6	30385447	○	30301401	○	
11.00	H7	12	120	20	45	75	68	6	30385449	○	30301402	○	
11.50	H7	12	120	20	45	75	68	6	30385451	○	30301403	○	
11.97	+0.004	12	120	20	45	75	68	6			30301404	○	
11.98	+0.004	12	120	20	45	75	68	6			30301405	○	
11.99	+0.004	12	120	20	45	75	68	6			30301406	○	
12.00	H7	12	120	20	45	75	68	6	30385452	○	30228282	○	
12.01	+0.004	12	120	20	45	75	68	6			30301452	○	
12.02	+0.004	12	120	20	45	75	68	6			30301453	○	
12.03	+0.004	12	120	20	45	75	68	6			30301455	○	
13.00	H7	14	130	22	45	85	78	6	30385453	○	30301456	○	
14.00	H7	14	130	22	45	85	78	6	30385454	○	30301457	○	
15.00	H7	16	130	22	48	82	75	6	30385455	○	30301465	○	
16.00	H7	16	150	25	48	102	95	6	30385456	○	30228283	○	
17.00	H7	18	150	25	48	102	95	6	30385458	○	30301467	○	
18.00	H7	18	150	25	48	102	95	6	30385460	○	30301470	○	
19.00	H7	20	150	25	50	100	92	6	30385461	○	30301499	○	
20.00	H7	20	150	25	50	100	92	6	30385464	○	30301500	○	

HNC / PcBN

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC I 040261 | HNC-Speed I 043261
HNC-VA I 043271 | HNC-Diamond I 043291
HNC-AL I 043251 | HNC-HT I 043281 | HNC-TI I 043273



Configurable series for blind bore, straight fluted, internal coolant supply

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040261	Solid carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
043261	Solid carbide	BSP	■	■	■			■	■	■							
043271	Solid carbide	BVA				■	■										
043291	Solid carbide	Diamond coated													■		
043273	Solid carbide	BTI														■	
040251	Solid carbide	BAL										■	■				
043281	Solid carbide	BHV															■

Dimensions									
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z		Stock
2.800 - 3.030	4	65	12	28	37	33	4		○
3.031 - 3.350	4	65	12	28	37	33	4		○
3.351 - 3.700	4	65	12	28	37	33	4		○
3.701 - 4.200	6	75	12	36	39	34	4		○
4.201 - 4.700	6	75	12	36	39	34	4		○
4.701 - 5.200	6	75	12	36	39	34	4		○
5.201 - 5.700	6	75	12	36	39	34	4		○
5.701 - 6.200	6	75	12	36	39	34	4		○
6.201 - 6.700	8	100	16	36	64	58	6		○
6.701 - 7.200	8	100	16	36	64	58	6		○
7.201 - 7.700	8	100	16	36	64	58	6		○
7.701 - 8.200	8	100	16	36	64	58	6		○
8.201 - 8.700	10	100	20	40	60	54	6		○
8.701 - 9.200	10	100	20	40	60	54	6		○
9.201 - 9.700	10	120	20	40	80	74	6		○
9.701 - 10.200	10	120	20	40	80	74	6		○
10.201 - 10.700	12	120	20	45	75	68	6		○
10.701 - 11.200	12	120	20	45	75	68	6		○
11.201 - 11.700	12	120	20	45	75	68	6		○
11.701 - 12.200	12	120	20	45	75	68	6		○
12.201 - 13.200	14	130	22	45	85	78	6		○
13.201 - 14.200	14	130	22	45	85	78	6		○
14.201 - 15.200	16	130	22	48	82	75	6		○
15.201 - 16.200	16	150	25	48	102	95	6		○
16.201 - 17.200	18	150	25	48	102	95	6		○
17.201 - 18.200	18	150	25	48	102	95	6		○
18.201 - 19.200	20	150	25	50	100	92	6		○
19.201 - 20.200	20	150	25	50	100	92	6		○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

☐ Limited material suitability.

★ Suitability only with special blade geometry and coating.

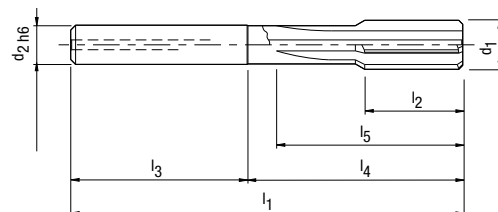
HNC-Short I 043265

Preferred series for blind bore and through bore (*), internal coolant supply, suitable for processing on automatic lathes, for short boreholes



Design

Diameter: 3.00 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 4 – 8
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



(*) For through bore, an exterior cooling is required

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
043265	Solid carbide	BSP	■	■	■	★	★	■	■	■						★	

Dimensions									HNC-Short – 043265	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
3.00	H7	4	56	12	28	28	24	4	30400036	○
3.20	H7	4	56	12	28	28	24	4	30400035	○
3.50	H7	4	56	12	28	28	24	4	30400037	○
4.00	H7	4	56	12	28	28	24	4	30400038	○
4.50	H7	6	64	12	36	28	23	4	30400039	○
5.00	H7	6	64	12	36	28	23	4	30357266	○
5.50	H7	6	64	12	36	28	24	4	30400040	○
6.00	H7	6	64	12	36	28	25	4	30356948	○
6.50	H7	8	75	16	36	39	32	6	30395323	○
7.00	H7	8	75	16	36	39	34	6	30400043	○
7.50	H7	8	75	16	36	39	35	6	30400044	○
8.00	H7	8	75	16	36	39	35	6	30356949	○
8.50	H7	8	75	20	36	39	35	6	30400046	○
9.00	H7	8	75	20	36	39	35	6	30400050	○
9.50	H7	8	75	20	36	39	35	6	30400051	○
10.00	H7	8	75	20	36	39	35	6	30356951	○
10.50	H7	10	80	20	40	40	35	6	30400053	○
11.00	H7	10	80	20	40	40	35	6	30400054	○
11.50	H7	10	80	20	40	40	35	6	30400055	○
12.00	H7	12	90	22	45	45	40	6	30356952	○
13.00	H7	12	90	22	45	45	40	6	30400057	○
14.00	H7	14	90	22	45	45	40	6	30400058	○
15.00	H7	14	90	22	45	45	40	6	30400059	○
16.00	H7	16	100	25	48	52	47	8	30400060	○
17.00	H7	16	100	25	48	52	47	8	30400061	○
18.00	H7	16	100	25	48	52	47	8	30384786	○
19.00	H7	18	100	25	48	52	47	8	30400062	○
20.00	H7	18	100	25	48	52	47	8	30400063	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

HNC-Short I 043265

Configurable series for blind bore and through bore (*), internal coolant supply, suitable for processing on automatic lathes, for short boreholes

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
043265	Solid carbide	BSP	■	■	■	★	★	■	■	■						★	

Dimensions								
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
2.800 - 3.100	4	56	12	28	28	24	4	○
3.101 - 3.350	4	56	12	28	28	24	4	○
3.351 - 3.700	4	56	12	28	28	24	4	○
3.701 - 4.050	4	56	12	28	28	24	4	○
4.051 - 4.600	6	64	12	36	28	23	4	○
4.601 - 5.100	6	64	12	36	28	23	4	○
5.101 - 5.600	6	64	12	36	28	24	4	○
5.601 - 6.100	6	64	12	36	28	25	4	○
6.101 - 6.600	8	75	16	36	39	32	6	○
6.601 - 7.100	8	75	16	36	39	34	6	○
7.101 - 7.600	8	75	16	36	39	35	6	○
7.601 - 8.100	8	75	16	36	39	35	6	○
8.101 - 8.600	8	75	20	36	39	35	6	○
8.601 - 9.100	8	75	20	36	39	35	6	○
9.101 - 9.600	8	75	20	36	39	35	6	○
9.601 - 10.100	8	75	20	36	39	35	6	○
10.101 - 10.600	10	80	20	40	40	35	6	○
10.601 - 11.100	10	80	20	40	40	35	6	○
11.101 - 11.600	10	80	20	40	40	35	6	○
11.601 - 12.100	12	90	22	45	45	40	6	○
12.101 - 13.100	12	90	22	45	45	40	6	○
13.101 - 14.100	14	90	22	45	45	40	6	○
14.101 - 15.100	14	90	22	45	45	40	6	○
15.101 - 16.100	16	100	25	48	52	47	8	○
16.101 - 17.100	16	100	25	48	52	47	8	○
17.101 - 18.100	16	100	25	48	52	47	8	○
18.101 - 19.100	18	100	25	48	52	47	8	○
19.101 - 20.100	18	100	25	48	52	47	8	○

* For through bores, an exterior cooling is required!

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

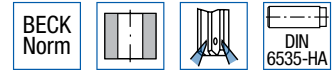
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

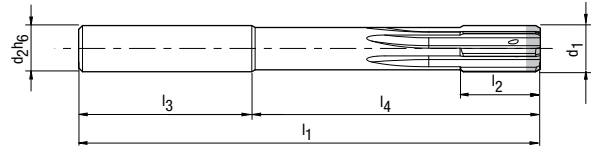
PcBN Reamer I 040356

Preferred series, PcBN tipped, for through bore, internal coolant supply



Design

Diameter: 3.00 – 10.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 6 – 10
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040356	PcBN	Uncoated						■									■

Dimensions								040356		
d ₁	Tol.	d ₂ h ₆	l ₁	l ₂	l ₃	l ₄	z	Order No.	Stock	
3.00	H7	4	65	12	28	37	6	30601813	○	
3.50	H7	4	65	12	28	37	6	30601814	○	
4.00	H7	6	75	12	36	39	6	30601815	○	
4.50	H7	6	75	12	36	39	6	30601816	○	
5.00	H7	6	75	12	36	39	6	30601817	○	
5.50	H7	6	75	12	36	39	6	30601818	○	
6.00	H7	6	75	12	36	39	8	30601819	○	
6.50	H7	8	100	16	36	64	8	30601820	On request	
7.00	H7	8	100	16	36	64	8	30601821	On request	
7.50	H7	8	100	16	36	64	8	30601822	On request	
8.00	H7	8	100	16	36	64	10	30601823	On request	
8.50	H7	10	100	16	40	60	10	30601824	On request	
9.00	H7	10	100	16	40	60	10	30601825	On request	
9.50	H7	10	120	20	40	80	10	30601826	On request	
10.00	H7	10	120	20	40	80	10	30601827	On request	

PcBN Reamers in the Ø-range 1–3 mm without internal coolant supply on request!

All dimensions in mm.

Machining values on request

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

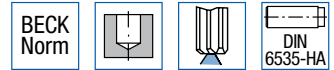
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

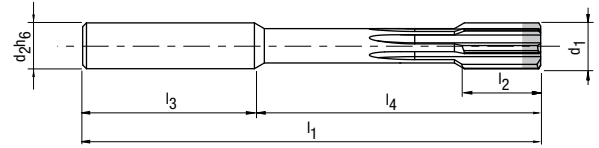
PcBN Reamer I 040366

Preferred series, PcBN tipped, for blind bore, internal coolant supply



Design

Diameter: 3.00 – 10.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 6 – 10
 Geometry: HPC geometry, EU spacing
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040366	PcBN	Uncoated						■									■

Dimensions								040366		
d ₁	Tol.	d ₂ h ₆	l ₁	l ₂	l ₃	l ₄	z	Order No.	Stock	
3.00	H7	4	65	12	28	37	6	30601315	○	
3.50	H7	4	65	12	28	37	6	30601316	○	
4.00	H7	6	75	12	36	39	6	30556056	○	
4.50	H7	6	75	12	36	39	6	30601317	○	
5.00	H7	6	75	12	36	39	6	30601318	○	
5.50	H7	6	75	12	36	39	6	30601319	○	
6.00	H7	6	75	12	36	39	8	30591461	○	
6.50	H7	8	100	16	36	64	8	30601320	On request	
7.00	H7	8	100	16	36	64	8	30601321	On request	
7.50	H7	8	100	16	36	64	8	30601322	On request	
8.00	H7	8	100	16	36	64	10	30589906	On request	
8.50	H7	10	100	16	40	60	10	30601323	On request	
9.00	H7	10	100	16	40	60	10	30601324	On request	
9.50	H7	10	120	20	40	80	10	30601325	On request	
10.00	H7	10	120	20	40	80	10	30601327	On request	

PcBN Reamers in the Ø-range 1–3 mm without internal coolant supply on request!

All dimensions in mm.

Machining values on request

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

PcBN Reamer - Configurable | 040356, 040366

Configurable series, PcBN tipped, for blind bore or through bore, internal coolant supply

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040356	PcBN	Uncoated						■									■
040366	PcBN	Uncoated						■									■

Dimensions								
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	z	Stock	
3.001 - 3.210	4	65	12	28	37	6	○	
3.211 - 3.710	4	65	12	28	37	6	○	
3.711 - 4.210	6	75	12	36	39	6	○	
4.211 - 4.710	6	75	12	36	39	6	○	
4.711 - 5.210	6	75	12	36	39	6	○	
5.211 - 5.710	6	75	12	36	39	6	○	
5.711 - 6.210	6	75	12	36	39	8	○	
6.211 - 6.710	8	100	16	36	64	8	○	
6.711 - 7.210	8	100	16	36	64	8	○	
7.211 - 7.710	8	100	16	36	64	8	○	
7.711 - 8.210	8	100	16	36	64	10	○	
8.211 - 8.710	10	100	16	40	60	10	○	
8.711 - 9.210	10	100	16	40	60	10	○	
9.211 - 9.710	10	120	20	40	80	10	○	
9.711 - 10.200	10	120	20	40	80	10	○	

PcBN Reamers in the Ø-range 1–3 mm without internal coolant supply on request!

All dimensions in mm.

Machining values on request

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.



Replaceable Head Reamers XR

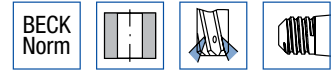
Standard Programme

Simple handling, high clamping force
Highest changeover accuracy and stability
Particularly cost-effective from \varnothing 20 mm
High cutting speeds possible



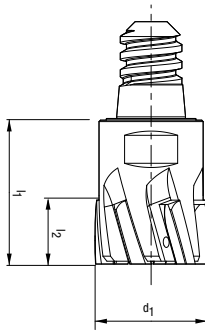
XR 01 | 081610, 081618, 081611, 081612, 081605

Preferred series for through bore



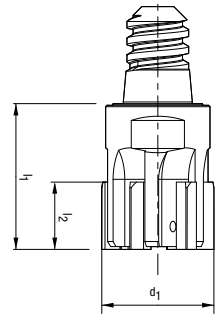
Design 081610 – 081618

Diameter: 8.00 – 40.00 mm
 Flute direction: Left-hand fluted
 Cutting direction: Right-hand cutting
 Number of cutting edges: 4 – 8
 Rake angle: 6°
 Lead angle: 30°
 Dimensions: Works standard



Design 081605

Diameter: 8.00 – 40.00 mm
 Flute direction: Straight fluted
 Cutting direction: Right-hand cutting
 Number of cutting edges: 4 – 8
 Rake angle: 0°
 Lead angle: 45°
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
081610	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	●	☐	☐	●			
081618	Carbide	BSP	●	●	●			●	●	●					☐	★	★
081611	Carbide	BVA				●	●										
081612	Cermet	Uncoated	●	●	☐				●								
081605	PCD	Uncoated										●	●				

Dimensions							081610		081618		081611		081612		081605	
d ₁	Tol.	l ₁	l ₂	z	xs	sw	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
8.00	H7	18	8	4	6	6	30516058	○	30432555	●	30383184	○	30383155	●	30383223	○
10.00	H7	18	8	6	6	8	30516059	○	30432556	●	30383185	○	30383172	●	30383224	○
12.00	H7	20	8	6	8	8	30516060	○	30432557	●	30383186	○	30383173	●	30383225	○
14.00	H7	22	8	6	10	10	30516061	○	30432558	●	30383187	○	30383174	●	30383226	○
16.00	H7	22	8	6	10	10	30516062	○	30432559	●	30383188	○	30383175	●	30383227	○
18.00	H7	26	12	6	12	13	30516063	○	30432560	●	30383189	○	30383176	●	30383228	○
20.00	H7	26	12	6	12	16	30516064	○	30432561	●	30383190	○	30383177	●	30383229	○
22.00	H7	26	12	6	16	16	30516065	○	30432562	●	30383191	○	30383178	●	30383230	○
24.00	H7	26	12	6	16	16	30516066	○	30432563	●	30383192	○	30383179	●	30383231	○
25.00	H7	26	12	6	16	19	30516067	○	30432564	●	30383193	○	30383180	●	30383232	○
26.00	H7	26	12	6	16	19	30516068	○	30432565	●	30383194	○	30383181	●	30383233	○
28.00	H7	26	12	6	16	21	30516069	○	30432566	●	30383195	○	30383182	●	30383234	○
30.00	H7	26	12	8	16	24	30516070	○	30432567	●	30383196	○	30383183	●	30383235	○
32.00	H7	30	12	8	24	24	30516071	○	30432667	●	30455216	○	30455212	●	30455232	○
34.00	H7	30	12	8	24	27	30516072	○	30432669	●	30455217	○	30455212	●	30455233	○
36.00	H7	30	12	8	24	30	30516073	○	30432670	●	30455218	○	30455213	●	30455235	○
38.00	H7	30	12	8	24	30	30516074	○	30432671	●	30455219	○	30455214	●	30455236	○
40.00	H7	30	12	8	24	30	30516075	○	30432672	●	30455220	○	30455215	●	30455237	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

● Outstanding material suitability.

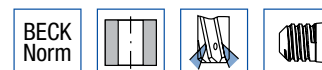
☐ Limited material suitability.

★ Suitability only with special blade geometry and coating.

XR 01 – Configurable

081610, 081618, 081611, 081612, 081605

Configurable series for through bore



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
081610	Carbide	Uncoated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
081618	Carbide	BSP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input type="checkbox"/>	★	★
081611	Carbide	BVA				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
081612	Cermet	Uncoated	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				<input checked="" type="checkbox"/>								
081605	PCD	Uncoated										<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

Dimensions							
d ₁	l ₁	l ₂	z	xs	sw	Stock	
8.000–8.700	18	8	4	6	6	○	
8.701–9.200	18	8	4	6	6	○	
9.201–9.700	18	8	4	6	6	○	
9.701–10.200	18	8	6	6	8	○	
10.201–10.700	18	8	6	6	8	○	
10.701–11.200	20	8	6	8	8	○	
11.201–11.700	20	8	6	8	8	○	
11.701–12.200	20	8	6	8	8	○	
12.201–12.700	20	8	6	8	8	○	
12.701–13.200	22	8	6	10	10	○	
13.201–14.200	22	8	6	10	10	○	
14.201–15.200	22	8	6	10	10	○	
15.201–16.200	22	8	6	10	10	○	
16.201–17.200	22	8	6	10	13	○	
17.201–18.200	26	12	6	12	13	○	
18.201–19.200	26	12	6	12	13	○	
19.201–20.200	26	12	6	12	16	○	
20.201–21.200	26	12	6	12	16	○	
21.201–22.200	26	12	6	16	16	○	
22.201–23.200	26	12	6	16	16	○	
23.201–24.200	26	12	6	16	16	○	
24.201–25.200	26	12	6	16	19	○	
25.201–26.200	26	12	6	16	19	○	
26.201–27.200	26	12	6	16	21	○	
27.201–28.200	26	12	6	16	21	○	
28.201–29.200	26	12	6	16	24	○	
29.201–30.200	26	12	8	16	24	○	
30.201–31.200	30	12	8	24	24	○	
31.201–32.200	30	12	8	24	24	○	
32.201–33.200	30	12	8	24	27	○	
33.201–34.200	30	12	8	24	27	○	
34.201–35.200	30	12	8	24	30	○	
35.201–36.200	30	12	8	24	30	○	
36.201–37.200	30	12	8	24	30	○	
37.201–38.200	30	12	8	24	30	○	
38.201–39.200	30	12	8	24	30	○	
39.201–40.200	30	12	8	24	30	○	

Explanation of the order specifications for replaceable head reamers in configurable design, see beginning of catalogue.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

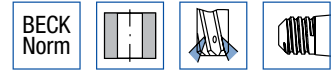
□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

XR 06 | 081631

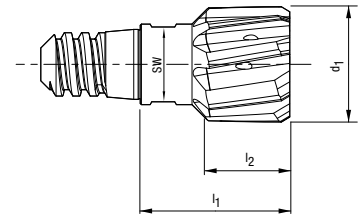
Preferred series of solid carbide for through bore

NEW



Design

Diameter: 8.00 – 40.00 mm
 Flute direction: Left-hand fluted
 Cutting direction: Right-hand cutting
 Number of cutting edges: 6 – 8
 Geometry: HPC cutting edge geometry
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
081631	Solid carbide	BSP	■	■	■			■	■	■					□		

Dimensions							081631	
d ₁	Tol.	l ₁	l ₂	z	xs	sw	Order No.	Stock*
8.00	H7	18	10	6	6	6	30461204	●
8.50	H7	18	10	6	6	6	30461206	○
9.00	H7	18	10	6	6	6	30461208	○
9.50	H7	18	10	6	6	6	30461211	○
10.00	H7	18	10	6	6	6	30461213	●
10.50	H7	18	10	6	6	6	30461225	○
11.00	H7	20	10	6	8	8	30461226	○
11.50	H7	20	10	6	8	8	30461227	○
12.00	H7	20	10	6	8	8	30461229	●
12.50	H7	20	10	6	8	8	30461231	○
13.00	H7	22	10	6	10	10	30461232	○
14.00	H7	22	12	6	10	10	30461237	●
15.00	H7	22	12	6	10	10	30461239	○
16.00	H7	22	12	6	10	10	30461243	●
17.00	H7	22	12	8	10	10	30461244	○
18.00	H7	26	14	8	12	13	30461245	●
19.00	H7	26	14	8	12	13	30461248	○
20.00	H7	26	14	8	12	13	30461249	●
21.00	H7	26	14	8	12	13	30552610	○
22.00	H7	26	14	8	16	16	30552611	●
23.00	H7	26	14	8	16	16	30552612	○
24.00	H7	26	14	8	16	16	30552613	●
25.00	H7	26	14	8	16	16	30552614	●
26.00	H7	26	14	8	16	16	30552615	○
27.00	H7	26	14	8	16	16	30552616	○
28.00	H7	26	14	8	16	16	30552617	●
29.00	H7	26	14	8	16	16	30552618	○
30.00	H7	26	14	8	16	16	30552619	●
31.00	H7	30	14	8	24	24	30552620	○
32.00	H7	30	14	8	24	24	30552621	●
33.00	H7	30	14	8	24	24	30552622	○
34.00	H7	30	14	8	24	24	30552623	○
35.00	H7	30	14	8	24	24	30552624	○
36.00	H7	30	14	8	24	24	30552625	●
37.00	H7	30	14	8	24	24	30552626	○
38.00	H7	30	14	8	24	24	30552627	○
39.00	H7	30	14	8	24	24	30552628	○
40.00	H7	30	14	8	24	24	30540962	●

* Currently establishing stock. Please enquire.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

XR 06 – Configurable I 081631

Configurable series of solid carbide for through bore

NEW

 BECK
 Norm


Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
081631	Solid carbide	BSP	■	■	■			■	■	■						□	

Dimensions

d ₁	l ₁	l ₂	z	xs	sw	Stock*
8.000–8.200	18	10	6	6	6	○
8.201–8.700	18	10	6	6	6	○
8.701–9.200	18	10	6	6	6	○
9.201–9.700	18	10	6	6	6	○
9.701–10.200	18	10	6	6	6	○
10.201–10.700	18	10	6	6	6	○
10.701–11.200	20	10	6	8	8	○
11.201–11.700	20	10	6	8	8	○
11.701–12.200	20	10	6	8	8	○
12.201–12.700	20	10	6	8	8	○
12.701–13.200	22	10	6	10	10	○
13.201–14.200	22	12	6	10	10	○
14.201–15.200	22	12	6	10	10	○
15.201–16.200	22	12	6	10	10	○
16.201–17.200	22	12	8	10	10	○
17.201–18.200	26	14	8	12	13	○
18.201–19.200	26	14	8	12	13	○
19.201–20.200	26	14	8	12	13	○
20.201–21.200	26	14	8	12	13	○
21.201–22.200	26	14	8	16	16	○
22.201–23.200	26	14	8	16	16	○
23.201–24.200	26	14	8	16	16	○
24.201–25.200	26	14	8	16	16	○
25.201–26.200	26	14	8	16	16	○
26.201–27.200	26	14	8	16	16	○
27.201–28.200	26	14	8	16	16	○
28.201–29.200	26	14	8	16	16	○
29.201–30.200	26	14	8	16	16	○
30.201–31.200	30	14	8	24	24	○
31.201–32.200	30	14	8	24	24	○
32.201–33.200	30	14	8	24	24	○
33.201–34.200	30	14	8	24	24	○
34.201–35.200	30	14	8	24	24	○
35.201–36.200	30	14	8	24	24	○
36.201–37.200	30	14	8	24	24	○
37.201–38.200	30	14	8	24	24	○
38.201–39.200	30	14	8	24	24	○
39.201–40.200	30	14	8	24	24	○

* Currently establishing semi-finished stock. Please enquire.

Explanation of the order specifications for replaceable head reamers in configurable design, see beginning of catalogue.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

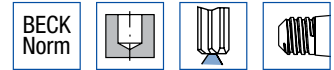
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

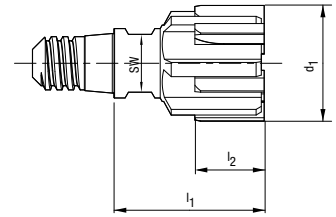
XR 01 | 081650, 081651, 081659, 081652, 081655

Preferred series for blind bore



Design

Diameter: 14.00 – 40.00 mm
 Flute direction: Straight fluted
 Cutting direction: Right-hand cutting
 Number of cutting edges: 6 – 8
 Rake angle: 0°
 Lead angle: 60° (081655 = 75°)
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
081650	Carbide	Uncoated	□	□	□			□	□	□	■	□	□	■			
081651	Carbide	BSP	■	■	■			■	■	■					□	★	★
081659	Carbide	BVA				■	■										
081652	Cermet	Uncoated	■	■	□				■								
081655	PCD	Uncoated										■	■				

Dimensions							081650		081651		081659		081652		081655	
d ₁	Tol.	l ₁	l ₂	z	xs	sw	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
14.00	H7	22	8	6	6	6	30383271	○	30383259	●	30383248	○	30383237	●	30383282	○
16.00	H7	22	8	6	8	8	30383272	○	30383260	●	30383249	○	30383238	●	30383283	○
18.00	H7	26	12	6	10	10	30383273	○	30383261	●	30383250	○	30383239	●	30383284	○
20.00	H7	26	12	6	10	10	30383274	○	30383262	●	30383251	○	30383240	●	30383285	○
22.00	H7	26	12	6	12	13	30383275	○	30383263	●	30383252	○	30383241	●	30383286	○
24.00	H7	26	12	6	12	13	30383276	○	30383264	●	30383253	○	30383242	●	30383287	○
25.00	H7	26	12	6	16	16	30383277	○	30383265	●	30383254	○	30383243	●	30383288	○
26.00	H7	26	12	6	16	16	30383278	○	30383267	●	30383255	○	30383244	●	30383289	○
28.00	H7	26	12	6	16	16	30383279	○	30383268	●	30383256	○	30383245	●	30383290	○
30.00	H7	26	12	8	16	16	30383280	○	30383269	●	30383257	○	30383246	●	30383291	○
32.00	H7	30	12	8	16	16	30455254	○	30455248	●	30455243	○	30455238	●	30455260	○
34.00	H7	30	12	8	24	24	30455256	○	30455250	●	30455244	○	30455239	●	30455261	○
36.00	H7	30	12	8	24	24	30455257	○	30455251	●	30455245	○	30455240	●	30455262	○
38.00	H7	30	12	8	24	24	30455258	○	30455252	●	30455246	○	30455241	●	30455263	○
40.00	H7	30	12	8	24	24	30455259	○	30455253	●	30455247	○	30455242	●	30455264	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

XR 01 - Configurable

081650, 081651, 081659, 081652, 081655

Configurable series for blind bore



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
081650	Carbide	Uncoated	☐	☐	☐			☐	☐	☐	■	☐	☐	■			
081651	Carbide	BSP	■	■	■			■	■	■					☐	★	★
081659	Carbide	BVA				■	■										
081652	Cermet	Uncoated	■	■	☐				■								
081655	PCD	Uncoated										■	■				

Dimensions

d ₁	l ₁	l ₂	z	xs	sw	Stock
12.201–12.700	20	8	6	6	6	○
12.701–13.200	22	8	6	6	6	○
13.201–14.200	22	8	6	6	6	○
14.201–15.200	22	8	6	8	8	○
15.201–16.200	22	8	6	8	8	○
16.201–17.200	22	8	6	10	10	○
17.201–18.200	26	12	6	10	10	○
18.201–19.200	26	12	6	10	10	○
19.201–20.200	26	12	6	10	10	○
20.201–21.200	26	12	6	12	13	○
21.201–22.200	26	12	6	12	13	○
22.201–23.200	26	12	6	12	13	○
23.201–24.200	26	12	6	12	13	○
24.201–25.200	26	12	6	16	16	○
25.201–26.200	26	12	6	16	16	○
26.201–27.200	26	12	6	16	16	○
27.201–28.200	26	12	6	16	16	○
28.201–29.200	26	12	6	16	16	○
29.201–30.200	26	12	8	16	16	○
30.201–31.200	30	12	8	16	16	○
31.201–32.200	30	12	8	16	16	○
32.201–33.200	30	12	8	24	24	○
33.201–34.200	30	12	8	24	24	○
34.201–35.200	30	12	8	24	24	○
35.201–36.200	30	12	8	24	24	○
36.201–37.200	30	12	8	24	24	○
37.201–38.200	30	12	8	24	24	○
38.201–39.200	30	12	8	24	24	○
39.201–40.200	30	12	8	24	24	○

Explanation of the order specifications for replaceable head reamers in configurable design, see beginning of catalogue.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

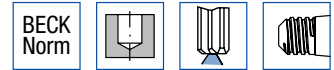
■ Outstanding material suitability.

☐ Limited material suitability.

★ Suitability only with special blade geometry and coating.

XR 06 | 081661

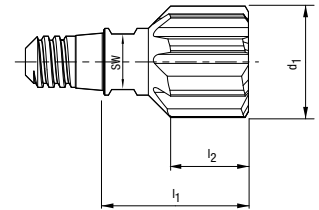
Preferred series of solid carbide for blind bore



NEW

Design

Diameter: 10.00 – 40.00 mm
 Flute direction: Straight fluted
 Cutting direction: Right-hand cutting
 Number of cutting edges: 6 – 8
 Geometry: HPC cutting edge geometry
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
081661	Solid carbide	BSP	■	■	■			■	■	■					□		

Dimensions							081661	
d ₁	Tol.	l ₁	l ₂	z	xs	sw	Order No.	Stock*
10.00	H7	18	10	6	6	6	30461250	○
10.50	H7	18	10	6	6	6	30461259	○
11.00	H7	20	10	6	6	6	30461261	○
11.50	H7	20	10	6	6	6	30461263	○
12.00	H7	20	10	6	6	6	30461267	○
12.50	H7	20	10	6	6	6	30461271	○
13.00	H7	22	12	6	6	6	30461273	○
14.00	H7	22	12	6	6	6	30461274	○
15.00	H7	22	12	6	8	8	30461275	○
16.00	H7	22	12	6	8	8	30461276	●
17.00	H7	22	12	8	10	10	30461278	○
18.00	H7	26	14	8	10	10	30461279	○
19.00	H7	26	14	8	10	10	30461281	○
20.00	H7	26	14	8	10	10	30461283	●
21.00	H7	26	14	8	12	13	30552644	○
22.00	H7	26	14	8	12	13	30552645	●
23.00	H7	26	14	8	12	13	30552646	○
24.00	H7	26	14	8	12	13	30552648	○
25.00	H7	26	14	8	16	16	30552649	●
26.00	H7	26	14	8	16	16	30552650	○
27.00	H7	26	14	8	16	16	30552651	○
28.00	H7	26	14	8	16	16	30552652	○
29.00	H7	26	14	8	16	16	30552653	○
30.00	H7	26	14	8	16	16	30552654	●
31.00	H7	30	14	8	16	16	30552655	○
32.00	H7	30	14	8	16	16	30552656	●
33.00	H7	30	14	8	24	24	30552657	○
34.00	H7	30	14	8	24	24	30552658	○
35.00	H7	30	14	8	24	24	30552659	○
36.00	H7	30	14	8	24	24	30552660	○
37.00	H7	30	14	8	24	24	30552661	○
38.00	H7	30	14	8	24	24	30552662	○
39.00	H7	30	14	8	24	24	30552663	○
40.00	H7	30	14	8	24	24	30552664	●

* Currently establishing stock. Please enquire.

All dimensions in mm.

For machining values see end of catalogue.
 Information on special designs and other coatings on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

XR 06 – Configurable | 081661

Configurable series for blind bore

NEW

 BECK
 Norm


Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
081661	Solid carbide	BSP	■	■	■			■	■	■					□		

Dimensions

d ₁	l ₁	l ₂	z	xs	sw	Stock*
9.701–10.200	18	10	6	6	6	○
10.201–10.700	18	10	6	6	6	○
10.701–11.200	20	10	6	6	6	○
11.201–11.700	20	10	6	6	6	○
11.701–12.200	20	10	6	6	6	○
12.201–12.700	20	10	6	6	6	○
12.701–13.200	22	12	6	6	6	○
13.201–14.200	22	12	6	6	6	○
14.201–15.200	22	12	6	8	8	○
15.201–16.200	22	12	6	8	8	○
16.201–17.200	22	12	8	10	10	○
17.201–18.200	26	14	8	10	10	○
18.201–19.200	26	14	8	10	10	○
19.201–20.200	26	14	8	10	10	○
20.201–21.200	26	14	8	12	13	○
21.201–22.200	26	14	8	12	13	○
22.201–23.200	26	14	8	12	13	○
23.201–24.200	26	14	8	12	13	○
24.201–25.200	26	14	8	16	16	○
25.201–26.200	26	14	8	16	16	○
26.201–27.200	26	14	8	16	16	○
27.201–28.200	26	14	8	16	16	○
28.201–29.200	26	14	8	16	16	○
29.201–30.200	26	14	8	16	16	○
30.201–31.200	30	14	8	16	16	○
31.201–32.200	30	14	8	16	16	○
32.201–33.200	30	14	8	24	24	○
33.201–34.200	30	14	8	24	24	○
34.201–35.200	30	14	8	24	24	○
35.201–36.200	30	14	8	24	24	○
36.201–37.200	30	14	8	24	24	○
37.201–38.200	30	14	8	24	24	○
38.201–39.200	30	14	8	24	24	○
39.201–40.200	30	14	8	24	24	○

* Currently establishing semi-finished stock. Please enquire.

Explanation of the order specifications for replaceable head reamers in configurable design, see beginning of catalogue.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

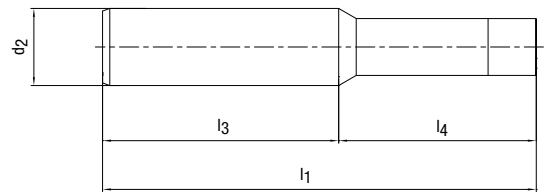
○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

XR Replaceable Head Holder



Standard version

Dimensions					085101		
xs	d_2 h6	l_1	l_3	l_4	Order designation	Order No.	Stock
6	10	85	40	45	085101-XS06-045	30350737	●
8	12	90	45	45	085101-XS08-045	30350743	●
10	16	90	48	42	085101-XS10-042	30350748	●
12	16	105	48	57	085101-XS12-057	30350753	●
16	25	120	56	64	085101-XS16-064	30350759	●
24	32	120	60	60	085101-XS24-060	30371464	●

Short Version

Dimensions					085101		
xs	d_2 h6	l_1	l_3	l_4	Order designation	Order No.	Stock
6	10	60	40	20	085101-XS06-020	30350736	●
8	12	70	45	25	085101-XS08-025	30350742	●
10	16	70	48	22	085101-XS10-022	30350747	●
12	16	80	48	32	085101-XS12-032	30350752	●
16	25	90	56	34	085101-XS16-034	30350758	●
24	32	90	60	30	085101-XS24-030	30371461	●

Long Version

Dimensions					085101		
xs	d_2 h6	l_1	l_3	l_4	Order designation	Order No.	Stock
6	10	150	40	110	085101-XS06-110	30350738	●
8	12	150	45	105	085101-XS08-105	30350744	●
10	16	150	48	102	085101-XS10-102	30350749	●
12	16	150	48	102	085101-XS12-102	30350754	●
16	25	200	56	144	085101-XS16-144	30350760	●
24	32	200	60	140	085101-XS24-140	30371467	●

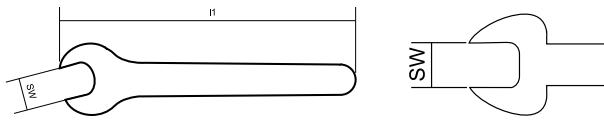
Overlength Version

Dimensions					085101		
xs	d_2 h6	l_1	l_3	l_4	Order designation	Order No.	Stock
12	16	200	48	152	085101-XS12-152	30350755	●
16	25	250	56	194	085101-XS16-194	30350761	●

All dimensions in mm.
Information on special designs on request.

● These products are available ex stock.

Installation & Combination Wrench



Torque Wrench for Combination Wrench

sw	Order No. Installation wrench	Order No. Combination wrench
6	30352660	30376387
8	30352661	30376388
10	30352662	30376390
13	30352663	30376392
16	30352667	30376394
19	30394085	30394090
21	30352668	30376395
24	30352669	30376396
27	30394086	30394091
30	30394087	30394092

Attachment shank	Torque (Nm)	Total length	Order No.
9x12	2-25	274.0	30386735
14x18	20-200	470.5	30386736



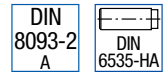
Machine Reamers

Standard Programme

Versatile use
Cost-effective solution for small series
High availability from stock



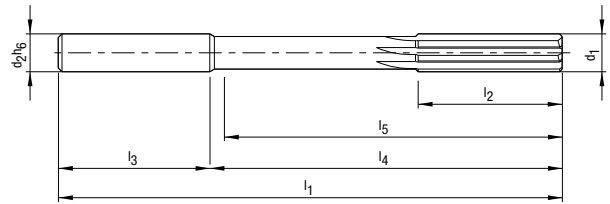
NC Machine Reamers I 040210*



Preferred series, Ø 4 – 13 mm made of solid carbide (with interior centre), from Ø 14 up with solid carbide head, with straight shank diameters for direct clamping in hydraulic, high-precision and shrink chucks (please only use inductive acting shrink devices for tools with solid carbide head and steel shank!)

Design

Diameter: 4.00 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 6-8
 Geometry: EU-spacing
 Dimensions: As per DIN 8093-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040210	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■	■	★	

Dimensions									040210	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
4.00	H7	4	75	19	28	47	43	6	30612427	●
4.50	H7	6	80	21	36	44	39	6	30612428	●
5.00	H7	6	93	23	36	57	52	6	30612429	●
5.50	H7	6	93	26	36	57	53	6	30612430	●
6.00	H7	6	93	26	36	57	53	6	30612431	●
6.50	H7	6	101	28	36	65	61	6	30612432	●
7.00	H7	8	109	31	36	73	68	6	30612433	●
7.50	H7	8	109	31	36	73	68	6	30612434	●
8.00	H7	8	117	33	36	81	77	6	30612435	●
8.50	H7	8	117	33	36	81	77	6	30612436	●
9.00	H7	10	125	36	40	85	80	6	30612437	●
9.50	H7	10	125	36	40	85	80	6	30612438	●
10.00	H7	10	133	38	40	93	88	6	30612439	●
10.50	H7	10	133	38	40	93	88	6	30612440	●
11.00	H7	10	142	41	40	102	97	6	30612441	●
12.00	H7	12	151	44	45	106	100	6	30612442	●
13.00	H7	12	151	44	45	106	100	6	30612443	●
14.00	H7	16	160	47	48	112	106	8	30612444	●
15.00	H7	16	162	50	48	114	108	8	30612445	●
16.00	H7	16	170	52	48	122	116	8	30612446	●
17.00	H7	18	175	52	48	127	121	8	30612447	●
18.00	H7	18	182	52	48	134	128	8	30612448	●
19.00	H7	20	189	52	50	139	133	8	30612449	●
20.00	H7	20	195	52	50	145	140	8	30612450	●

* Due to the redefinition of DIN 8093 this product series replaces our previous code 040244.

Since the stock adjustment is done successively, during the transition phase we will sometimes still deliver tools with the previous designations and dimensions.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

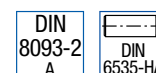
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

NC Machine Reamers - Configurable | 040210*

Configurable series, 3.751 – 13.200 mm made of solid carbide (with interior centre), from Ø 13.201 up with solid carbide head, with straight shank diameters for direct clamping in hydraulic, high-precision and shrink chucks (please only use inductive acting shrink devices for tools with solid carbide head and steel shank!)



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040210	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■	■	★	

Dimensions								
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
3.751 - 4.250	4	75	19	28	47	43	6	○
4.251 - 4.750	6	80	21	36	44	39	6	○
4.751 - 5.300	6	93	23	36	57	52	6	○
5.301 - 6.030	6	93	26	36	57	53	6	○
6.031 - 6.700	6	101	28	36	65	61	6	○
6.701 - 7.500	8	109	31	36	73	68	6	○
7.501 - 8.040	8	117	33	36	81	77	6	○
8.041 - 8.500	8	117	33	36	81	77	6	○
8.501 - 9.040	10	125	36	40	85	80	6	○
9.041 - 9.500	10	125	36	40	85	80	6	○
9.501 - 10.050	10	133	38	40	93	88	6	○
10.051 - 10.600	10	133	38	40	93	88	6	○
10.601 - 11.800	10	142	41	40	102	97	6	○
11.801 - 12.500	12	151	44	45	106	100	6	○
12.501 - 13.200	12	151	44	45	106	100	6	○
13.201 - 14.000	16	160	47	48	112	106	8	○
14.001 - 15.000	16	162	50	48	114	108	8	○
15.001 - 16.000	16	170	52	48	122	116	8	○
16.001 - 17.000	18	175	52	48	127	121	8	○
17.001 - 18.000	18	182	52	48	134	128	8	○
18.001 - 19.000	20	189	52	50	139	133	8	○
19.001 - 20.000	20	195	52	50	145	140	8	○

* Due to the redefinition of DIN 8093 this product series replaces our previous code 040244.

Since the stock adjustment is done successively, during the transition phase we will sometimes still deliver tools with the previous designations and dimensions.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

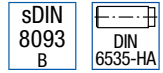
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

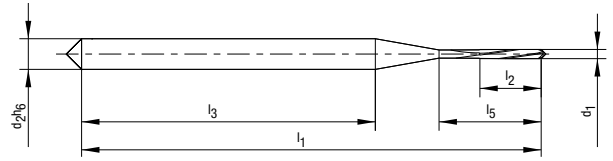
Micro-NC-Machine Reamer I 040240*

Preferred series, made of solid carbide, with straight shank diameter for direct clamping in hydraulic, high-precision and shrink chucks.



Design

Diameter: 0.60 – 0.90 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 4
 Dimensions: Similar to DIN 8093-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040240	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	

Dimensions								040240	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₅	z	Order No.	Stock
0.60	+0.004	3	45	5	28	7.5	4	30274506	●
0.70	+0.004	3	45	5	28	7.5	4	30274507	●
0.80	+0.004	3	45	6	28	8	4	30274508	●
0.90	+0.004	3	45	6	28	8	4	30274509	●

* Intermediate diameter and special tolerances on request. Minimum order quantity 10 pieces per dimension!

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

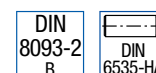
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

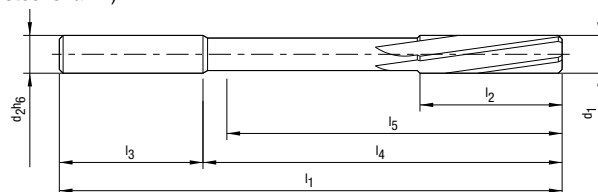
NC Machine Reamers | 040211*, 043211*

Preferred series, Ø 0.98 – 3.750 mm made of solid carbide with two-sided centring tips,
Ø 3.751 – 13.200 mm made of solid carbide (with interior centre), Ø 13.201 – 20.000 mm with solid carbide head,
with straight shank diameters for direct clamping in hydraulic, high-precision and shrink chucks
(please only use inductive acting shrink devices for tools with solid carbide head and steel shank!)



Design

Diameter: 0.98 – 20.00 mm
Cutting direction: Right-hand cutting
Flute direction: Spiral fluted
Number of cutting edges: 3-8
Geometry: EU-spacing Ø 3 mm and up
Dimensions: As per DIN 8093-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040211	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	
043211	Solid carbide	TiAlN	■	■	■	★	★	■	■	■						★	★

Dimensions										040211		043211	
d ₁	Tol.	d ₂ h ₆	l ₁	l ₂	l ₃	l ₄	l ₅	z		Order No.	Stock	Order No.	Stock
0,98	+0,004	3	50	6	28	22	17,5	3		30612451	●	-	-
0,99	+0,004	3	50	6	28	22	17,5	3		30612452	●	-	-
1,00	H7	3	50	6	28	22	17,5	3		30612453	○	30612554	○
1,01	+0,004	3	50	6	28	22	17,5	3		30612454	●	-	-
1,02	+0,004	3	50	6	28	22	17,5	3		30612455	●	-	-
1,03	+0,004	3	50	6	28	22	17,5	3		30612456	●	-	-
1,10	H7	3	50	9	28	22	17,5	3		30612457	○	-	-
1,20	H7	3	50	9	28	22	17,5	3		30612458	○	30612555	○
1,48	+0,004	3	50	9	28	22	18	3		30612459	●	-	-
1,49	+0,004	3	50	9	28	22	18	3		30612460	●	-	-
1,50	H7	3	50	9	28	22	18	3		30612461	○	30612556	○
1,51	+0,004	3	50	10	28	22	18	3		30612462	●	-	-
1,52	+0,004	3	50	10	28	22	18	3		30612463	●	-	-
1,53	+0,004	3	50	10	28	22	18	3		30612464	●	-	-
1,60	H7	3	50	10	28	22	18	3		30612465	○	30612557	○
1,80	H7	3	50	11	28	22	18,5	4		30612466	○	30612558	○
1,98	+0,004	3	50	12	28	22	18,5	4		30612467	●	-	-
1,99	+0,004	3	50	12	28	22	18,5	4		30612468	●	-	-
2,00	H7	3	50	12	28	22	18,5	4		30612469	●	30612559	●
2,01	+0,004	3	50	12	28	22	18,5	4		30612470	●	-	-
2,02	+0,004	3	50	12	28	22	18,5	4		30612471	●	-	-
2,03	+0,004	3	50	12	28	22	18,5	4		30612472	●	-	-
2,20	H7	3	50	12	28	22	18,5	4		30612473	○	30612560	○
2,48	+0,004	3	60	16	28	32	29	4		30612474	●	-	-
2,49	+0,004	3	60	16	28	32	29	4		30612475	●	-	-
2,50	H7	3	60	16	28	32	29	4		30612476	●	30612561	○
2,51	+0,004	3	60	16	28	32	29	4		30612477	●	-	-
2,52	+0,004	3	60	16	28	32	29	4		30612478	●	-	-
2,53	+0,004	3	60	16	28	32	29	4		30612479	●	-	-
2,97	+0,004	3	65	17	28	37	34	6		30612480	●	-	-
2,98	+0,004	3	65	17	28	37	34	6		30612481	●	-	-
2,99	+0,004	3	65	17	28	37	34	6		30612482	●	-	-
3,00	H7	3	65	17	28	37	34	6		30612483	●	30612562	●
3,01	+0,004	3	65	17	28	37	34	6		30612484	●	-	-

* Due to the redefinition of DIN 8093 these product series replace our previous codes 040245 and 043245. Since the stock adjustment is done successively, during the transition phase we will sometimes still deliver tools with the previous designations and dimensions.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

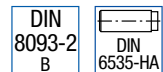
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

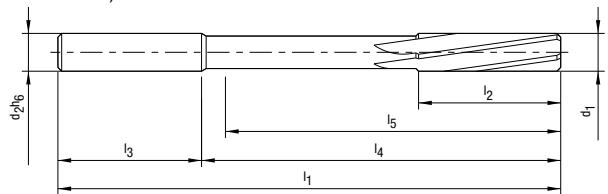
NC Machine Reamers I 040211*, 043211*

Preferred series, Ø 0.98 – 3.750 mm made of solid carbide with two-sided centring tips,
 Ø 3.751 – 13.200 mm made of solid carbide (with interior centre), Ø 13.201 – 20.000 mm with solid carbide head,
 with straight shank diameters for direct clamping in hydraulic, high-precision and shrink chucks
 (please only use inductive acting shrink devices for tools with solid carbide head and steel shank!)



Design

Diameter: 0.98 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 3-8
 Geometry: EU-spacing Ø 3 mm and up
 Dimensions: As per DIN 8093-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040211	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	
043211	Solid carbide	TiAlN	■	■	■	★	★	■	■	■						★	★

Dimensions										040211		043211	
d ₁	Tol.	d ₂ h ₆	l ₁	l ₂	l ₃	l ₄	l ₅	z		Order No.	Stock	Order No.	Stock
3,02	+0,004	3	65	17	28	37	34	6		30612485	●	-	-
3,03	+0,004	3	65	17	28	37	34	6		30612486	●	-	-
3,20	H7	4	65	18	28	37	33	6		30612487	●	30612563	○
3,50	H7	4	75	18	28	47	43	6		30612488	●	30612564	○
3,97	+0,004	4	75	19	28	47	43	6		30612489	●	-	-
3,98	+0,004	4	75	19	28	47	43	6		30612490	●	-	-
3,99	+0,004	4	75	19	28	47	43	6		30612491	●	-	-
4,00	H7	4	75	19	28	47	43	6		30612492	●	30612565	●
4,01	+0,004	4	75	19	28	47	43	6		30612493	●	-	-
4,02	+0,004	4	75	19	28	47	43	6		30612494	●	-	-
4,03	+0,004	4	75	19	28	47	43	6		30612495	●	-	-
4,50	H7	6	80	21	36	44	39	6		30612496	●	30612566	○
4,97	+0,004	6	93	23	36	57	52	6		30612497	●	-	-
4,98	+0,004	6	93	23	36	57	52	6		30612498	●	-	-
4,99	+0,004	6	93	23	36	57	52	6		30612499	●	-	-
5,00	H7	6	93	23	36	57	52	6		30612500	●	30612567	●
5,01	+0,004	6	93	23	36	57	52	6		30612501	●	-	-
5,02	+0,004	6	93	23	36	57	52	6		30612502	●	-	-
5,03	+0,004	6	93	23	36	57	52	6		30612503	●	-	-
5,50	H7	6	93	26	36	57	53	6		30612504	●	30612568	○
5,97	+0,004	6	93	26	36	57	53	6		30612505	●	-	-
5,98	+0,004	6	93	26	36	57	53	6		30612506	●	-	-
5,99	+0,004	6	93	26	36	57	53	6		30612507	●	-	-
6,00	H7	6	93	26	36	57	53	6		30612508	●	30612569	●
6,01	+0,004	6	93	26	36	57	53	6		30612509	●	-	-
6,02	+0,004	6	93	26	36	57	53	6		30612510	●	-	-
6,03	+0,004	6	93	26	36	57	53	6		30612511	●	-	-
6,50	H7	6	101	28	36	65	61	6		30612512	●	30612570	○
7,00	H7	8	109	31	36	73	68	6		30612513	●	30612571	○
7,50	H7	8	109	31	36	73	68	6		30612514	●	30612572	○
7,97	+0,004	8	117	33	36	81	77	6		30612515	●	-	-
7,98	+0,004	8	117	33	36	81	77	6		30612516	●	-	-
7,99	+0,004	8	117	33	36	81	77	6		30612517	●	-	-
8,00	H7	8	117	33	36	81	77	6		30612518	●	30612573	●

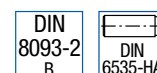
* Due to the redefinition of DIN 8093 this product series replaces our previous codes 040245 (up to ø 20.00 mm) and 043245.
 Since the stock adjustment is done successively, during the transition phase we will sometimes still deliver tools with the previous designations and dimensions.

All dimensions in mm.
 For machining values see end of catalogue.
 Information on special designs and possible coatings on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

NC Machine Reamers | 040211*, 043211*

Preferred series, Ø 0.98 – 3.750 mm made of solid carbide with two-sided centring tips,
Ø 3.751 – 13.200 mm made of solid carbide (with interior centre), Ø 13.201 – 20.000 mm with solid carbide head,
with straight shank diameters for direct clamping in hydraulic, high-precision and shrink chucks
(please only use inductive acting shrink devices for tools with solid carbide head and steel shank!)



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040211	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	
043211	Solid carbide	TiAlN	■	■	■	★	★	■	■	■						★	★

Dimensions									040211		043211	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock	Order No.	Stock
8,01	+0,004	8	117	33	36	81	77	6	30612519	●	-	-
8,02	+0,004	8	117	33	36	81	77	6	30612520	●	-	-
8,03	+0,004	8	117	33	36	81	77	6	30612521	●	-	-
8,04	+0,004	8	117	33	36	81	77	6	30612522	●	-	-
8,50	H7	8	117	33	36	81	77	6	30612523	●	30612574	○
9,00	H7	10	125	36	40	85	80	6	30612524	●	30612575	○
9,50	H7	10	125	36	40	85	80	6	30612525	●	30612576	○
9,97	+0,004	10	133	38	40	93	88	6	30612526	●	-	-
9,98	+0,004	10	133	38	40	93	88	6	30612527	●	-	-
9,99	+0,004	10	133	38	40	93	88	6	30612528	●	-	-
10,00	H7	10	133	38	40	93	88	6	30612529	●	30612577	●
10,01	+0,004	10	133	38	40	93	88	6	30612530	●	-	-
10,02	+0,004	10	133	38	40	93	88	6	30612531	●	-	-
10,03	+0,004	10	133	38	40	93	88	6	30612532	●	-	-
10,04	+0,004	10	133	38	40	93	88	6	30612533	●	-	-
10,05	+0,004	10	133	38	40	93	88	6	30612534	●	-	-
10,50	H7	10	133	38	40	93	88	6	30612535	●	30612578	○
11,00	H7	10	142	41	40	102	97	6	30612536	●	30612579	○
11,97	+0,004	12	151	44	45	106	100	6	30612537	●	-	-
11,98	+0,004	12	151	44	45	106	100	6	30612538	●	-	-
11,99	+0,004	12	151	44	45	106	100	6	30612539	●	-	-
12,00	H7	12	151	44	45	106	100	6	30612540	●	30612580	●
12,01	+0,004	12	151	44	45	106	100	6	30612541	●	-	-
12,02	+0,004	12	151	44	45	106	100	6	30612542	●	-	-
12,03	+0,004	12	151	44	45	106	100	6	30612543	●	-	-
12,04	+0,004	12	151	44	45	106	100	6	30612544	●	-	-
12,05	+0,004	12	151	44	45	106	100	6	30612545	●	-	-
13,00	H7	12	151	44	45	106	100	6	30612546	●	30612581	○
14,00	H7	16	160	47	48	112	106	8	30612547	●	30612582	●
15,00	H7	16	162	50	48	114	108	8	30612548	●	30612583	○
16,00	H7	16	170	52	48	122	116	8	30612549	●	30612584	●
17,00	H7	18	175	52	48	127	121	8	30612550	●	30612585	○
18,00	H7	18	182	52	48	134	128	8	30612551	●	30612586	○
19,00	H7	20	189	52	50	139	133	8	30612552	●	30612587	○
20,00	H7	20	195	52	50	145	140	8	30612553	●	30612588	○

* Due to the redefinition of DIN 8093 this product series replaces our previous codes 040245 (up to ø 20.00 mm) and 043245.
Since the stock adjustment is done successively, during the transition phase we will sometimes still deliver tools with the previous designations and dimensions.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

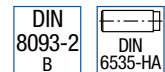
○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

NC Machine Reamers - Configurable | 040211*, 043211*



Configurable series, Ø 0.98 – 3.750 mm made of solid carbide with two-sided centring tips,
 Ø 3.751 – 13.200 mm made of solid carbide (with interior centre), Ø 13.201 – 20.000 mm with solid carbide head,
 with straight shank diameters for direct clamping in hydraulic, high-precision and shrink chucks
 (please only use inductive acting shrink devices for tools with solid carbide head and steel shank!)

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040211	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	
043211	Solid carbide	TiAlN	■	■	■	★	★	■	■	■						★	★

Dimensions								
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
0.951 - 1.060	3	50	6	28	22	17.5	3	○
1.061 - 1.180	3	50	9	28	22	17.5	3	○
1.181 - 1.320	3	50	9	28	22	17.5	3	○
1.321 - 1.500	3	50	9	28	22	18	3	○
1.501 - 1.700	3	50	10	28	22	18	3	○
1.701 - 1.900	3	50	11	28	22	18.5	4	○
1.901 - 2.120	3	50	12	28	22	18.5	4	○
2.121 - 2.360	3	50	12	28	22	18.5	4	○
2.361 - 2.650	3	60	16	28	32	29	4	○
2.651 - 3.030	3	65	17	28	37	34	6	○
3.031 - 3.350	4	65	18	28	37	33	6	○
3.351 - 3.750	4	75	18	28	47	43	6	○
3.751 - 4.250	4	75	19	28	47	43	6	○
4.251 - 4.750	6	80	21	36	44	39	6	○
4.751 - 5.300	6	93	23	36	57	52	6	○
5.301 - 6.030	6	93	26	36	57	53	6	○
6.031 - 6.700	6	101	28	36	65	61	6	○
6.701 - 7.500	8	109	31	36	73	68	6	○
7.501 - 8.040	8	117	33	36	81	77	6	○
8.041 - 8.500	8	117	33	36	81	77	6	○
8.501 - 9.040	10	125	36	40	85	80	6	○
9.041 - 9.500	10	125	36	40	85	80	6	○
9.501 - 10.050	10	133	38	40	93	88	6	○
10.051 - 10.600	10	133	38	40	93	88	6	○
10.601 - 11.800	10	142	41	40	102	97	6	○
11.801 - 12.500	12	151	44	45	106	100	6	○
12.501 - 13.200	12	151	44	45	106	100	6	○
13.201 - 14.000	16	160	47	48	112	106	8	○
14.001 - 15.000	16	162	50	48	114	108	8	○
15.001 - 16.000	16	170	52	48	122	116	8	○
16.001 - 17.000	18	175	52	48	127	121	8	○
17.001 - 18.000	18	182	52	48	134	128	8	○
18.001 - 19.000	20	189	52	50	139	133	8	○
19.001 - 20.000	20	195	52	50	145	140	1	○

* Due to the redefinition of DIN 8093 this product series replaces our previous codes 040245 (up to ø 20.00 mm) and 043245.
 Since the stock adjustment is done successively, during the transition phase we will sometimes still deliver tools with the previous designations and dimensions.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

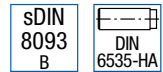
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

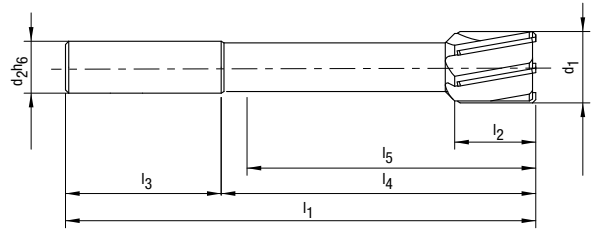
NC Machine Reamer | 040245

Preferred series, with brazed blades, with straight shank diameters for direct clamping in hydraulic, high-precision and shrink chucks (please only use inductive acting shrink devices for carbide tipped tools with steel shank!)



Design

Diameter: 21.00 – 30.00 mm
Cutting direction: Right-hand cutting
Flute direction: Left-hand fluted
Number of cutting edges: 6-8
Geometry: EU-spacing
Dimensions: As per DIN 8093-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040245	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	

Dimensions									040245	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
21.00	H7	20	160	25	50	110	105	6	30215791	○
22.00	H7	20	160	25	50	110	105	6	30215792	●
23.00	H7	20	180	25	50	130	125	6	30242804	○
24.00	H7	20	180	25	50	130	125	8	30109462	●
25.00	H7	20	180	25	50	130	125	8	30109464	●
26.00	H7	20	180	25	50	130	125	8	30109466	●
27.00	H7	20	180	25	50	130	125	8	30242816	○
28.00	H7	25	180	25	56	124	119	8	30109468	●
29.00	H7	25	180	25	56	124	119	8	30242817	○
30.00	H7	25	200	25	56	144	139	8	30109470	●

NC Machine Reamer - Configurable | 040245

Configurable series, with brazed blades, with straight shank diameters for direct clamping in hydraulic, high-precision and shrink chucks (please only use inductive acting shrink devices for carbide tipped tools with steel shank!)

Dimensions									Stock
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z		
20.001 - 21.200	20	160	25	50	110	105	6		○
21.201 - 22.200	20	160	25	50	110	105	6		○
22.201 - 23.200	20	180	25	50	130	125	6		○
23.201 - 24.200	20	180	25	50	130	125	8		○
24.201 - 25.200	20	180	25	50	130	125	8		○
25.201 - 26.200	20	180	25	50	130	125	8		○
26.201 - 27.200	20	180	25	50	130	125	8		○
27.201 - 28.200	25	180	25	56	124	119	8		○
28.201 - 29.200	25	180	25	56	124	119	8		○
29.201 - 30.200	25	200	25	56	144	139	8		○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

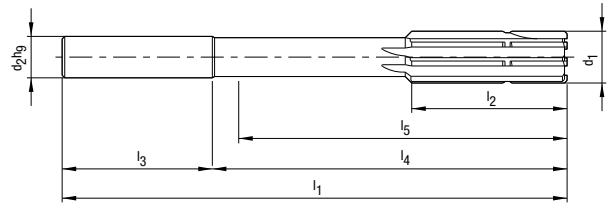
Machine Reamer I 040200*

DIN
8093-1
A

Preferred series, with long cutting section, \varnothing 0.951 – 3.750 mm made of solid carbide
with two-sided centring tips, \varnothing 3.751 – 11.800 mm made of solid carbide (with interior centre),
from \varnothing 11.801 – 16.000 up with solid carbide head, \varnothing 16.001 – 20.200 mm with brazed carbide blades

Design

Diameter: 1.00 – 20.00 mm
Cutting direction: Right-hand cutting
Flute direction: Straight fluted
Number of cutting edges: 3-8
Geometry: EU-spacing \varnothing 3 mm and up
Dimensions: As per DIN 8093-1



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040200	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■	■	★	

Dimensions									040200	
d_1	Tol.	$d_2 h_9$	l_1	l_2	l_3	l_4	l_5	z	Order No.	Stock
1.00	H7	1	34	5.5	19	15	13	3	30612359	●
1.20	H7	1.2	38	7.5	21.5	16.5	14.5	3	30612360	●
1.50	H7	1.5	40	8	22	18	16	3	30612361	●
1.60	H7	1.6	43	9	23	20	18	3	30612362	●
1.80	H7	1.8	46	10	24	22	20	4	30612363	●
2.00	H7	2	49	11	25	24	22	4	30612364	●
2.20	H7	2.2	53	12	28	25	22	4	30612365	●
2.50	H7	2.5	57	14	28	29	26	4	30612366	●
3.00	H7	3	61	15	28	33	30	6	30612367	●
3.20	H7	3.2	65	16	28	37	34	6	30612368	●
3.50	H7	3.5	70	18	28	42	39	6	30612369	●
4.00	H7	4	75	19	28	47	43	6	30612370	●
4.50	H7	4.5	80	21	28	52	48	6	30612371	●
5.00	H7	5	86	23	28	58	54	6	30612372	●
5.50	H7	5.6	93	26	36	57	53	6	30612373	●
6.00	H7	5.6	93	26	36	57	53	6	30612374	●
6.50	H7	6.3	101	28	36	65	61	6	30612375	●
7.00	H7	7.1	109	31	36	73	68	6	30612376	●
7.50	H7	7.1	109	31	36	73	68	6	30612377	●
8.00	H7	8	117	33	36	81	77	6	30612378	●
8.50	H7	8	117	33	36	81	77	6	30612379	●
9.00	H7	9	125	36	40	85	80	6	30612618	●
9.50	H7	9	125	36	40	85	80	6	30612380	●
10.00	H7	10	133	38	40	93	88	6	30612381	●
10.50	H7	10	133	38	40	93	88	6	30612382	●
11.00	H7	10	142	41	40	102	97	6	30612383	●
12.00	H7	10	151	44	40	111	106	6	30612384	●
13.00	H7	10	151	44	40	111	106	6	30612385	●
14.00	H7	12.5	160	47	45	115	110	8	30612386	●
15.00	H7	12.5	162	50	45	117	112	8	30612387	●
16.00	H7	12.5	170	52	45	125	120	8	30612388	●
17.00	H7	14	175	54	45	130	125	6	30612389	●
18.00	H7	14	182	56	45	137	132	6	30612390	●
19.00	H7	16	189	58	48	141	136	6	30612391	●
20.00	H7	16	195	60	48	147	142	6	30612392	●

* Due to the redefinition of DIN 8093 this product series replaces our previous codes 040112, 040110, 040219 and 040222.

Since the stock adjustment is done successively, during the transition phase we will sometimes still deliver tools with the previous designations and dimensions.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

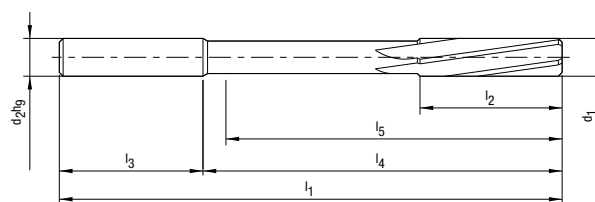
Machine Reamer | 040201*

DIN
8093-1
B

Preferred series, with long cutting section, Ø 0.951 – 3.750 mm made of solid carbide
with two-sided centring tips, Ø 3.751 – 11.800 mm made of solid carbide (with interior centre),
from Ø 11.801 – 16.000 up with solid carbide head, Ø 16.001 – 20.200 mm with brazed carbide blades

Design

Diameter: 1.00 – 20.00 mm
Cutting direction: Right-hand cutting
Flute direction: Spiral fluted (from Ø 17 mm up left-hand fluted)
Number of cutting edges: 3-8
Geometry: EU-spacing Ø 3 mm and up
Dimensions: As per DIN 8093-1



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040201	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	

Dimensions									040201	
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
1.00	H7	1	34	5.5	19	15	13	3	30612393	●
1.20	H7	1.2	38	7.5	21.5	16.5	14.5	3	30612394	●
1.50	H7	1.5	40	8	22	18	16	3	30612395	●
1.60	H7	1.6	43	9	23	20	18	3	30612396	●
1.80	H7	1.8	46	10	24	22	20	4	30612397	●
2.00	H7	2	49	11	25	24	22	4	30612398	●
2.20	H7	2.2	53	12	28	25	22	4	30612399	●
2.50	H7	2.5	57	14	28	29	26	4	30612400	●
3.00	H7	3	61	15	28	33	30	6	30612401	●
3.20	H7	3.2	65	16	28	37	34	6	30612402	●
3.50	H7	3.5	70	18	28	42	39	6	30612403	●
4.00	H7	4	75	19	28	47	43	6	30612404	●
4.50	H7	4.5	80	21	28	52	48	6	30612405	●
5.00	H7	5	86	23	28	58	54	6	30612406	●
5.50	H7	5.6	93	26	36	57	53	6	30612407	●
6.00	H7	5.6	93	26	36	57	53	6	30612408	●
6.50	H7	6.3	101	28	36	65	61	6	30612409	●
7.00	H7	7.1	109	31	36	73	68	6	30612410	●
7.50	H7	7.1	109	31	36	73	68	6	30612411	●
8.00	H7	8	117	33	36	81	77	6	30612412	●
8.50	H7	8	117	33	36	81	77	6	30612413	●
9.00	H7	9	125	36	40	85	80	6	30612619	●
9.50	H7	9	125	36	40	85	80	6	30612414	●
10.00	H7	10	133	38	40	93	88	6	30612415	●
10.50	H7	10	133	38	40	93	88	6	30612416	●
11.00	H7	10	142	41	40	102	97	6	30612417	●
12.00	H7	10	151	44	40	111	106	6	30612418	●
13.00	H7	10	151	44	40	111	106	6	30612419	●
14.00	H7	12.5	160	47	45	115	110	8	30612420	●
15.00	H7	12.5	162	50	45	117	112	8	30612421	●
16.00	H7	12.5	170	52	45	125	120	8	30612422	●
17.00	H7	14	175	54	45	130	125	6	30612423	●
18.00	H7	14	182	56	45	137	132	6	30612424	●
19.00	H7	16	189	58	48	141	136	6	30612425	●
20.00	H7	16	195	60	48	147	142	6	30612426	●

* Due to the redefinition of DIN 8093 this product series replaces our previous codes 040113, 040111, 040220 and 040223.

Since the stock adjustment is done successively, during the transition phase we will sometimes still deliver tools with the previous designations and dimensions.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Machine Reamers - Configurable | 040200*, 040201*

DIN 8093-1 A	DIN 8093-1 B
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Configurable series, with long cutting section, \varnothing 0.951 – 3.750 mm made of solid carbide
with two-sided centring tips, \varnothing 3.751 – 11.800 mm made of solid carbide (with interior centre),
from \varnothing 11.801 – 16.000 up with solid carbide head, \varnothing 16.001 – 20.200 mm with brazed carbide blades

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040200	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■	■	■	■
040201	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□	■	■	■

Dimensions								
d ₁	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
0.950 - 1.060	1	34	5.5	19	15	13	3	○
1.061 - 1.180	1.1	36	6.5	20.5	15.5	13.5	3	○
1.181 - 1.320	1.2	38	7.5	21.5	16.5	14.5	3	○
1.321 - 1.500	1.5	40	8	22	18	16	3	○
1.501 - 1.700	1.6	43	9	23	20	18	3	○
1.701 - 1.900	1.8	46	10	24	22	20	4	○
1.901 - 2.120	2	49	11	25	24	22	4	○
2.121 - 2.360	2.2	53	12	28	25	22	4	○
2.361 - 2.650	2.5	57	14	28	29	26	4	○
2.651 - 3.030	3	61	15	28	33	30	6	○
3.031 - 3.350	3.2	65	16	28	37	34	6	○
3.351 - 3.750	3.5	70	18	28	42	39	6	○
3.751 - 4.250	4	75	19	28	47	43	6	○
4.251 - 4.750	4.5	80	21	28	52	48	6	○
4.751 - 5.300	5	86	23	28	58	54	6	○
5.301 - 6.030	5.6	93	26	36	57	53	6	○
6.031 - 6.700	6.3	101	28	36	65	61	6	○
6.701 - 7.500	7.1	109	31	36	73	68	6	○
7.501 - 8.040	8	117	33	36	81	77	6	○
8.041 - 8.500	8	117	33	36	81	77	6	○
8.501 - 9.040	9	125	36	40	85	80	6	○
9.041 - 9.500	9	125	36	40	85	80	6	○
9.501 - 10.050	10	133	38	40	93	88	6	○
10.051 - 10.600	10	133	38	40	93	88	6	○
10.601 - 11.800	10	142	41	40	102	97	6	○
11.801 - 12.200	10	151	44	40	111	106	6	○
12.201 - 13.200	10	151	44	40	111	106	6	○
13.201 - 14.000	12.5	160	47	45	115	110	8	○
14.001 - 15.000	12.5	162	50	45	117	112	8	○
15.001 - 16.000	12.5	170	52	45	125	120	8	○
16.001 - 17.200	14	175	54	45	130	125	6	○
17.201 - 18.200	14	182	56	45	137	132	6	○
18.201 - 19.200	16	189	58	48	141	136	6	○
19.201 - 20.200	16	195	60	48	147	142	6	○

* Due to the redefinition of DIN 8093 this product series replace our previous codes 040112, 040110, 040219, 040222, 040113, 040111, 040220 and 040223. Since the stock adjustment is done successively, during the transition phase we will sometimes still deliver tools with the previous designations and dimensions.

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

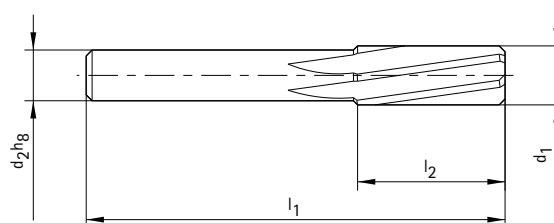
Automatic Lathe Reamer | 040230

Preferred series, short design

 DIN
 8090
 B

Design

Diameter: 3.00 – 12.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 6



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040230	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	

Dimensions						040230	
d_1	Tol.	$d_2 h_8$	l_1	l_2	z	Order No.	Stock
3.00	H7	2.5	56	20	6	30109291	○
3.20	H7	2.8	56	20	6	30109292	○
3.50	H7	3	56	20	6	30109293	○
4.00	H7	3.55	56	20	6	30109294	○
4.50	H7	4	63	22	6	30109295	○
5.00	H7	4	63	22	6	30109296	○
5.50	H7	5	63	22	6	30109297	○
6.00	H7	5	63	22	6	30109298	○
6.50	H7	5	63	22	6	30109299	○
7.00	H7	6.3	71	25	6	30109300	○
7.50	H7	6.3	71	25	6	30109301	○
8.00	H7	6.3	71	25	6	30109302	○
8.50	H7	6.3	71	25	6	30109303	○
9.00	H7	8	71	25	6	30109304	○
9.50	H7	8	71	25	6	30109305	○
10.00	H7	8	71	25	6	30109306	○
10.50	H7	8	71	25	6	30109307	○
11.00	H7	10	80	28	6	30109308	○
11.50	H7	10	80	28	6	30109309	○
12.00	H7	10	80	28	6	30109310	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Automatic Lathe Reamer - Configurable | 040230

Configurable series, short design

DIN
8090
B

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040200	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	

Dimensions						
d ₁	d ₂ h8	l ₁	l ₂	z	Stock	
2.890 - 3.100	2.5	56	20	6	○	
3.101 - 3.300	2.8	56	20	6	○	
3.301 - 3.700	3	56	20	6	○	
3.701 - 4.250	3.55	56	20	6	○	
4.251 - 4.600	4	63	22	6	○	
4.601 - 4.950	4	63	22	6	○	
4.951 - 5.300	4	63	22	6	○	
5.301 - 5.700	5	63	22	6	○	
5.701 - 6.200	5	63	22	6	○	
6.201 - 6.700	5	63	22	6	○	
6.701 - 7.200	6.3	71	25	6	○	
7.201 - 7.700	6.3	71	25	6	○	
7.701 - 8.200	6.3	71	25	6	○	
8.201 - 8.700	6.3	71	25	6	○	
8.701 - 9.200	8	71	25	6	○	
9.201 - 9.700	8	71	25	6	○	
9.701 - 10.200	8	71	25	6	○	
10.201 - 10.600	8	71	25	6	○	
10.601 - 11.200	10	80	28	6	○	
11.201 - 11.700	10	80	28	6	○	
11.701 - 12.200	10	80	28	6	○	

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

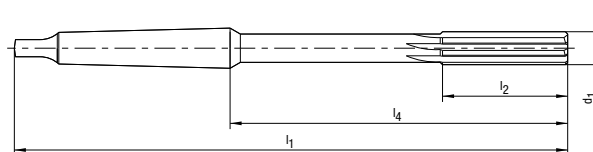
Machine Reamer | 040420

Preferred series, with long cutting section, with solid carbide head

DIN
8094
A

Design

Diameter: 5.00 – 16.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 6-8
 Geometry: EU-spacing



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040420	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■	■	★	

Dimensions							040420	
d ₁	Tol.	l ₁	l ₂	l ₄	MK	z	Order No.	Stock
5.00	H7	133	23	67.5	1	6	30109892	●
5.50	H7	138	26	72.5	1	6	30312290	○
6.00	H7	138	26	72.5	1	6	30109894	●
6.50	H7	144	28	78.5	1	6	30312291	○
7.00	H7	150	31	84.5	1	6	30109896	●
7.50	H7	150	31	84.5	1	6	30312292	○
8.00	H7	156	33	90.5	1	6	30109898	●
8.50	H7	156	33	90.5	1	6	30312293	○
9.00	H7	162	36	96.5	1	6	30109900	●
9.50	H7	162	36	96.5	1	6	30312294	○
10.00	H7	168	38	102.5	1	6	30109902	●
10.50	H7	168	38	102.5	1	6	30312295	○
11.00	H7	175	41	109.5	1	6	30109904	●
11.50	H7	175	41	109.5	1	6	30312296	○
12.00	H7	182	44	116.5	1	6	30109906	●
13.00	H7	182	44	116.5	1	6	30109908	●
14.00	H7	189	47	123.5	1	8	30109910	●
15.00	H7	204	50	124	2	8	30109912	●
16.00	H7	210	52	130	2	8	30109914	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

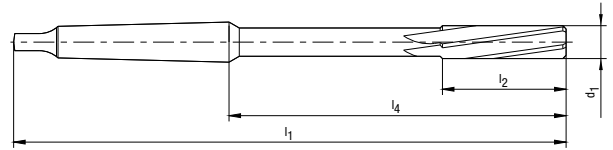
Machine Reamer I 040422

Preferred series, with long cutting section, with solid carbide head

DIN
8094
B

Design

Diameter:	5.00 – 16.00 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	6-8
Geometry:	EU-spacing



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040422	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	

Dimensions							040422	
d ₁	Tol.	l ₁	l ₂	l ₄	MK	z	Order No.	Stock
5.00	H7	133	23	67.5	1	6	30109960	●
5.50	H7	138	26	72.5	1	6	30312307	○
6.00	H7	138	26	72.5	1	6	30109962	●
6.50	H7	144	28	78.5	1	6	30312309	○
7.00	H7	150	31	84.5	1	6	30109964	●
7.50	H7	150	31	84.5	1	6	30312310	○
8.00	H7	156	33	90.5	1	6	30109966	●
8.50	H7	156	33	90.5	1	6	30312312	○
9.00	H7	162	36	96.5	1	6	30109968	●
9.50	H7	162	36	96.5	1	6	30312313	○
10.00	H7	168	38	102.5	1	6	30109970	●
10.50	H7	168	38	102.5	1	6	30312316	○
11.00	H7	175	41	109.5	1	6	30109972	●
11.50	H7	175	41	109.5	1	6	30312317	○
12.00	H7	182	44	116.5	1	6	30109974	●
13.00	H7	182	44	116.5	1	6	30109976	●
14.00	H7	189	47	123.5	1	8	30109978	●
15.00	H7	204	50	124	2	8	30109980	●
16.00	H7	210	52	130	2	8	30109982	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Machine Reamers - Configurable | 040420, 040422

Configurable series, with long cutting section, with solid carbide head

DIN 8094 A	DIN 8094 B
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Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040420	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■		★	
040422	Solid carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	

Dimensions							
d ₁	l ₁	l ₂	l ₄	MK	z	Stock	
4.750 - 5.300	133	23	67.5	1	6	○	
5.301 - 5.700	138	26	72.5	1	6	○	
5.701 - 6.110	138	26	72.5	1	6	○	
6.111 - 6.700	144	28	78.5	1	6	○	
6.701 - 7.200	150	31	84.5	1	6	○	
7.201 - 7.700	150	31	84.5	1	6	○	
7.701 - 8.200	156	33	90.5	1	6	○	
8.201 - 8.700	156	33	90.5	1	6	○	
8.701 - 9.200	162	36	96.5	1	6	○	
9.201 - 9.700	162	36	96.5	1	6	○	
9.701 - 10.200	168	38	102.5	1	6	○	
10.201 - 10.700	168	38	102.5	1	6	○	
10.701 - 11.200	175	41	109.5	1	6	○	
11.201 - 11.700	175	41	109.5	1	6	○	
11.701 - 12.200	182	44	116.5	1	6	○	
12.201 - 13.200	182	44	116.5	1	6	○	
13.201 - 14.200	189	47	123.5	1	8	○	
14.201 - 15.200	204	50	124	2	8	○	
15.201 - 16.200	210	52	130	2	8	○	

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

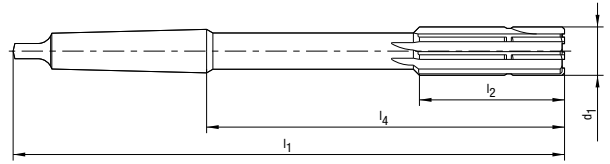
Machine Reamer I 040421

Preferred series, with long cutting section, with brazed carbide blades

DIN
8094
A

Design

Diameter: 17.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 6-8
 Geometry: EU-spacing



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H	
040421	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■	■	■	★	

Dimensions								040421	
d ₁	Tol.	l ₁	l ₂	l ₄	MK	z	Order No.	Stock	
17.00	H7	214	54	134	2	6	30109922	●	
18.00	H7	219	56	139	2	6	30109924	●	
19.00	H7	223	58	143	2	6	30109926	●	
20.00	H7	228	60	148	2	6	30109928	●	
21.00	H7	232	62	152	2	6	30109930	●	
22.00	H7	237	64	157	2	6	30109932	●	
23.00	H7	241	66	161	2	6	30109934	●	
24.00	H7	268	68	169	3	8	30109936	●	
25.00	H7	268	68	169	3	8	30109938	●	
26.00	H7	273	70	174	3	8	30109940	●	
27.00	H7	277	71	178	3	8	30109942	●	
28.00	H7	277	71	178	3	8	30109944	●	
30.00	H7	281	73	182	3	8	30109946	●	
32.00	H7	317	77	193	4	8	30109948	●	
34.00	H7	321	78	197	4	8	30109950	●	
35.00	H7	321	78	197	4	8	30109952	●	
36.00	H7	325	79	201	4	8	30109954	●	
38.00	H7	329	81	205	4	8	30109956	●	
40.00	H7	329	81	205	4	8	30109958	●	

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

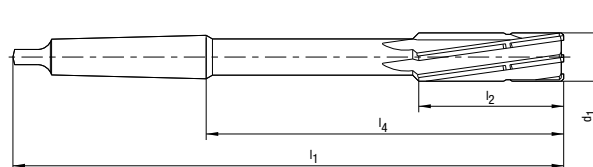
Machine Reamer | 040423

Preferred series, with long cutting section, with brazed carbide blades

DIN
8094
B

Design

Diameter: 10.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Left-hand fluted
 Number of cutting edges: 6-8
 Geometry: EU-spacing



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040423	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	

Dimensions								040423	
d ₁	Tol.	l ₁	l ₂	l ₄	MK	z	Order No.	Stock	
10.00	H7	168	38	102.5	1	6	30109984	●	
10.50	H7	168	38	102.5	1	6	30312621	○	
11.00	H7	175	41	109.5	1	6	30109986	●	
11.50	H7	175	41	109.5	1	6	30102622	○	
12.00	H7	182	44	116.5	1	6	30109988	●	
13.00	H7	182	44	116.5	1	6	30109990	●	
14.00	H7	189	47	123.5	1	6	30109992	●	
15.00	H7	204	50	124	2	6	30109994	●	
16.00	H7	210	52	130	2	6	30109996	●	
17.00	H7	214	54	134	2	6	30109998	●	
18.00	H7	219	56	139	2	6	30110000	●	
19.00	H7	223	58	143	2	6	30110002	●	
20.00	H7	228	60	148	2	6	30110004	●	
21.00	H7	232	62	152	2	6	30110006	●	
22.00	H7	237	64	157	2	6	30110008	●	
23.00	H7	241	66	161	2	6	30110010	●	
24.00	H7	268	68	169	3	8	30110012	●	
25.00	H7	268	68	169	3	8	30110014	●	
26.00	H7	273	70	174	3	8	30110016	●	
27.00	H7	277	71	178	3	8	30110018	●	
28.00	H7	277	71	178	3	8	30110020	●	
29.00	H7	281	73	182	3	8	30312623	○	
30.00	H7	281	73	182	3	8	30110022	●	
31.00	H7	285	75	186	3	8	30312624	○	
32.00	H7	317	77	193	4	8	30110024	●	
34.00	H7	321	78	197	4	8	30110026	●	
35.00	H7	321	78	197	4	8	30110028	●	
36.00	H7	325	79	201	4	8	30110030	●	
38.00	H7	329	81	205	4	8	30110032	●	
40.00	H7	329	81	205	4	8	30110034	●	

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Machine Reamers - Configurable | 040421, 040423

Configurable series, with long cutting section, with brazed carbide blades

DIN 8094 A	DIN 8094 B
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Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040421	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■		★	
040423	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	

Dimensions *							
d ₁	l ₁	l ₂	l ₄	MK	z	Stock	
9.640 - 10.200	168	38	102.5	1	6	○	
10.201 - 10.640	168	38	102.5	1	6	○	
10.641 - 11.140	175	41	109.5	1	6	○	
11.141 - 11.800	175	41	109.5	1	6	○	
11.801 - 12.200	182	44	116.5	1	6	○	
12.201 - 13.200	182	44	116.5	1	6	○	
13.201 - 14.140	189	47	123.5	1	6	○	
14.141 - 15.140	204	50	124	2	6	○	
15.141 - 16.140	210	52	130	2	6	○	
16.141 - 17.140	214	54	134	2	6	○	
17.141 - 18.140	219	56	139	2	6	○	
18.141 - 19.160	223	58	143	2	6	○	
19.161 - 20.160	228	60	148	2	6	○	
20.161 - 21.200	232	62	152	2	6	○	
21.201 - 22.200	237	64	157	2	6	○	
22.201 - 23.200	241	66	161	2	6	○	
23.201 - 24.200	268	68	169	3	8	○	
24.201 - 25.160	268	68	169	3	8	○	
25.161 - 26.200	273	70	174	3	8	○	
26.201 - 27.200	277	71	178	3	8	○	
27.201 - 28.160	277	71	178	3	8	○	
28.160 - 29.200	281	73	182	3	8	○	
29.201 - 30.160	281	73	182	3	8	○	
30.161 - 31.200	285	75	186	3	8	○	
31.201 - 32.200	317	77	193	4	8	○	
33.201 - 34.200	321	78	197	4	8	○	
34.201 - 35.200	321	78	197	4	8	○	
35.201 - 36.200	325	79	201	4	8	○	
37.201 - 38.200	329	81	205	4	8	○	
39.201 - 40.160	329	81	205	4	8	○	

* Intermediate diameters, which are not covered by the listed Ø-ranges, are available on as a special production!

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

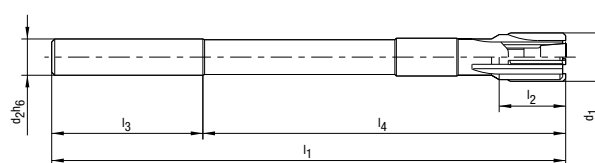
Machine Expandable Reamer | 040311

Preferred series, with short cutting section, with brazed carbide blades, expandable using face screw by approx. 0.03 mm

sDIN
8050
A

Design

Diameter: 8.00 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 4 – 6
 Dimensions: Similar to DIN DIN 8050



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040311	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■	■	★	

Dimensions								040311	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	z	Order No.	Stock
8.00	H7	8	117	12	42	75	4	30109517	●
8.50	H7	8	117	12	42	75	4	30310349	○
9.00	H7	10	125	12	46	79	6	30109519	●
9.50	H7	10	125	12	46	79	6	30310350	○
10.00	H7	10	133	12	46	87	6	30109521	●
10.50	H7	10	133	12	46	87	6	30310352	○
11.00	H7	10	142	12	46	96	6	30109523	●
11.50	H7	10	142	12	46	96	6	30310354	○
12.00	H7	10	151	12	46	105	6	30109525	●
12.50	H7	10	151	12	46	105	6	30310361	○
13.00	H7	10	151	12	46	105	6	30109527	●
14.00	H7	12	160	16	50	110	6	30109529	●
15.00	H7	12	162	16	50	112	6	30109531	●
16.00	H7	12	170	19	50	120	6	30109533	●
17.00	H7	14	175	19	52	123	6	30310362	○
18.00	H7	14	182	19	52	130	6	30109535	●
19.00	H7	16	189	19	58	131	6	30310364	○
20.00	H7	16	195	19	58	137	6	30109537	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Machine Expandable Reamer - Configurable | 040311

Configurable series, with short cutting section, with brazed carbide blades,
expandable using face screw by approx. 0.03 mm

sDIN
8050
A

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H	
040311	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■	■	■	★	

Dimensions							
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	z	Stock
7.700 - 8.200	8	117	12	42	75	4	○
8.201 - 8.700	8	117	12	42	75	4	○
8.701 - 9.200	10	125	12	46	79	6	○
9.201 - 9.700	10	125	12	46	79	6	○
9.701 - 10.200	10	133	12	46	87	6	○
10.201 - 10.700	10	133	12	46	87	6	○
10.701 - 11.200	10	142	12	46	96	6	○
11.201 - 11.700	10	142	12	46	96	6	○
11.701 - 12.200	10	151	12	46	105	6	○
12.201 - 12.700	10	151	12	46	105	6	○
12.701 - 13.200	10	151	12	46	105	6	○
13.201 - 14.200	12	160	16	50	110	6	○
14.201 - 15.200	12	162	16	50	112	6	○
15.201 - 16.200	12	170	19	50	120	6	○
16.201 - 17.200	14	175	19	52	123	6	○
17.201 - 18.200	14	182	19	52	130	6	○
18.201 - 19.200	16	189	19	58	131	6	○
19.201 - 20.200	16	195	19	58	137	6	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings
on request.

● These products are available ex stock.

○ These products are available from semi-finished
stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

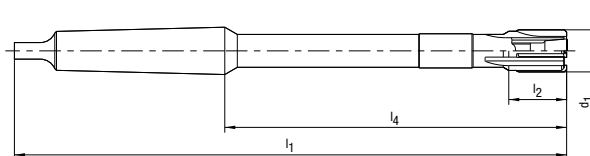
Machine Expandable Reamer | 040511

Preferred series, with short cutting section, with brazed carbide blades, expandable using face screw by approx. 0.03 mm

 sDIN
 8051
 A

Design

Diameter: 8.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 4 – 8
 Dimensions: Similar to DIN DIN 8051



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040511	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■	■	★	

Dimensions							040511	
d ₁	Tol.	l ₁	l ₂	l ₄	MK	z	Order No.	Stock
8.00	H7	156	12	90.5	1	4	30110098	●
8.50	H7	156	12	90.5	1	4	30316589	○
9.00	H7	162	19	96.5	1	4	30110100	●
9.50	H7	162	12	96.5	1	6	30316591	○
10.00	H7	168	12	102.5	1	6	30110102	●
10.50	H7	168	12	102.5	1	6	30316597	○
11.00	H7	175	12	109.5	1	6	30110104	●
11.50	H7	175	12	109.5	1	6	30316598	○
12.00	H7	182	12	116.5	1	6	30110106	●
12.50	H7	182	12	116.5	1	6	30316599	○
13.00	H7	182	12	116.5	1	6	30110108	●
14.00	H7	189	16	123.5	1	6	30110110	●
15.00	H7	204	16	124	2	6	30110112	●
16.00	H7	210	19	130	2	6	30110114	●
17.00	H7	214	19	134	2	6	30110116	●
18.00	H7	219	19	139	2	6	30110118	●
19.00	H7	223	19	143	2	6	30110120	●
20.00	H7	228	19	148	2	6	30110122	●
21.00	H7	232	19	152	2	6	30316603	○
22.00	H7	237	22	157	2	6	30110124	●
23.00	H7	241	22	161	2	6	30316605	○
24.00	H7	268	22	169	3	6	30110126	●
25.00	H7	268	22	169	3	6	30110128	●
26.00	H7	273	22	174	3	6	30110130	●
27.00	H7	277	25	178	3	6	30316607	○
28.00	H7	277	25	178	3	6	30110132	●
30.00	H7	281	25	182	3	6	30110134	●
32.00	H7	317	25	193	4	6	30110136	●
34.00	H7	321	25	197	4	8	30110138	●
35.00	H7	321	25	197	4	8	30110140	●
36.00	H7	325	25	201	4	8	30110142	●
38.00	H7	329	25	205	4	8	30110144	●
40.00	H7	329	25	205	4	8	30110146	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Machine Expandable Reamer - Configurable | 040511

Configurable series, with short cutting section, with brazed carbide blades,
expandable using face screw by approx. 0.03 mm

sDIN
8051
A

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H	
040511	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■	■	■	■	■

Dimensions *							
d ₁	l ₁	l ₂	l ₄	MK	z	Stock	
7.700 - 8.200	156	12	90.5	1	4	○	
8.201 - 8.700	156	12	90.5	1	4	○	
8.701 - 9.200	162	19	96.5	1	4	○	
9.201 - 9.700	162	12	96.5	1	6	○	
9.701 - 10.200	168	12	102.5	1	6	○	
10.201 - 10.700	168	12	102.5	1	6	○	
10.701 - 11.200	175	12	109.5	1	6	○	
11.201 - 11.700	175	12	109.5	1	6	○	
11.701 - 12.200	182	12	116.5	1	6	○	
12.201 - 12.700	182	12	116.5	1	6	○	
12.700 - 13.200	182	12	116.5	1	6	○	
13.201 - 14.200	189	16	123.5	1	6	○	
14.201 - 15.200	204	16	124	2	6	○	
15.201 - 16.200	210	19	130	2	6	○	
16.201 - 17.200	214	19	134	2	6	○	
17.201 - 18.200	219	19	139	2	6	○	
18.201 - 19.200	223	19	143	2	6	○	
19.201 - 20.200	228	19	148	2	6	○	
20.201 - 21.200	232	19	152	2	6	○	
21.201 - 22.200	237	22	157	2	6	○	
22.201 - 23.200	241	22	161	2	6	○	
23.201 - 24.200	268	22	169	3	6	○	
24.201 - 25.200	268	22	169	3	6	○	
25.201 - 26.200	273	22	174	3	6	○	
26.201 - 27.200	277	25	178	3	6	○	
27.201 - 28.200	277	25	178	3	6	○	
29.201 - 30.200	281	25	182	3	6	○	
31.200 - 32.200	317	25	193	4	6	○	
33.201 - 34.200	321	25	197	4	8	○	
34.201 - 35.200	321	25	197	4	8	○	
35.201 - 36.200	325	25	201	4	8	○	
37.201 - 38.200	329	25	205	4	8	○	
39.201 - 40.200	329	25	205	4	8	○	

* Intermediate diameters, which are not covered by the listed Ø-ranges, are available on request as special production!

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings
on request.

● These products are available ex stock.

○ These products are available from semi-finished
stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

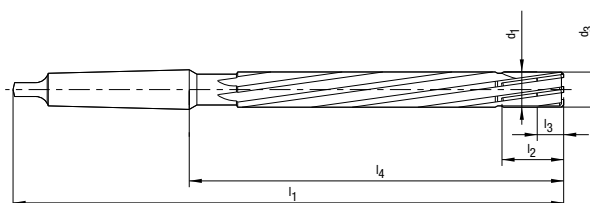
Machine Reamer | 040512

Preferred series, with precutting step as per WN 280 and brazed carbide blades, at the end of cutting length l_2 the diameter is ground smaller by 0.3 to 0.4 mm

 BECK
 Norm

Design

Diameter: 5.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Left-hand fluted
 Number of cutting edges: 6 – 8
 Dimensions: Works standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040512	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	□		★	

Dimensions *									040512	
d ₁	Tol.	d ₃	l ₁	l ₂	l ₃	l ₄	MK	z	Order No.	Stock
5.00	H7	4.92	165	25	10	99.5	1	6	30110148	●
6.00	H7	5.92	165	25	10	99.5	1	6	30110149	●
7.00	H7	6.92	185	25	10	119.5	1	6	30110150	●
8.00	H7	7.92	205	23	10	139.5	1	6	30110151	●
9.00	H7	8.9	215	23	10	149.5	1	6	30110152	●
10.00	H7	9.9	230	28	12	164.5	1	6	30110153	●
11.00	H7	10.9	230	28	12	164.5	1	6	30110154	●
12.00	H7	11.9	230	28	12	164.5	1	6	30110155	●
14.00	H7	13.9	230	28	12	164.5	1	6	30110157	●
15.00	H7	14.9	245	28	12	165	2	6	30110158	●
16.00	H7	15.9	250	28	12	170	2	6	30110159	●
18.00	H7	17.9	255	28	12	175	2	6	30110160	●
19.00	H7	18.9	260	28	12	180	2	6	30110161	●
20.00	H7	19.9	260	33	15	180	2	6	30110162	●
22.00	H7	21.85	265	33	15	185	2	6	30110163	●
24.00	H7	23.85	285	33	15	186	3	8	30110164	●
25.00	H7	24.85	285	33	15	186	3	8	30110165	●
30.00	H7	29.85	300	33	15	201	3	8	30110168	●
35.00	H7	34.85	335	33	15	211	4	8	30110170	●
40.00	H7	39.85	345	33	15	221	4	8	30110173	●

* Intermediate diameters and special tolerances are available on as a special production!

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

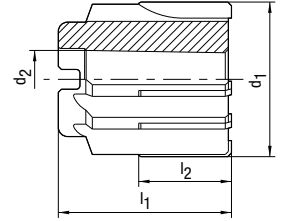
Shell Reamer I 040910

Preferred series, with brazed carbide blades,
locating bore with 1:30 taper and driving slot to DIN 138, suitable for tool holders DIN 217
(see end of chapter)

DIN
8054
A

Design

Diameter: 25.00 – 75.00 mm
Cutting direction: Right-hand cutting
Flute direction: Straight fluted
Number of cutting edges: 6 – 12



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040910	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■	■	★	

Dimensions						040910	
d ₁	Tol.	d ₂	l ₁	l ₂	z	Order No.	Stock
25.00	H7	13	45	25	6	30110217	●
26.00	H7	13	45	25	6	30168898	○
28.00	H7	13	45	25	6	30200123	○
30.00	H7	13	45	30	8	30110218	●
31.00	H7	13	45	30	8	30264144	○
32.00	H7	13	45	30	8	30110219	●
33.00	H7	13	45	30	8	30271654	○
34.00	H7	13	45	30	8	30110220	●
35.00	H7	13	45	30	8	30110221	●
36.00	H7	16	50	30	8	30110222	●
37.00	H7	16	50	30	8	30110223	●
38.00	H7	16	50	30	8	30110224	●
40.00	H7	16	50	30	8	30110225	●
41.00	H7	16	50	30	8	30284755	○
42.00	H7	16	50	30	8	30110226	●
43.00	H7	16	50	30	8	30250677	○
44.00	H7	16	50	30	8	30110227	●
45.00	H7	16	50	30	8	30110228	●
46.00	H7	19	56	30	10	30263750	○
47.00	H7	19	56	30	10	30241053	○
48.00	H7	19	56	30	10	30110229	●
50.00	H7	19	56	30	10	30110230	●
52.00	H7	19	56	30	10	30110231	○
55.00	H7	22	63	30	10	30110232	●
58.00	H7	22	63	30	10	30110233	●
60.00	H7	22	63	30	10	30110234	●
62.00	H7	22	63	30	10	30217739	○
65.00	H7	27	71	30	12	30205920	○
70.00	H7	27	71	30	12	30110236	●
72.00	H7	27	71	30	12	30110237	○
75.00	H7	27	71	30	12	30110238	●

d₂ = nominal diameter d₁ of suitable holder!

All dimensions in mm.

For machining values see end of catalogue.
Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

Shell Reamer - Configurable | 040910

Configurable series, with brazed carbide blades,

locating bore with 1:30 taper and driving slot to DIN 138, suitable for tool holders DIN 217

(see end of chapter)

DIN 8054 A

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
040910	Carbide	Uncoated	■	■	■	★	★	■	■	■	■	■	■	■	■	★	

Dimensions *						
d ₁	d ₂	l ₁	l ₂	z		Stock
24.800 - 26.200	13	45	25	6		○
26.500 - 28.200	13	45	25	6		○
29.500 - 32.200	13	45	30	8		○
32.500 - 35.200	13	45	30	8		○
35.500 - 38.200	16	50	30	8		○
39.500 - 42.200	16	50	30	8		○
42.500 - 45.200	16	50	30	8		○
45.500 - 48.200	19	56	30	10		○
49.500 - 52.200	19	56	30	10		○
52.500 - 55.200	22	63	30	10		○
55.500 - 58.200	22	63	30	10		○
59.500 - 62.200	22	63	30	10		○
62.500 - 65.200	27	71	30	12		○
69.500 - 72.200	27	71	30	12		○
72.200 - 75.200	27	71	30	12		○

d₂ = nominal diameter d₁ of suitable holder!

* Intermediate diameters, which are not covered by the listed Ø-ranges, are available on as a special production!

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

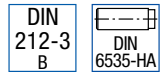
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

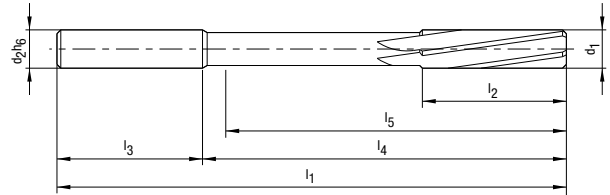
NC Machine Reamer I 030505

Preferred series of HSS-E, Ø 0.95 – 3.75 mm with two-sided centring tips,
 Ø 3.76 – 20.00 mm with interior centre, with straight shank diameters
 for direct clamping in hydraulic and high-precision chucks



Design

Diameter: 1.00 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 3 – 8
 Dimensions: As per DIN 212-3



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030505	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030505	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
1.00	H7	1	34	5.5	19	15	12.5	3	30330779	○
1.01	+0.004	1	34	5.5	19	15	12.5	3	30103146	●
1.02	+0.004	1	34	5.5	19	15	12.5	3	30103147	●
1.10	H7	1	36	6.5	20.5	15.5	13	3	10082114	○
1.20	H7	2	38	7.5	21.5	16.5	14	3	30330781	○
1.40	H7	2	40	8	22	18	15.5	3	30330783	○
1.50	H7	2	40	8	22	18	15.5	3	30102976	●
1.51	+0.004	2	43	9	23	20	16	3	30103149	●
1.52	+0.004	2	43	9	23	20	16	3	30103150	●
1.60	H7	2	43	9	23	20	16	3	30102977	●
1.70	H7	2	43	9	23	20	16	3	30102978	●
1.80	H7	2	46	10	24	22	19	4	30102979	●
1.90	H7	2	46	10	24	22	19	4	30102980	●
1.97	+0.004	2	49	11	25	24	21	4	30103151	●
1.98	+0.004	2	49	11	25	24	21	4	30103152	●
1.99	+0.004	2	49	11	25	24	21	4	30103153	●
2.00	H7	2	49	11	25	24	21	4	30102981	●
2.01	+0.004	2	49	11	25	24	21	4	30103155	●
2.02	+0.004	2	49	11	25	24	21	4	30103156	●
2.10	H7	2	49	11	25	24	21	4	30102982	●
2.20	H7	3	53	12	28	25	22	4	30102983	●
2.30	H7	3	53	12	28	25	22	4	30102984	●
2.40	H7	3	57	14	28	29	26	4	30102985	●
2.48	+0.004	3	57	14	28	29	26	4	30103157	●
2.49	+0.004	3	57	14	28	29	26	4	30103158	●
2.50	H7	3	57	14	28	29	26	4	30102986	●
2.51	+0.004	3	57	14	28	29	26	4	30103160	●
2.52	+0.004	3	57	14	28	29	26	4	30103161	●
2.60	H7	3	57	14	28	29	26	4	30102987	●
2.70	H7	3	61	15	28	33	30	6	30102988	●
2.80	H7	3	61	15	28	33	30	6	30102989	●
2.90	H7	3	61	15	28	33	30	6	30102990	●
2.97	+0.004	3	61	15	28	33	30	6	30103162	●
2.98	+0.004	3	61	15	28	33	30	6	30103163	●
2.99	+0.004	3	61	15	28	33	30	6	30103164	●
3.00	H7	3	61	15	28	33	30	6	30102991	●
3.01	+0.004	3	61	15	28	33	30	6	30103166	●
3.02	+0.004	3	61	15	28	33	30	6	30103167	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

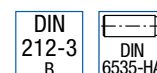
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

NC Machine Reamer | 030505

Preferred series of HSS-E, Ø 0.95 – 3.75 mm with two-sided centring tips,
 Ø 3.76 – 20.00 mm with interior centre, with straight shank diameters
 for direct clamping in hydraulic and high-precision chucks



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030505	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030505	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
3.10	H7	4	65	16	28	37	34	6	30102992	●
3.20	H7	4	65	16	28	37	34	6	30102993	●
3.30	H7	4	65	16	28	37	34	6	30102994	●
3.40	H7	4	70	18	28	42	39	6	30102995	●
3.50	H7	4	70	18	28	42	39	6	30102996	●
3.60	H7	4	70	18	28	42	39	6	30102997	●
3.70	H7	4	70	18	28	42	39	6	30102998	●
3.80	H7	4	75	19	28	47	44	6	30103000	●
3.90	H7	4	75	19	28	47	44	6	30103002	●
3.97	+0.004	4	75	19	28	47	44	6	30103169	●
3.98	+0.004	4	75	19	28	47	44	6	30103171	●
3.99	+0.004	4	75	19	28	47	44	6	30103173	●
4.00	H7	4	75	19	28	47	44	6	30103004	●
4.01	+0.004	4	75	19	28	47	44	6	30103177	●
4.02	+0.004	4	75	19	28	47	44	6	30103179	●
4.10	H7	4	75	19	28	47	44	6	30103006	●
4.20	H7	4	75	19	28	47	44	6	30103008	●
4.30	H7	5	80	21	28	52	48	6	30103010	●
4.40	H7	5	80	21	28	52	48	6	30103012	●
4.50	H7	5	80	21	28	52	48	6	30103014	●
4.60	H7	5	80	21	28	52	48	6	30103016	●
4.70	H7	5	80	21	28	52	48	6	30103018	●
4.80	H7	5	86	23	28	58	54	6	30103020	●
4.90	H7	5	86	23	28	58	54	6	30103022	●
4.97	+0.004	5	86	23	28	58	54	6	30103181	●
4.98	+0.004	5	86	23	28	58	54	6	30103183	●
4.99	+0.004	5	86	23	28	58	54	6	30103185	●
5.00	H7	5	86	23	28	58	54	6	30103024	●
5.01	+0.004	5	86	23	28	58	54	6	30103189	●
5.02	+0.004	5	86	23	28	58	54	6	30103191	●
5.10	H7	5	86	23	28	58	54	6	30103026	●
5.20	H7	5	86	23	28	58	54	6	30103028	●
5.30	H7	5	86	23	28	58	54	6	30103030	●
5.40	H7	6	93	26	36	57	53	6	30103032	●
5.50	H7	6	93	26	36	57	53	6	30103034	●
5.60	H7	6	93	26	36	57	53	6	30103036	●
5.70	H7	6	93	26	36	57	53	6	30103038	●
5.80	H7	6	93	26	36	57	53	6	30103040	●
5.90	H7	6	93	26	36	57	53	6	30103042	●
5.97	+0.005	6	93	26	36	57	53	6	30103193	●
5.98	+0.005	6	93	26	36	57	53	6	30103195	●
5.99	+0.005	6	93	26	36	57	53	6	30103197	●
6.00	H7	6	93	26	36	57	53	6	30103044	●
6.01	+0.005	6	93	26	36	57	53	6	30103201	●
6.02	+0.005	6	93	26	36	57	53	6	30103203	●
6.10	H7	6	101	28	36	65	61	6	30103046	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

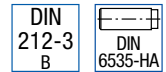
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

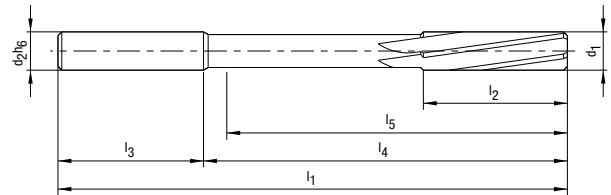
NC Machine Reamer I 030505

Preferred series of HSS-E, Ø 0.95 – 3.75 mm with two-sided centring tips,
 Ø 3.76 – 20.00 mm with interior centre, with straight shank diameters
 for direct clamping in hydraulic and high-precision chucks



Design

Diameter: 1.00 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 3 – 8
 Dimensions: As per DIN 212-3



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030505	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030505	
d ₁	Tol.	d ₂ h ₆	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
6.20	H7	6	101	28	36	65	61	6	30103048	●
6.30	H7	6	101	28	36	65	61	6	30103050	●
6.40	H7	6	101	28	36	65	61	6	30103052	●
6.50	H7	6	101	28	36	65	61	6	30103054	●
6.60	H7	6	101	28	36	65	61	6	30103056	●
6.70	H7	6	101	28	36	65	61	6	30103058	●
6.80	H7	8	109	31	36	73	69	6	30103060	●
6.90	H7	8	109	31	36	73	69	6	30103062	●
7.00	H7	8	109	31	36	73	69	6	30103064	●
7.10	H7	8	109	31	36	73	69	6	30103066	●
7.20	H7	8	109	31	36	73	69	6	30103068	●
7.30	H7	8	109	31	36	73	69	6	30103070	●
7.40	H7	8	109	31	36	73	69	6	30103072	●
7.50	H7	8	109	31	36	73	69	6	30103074	●
7.60	H7	8	117	33	36	81	77	6	30103076	●
7.70	H7	8	117	33	36	81	77	6	30103078	●
7.80	H7	8	117	33	36	81	77	6	30103080	●
7.90	H7	8	117	33	36	81	77	6	30103082	●
7.97	+0.005	8	117	33	36	81	77	6	30103205	●
7.98	+0.005	8	117	33	36	81	77	6	30103207	●
7.99	+0.005	8	117	33	36	81	77	6	30103209	●
8.00	H7	8	117	33	36	81	77	6	30103084	●
8.01	+0.005	8	117	33	36	81	77	6	30103213	●
8.02	+0.005	8	117	33	36	81	77	6	30103215	●
8.10	H7	8	117	33	36	81	77	6	30103086	●
8.20	H7	8	117	33	36	81	77	6	30103088	●
8.30	H7	8	117	33	36	81	77	6	30103090	●
8.40	H7	8	117	33	36	81	77	6	30103092	●
8.50	H7	8	117	33	36	81	77	6	30103094	●
8.60	H7	10	125	36	40	85	81	6	30103096	●
8.70	H7	10	125	36	40	85	81	6	30103098	●
8.80	H7	10	125	36	40	85	81	6	30103100	●
8.90	H7	10	125	36	40	85	81	6	30103102	●
9.00	H7	10	125	36	40	85	81	6	30103104	●
9.01	+0.005	10	125	36	40	85	81	6	30103219	●
9.02	+0.005	10	125	36	40	85	81	6	30103221	●
9.10	H7	10	125	36	40	85	81	6	30103106	●
9.20	H7	10	125	36	40	85	81	6	30103108	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

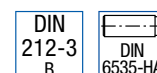
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

NC Machine Reamer | 030505

Preferred series of HSS-E, Ø 0.95 – 3.75 mm with two-sided centring tips,
 Ø 3.76 – 20.00 mm with interior centre, with straight shank diameters
 for direct clamping in hydraulic and high-precision chucks



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030505	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030505	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
9.30	H7	10	125	36	40	85	81	6	30103110	●
9.40	H7	10	125	36	40	85	81	6	30103112	●
9.50	H7	10	125	36	40	85	81	6	30103114	●
9.60	H7	10	133	38	40	93	89	6	30103116	●
9.70	H7	10	133	38	40	93	89	6	30103118	●
9.80	H7	10	133	38	40	93	89	6	30103120	●
9.90	H7	10	133	38	40	93	89	6	30103122	●
9.97	+0.005	10	133	38	40	93	89	6	30103223	●
9.98	+0.005	10	133	38	40	93	89	6	30103225	●
9.99	+0.005	10	133	38	40	93	89	6	30103227	●
10.00	H7	10	133	38	40	93	89	6	30103124	●
10.01	+0.005	10	133	38	40	93	89	6	30103231	●
10.02	+0.005	10	133	38	40	93	89	6	30103233	●
10.50	H7	10	133	38	40	93	89	6	30310463	○
11.00	H7	10	142	41	40	102	98	6	30103126	●
11.50	H7	10	142	41	40	102	98	6	30310464	○
11.97	+0.005	10	151	44	40	111	106	6	30103235	●
11.98	+0.005	10	151	44	40	111	106	6	30103237	●
11.99	+0.005	10	151	44	40	111	106	6	30103239	●
12.00	H7	10	151	44	40	111	106	6	30103128	●
13.00	H7	10	151	44	40	111	106	6	30103130	●
14.00	H7	14	160	47	45	115	110	8	30103132	●
15.00	H7	14	162	50	45	117	112	8	30103134	●
16.00	H7	14	170	52	45	125	120	8	30103136	●
17.00	H7	14	175	54	45	130	125	8	30103138	●
18.00	H7	14	182	56	45	137	132	8	30103140	●
19.00	H7	16	189	58	48	141	136	8	30103142	●
20.00	H7	16	195	60	48	147	142	8	30103144	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

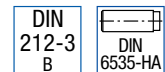
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

NC Machine Reamer - Configurable | 030505

Configurable series of HSS-E, Ø 0.95 – 3.75 mm with two-sided centring tips,
 Ø 3.76 – 20.00 mm with interior centre, with straight shank diameters
 for direct clamping in hydraulic and high-precision chucks



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030505	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions								
d ₁	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
0.950 - 1.060	1	34	5.5	19	15	12.5	3	○
1.061 - 1.180	1	36	6.5	20.5	15.5	13	3	○
1.181 - 1.320	2	38	7.5	21.5	16.5	14	3	○
1.321 - 1.410	2	40	8	22	18	15.5	3	○
1.411 - 1.500	2	40	8	22	18	15.5	3	○
1.501 - 1.700	2	43	9	23	20	16	3	○
1.701 - 1.900	2	46	10	24	22	19	4	○
1.901 - 2.120	2	49	11	25	24	21	4	○
2.121 - 2.360	3	53	12	28	25	22	4	○
2.361 - 2.650	3	57	14	28	29	26	4	○
2.651 - 3.030	3	61	15	28	33	30	6	○
3.031 - 3.350	4	65	16	28	37	34	6	○
3.351 - 3.750	4	70	18	28	42	39	6	○
3.751 - 4.250	4	75	19	28	47	44	6	○
4.251 - 4.750	5	80	21	28	52	48	6	○
4.751 - 5.300	5	86	23	28	58	54	6	○
5.301 - 5.600	6	93	26	36	57	53	6	○
5.601 - 6.030	6	93	26	36	57	53	6	○
6.031 - 6.700	6	101	28	36	65	61	6	○
6.701 - 7.200	8	109	31	36	73	69	6	○
7.201 - 7.500	8	109	31	36	73	69	6	○
7.501 - 8.200	8	117	33	36	81	77	6	○
8.201 - 8.500	8	117	33	36	81	77	6	○
8.501 - 9.200	10	125	36	40	85	81	6	○
9.201 - 9.500	10	125	36	40	85	81	6	○
9.501 - 10.200	10	133	38	40	93	89	6	○
10.201 - 10.600	10	133	38	40	93	89	6	○
10.601 - 11.200	10	142	41	40	102	98	6	○
11.201 - 11.800	10	142	41	40	102	98	6	○
11.801 - 12.200	10	151	44	40	111	106	6	○
12.201 - 13.200	10	151	44	40	111	106	6	○
13.201 - 14.000	14	160	47	45	115	110	8	○
14.001 - 15.000	14	162	50	45	117	112	8	○
15.001 - 16.000	14	170	52	45	125	120	8	○
16.001 - 17.000	14	175	54	45	130	125	8	○
17.001 - 18.000	14	182	56	45	137	132	8	○
18.001 - 19.000	16	189	58	48	141	136	8	○
19.001 - 20.000	16	195	60	48	147	142	8	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

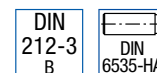
■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

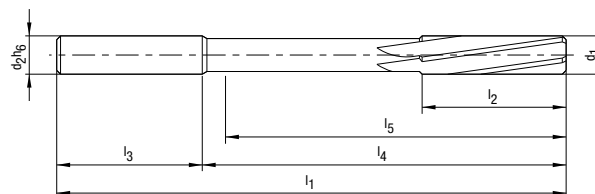
Set NC Machine Reamer | 030507

10-piece set made of HSS-E, with straight shank diameters
for direct clamping in hydraulic and high-precision chucks



Design

Diameter: 1.50 / 2.00 / 3.00 / 4.00 / 5.00 / 6.00 /
7.00 / 8.00 / 10.00 / 12.00 mm
Cutting direction: Right-hand cutting
Flute direction: Spiral fluted
Number of cutting edges: 3 – 6
Dimensions: As per DIN 212-3



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030507	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030507	
d ₁	Tol.	d ₂ h6	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
1.50	H7	2	40	8	22	18	15.5	3	30134724	●
2.00	H7	2	49	11	25	24	21	4		
3.00	H7	3	61	15	28	33	30	6		
4.00	H7	4	75	19	28	47	44	6		
5.00	H7	5	86	23	28	58	54	6		
6.00	H7	6	93	26	36	57	53	6		
7.00	H7	8	109	31	36	73	69	6		
8.00	H7	8	117	33	36	81	77	6		
10.00	H7	10	133	38	40	93	89	6		
12.00	H7	10	151	44	40	111	106	6		

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

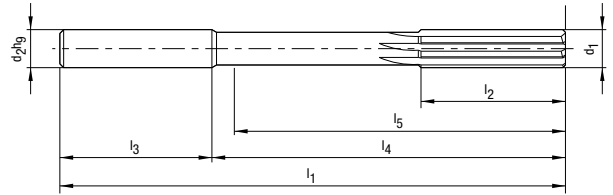
Machine Reamer I 030510

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 20.00 mm to DIN 212-2 with interior centre

DIN 212-1 A	DIN 212-2 A
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	1.00 – 20.00 mm
Cutting direction:	Right-hand cutting
Flute direction:	Straight fluted
Number of cutting edges:	3 – 8
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030510	HSS-E	Uncoated	■	■	□			■	■		■	■	■	■			

Dimensions									030510	
d_1	Tol.	$d_2 h_9$	l_1	l_2	l_3	l_4	l_5	z	Order No.	Stock
1.00	H7	1	34	5.5	19	15	12.5	3	30103244	●
1.10	H7	1.1	36	6.5	20.5	15.5	13	3	30103245	○
1.20	H7	1.2	38	7.5	21.5	16.5	14	3	30103246	○
1.40	H7	1.4	40	8	22	18	15.5	3	30103248	○
1.50	H7	1.5	40	8	22	18	15.5	3	30103249	●
1.60	H7	1.6	43	9	23	20	17.5	3	30103250	○
1.80	H7	1.8	46	10	24	22	19	4	30103252	○
2.00	H7	2	49	11	25	24	21	4	30103254	●
2.20	H7	2.2	53	12	28	25	22	4	30103256	○
2.50	H7	2.5	57	14	28	29	26	4	30103259	●
3.00	H7	3	61	15	28	33	30	6	30103264	●
3.20	H7	3.2	65	16	28	37	34	6	30103266	○
3.50	H7	3.5	70	18	28	42	39	6	30103269	●
4.00	H7	4	75	19	28	47	44	6	30103277	●
4.50	H7	4.5	80	21	28	52	48	6	30103287	●
5.00	H7	5	86	23	28	58	54	6	30103297	●
5.50	H7	5.6	93	26	36	57	53	6	30103307	●
6.00	H7	5.6	93	26	36	57	53	6	30103317	●
6.50	H7	6.3	101	28	36	65	61	6	30103327	●
7.00	H7	7.1	109	31	36	73	69	6	30103337	●
7.50	H7	7.1	109	31	36	73	69	6	30103347	●
8.00	H7	8	117	33	36	81	77	6	30103357	●
8.50	H7	8	117	33	36	81	77	6	30103367	●
9.00	H7	9	125	36	40	85	81	6	30103377	●
9.50	H7	9	125	36	40	85	81	6	30103385	●
10.00	H7	10	133	38	40	93	89	6	30103395	●
10.50	H7	10	133	38	40	93	89	6	30103405	●
11.00	H7	10	142	41	40	102	98	6	30103411	●
11.50	H7	10	142	41	40	102	98	6	30103417	●
12.00	H7	10	151	44	40	111	106	6	30103427	●
13.00	H7	10	151	44	40	111	106	6	30103429	●
14.00	H7	12.5	160	47	45	115	110	8	30103431	●
15.00	H7	12.5	162	50	45	117	112	8	30103433	●
16.00	H7	12.5	170	52	45	125	120	8	30103435	●
17.00	H7	14	175	54	45	130	125	8	30103437	●
18.00	H7	14	182	56	45	137	132	8	30103439	●
19.00	H7	16	189	58	48	141	136	8	30103441	●
20.00	H7	16	195	60	48	147	142	8	30103443	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

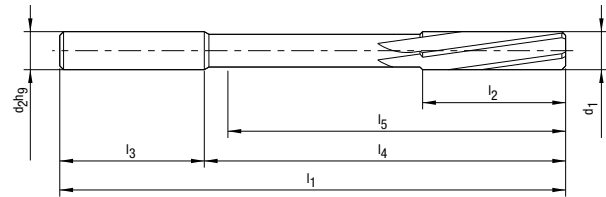
Machine Reamer | 030511

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
Ø 3.76 – 20.00 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter: 1.00 – 20.00 mm
Cutting direction: Right-hand cutting
Flute direction: Spiral fluted
Number of cutting edges: 3 – 8
Dimensions: As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030511	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030511	
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
1.00	H7	1	34	5.5	19	15	12.5	3	30103444	●
1.10	H7	1.1	36	6.5	20.5	15.5	13	3	30103445	●
1.20	H7	1.2	38	7.5	21.5	16.5	14	3	30103446	●
1.30	H7	1.2	38	7.5	21.5	16.5	14	3	30103447	●
1.40	H7	1.4	40	8	22	18	15.5	3	30103448	●
1.50	H7	1.5	40	8	22	18	15.5	3	30103449	●
1.60	H7	1.6	43	9	23	20	17.5	3	30103450	●
1.70	H7	1.6	43	9	23	20	17.5	3	30103451	●
1.80	H7	1.8	46	10	24	22	19	4	30103452	●
1.90	H7	1.8	46	10	24	22	19	4	30103453	●
2.00	H7	2	49	11	25	24	21	4	30103454	●
2.10	H7	2	49	11	25	24	21	4	30103455	●
2.20	H7	2.2	53	12	28	25	22	4	30103456	●
2.30	H7	2.2	53	12	28	25	22	4	30103457	●
2.40	H7	2.5	57	14	28	29	26	4	30103458	●
2.50	H7	2.5	57	14	28	29	26	4	30103459	●
2.60	H7	2.5	57	14	28	29	26	4	30103460	●
2.70	H7	3	61	15	28	33	30	6	30103461	●
2.80	H7	3	61	15	28	33	30	6	30103462	●
2.90	H7	3	61	15	28	33	30	6	30103463	●
3.00	H7	3	61	15	28	33	30	6	30103464	●
3.10	H7	3.2	65	16	28	37	34	6	30103465	●
3.20	H7	3.2	65	16	28	37	34	6	30103466	●
3.30	H7	3.2	65	16	28	37	34	6	30103467	●
3.40	H7	3.5	70	18	28	42	39	6	30103468	●
3.50	H7	3.5	70	18	28	42	39	6	30103469	●
3.60	H7	3.5	70	18	28	42	39	6	30103470	●
3.70	H7	3.5	70	18	28	42	39	6	30103471	●
3.80	H7	4	75	19	28	47	44	6	30103473	●
3.90	H7	4	75	19	28	47	44	6	30103475	●
4.00	H7	4	75	19	28	47	44	6	30103477	●
4.10	H7	4	75	19	28	47	44	6	30103479	●
4.20	H7	4	75	19	28	47	44	6	30103481	●
4.30	H7	4.5	80	21	28	52	48	6	30103483	●
4.40	H7	4.5	80	21	28	52	48	6	30103485	●
4.50	H7	4.5	80	21	28	52	48	6	30103487	●
4.60	H7	4.5	80	21	28	52	48	6	30103489	●
4.70	H7	4.5	80	21	28	52	48	6	30103491	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

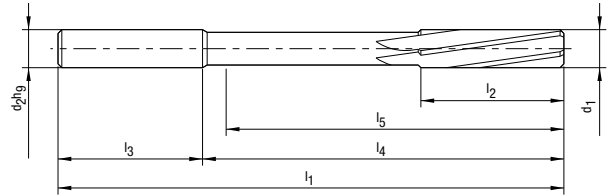
Machine Reamer I 030511

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 20.00 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	1.00 – 20.00 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 8
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030511	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030511	
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
4.80	H7	5	86	23	28	58	54	6	30103493	●
4.90	H7	5	86	23	28	58	54	6	30103495	●
5.00	H7	5	86	23	28	58	54	6	30103497	●
5.10	H7	5	86	23	28	58	54	6	30103499	●
5.20	H7	5	86	23	28	58	54	6	30103501	●
5.30	H7	5	86	23	28	58	54	6	30103503	●
5.40	H7	5.6	93	26	36	57	53	6	30103505	●
5.50	H7	5.6	93	26	36	57	53	6	30103507	●
5.60	H7	5.6	93	26	36	57	53	6	30103509	●
5.70	H7	5.6	93	26	36	57	53	6	30103511	●
5.80	H7	5.6	93	26	36	57	53	6	30103513	●
5.90	H7	5.6	93	26	36	57	53	6	30103515	●
6.00	H7	5.6	93	26	36	57	53	6	30103517	●
6.10	H7	6.3	101	28	36	65	61	6	30103519	●
6.20	H7	6.3	101	28	36	65	61	6	30103521	●
6.30	H7	6.3	101	28	36	65	61	6	30103523	●
6.40	H7	6.3	101	28	36	65	61	6	30103525	●
6.50	H7	6.3	101	28	36	65	61	6	30103527	●
6.60	H7	6.3	101	28	36	65	61	6	30103529	●
6.70	H7	6.3	101	28	36	65	61	6	30103531	●
6.80	H7	7.1	109	31	36	73	69	6	30103533	●
6.90	H7	7.1	109	31	36	73	69	6	30103535	●
7.00	H7	7.1	109	31	36	73	69	6	30103537	●
7.10	H7	7.1	109	31	36	73	69	6	30103539	●
7.20	H7	7.1	109	31	36	73	69	6	30103541	●
7.30	H7	7.1	109	31	36	73	69	6	30103543	●
7.40	H7	7.1	109	31	36	73	69	6	30103545	●
7.50	H7	7.1	109	31	36	73	69	6	30103547	●
7.60	H7	8	117	33	36	81	77	6	30103549	●
7.70	H7	8	117	33	36	81	77	6	30103551	●
7.80	H7	8	117	33	36	81	77	6	30103553	●
7.90	H7	8	117	33	36	81	77	6	30103555	●
8.00	H7	8	117	33	36	81	77	6	30103557	●
8.10	H7	8	117	33	36	81	77	6	30103559	●
8.20	H7	8	117	33	36	81	77	6	30103561	●
8.30	H7	8	117	33	36	81	77	6	30103563	●
8.40	H7	8	117	33	36	81	77	6	30103565	●
8.50	H7	8	117	33	36	81	77	6	30103567	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Machine Reamer | 030511

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 Ø 3.76 – 20.00 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030511	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030511	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
8.60	H7	9	125	36	40	85	81	6	30103569	●
8.70	H7	9	125	36	40	85	81	6	30103571	●
8.80	H7	9	125	36	40	85	81	6	30103573	●
8.90	H7	9	125	36	40	85	81	6	30103575	●
9.00	H7	9	125	36	40	85	81	6	30103577	●
9.10	H7	9	125	36	40	85	81	6	30103579	●
9.20	H7	9	125	36	40	85	81	6	30103581	●
9.30	H7	9	125	36	40	85	81	6	30103583	●
9.40	H7	9	125	36	40	85	81	6	30103585	●
9.50	H7	9	125	36	40	85	81	6	30103587	●
9.60	H7	10	133	38	40	93	89	6	30103589	●
9.70	H7	10	133	38	40	93	89	6	30103591	●
9.80	H7	10	133	38	40	93	89	6	30103593	●
9.90	H7	10	133	38	40	93	89	6	30103595	●
10.00	H7	10	133	38	40	93	89	6	30103597	●
10.10	H7	10	133	38	40	93	89	6	30103599	●
10.20	H7	10	133	38	40	93	89	6	30103601	●
10.30	H7	10	133	38	40	93	89	6	30103603	●
10.40	H7	10	133	38	40	93	89	6	30103605	●
10.50	H7	10	133	38	40	93	89	6	30103607	●
10.60	H7	10	133	38	40	93	89	6	30103609	●
10.70	H7	10	142	41	40	102	98	6	30103611	●
10.80	H7	10	142	41	40	102	98	6	30103613	●
10.90	H7	10	142	41	40	102	98	6	30103615	●
11.00	H7	10	142	41	40	102	98	6	30103617	●
11.10	H7	10	142	41	40	102	98	6	30103619	●
11.20	H7	10	142	41	40	102	98	6	30103621	●
11.30	H7	10	142	41	40	102	98	6	30103623	●
11.40	H7	10	142	41	40	102	98	6	30103625	●
11.50	H7	10	142	41	40	102	98	6	30103627	●
11.60	H7	10	142	41	40	102	98	6	30103629	●
11.70	H7	10	142	41	40	102	98	6	30103631	●
11.80	H7	10	142	41	40	102	98	6	30103633	●
11.90	H7	10	151	44	40	111	106	6	30103635	●
12.00	H7	10	151	44	40	111	106	6	30103637	●
13.00	H7	10	151	44	40	111	106	6	30103639	●
14.00	H7	12.5	160	47	45	115	110	8	30103641	●
15.00	H7	12.5	162	50	45	117	112	8	30103643	●
16.00	H7	12.5	170	52	45	125	120	8	30103645	●
17.00	H7	14	175	54	45	130	125	8	30103647	●
18.00	H7	14	182	56	45	137	132	8	30103649	●
19.00	H7	16	189	58	48	141	136	8	30103651	●
20.00	H7	16	195	60	48	147	142	8	30103653	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

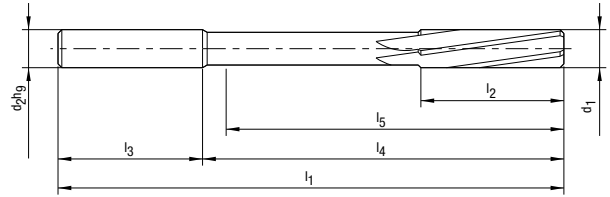
Machine Reamer | 033511

Preferred series made of HSS-E

DIN
212-2
B

Design

Diameter: 4.00 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 6 – 8
 Dimensions: As per DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
033511	HSS-E	TiN	■	■	□			■	■	□							

Dimensions									033511	
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
4.00	H7	4	75	19	28	47	44	6	30107951	●
5.00	H7	5	86	23	28	58	54	6	30107953	●
6.00	H7	5.6	93	26	36	57	53	6	30107956	●
7.00	H7	7.1	109	31	36	73	69	6	30107958	●
8.00	H7	8	117	33	36	81	77	6	30107960	●
9.00	H7	9	125	36	40	85	81	6	30107962	●
10.00	H7	10	133	38	40	93	89	6	30107964	●
11.00	H7	10	142	41	40	102	98	6	30107966	●
12.00	H7	10	151	44	40	111	106	6	30107968	●
13.00	H7	10	151	44	40	111	106	6	30107970	●
14.00	H7	12.5	160	47	45	115	110	8	30107972	●
15.00	H7	12.5	162	50	45	117	112	8	30107974	●
16.00	H7	12.5	170	52	45	125	120	8	30107976	●
17.00	H7	14	175	54	45	130	125	8	30107978	●
18.00	H7	14	182	56	45	137	132	8	30107980	●
19.00	H7	16	189	58	48	141	136	8	30107982	●
20.00	H7	16	195	60	48	147	142	8	30107984	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Machine Reamers - Configurable | 030510, 030511, 033511

Configurable series of HSS-E, Ø 0.95 – 3.75 mm with two-sided centring tips,
 Ø 3.76 – 20.00 mm with interior centre

DIN 212-1 A	DIN 212-2 A
DIN 212-1 B	DIN 212-2 B

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030510	HSS-E	Uncoated	■	■	□			■	■		■	■	■	■			
030511	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			
033511	HSS-E	TiN	■	■	□			■	■	□							

Dimensions								
d ₁	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
0.950 - 1.060	1	34	5.5	19	15	12.5	3	○
1.061 - 1.180	1.1	36	6.5	20.5	15.5	13	3	○
1.181 - 1.320	1.2	38	7.5	21.5	16.5	14	3	○
1.321 - 1.410	1.4	40	8	22	18	15.5	3	○
1.411 - 1.500	1.5	40	8	22	18	15.5	3	○
1.501 - 1.700	1.6	43	9	23	20	17.5	3	○
1.701 - 1.900	1.8	46	10	24	22	19	4	○
1.901 - 2.120	2	49	11	25	24	21	4	○
2.121 - 2.360	2.2	53	12	28	25	22	4	○
2.361 - 2.650	2.5	57	14	28	29	26	4	○
2.651 - 3.030	3	61	15	28	33	30	6	○
3.031 - 3.350	3.2	65	16	28	37	34	6	○
3.351 - 3.750	3.5	70	18	28	42	39	6	○
3.751 - 4.250	4	75	19	28	47	44	6	○
4.251 - 4.750	4.5	80	21	28	52	48	6	○
4.751 - 5.300	5	86	23	28	58	54	6	○
5.301 - 5.600	5.6	93	26	36	57	53	6	○
5.601 - 6.030	5.6	93	26	36	57	53	6	○
6.031 - 6.700	6.3	101	28	36	65	61	6	○
6.701 - 7.200	7.1	109	31	36	73	69	6	○
7.201 - 7.500	7.1	109	31	36	73	69	6	○
7.501 - 8.200	8	117	33	36	81	77	6	○
8.201 - 8.500	8	117	33	36	81	77	6	○
8.501 - 9.200	9	125	36	40	85	81	6	○
9.201 - 9.500	9	125	36	40	85	81	6	○
9.501 - 10.200	10	133	38	40	93	89	6	○
10.201 - 10.600	10	133	38	40	93	89	6	○
10.601 - 11.200	10	142	41	40	102	98	6	○
11.201 - 11.800	10	142	41	40	102	98	6	○
11.801 - 12.200	10	151	44	40	111	106	6	○
12.201 - 13.200	10	151	44	40	111	106	6	○
13.201 - 14.000	12.5	160	47	45	115	110	8	○
14.001 - 15.000	12.5	162	50	45	117	112	8	○
15.001 - 16.000	12.5	170	52	45	125	120	8	○
16.001 - 17.000	14	175	54	45	130	125	8	○
17.001 - 18.000	14	182	56	45	137	132	8	○
18.001 - 19.000	16	189	58	48	141	136	8	○
19.001 - 20.000	16	195	60	48	147	142	8	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

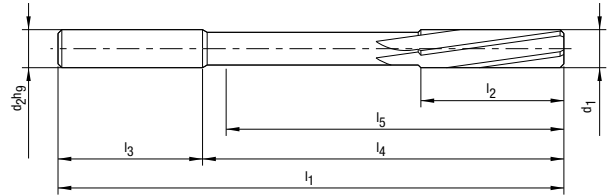
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
0.95	+0.004	1	34	5.5	19	15	12.5	3	30103654	●
0.96	+0.004	1	34	5.5	19	15	12.5	3	30103655	●
0.97	+0.004	1	34	5.5	19	15	12.5	3	30103656	●
0.98	+0.004	1	34	5.5	19	15	12.5	3	30103657	●
0.99	+0.004	1	34	5.5	19	15	12.5	3	30103658	●
1.00	+0.004	1	34	5.5	19	15	12.5	3	30103659	●
1.01	+0.004	1	34	5.5	19	15	12.5	3	30103660	●
1.02	+0.004	1	34	5.5	19	15	12.5	3	30103661	●
1.03	+0.004	1	34	5.5	19	15	12.5	3	30103662	●
1.04	+0.004	1	34	5.5	19	15	12.5	3	30103663	●
1.05	+0.004	1	34	5.5	19	15	12.5	3	30103664	●
1.06	+0.004	1	34	5.5	19	15	12.5	3	30103665	●
1.07	+0.004	1.1	36	6.5	20.5	15.5	13	3	30103666	●
1.08	+0.004	1.1	36	6.5	20.5	15.5	13	3	30103667	●
1.09	+0.004	1.1	36	6.5	20.5	15.5	13	3	30103668	●
1.10	+0.004	1.1	36	6.5	20.5	15.5	13	3	30103669	●
1.11	+0.004	1.1	36	6.5	20.5	15.5	13	3	30103670	●
1.12	+0.004	1.1	36	6.5	20.5	15.5	13	3	30103671	●
1.13	+0.004	1.1	36	6.5	20.5	15.5	13	3	30103672	●
1.14	+0.004	1.1	36	6.5	20.5	15.5	13	3	30103673	●
1.15	+0.004	1.1	36	6.5	20.5	15.5	13	3	30103674	●
1.16	+0.004	1.1	36	6.5	20.5	15.5	13	3	30103675	●
1.17	+0.004	1.1	36	6.5	20.5	15.5	13	3	30103676	●
1.18	+0.004	1.1	36	6.5	20.5	15.5	13	3	30103677	●
1.19	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103678	●
1.20	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103679	●
1.21	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103680	●
1.22	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103681	●
1.23	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103682	●
1.24	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103683	●
1.25	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103684	●
1.26	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103685	●
1.27	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103686	●
1.28	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103687	●
1.29	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103688	●
1.30	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103689	●
1.31	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103690	●
1.32	+0.004	1.2	38	7.5	21.5	16.5	14	3	30103691	●

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

All dimensions in mm.

For machining values see end of catalogue.

Machine Reamer I 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
1.33	+0.004	1.4	40	8	22	18	15.5	3	30103692	●
1.34	+0.004	1.4	40	8	22	18	15.5	3	30103693	●
1.35	+0.004	1.4	40	8	22	18	15.5	3	30103694	●
1.36	+0.004	1.4	40	8	22	18	15.5	3	30103695	●
1.37	+0.004	1.4	40	8	22	18	15.5	3	30103696	●
1.38	+0.004	1.4	40	8	22	18	15.5	3	30103697	●
1.39	+0.004	1.4	40	8	22	18	15.5	3	30103698	●
1.40	+0.004	1.4	40	8	22	18	15.5	3	30103699	●
1.41	+0.004	1.4	40	8	22	18	15.5	3	30103700	●
1.42	+0.004	1.5	40	8	22	18	15.5	3	30103701	●
1.43	+0.004	1.5	40	8	22	18	15.5	3	30103702	●
1.44	+0.004	1.5	40	8	22	18	15.5	3	30103703	●
1.45	+0.004	1.5	40	8	22	18	15.5	3	30103704	●
1.46	+0.004	1.5	40	8	22	18	15.5	3	30103705	●
1.47	+0.004	1.5	40	8	22	18	15.5	3	30103706	●
1.48	+0.004	1.5	40	8	22	18	15.5	3	30103707	●
1.49	+0.004	1.5	40	8	22	18	15.5	3	30103708	●
1.50	+0.004	1.5	40	8	22	18	15.5	3	30103709	●
1.51	+0.004	1.6	43	9	23	20	17.5	3	30103710	●
1.52	+0.004	1.6	43	9	23	20	17.5	3	30103711	●
1.53	+0.004	1.6	43	9	23	20	17.5	3	30103712	●
1.54	+0.004	1.6	43	9	23	20	17.5	3	30103713	●
1.55	+0.004	1.6	43	9	23	20	17.5	3	30103714	●
1.56	+0.004	1.6	43	9	23	20	17.5	3	30103715	●
1.57	+0.004	1.6	43	9	23	20	17.5	3	30103716	●
1.58	+0.004	1.6	43	9	23	20	17.5	3	30103717	●
1.59	+0.004	1.6	43	9	23	20	17.5	3	30103718	●
1.60	+0.004	1.6	43	9	23	20	17.5	3	30103719	●
1.61	+0.004	1.6	43	9	23	20	17.5	3	30103720	●
1.62	+0.004	1.6	43	9	23	20	17.5	3	30103721	●
1.63	+0.004	1.6	43	9	23	20	17.5	3	30103722	●
1.64	+0.004	1.6	43	9	23	20	17.5	3	30103723	●
1.65	+0.004	1.6	43	9	23	20	17.5	3	30103724	●
1.66	+0.004	1.6	43	9	23	20	17.5	3	30103725	●
1.67	+0.004	1.6	43	9	23	20	17.5	3	30103726	●
1.68	+0.004	1.6	43	9	23	20	17.5	3	30103727	●
1.69	+0.004	1.6	43	9	23	20	17.5	3	30103728	●
1.70	+0.004	1.6	43	9	23	20	17.5	3	30103729	●
1.71	+0.004	1.8	46	10	24	22	19	4	30103730	●
1.72	+0.004	1.8	46	10	24	22	19	4	30103731	●
1.73	+0.004	1.8	46	10	24	22	19	4	30103732	●
1.74	+0.004	1.8	46	10	24	22	19	4	30103733	●
1.75	+0.004	1.8	46	10	24	22	19	4	30103734	●
1.76	+0.004	1.8	46	10	24	22	19	4	30103735	●
1.77	+0.004	1.8	46	10	24	22	19	4	30103736	●
1.78	+0.004	1.8	46	10	24	22	19	4	30103737	●

All dimensions in mm.
 For machining values see end of catalogue.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

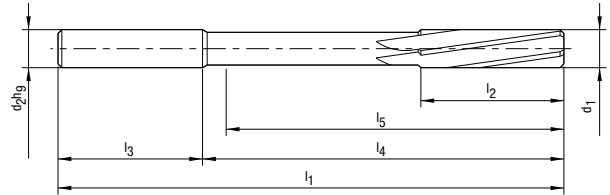
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513									
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock								
1.79	+0.004	1.8	46	10	24	22	19	4	30103738	●								
1.80	+0.004	1.8	46	10	24	22	19	4	30103739	●								
1.81	+0.004	1.8	46	10	24	22	19	4	30103740	●								
1.82	+0.004	1.8	46	10	24	22	19	4	30103741	●								
1.83	+0.004	1.8	46	10	24	22	19	4	30103742	●								
1.84	+0.004	1.8	46	10	24	22	19	4	30103743	●								
1.85	+0.004	1.8	46	10	24	22	19	4	30103744	●								
1.86	+0.004	1.8	46	10	24	22	19	4	30103745	●								
1.87	+0.004	1.8	46	10	24	22	19	4	30103746	●								
1.88	+0.004	1.8	46	10	24	22	19	4	30103747	●								
1.89	+0.004	1.8	46	10	24	22	19	4	30103748	●								
1.90	+0.004	1.8	46	10	24	22	19	4	30103749	●								
1.91	+0.004	2	49	11	25	24	21	4	30103750	●								
1.92	+0.004	2	49	11	25	24	21	4	30103751	●								
1.93	+0.004	2	49	11	25	24	21	4	30103752	●								
1.94	+0.004	2	49	11	25	24	21	4	30103753	●								
1.95	+0.004	2	49	11	25	24	21	4	30103754	●								
1.96	+0.004	2	49	11	25	24	21	4	30103755	●								
1.97	+0.004	2	49	11	25	24	21	4	30103756	●								
1.98	+0.004	2	49	11	25	24	21	4	30103757	●								
1.99	+0.004	2	49	11	25	24	21	4	30103758	●								
2.00	+0.004	2	49	11	25	24	21	4	30103759	●								
2.01	+0.004	2	49	11	25	24	21	4	30103760	●								
2.02	+0.004	2	49	11	25	24	21	4	30103761	●								
2.03	+0.004	2	49	11	25	24	21	4	30103762	●								
2.04	+0.004	2	49	11	25	24	21	4	30103763	●								
2.05	+0.004	2	49	11	25	24	21	4	30103764	●								
2.06	+0.004	2	49	11	25	24	21	4	30103765	●								
2.07	+0.004	2	49	11	25	24	21	4	30103766	●								
2.08	+0.004	2	49	11	25	24	21	4	30103767	●								
2.09	+0.004	2	49	11	25	24	21	4	30103768	●								
2.10	+0.004	2	49	11	25	24	21	4	30103769	●								
2.11	+0.004	2	49	11	25	24	21	4	30103770	●								
2.12	+0.004	2	49	11	25	24	21	4	30103771	●								
2.13	+0.004	2.2	53	12	28	25	22	4	30103772	●								
2.14	+0.004	2.2	53	12	28	25	22	4	30103773	●								
2.15	+0.004	2.2	53	12	28	25	22	4	30103774	●								
2.16	+0.004	2.2	53	12	28	25	22	4	30103775	●								

All dimensions in mm.
 For machining values see end of catalogue.

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- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

Machine Reamer | 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
2.17	+0.004	2.2	53	12	28	25	22	4	30103776	●
2.18	+0.004	2.2	53	12	28	25	22	4	30103777	●
2.19	+0.004	2.2	53	12	28	25	22	4	30103778	●
2.20	+0.004	2.2	53	12	28	25	22	4	30103779	●
2.21	+0.004	2.2	53	12	28	25	22	4	30103780	●
2.22	+0.004	2.2	53	12	28	25	22	4	30103781	●
2.23	+0.004	2.2	53	12	28	25	22	4	30103782	●
2.24	+0.004	2.2	53	12	28	25	22	4	30103783	●
2.25	+0.004	2.2	53	12	28	25	22	4	30103784	●
2.26	+0.004	2.2	53	12	28	25	22	4	30103785	●
2.27	+0.004	2.2	53	12	28	25	22	4	30103786	●
2.28	+0.004	2.2	53	12	28	25	22	4	30103787	●
2.29	+0.004	2.2	53	12	28	25	22	4	30103788	●
2.30	+0.004	2.2	53	12	28	25	22	4	30103789	●
2.31	+0.004	2.2	53	12	28	25	22	4	30103790	●
2.32	+0.004	2.2	53	12	28	25	22	4	30103791	●
2.33	+0.004	2.2	53	12	28	25	22	4	30103792	●
2.34	+0.004	2.2	53	12	28	25	22	4	30103793	●
2.35	+0.004	2.2	53	12	28	25	22	4	30103794	●
2.36	+0.004	2.2	53	12	28	25	22	4	30103795	●
2.37	+0.004	2.5	57	14	28	29	26	4	30103796	●
2.38	+0.004	2.5	57	14	28	29	26	4	30103797	●
2.39	+0.004	2.5	57	14	28	29	26	4	30103798	●
2.40	+0.004	2.5	57	14	28	29	26	4	30103799	●
2.41	+0.004	2.5	57	14	28	29	26	4	30103800	●
2.42	+0.004	2.5	57	14	28	29	26	4	30103801	●
2.43	+0.004	2.5	57	14	28	29	26	4	30103802	●
2.44	+0.004	2.5	57	14	28	29	26	4	30103803	●
2.45	+0.004	2.5	57	14	28	29	26	4	30103804	●
2.46	+0.004	2.5	57	14	28	29	26	4	30103805	●
2.47	+0.004	2.5	57	14	28	29	26	4	30103806	●
2.48	+0.004	2.5	57	14	28	29	26	4	30103807	●
2.49	+0.004	2.5	57	14	28	29	26	4	30103808	●
2.50	+0.004	2.5	57	14	28	29	26	4	30103809	●
2.51	+0.004	2.5	57	14	28	29	26	4	30103810	●
2.52	+0.004	2.5	57	14	28	29	26	4	30103811	●
2.53	+0.004	2.5	57	14	28	29	26	4	30103812	●
2.54	+0.004	2.5	57	14	28	29	26	4	30103813	●
2.55	+0.004	2.5	57	14	28	29	26	4	30103814	●
2.56	+0.004	2.5	57	14	28	29	26	4	30103815	●
2.57	+0.004	2.5	57	14	28	29	26	4	30103816	●
2.58	+0.004	2.5	57	14	28	29	26	4	30103817	●
2.59	+0.004	2.5	57	14	28	29	26	4	30103818	●
2.60	+0.004	2.5	57	14	28	29	26	4	30103819	●
2.61	+0.004	2.5	57	14	28	29	26	4	30103820	●
2.62	+0.004	2.5	57	14	28	29	26	4	30103821	●

All dimensions in mm.
 For machining values see end of catalogue.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

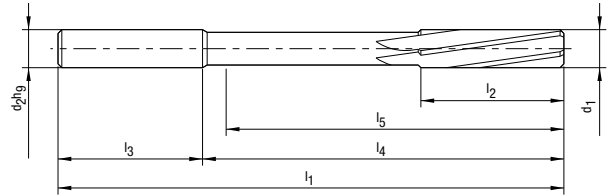
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d_1	Tol.	$d_2 h_9$	l_1	l_2	l_3	l_4	l_5	z	Order No.	Stock
2.63	+0.004	2.5	57	14	28	29	26	4	30103822	●
2.64	+0.004	2.5	57	14	28	29	26	4	30103823	●
2.65	+0.004	2.5	57	14	28	29	26	4	30103824	●
2.66	+0.004	3	61	15	28	33	30	6	30103825	●
2.67	+0.004	3	61	15	28	33	30	6	30103826	●
2.68	+0.004	3	61	15	28	33	30	6	30103827	●
2.69	+0.004	3	61	15	28	33	30	6	30103828	●
2.70	+0.004	3	61	15	28	33	30	6	30103829	●
2.71	+0.004	3	61	15	28	33	30	6	30103830	●
2.72	+0.004	3	61	15	28	33	30	6	30103831	●
2.73	+0.004	3	61	15	28	33	30	6	30103832	●
2.74	+0.004	3	61	15	28	33	30	6	30103833	●
2.75	+0.004	3	61	15	28	33	30	6	30103834	●
2.76	+0.004	3	61	15	28	33	30	6	30103835	●
2.77	+0.004	3	61	15	28	33	30	6	30103836	●
2.78	+0.004	3	61	15	28	33	30	6	30103837	●
2.79	+0.004	3	61	15	28	33	30	6	30103838	●
2.80	+0.004	3	61	15	28	33	30	6	30103839	●
2.81	+0.004	3	61	15	28	33	30	6	30103840	●
2.82	+0.004	3	61	15	28	33	30	6	30103841	●
2.83	+0.004	3	61	15	28	33	30	6	30103842	●
2.84	+0.004	3	61	15	28	33	30	6	30103843	●
2.85	+0.004	3	61	15	28	33	30	6	30103844	●
2.86	+0.004	3	61	15	28	33	30	6	30103845	●
2.87	+0.004	3	61	15	28	33	30	6	30103846	●
2.88	+0.004	3	61	15	28	33	30	6	30103847	●
2.89	+0.004	3	61	15	28	33	30	6	30103848	●
2.90	+0.004	3	61	15	28	33	30	6	30103849	●
2.91	+0.004	3	61	15	28	33	30	6	30103850	●
2.92	+0.004	3	61	15	28	33	30	6	30103851	●
2.93	+0.004	3	61	15	28	33	30	6	30103852	●
2.94	+0.004	3	61	15	28	33	30	6	30103853	●
2.95	+0.004	3	61	15	28	33	30	6	30103854	●
2.96	+0.004	3	61	15	28	33	30	6	30103855	●
2.97	+0.004	3	61	15	28	33	30	6	30103856	●
2.98	+0.004	3	61	15	28	33	30	6	30103857	●
2.99	+0.004	3	61	15	28	33	30	6	30103858	●
3.00	+0.004	3	61	15	28	33	30	6	30103859	●

All dimensions in mm.
 For machining values see end of catalogue.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

Machine Reamer | 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
3.01	+0.004	3	61	15	28	33	30	6	30103860	●
3.02	+0.004	3	61	15	28	33	30	6	30103861	●
3.03	+0.004	3	61	15	28	33	30	6	30103862	●
3.04	+0.004	3.2	65	16	28	37	34	6	30103863	●
3.05	+0.004	3.2	65	16	28	37	34	6	30103864	●
3.06	+0.004	3.2	65	16	28	37	34	6	30103865	●
3.07	+0.004	3.2	65	16	28	37	34	6	30103866	●
3.08	+0.004	3.2	65	16	28	37	34	6	30103867	●
3.09	+0.004	3.2	65	16	28	37	34	6	30103868	●
3.10	+0.004	3.2	65	16	28	37	34	6	30103869	●
3.11	+0.004	3.2	65	16	28	37	34	6	30103870	●
3.12	+0.004	3.2	65	16	28	37	34	6	30103871	●
3.13	+0.004	3.2	65	16	28	37	34	6	30103872	●
3.14	+0.004	3.2	65	16	28	37	34	6	30103873	●
3.15	+0.004	3.2	65	16	28	37	34	6	30103874	●
3.16	+0.004	3.2	65	16	28	37	34	6	30103875	●
3.17	+0.004	3.2	65	16	28	37	34	6	30103876	●
3.18	+0.004	3.2	65	16	28	37	34	6	30103877	●
3.19	+0.004	3.2	65	16	28	37	34	6	30103878	●
3.20	+0.004	3.2	65	16	28	37	34	6	30103879	●
3.21	+0.004	3.2	65	16	28	37	34	6	30103880	●
3.22	+0.004	3.2	65	16	28	37	34	6	30103881	●
3.23	+0.004	3.2	65	16	28	37	34	6	30103882	●
3.24	+0.004	3.2	65	16	28	37	34	6	30103883	●
3.25	+0.004	3.2	65	16	28	37	34	6	30103884	●
3.26	+0.004	3.2	65	16	28	37	34	6	30103885	●
3.27	+0.004	3.2	65	16	28	37	34	6	30103886	●
3.28	+0.004	3.2	65	16	28	37	34	6	30103887	●
3.29	+0.004	3.2	65	16	28	37	34	6	30103888	●
3.30	+0.004	3.2	65	16	28	37	34	6	30103889	●
3.31	+0.004	3.2	65	16	28	37	34	6	30103890	●
3.32	+0.004	3.2	65	16	28	37	34	6	30103891	●
3.33	+0.004	3.2	65	16	28	37	34	6	30103892	●
3.34	+0.004	3.2	65	16	28	37	34	6	30103893	●
3.35	+0.004	3.2	65	16	28	37	34	6	30103894	●
3.36	+0.004	3.5	70	18	28	42	39	6	30103895	●
3.37	+0.004	3.5	70	18	28	42	39	6	30103896	●
3.38	+0.004	3.5	70	18	28	42	39	6	30103897	●
3.39	+0.004	3.5	70	18	28	42	39	6	30103898	●
3.40	+0.004	3.5	70	18	28	42	39	6	30103899	●
3.41	+0.004	3.5	70	18	28	42	39	6	30103900	●
3.42	+0.004	3.5	70	18	28	42	39	6	30103901	●
3.43	+0.004	3.5	70	18	28	42	39	6	30103902	●
3.44	+0.004	3.5	70	18	28	42	39	6	30103903	●
3.45	+0.004	3.5	70	18	28	42	39	6	30103904	●
3.46	+0.004	3.5	70	18	28	42	39	6	30103905	●

All dimensions in mm.
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- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

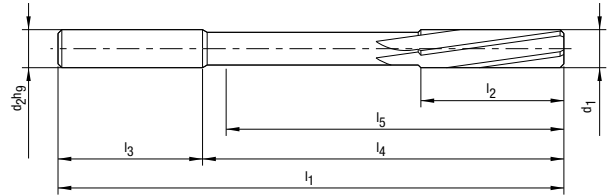
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d_1	Tol.	$d_2 h_9$	l_1	l_2	l_3	l_4	l_5	z	Order No.	Stock
3.47	+0.004	3.5	70	18	28	42	39	6	30103906	●
3.48	+0.004	3.5	70	18	28	42	39	6	30103907	●
3.49	+0.004	3.5	70	18	28	42	39	6	30103908	●
3.50	+0.004	3.5	70	18	28	42	39	6	30103909	●
3.51	+0.004	3.5	70	18	28	42	39	6	30103910	●
3.52	+0.004	3.5	70	18	28	42	39	6	30103911	●
3.53	+0.004	3.5	70	18	28	42	39	6	30103912	●
3.54	+0.004	3.5	70	18	28	42	39	6	30103913	●
3.55	+0.004	3.5	70	18	28	42	39	6	30103914	●
3.56	+0.004	3.5	70	18	28	42	39	6	30103915	●
3.57	+0.004	3.5	70	18	28	42	39	6	30103916	●
3.58	+0.004	3.5	70	18	28	42	39	6	30103917	●
3.59	+0.004	3.5	70	18	28	42	39	6	30103918	●
3.60	+0.004	3.5	70	18	28	42	39	6	30103919	●
3.61	+0.004	3.5	70	18	28	42	39	6	30103920	●
3.62	+0.004	3.5	70	18	28	42	39	6	30103921	●
3.63	+0.004	3.5	70	18	28	42	39	6	30103922	●
3.64	+0.004	3.5	70	18	28	42	39	6	30103923	●
3.65	+0.004	3.5	70	18	28	42	39	6	30103924	●
3.66	+0.004	3.5	70	18	28	42	39	6	30103925	●
3.67	+0.004	3.5	70	18	28	42	39	6	30103926	●
3.68	+0.004	3.5	70	18	28	42	39	6	30103927	●
3.69	+0.004	3.5	70	18	28	42	39	6	30103928	●
3.70	+0.004	3.5	70	18	28	42	39	6	30103929	●
3.71	+0.004	3.5	70	18	28	42	39	6	30103930	●
3.72	+0.004	3.5	70	18	28	42	39	6	30103931	●
3.73	+0.004	3.5	70	18	28	42	39	6	30103932	●
3.74	+0.004	3.5	70	18	28	42	39	6	30103933	●
3.75	+0.004	3.5	70	18	28	42	39	6	30103934	●
3.76	+0.004	4	75	19	28	47	44	6	30103936	●
3.77	+0.004	4	75	19	28	47	44	6	30103938	●
3.78	+0.004	4	75	19	28	47	44	6	30103940	●
3.79	+0.004	4	75	19	28	47	44	6	30103942	●
3.80	+0.004	4	75	19	28	47	44	6	30103944	●
3.81	+0.004	4	75	19	28	47	44	6	30103946	●
3.82	+0.004	4	75	19	28	47	44	6	30103948	●
3.83	+0.004	4	75	19	28	47	44	6	30103950	●
3.84	+0.004	4	75	19	28	47	44	6	30103952	●

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

All dimensions in mm.

For machining values see end of catalogue.

Machine Reamer I 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
3.85	+0.004	4	75	19	28	47	44	6	30103954	●
3.86	+0.004	4	75	19	28	47	44	6	30103956	●
3.87	+0.004	4	75	19	28	47	44	6	30103958	●
3.88	+0.004	4	75	19	28	47	44	6	30103960	●
3.89	+0.004	4	75	19	28	47	44	6	30103962	●
3.90	+0.004	4	75	19	28	47	44	6	30103964	●
3.91	+0.004	4	75	19	28	47	44	6	30103966	●
3.92	+0.004	4	75	19	28	47	44	6	30103968	●
3.93	+0.004	4	75	19	28	47	44	6	30103970	●
3.94	+0.004	4	75	19	28	47	44	6	30103972	●
3.95	+0.004	4	75	19	28	47	44	6	30103974	●
3.96	+0.004	4	75	19	28	47	44	6	30103976	●
3.97	+0.004	4	75	19	28	47	44	6	30103978	●
3.98	+0.004	4	75	19	28	47	44	6	30103980	●
3.99	+0.004	4	75	19	28	47	44	6	30103982	●
4.00	+0.004	4	75	19	28	47	44	6	30103984	●
4.01	+0.004	4	75	19	28	47	44	6	30103986	●
4.02	+0.004	4	75	19	28	47	44	6	30103988	●
4.03	+0.004	4	75	19	28	47	44	6	30103990	●
4.04	+0.004	4	75	19	28	47	44	6	30103992	●
4.05	+0.004	4	75	19	28	47	44	6	30103994	●
4.06	+0.004	4	75	19	28	47	44	6	30103996	●
4.07	+0.004	4	75	19	28	47	44	6	30103998	●
4.08	+0.004	4	75	19	28	47	44	6	30104000	●
4.09	+0.004	4	75	19	28	47	44	6	30104002	●
4.10	+0.004	4	75	19	28	47	44	6	30104004	●
4.11	+0.004	4	75	19	28	47	44	6	30104006	●
4.12	+0.004	4	75	19	28	47	44	6	30104008	●
4.13	+0.004	4	75	19	28	47	44	6	30104010	●
4.14	+0.004	4	75	19	28	47	44	6	30104012	●
4.15	+0.004	4	75	19	28	47	44	6	30104014	●
4.16	+0.004	4	75	19	28	47	44	6	30104016	●
4.17	+0.004	4	75	19	28	47	44	6	30104018	●
4.18	+0.004	4	75	19	28	47	44	6	30104020	●
4.19	+0.004	4	75	19	28	47	44	6	30104022	●
4.20	+0.004	4	75	19	28	47	44	6	30104024	●
4.21	+0.004	4	75	19	28	47	44	6	30104026	●
4.22	+0.004	4	75	19	28	47	44	6	30104028	●
4.23	+0.004	4	75	19	28	47	44	6	30104030	●
4.24	+0.004	4	75	19	28	47	44	6	30104032	●
4.25	+0.004	4	75	19	28	47	44	6	30104034	●
4.26	+0.004	4.5	80	21	28	52	48	6	30104036	●
4.27	+0.004	4.5	80	21	28	52	48	6	30104038	●
4.28	+0.004	4.5	80	21	28	52	48	6	30104040	●
4.29	+0.004	4.5	80	21	28	52	48	6	30104042	●
4.30	+0.004	4.5	80	21	28	52	48	6	30104044	●

All dimensions in mm.
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- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

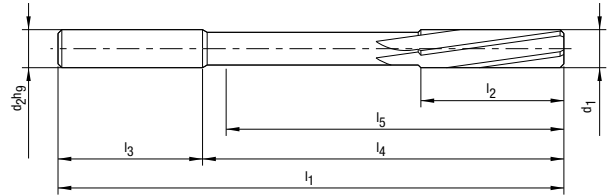
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513									
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock								
4.31	+0.004	4.5	80	21	28	52	48	6	30104046	●								
4.32	+0.004	4.5	80	21	28	52	48	6	30104048	●								
4.33	+0.004	4.5	80	21	28	52	48	6	30104050	●								
4.34	+0.004	4.5	80	21	28	52	48	6	30104052	●								
4.35	+0.004	4.5	80	21	28	52	48	6	30104054	●								
4.36	+0.004	4.5	80	21	28	52	48	6	30104056	●								
4.37	+0.004	4.5	80	21	28	52	48	6	30104058	●								
4.38	+0.004	4.5	80	21	28	52	48	6	30104060	●								
4.39	+0.004	4.5	80	21	28	52	48	6	30104062	●								
4.40	+0.004	4.5	80	21	28	52	48	6	30104064	●								
4.41	+0.004	4.5	80	21	28	52	48	6	30104066	●								
4.42	+0.004	4.5	80	21	28	52	48	6	30104068	●								
4.43	+0.004	4.5	80	21	28	52	48	6	30104070	●								
4.44	+0.004	4.5	80	21	28	52	48	6	30104072	●								
4.45	+0.004	4.5	80	21	28	52	48	6	30104074	●								
4.46	+0.004	4.5	80	21	28	52	48	6	30104076	●								
4.47	+0.004	4.5	80	21	28	52	48	6	30104078	●								
4.48	+0.004	4.5	80	21	28	52	48	6	30104080	●								
4.49	+0.004	4.5	80	21	28	52	48	6	30104082	●								
4.50	+0.004	4.5	80	21	28	52	48	6	30104084	●								
4.51	+0.004	4.5	80	21	28	52	48	6	30104086	●								
4.52	+0.004	4.5	80	21	28	52	48	6	30104088	●								
4.53	+0.004	4.5	80	21	28	52	48	6	30104090	●								
4.54	+0.004	4.5	80	21	28	52	48	6	30104092	●								
4.55	+0.004	4.5	80	21	28	52	48	6	30104094	●								
4.56	+0.004	4.5	80	21	28	52	48	6	30104096	●								
4.57	+0.004	4.5	80	21	28	52	48	6	30104098	●								
4.58	+0.004	4.5	80	21	28	52	48	6	30104100	●								
4.59	+0.004	4.5	80	21	28	52	48	6	30104102	●								
4.60	+0.004	4.5	80	21	28	52	48	6	30104104	●								
4.61	+0.004	4.5	80	21	28	52	48	6	30104106	●								
4.62	+0.004	4.5	80	21	28	52	48	6	30104108	●								
4.63	+0.004	4.5	80	21	28	52	48	6	30104110	●								
4.64	+0.004	4.5	80	21	28	52	48	6	30104112	●								
4.65	+0.004	4.5	80	21	28	52	48	6	30104114	●								
4.66	+0.004	4.5	80	21	28	52	48	6	30104116	●								
4.67	+0.004	4.5	80	21	28	52	48	6	30104118	●								
4.68	+0.004	4.5	80	21	28	52	48	6	30104120	●								

All dimensions in mm.
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- Limited material suitability.
- ★ Suitability only with special blade geometry.

Machine Reamer I 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
4.69	+0.004	4.5	80	21	28	52	48	6	30104122	●
4.70	+0.004	4.5	80	21	28	52	48	6	30104124	●
4.71	+0.004	4.5	80	21	28	52	48	6	30104126	●
4.72	+0.004	4.5	80	21	28	52	48	6	30104128	●
4.73	+0.004	4.5	80	21	28	52	48	6	30104130	●
4.74	+0.004	4.5	80	21	28	52	48	6	30104132	●
4.75	+0.004	4.5	80	21	28	52	48	6	30104134	●
4.76	+0.004	5	86	23	28	58	54	6	30104136	●
4.77	+0.004	5	86	23	28	58	54	6	30104138	●
4.78	+0.004	5	86	23	28	58	54	6	30104140	●
4.79	+0.004	5	86	23	28	58	54	6	30104142	●
4.80	+0.004	5	86	23	28	58	54	6	30104144	●
4.81	+0.004	5	86	23	28	58	54	6	30104146	●
4.82	+0.004	5	86	23	28	58	54	6	30104148	●
4.83	+0.004	5	86	23	28	58	54	6	30104150	●
4.84	+0.004	5	86	23	28	58	54	6	30104152	●
4.85	+0.004	5	86	23	28	58	54	6	30104154	●
4.86	+0.004	5	86	23	28	58	54	6	30104156	●
4.87	+0.004	5	86	23	28	58	54	6	30104158	●
4.88	+0.004	5	86	23	28	58	54	6	30104160	●
4.89	+0.004	5	86	23	28	58	54	6	30104162	●
4.90	+0.004	5	86	23	28	58	54	6	30104164	●
4.91	+0.004	5	86	23	28	58	54	6	30104166	●
4.92	+0.004	5	86	23	28	58	54	6	30104168	●
4.93	+0.004	5	86	23	28	58	54	6	30104170	●
4.94	+0.004	5	86	23	28	58	54	6	30104172	●
4.95	+0.004	5	86	23	28	58	54	6	30104174	●
4.96	+0.004	5	86	23	28	58	54	6	30104176	●
4.97	+0.004	5	86	23	28	58	54	6	30104178	●
4.98	+0.004	5	86	23	28	58	54	6	30104180	●
4.99	+0.004	5	86	23	28	58	54	6	30104182	●
5.00	+0.004	5	86	23	28	58	54	6	30104184	●
5.01	+0.004	5	86	23	28	58	54	6	30104186	●
5.02	+0.004	5	86	23	28	58	54	6	30104188	●
5.03	+0.004	5	86	23	28	58	54	6	30104190	●
5.04	+0.004	5	86	23	28	58	54	6	30104192	●
5.05	+0.004	5	86	23	28	58	54	6	30104194	●
5.06	+0.004	5	86	23	28	58	54	6	30104196	●
5.07	+0.004	5	86	23	28	58	54	6	30104198	●
5.08	+0.004	5	86	23	28	58	54	6	30104200	●
5.09	+0.004	5	86	23	28	58	54	6	30104202	●
5.10	+0.004	5	86	23	28	58	54	6	30104204	●
5.11	+0.004	5	86	23	28	58	54	6	30104206	●
5.12	+0.004	5	86	23	28	58	54	6	30104208	●
5.13	+0.004	5	86	23	28	58	54	6	30104210	●
5.14	+0.004	5	86	23	28	58	54	6	30104212	●

All dimensions in mm.
 For machining values see end of catalogue.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

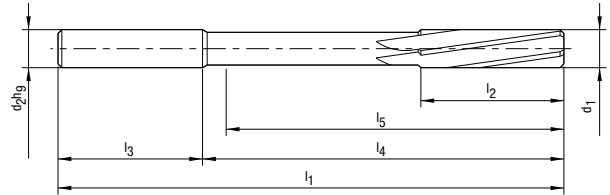
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
5.15	+0.004	5	86	23	28	58	54	6	30104214	●
5.16	+0.004	5	86	23	28	58	54	6	30104216	●
5.17	+0.004	5	86	23	28	58	54	6	30104218	●
5.18	+0.004	5	86	23	28	58	54	6	30104220	●
5.19	+0.004	5	86	23	28	58	54	6	30104222	●
5.20	+0.004	5	86	23	28	58	54	6	30104224	●
5.21	+0.004	5	86	23	28	58	54	6	30104226	●
5.22	+0.004	5	86	23	28	58	54	6	30104228	●
5.23	+0.004	5	86	23	28	58	54	6	30104230	●
5.24	+0.004	5	86	23	28	58	54	6	30104232	●
5.25	+0.004	5	86	23	28	58	54	6	30104234	●
5.26	+0.004	5	86	23	28	58	54	6	30104236	●
5.27	+0.004	5	86	23	28	58	54	6	30104238	●
5.28	+0.004	5	86	23	28	58	54	6	30104240	●
5.29	+0.004	5	86	23	28	58	54	6	30104242	●
5.30	+0.004	5	86	23	28	58	54	6	30104244	●
5.31	+0.004	5.6	93	26	36	57	53	6	30104246	●
5.32	+0.004	5.6	93	26	36	57	53	6	30104248	●
5.33	+0.004	5.6	93	26	36	57	53	6	30104250	●
5.34	+0.004	5.6	93	26	36	57	53	6	30104252	●
5.35	+0.004	5.6	93	26	36	57	53	6	30104254	●
5.36	+0.004	5.6	93	26	36	57	53	6	30104256	●
5.37	+0.004	5.6	93	26	36	57	53	6	30104258	●
5.38	+0.004	5.6	93	26	36	57	53	6	30104260	●
5.39	+0.004	5.6	93	26	36	57	53	6	30104262	●
5.40	+0.004	5.6	93	26	36	57	53	6	30104264	●
5.41	+0.004	5.6	93	26	36	57	53	6	30104266	●
5.42	+0.004	5.6	93	26	36	57	53	6	30104268	●
5.43	+0.004	5.6	93	26	36	57	53	6	30104270	●
5.44	+0.004	5.6	93	26	36	57	53	6	30104272	●
5.45	+0.004	5.6	93	26	36	57	53	6	30104274	●
5.46	+0.004	5.6	93	26	36	57	53	6	30104276	●
5.47	+0.004	5.6	93	26	36	57	53	6	30104278	●
5.48	+0.004	5.6	93	26	36	57	53	6	30104280	●
5.49	+0.004	5.6	93	26	36	57	53	6	30104282	●
5.50	+0.004	5.6	93	26	36	57	53	6	30104284	●
5.51	+0.004	5.6	93	26	36	57	53	6	30104286	●
5.52	+0.005	5.6	93	26	36	57	53	6	30104288	●

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

All dimensions in mm.

For machining values see end of catalogue.

Machine Reamer | 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
5.53	+0.005	5.6	93	26	36	57	53	6	30104290	●
5.54	+0.005	5.6	93	26	36	57	53	6	30104292	●
5.55	+0.005	5.6	93	26	36	57	53	6	30104294	●
5.56	+0.005	5.6	93	26	36	57	53	6	30104296	●
5.57	+0.005	5.6	93	26	36	57	53	6	30104298	●
5.58	+0.005	5.6	93	26	36	57	53	6	30104300	●
5.59	+0.005	5.6	93	26	36	57	53	6	30104302	●
5.60	+0.005	5.6	93	26	36	57	53	6	30104304	●
5.61	+0.005	5.6	93	26	36	57	53	6	30104306	●
5.62	+0.005	5.6	93	26	36	57	53	6	30104308	●
5.63	+0.005	5.6	93	26	36	57	53	6	30104310	●
5.64	+0.005	5.6	93	26	36	57	53	6	30104312	●
5.65	+0.005	5.6	93	26	36	57	53	6	30104314	●
5.66	+0.005	5.6	93	26	36	57	53	6	30104316	●
5.67	+0.005	5.6	93	26	36	57	53	6	30104318	●
5.68	+0.005	5.6	93	26	36	57	53	6	30104320	●
5.69	+0.005	5.6	93	26	36	57	53	6	30104322	●
5.70	+0.005	5.6	93	26	36	57	53	6	30104324	●
5.71	+0.005	5.6	93	26	36	57	53	6	30104326	●
5.72	+0.005	5.6	93	26	36	57	53	6	30104328	●
5.73	+0.005	5.6	93	26	36	57	53	6	30104330	●
5.74	+0.005	5.6	93	26	36	57	53	6	30104332	●
5.75	+0.005	5.6	93	26	36	57	53	6	30104334	●
5.76	+0.005	5.6	93	26	36	57	53	6	30104336	●
5.77	+0.005	5.6	93	26	36	57	53	6	30104338	●
5.78	+0.005	5.6	93	26	36	57	53	6	30104340	●
5.79	+0.005	5.6	93	26	36	57	53	6	30104342	●
5.80	+0.005	5.6	93	26	36	57	53	6	30104344	●
5.81	+0.005	5.6	93	26	36	57	53	6	30104346	●
5.82	+0.005	5.6	93	26	36	57	53	6	30104348	●
5.83	+0.005	5.6	93	26	36	57	53	6	30104350	●
5.84	+0.005	5.6	93	26	36	57	53	6	30104352	●
5.85	+0.005	5.6	93	26	36	57	53	6	30104354	●
5.86	+0.005	5.6	93	26	36	57	53	6	30104356	●
5.87	+0.005	5.6	93	26	36	57	53	6	30104358	●
5.88	+0.005	5.6	93	26	36	57	53	6	30104360	●
5.89	+0.005	5.6	93	26	36	57	53	6	30104362	●
5.90	+0.005	5.6	93	26	36	57	53	6	30104364	●
5.91	+0.005	5.6	93	26	36	57	53	6	30104366	●
5.92	+0.005	5.6	93	26	36	57	53	6	30104368	●
5.93	+0.005	5.6	93	26	36	57	53	6	30104370	●
5.94	+0.005	5.6	93	26	36	57	53	6	30104372	●
5.95	+0.005	5.6	93	26	36	57	53	6	30104374	●
5.96	+0.005	5.6	93	26	36	57	53	6	30104376	●
5.97	+0.005	5.6	93	26	36	57	53	6	30104378	●
5.98	+0.005	5.6	93	26	36	57	53	6	30104380	●

All dimensions in mm.
For machining values see end of catalogue.

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- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

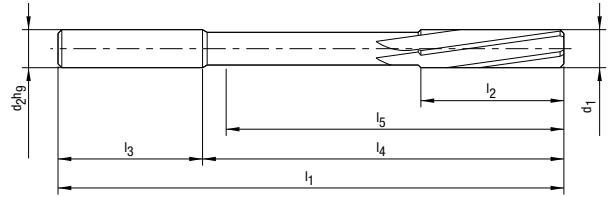
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d_1	Tol.	$d_2 h_9$	l_1	l_2	l_3	l_4	l_5	z	Order No.	Stock
5.99	+0.005	5.6	93	26	36	57	53	6	30104382	●
6.00	+0.005	5.6	93	26	36	57	53	6	30104384	●
6.01	+0.005	5.6	93	26	36	57	53	6	30104386	●
6.02	+0.005	5.6	93	26	36	57	53	6	30104388	●
6.03	+0.005	5.6	93	26	36	57	53	6	30104390	●
6.04	+0.005	6.3	101	28	36	65	61	6	30104392	●
6.05	+0.005	6.3	101	28	36	65	61	6	30104394	●
6.06	+0.005	6.3	101	28	36	65	61	6	30104396	●
6.07	+0.005	6.3	101	28	36	65	61	6	30104398	●
6.08	+0.005	6.3	101	28	36	65	61	6	30104400	●
6.09	+0.005	6.3	101	28	36	65	61	6	30104402	●
6.10	+0.005	6.3	101	28	36	65	61	6	30104404	●
6.11	+0.005	6.3	101	28	36	65	61	6	30104406	●
6.12	+0.005	6.3	101	28	36	65	61	6	30104408	●
6.13	+0.005	6.3	101	28	36	65	61	6	30104410	●
6.14	+0.005	6.3	101	28	36	65	61	6	30104412	●
6.15	+0.005	6.3	101	28	36	65	61	6	30104414	●
6.16	+0.005	6.3	101	28	36	65	61	6	30104416	●
6.17	+0.005	6.3	101	28	36	65	61	6	30104418	●
6.18	+0.005	6.3	101	28	36	65	61	6	30104420	●
6.19	+0.005	6.3	101	28	36	65	61	6	30104422	●
6.20	+0.005	6.3	101	28	36	65	61	6	30104424	●
6.21	+0.005	6.3	101	28	36	65	61	6	30104426	●
6.22	+0.005	6.3	101	28	36	65	61	6	30104428	●
6.23	+0.005	6.3	101	28	36	65	61	6	30104430	●
6.24	+0.005	6.3	101	28	36	65	61	6	30104432	●
6.25	+0.005	6.3	101	28	36	65	61	6	30104434	●
6.26	+0.005	6.3	101	28	36	65	61	6	30104436	●
6.27	+0.005	6.3	101	28	36	65	61	6	30104438	●
6.28	+0.005	6.3	101	28	36	65	61	6	30104440	●
6.29	+0.005	6.3	101	28	36	65	61	6	30104442	●
6.30	+0.005	6.3	101	28	36	65	61	6	30104444	●
6.31	+0.005	6.3	101	28	36	65	61	6	30104446	●
6.32	+0.005	6.3	101	28	36	65	61	6	30104448	●
6.33	+0.005	6.3	101	28	36	65	61	6	30104450	●
6.34	+0.005	6.3	101	28	36	65	61	6	30104452	●
6.35	+0.005	6.3	101	28	36	65	61	6	30104454	●
6.36	+0.005	6.3	101	28	36	65	61	6	30104456	●

All dimensions in mm.
 For machining values see end of catalogue.

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- Limited material suitability.
- ★ Suitability only with special blade geometry.

Machine Reamer | 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
6.37	+0.005	6.3	101	28	36	65	61	6	30104458	●
6.38	+0.005	6.3	101	28	36	65	61	6	30104460	●
6.39	+0.005	6.3	101	28	36	65	61	6	30104462	●
6.40	+0.005	6.3	101	28	36	65	61	6	30104464	●
6.41	+0.005	6.3	101	28	36	65	61	6	30104466	●
6.42	+0.005	6.3	101	28	36	65	61	6	30104468	●
6.43	+0.005	6.3	101	28	36	65	61	6	30104470	●
6.44	+0.005	6.3	101	28	36	65	61	6	30104472	●
6.45	+0.005	6.3	101	28	36	65	61	6	30104474	●
6.46	+0.005	6.3	101	28	36	65	61	6	30104476	●
6.47	+0.005	6.3	101	28	36	65	61	6	30104478	●
6.48	+0.005	6.3	101	28	36	65	61	6	30104480	●
6.49	+0.005	6.3	101	28	36	65	61	6	30104482	●
6.50	+0.005	6.3	101	28	36	65	61	6	30104484	●
6.51	+0.005	6.3	101	28	36	65	61	6	30104486	●
6.52	+0.005	6.3	101	28	36	65	61	6	30104488	●
6.53	+0.005	6.3	101	28	36	65	61	6	30104490	●
6.54	+0.005	6.3	101	28	36	65	61	6	30104492	●
6.55	+0.005	6.3	101	28	36	65	61	6	30104494	●
6.56	+0.005	6.3	101	28	36	65	61	6	30104496	●
6.57	+0.005	6.3	101	28	36	65	61	6	30104498	●
6.58	+0.005	6.3	101	28	36	65	61	6	30104500	●
6.59	+0.005	6.3	101	28	36	65	61	6	30104502	●
6.60	+0.005	6.3	101	28	36	65	61	6	30104504	●
6.61	+0.005	6.3	101	28	36	65	61	6	30104506	●
6.62	+0.005	6.3	101	28	36	65	61	6	30104508	●
6.63	+0.005	6.3	101	28	36	65	61	6	30104510	●
6.64	+0.005	6.3	101	28	36	65	61	6	30104512	●
6.65	+0.005	6.3	101	28	36	65	61	6	30104514	●
6.66	+0.005	6.3	101	28	36	65	61	6	30104516	●
6.67	+0.005	6.3	101	28	36	65	61	6	30104518	●
6.68	+0.005	6.3	101	28	36	65	61	6	30104520	●
6.69	+0.005	6.3	101	28	36	65	61	6	30104522	●
6.70	+0.005	6.3	101	28	36	65	61	6	30104524	●
6.71	+0.005	7.1	109	31	36	73	69	6	30104526	●
6.72	+0.005	7.1	109	31	36	73	69	6	30104528	●
6.73	+0.005	7.1	109	31	36	73	69	6	30104530	●
6.74	+0.005	7.1	109	31	36	73	69	6	30104532	●
6.75	+0.005	7.1	109	31	36	73	69	6	30104534	●
6.76	+0.005	7.1	109	31	36	73	69	6	30104536	●
6.77	+0.005	7.1	109	31	36	73	69	6	30104538	●
6.78	+0.005	7.1	109	31	36	73	69	6	30104540	●
6.79	+0.005	7.1	109	31	36	73	69	6	30104542	●
6.80	+0.005	7.1	109	31	36	73	69	6	30104544	●
6.81	+0.005	7.1	109	31	36	73	69	6	30104546	●
6.82	+0.005	7.1	109	31	36	73	69	6	30104548	●

All dimensions in mm.
For machining values see end of catalogue.

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- Limited material suitability.
- ★ Suitability only with special blade geometry.

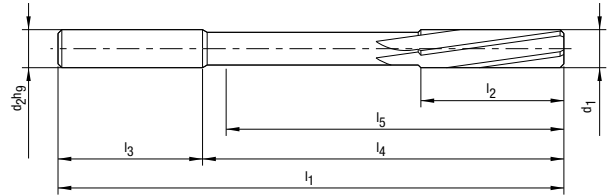
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d_1	Tol.	$d_2 h_9$	l_1	l_2	l_3	l_4	l_5	z	Order No.	Stock
6.83	+0.005	7.1	109	31	36	73	69	6	30104550	●
6.84	+0.005	7.1	109	31	36	73	69	6	30104552	●
6.85	+0.005	7.1	109	31	36	73	69	6	30104554	●
6.86	+0.005	7.1	109	31	36	73	69	6	30104556	●
6.87	+0.005	7.1	109	31	36	73	69	6	30104558	●
6.88	+0.005	7.1	109	31	36	73	69	6	30104560	●
6.89	+0.005	7.1	109	31	36	73	69	6	30104562	●
6.90	+0.005	7.1	109	31	36	73	69	6	30104564	●
6.91	+0.005	7.1	109	31	36	73	69	6	30104566	●
6.92	+0.005	7.1	109	31	36	73	69	6	30104568	●
6.93	+0.005	7.1	109	31	36	73	69	6	30104570	●
6.94	+0.005	7.1	109	31	36	73	69	6	30104572	●
6.95	+0.005	7.1	109	31	36	73	69	6	30104574	●
6.96	+0.005	7.1	109	31	36	73	69	6	30104576	●
6.97	+0.005	7.1	109	31	36	73	69	6	30104578	●
6.98	+0.005	7.1	109	31	36	73	69	6	30104580	●
6.99	+0.005	7.1	109	31	36	73	69	6	30104582	●
7.00	+0.005	7.1	109	31	36	73	69	6	30104584	●
7.01	+0.005	7.1	109	31	36	73	69	6	30104586	●
7.02	+0.005	7.1	109	31	36	73	69	6	30104588	●
7.03	+0.005	7.1	109	31	36	73	69	6	30104590	●
7.04	+0.005	7.1	109	31	36	73	69	6	30104592	●
7.05	+0.005	7.1	109	31	36	73	69	6	30104594	●
7.06	+0.005	7.1	109	31	36	73	69	6	30104596	●
7.07	+0.005	7.1	109	31	36	73	69	6	30104598	●
7.08	+0.005	7.1	109	31	36	73	69	6	30104600	●
7.09	+0.005	7.1	109	31	36	73	69	6	30104602	●
7.10	+0.005	7.1	109	31	36	73	69	6	30104604	●
7.11	+0.005	7.1	109	31	36	73	69	6	30104606	●
7.12	+0.005	7.1	109	31	36	73	69	6	30104608	●
7.13	+0.005	7.1	109	31	36	73	69	6	30104610	●
7.14	+0.005	7.1	109	31	36	73	69	6	30104612	●
7.15	+0.005	7.1	109	31	36	73	69	6	30104614	●
7.16	+0.005	7.1	109	31	36	73	69	6	30104616	●
7.17	+0.005	7.1	109	31	36	73	69	6	30104618	●
7.18	+0.005	7.1	109	31	36	73	69	6	30104620	●
7.19	+0.005	7.1	109	31	36	73	69	6	30104622	●
7.20	+0.005	7.1	109	31	36	73	69	6	30104624	●

All dimensions in mm.
 For machining values see end of catalogue.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

Machine Reamer | 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
7.21	+0.005	7.1	109	31	36	73	69	6	30104626	●
7.22	+0.005	7.1	109	31	36	73	69	6	30104628	●
7.23	+0.005	7.1	109	31	36	73	69	6	30104630	●
7.24	+0.005	7.1	109	31	36	73	69	6	30104632	●
7.25	+0.005	7.1	109	31	36	73	69	6	30104634	●
7.26	+0.005	7.1	109	31	36	73	69	6	30104636	●
7.27	+0.005	7.1	109	31	36	73	69	6	30104638	●
7.28	+0.005	7.1	109	31	36	73	69	6	30104640	●
7.29	+0.005	7.1	109	31	36	73	69	6	30104642	●
7.30	+0.005	7.1	109	31	36	73	69	6	30104644	●
7.31	+0.005	7.1	109	31	36	73	69	6	30104646	●
7.32	+0.005	7.1	109	31	36	73	69	6	30104648	●
7.33	+0.005	7.1	109	31	36	73	69	6	30104650	●
7.34	+0.005	7.1	109	31	36	73	69	6	30104652	●
7.35	+0.005	7.1	109	31	36	73	69	6	30104654	●
7.36	+0.005	7.1	109	31	36	73	69	6	30104656	●
7.37	+0.005	7.1	109	31	36	73	69	6	30104658	●
7.38	+0.005	7.1	109	31	36	73	69	6	30104660	●
7.39	+0.005	7.1	109	31	36	73	69	6	30104662	●
7.40	+0.005	7.1	109	31	36	73	69	6	30104664	●
7.41	+0.005	7.1	109	31	36	73	69	6	30104666	●
7.42	+0.005	7.1	109	31	36	73	69	6	30104668	●
7.43	+0.005	7.1	109	31	36	73	69	6	30104670	●
7.44	+0.005	7.1	109	31	36	73	69	6	30104672	●
7.45	+0.005	7.1	109	31	36	73	69	6	30104674	●
7.46	+0.005	7.1	109	31	36	73	69	6	30104676	●
7.47	+0.005	7.1	109	31	36	73	69	6	30104678	●
7.48	+0.005	7.1	109	31	36	73	69	6	30104680	●
7.49	+0.005	7.1	109	31	36	73	69	6	30104682	●
7.50	+0.005	7.1	109	31	36	73	69	6	30104684	●
7.51	+0.005	8	117	33	36	81	77	6	30104686	●
7.52	+0.005	8	117	33	36	81	77	6	30104688	●
7.53	+0.005	8	117	33	36	81	77	6	30104690	●
7.54	+0.005	8	117	33	36	81	77	6	30104692	●
7.55	+0.005	8	117	33	36	81	77	6	30104694	●
7.56	+0.005	8	117	33	36	81	77	6	30104696	●
7.57	+0.005	8	117	33	36	81	77	6	30104698	●
7.58	+0.005	8	117	33	36	81	77	6	30104700	●
7.59	+0.005	8	117	33	36	81	77	6	30104702	●
7.60	+0.005	8	117	33	36	81	77	6	30104704	●
7.61	+0.005	8	117	33	36	81	77	6	30104706	●
7.62	+0.005	8	117	33	36	81	77	6	30104708	●
7.63	+0.005	8	117	33	36	81	77	6	30104710	●
7.64	+0.005	8	117	33	36	81	77	6	30104712	●
7.65	+0.005	8	117	33	36	81	77	6	30104714	●
7.66	+0.005	8	117	33	36	81	77	6	30104716	●

All dimensions in mm.
For machining values see end of catalogue.

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- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

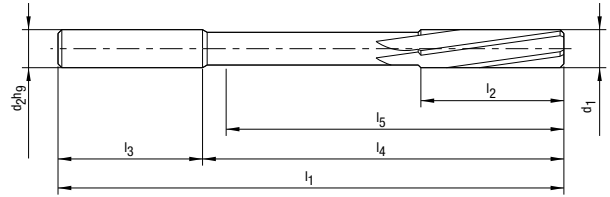
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d_1	Tol.	$d_2 h_9$	l_1	l_2	l_3	l_4	l_5	z	Order No.	Stock
7.67	+0.005	8	117	33	36	81	77	6	30104718	●
7.68	+0.005	8	117	33	36	81	77	6	30104720	●
7.69	+0.005	8	117	33	36	81	77	6	30104722	●
7.70	+0.005	8	117	33	36	81	77	6	30104724	●
7.71	+0.005	8	117	33	36	81	77	6	30104726	●
7.72	+0.005	8	117	33	36	81	77	6	30104728	●
7.73	+0.005	8	117	33	36	81	77	6	30104730	●
7.74	+0.005	8	117	33	36	81	77	6	30104732	●
7.75	+0.005	8	117	33	36	81	77	6	30104734	●
7.76	+0.005	8	117	33	36	81	77	6	30104736	●
7.77	+0.005	8	117	33	36	81	77	6	30104738	●
7.78	+0.005	8	117	33	36	81	77	6	30104740	●
7.79	+0.005	8	117	33	36	81	77	6	30104742	●
7.80	+0.005	8	117	33	36	81	77	6	30104744	●
7.81	+0.005	8	117	33	36	81	77	6	30104746	●
7.82	+0.005	8	117	33	36	81	77	6	30104748	●
7.83	+0.005	8	117	33	36	81	77	6	30104750	●
7.84	+0.005	8	117	33	36	81	77	6	30104752	●
7.85	+0.005	8	117	33	36	81	77	6	30104754	●
7.86	+0.005	8	117	33	36	81	77	6	30104756	●
7.87	+0.005	8	117	33	36	81	77	6	30104758	●
7.88	+0.005	8	117	33	36	81	77	6	30104760	●
7.89	+0.005	8	117	33	36	81	77	6	30104762	●
7.90	+0.005	8	117	33	36	81	77	6	30104764	●
7.91	+0.005	8	117	33	36	81	77	6	30104766	●
7.92	+0.005	8	117	33	36	81	77	6	30104768	●
7.93	+0.005	8	117	33	36	81	77	6	30104770	●
7.94	+0.005	8	117	33	36	81	77	6	30104772	●
7.95	+0.005	8	117	33	36	81	77	6	30104774	●
7.96	+0.005	8	117	33	36	81	77	6	30104776	●
7.97	+0.005	8	117	33	36	81	77	6	30104778	●
7.98	+0.005	8	117	33	36	81	77	6	30104780	●
7.99	+0.005	8	117	33	36	81	77	6	30104782	●
8.00	+0.005	8	117	33	36	81	77	6	30104784	●
8.01	+0.005	8	117	33	36	81	77	6	30104786	●
8.02	+0.005	8	117	33	36	81	77	6	30104788	●
8.03	+0.005	8	117	33	36	81	77	6	30104790	●
8.04	+0.005	8	117	33	36	81	77	6	30104792	●

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

All dimensions in mm.

For machining values see end of catalogue.

Machine Reamer I 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
8.05	+0.005	8	117	33	36	81	77	6	30104794	●
8.06	+0.005	8	117	33	36	81	77	6	30104796	●
8.07	+0.005	8	117	33	36	81	77	6	30104798	●
8.08	+0.005	8	117	33	36	81	77	6	30104800	●
8.09	+0.005	8	117	33	36	81	77	6	30104802	●
8.10	+0.005	8	117	33	36	81	77	6	30104804	●
8.11	+0.005	8	117	33	36	81	77	6	30104806	●
8.12	+0.005	8	117	33	36	81	77	6	30104808	●
8.13	+0.005	8	117	33	36	81	77	6	30104810	●
8.14	+0.005	8	117	33	36	81	77	6	30104812	●
8.15	+0.005	8	117	33	36	81	77	6	30104814	●
8.16	+0.005	8	117	33	36	81	77	6	30104816	●
8.17	+0.005	8	117	33	36	81	77	6	30104818	●
8.18	+0.005	8	117	33	36	81	77	6	30104820	●
8.19	+0.005	8	117	33	36	81	77	6	30104822	●
8.20	+0.005	8	117	33	36	81	77	6	30104824	●
8.21	+0.005	8	117	33	36	81	77	6	30104826	●
8.22	+0.005	8	117	33	36	81	77	6	30104828	●
8.23	+0.005	8	117	33	36	81	77	6	30104830	●
8.24	+0.005	8	117	33	36	81	77	6	30104832	●
8.25	+0.005	8	117	33	36	81	77	6	30104834	●
8.26	+0.005	8	117	33	36	81	77	6	30104836	●
8.27	+0.005	8	117	33	36	81	77	6	30104838	●
8.28	+0.005	8	117	33	36	81	77	6	30104840	●
8.29	+0.005	8	117	33	36	81	77	6	30104842	●
8.30	+0.005	8	117	33	36	81	77	6	30104844	●
8.31	+0.005	8	117	33	36	81	77	6	30104846	●
8.32	+0.005	8	117	33	36	81	77	6	30104848	●
8.33	+0.005	8	117	33	36	81	77	6	30104850	●
8.34	+0.005	8	117	33	36	81	77	6	30104852	●
8.35	+0.005	8	117	33	36	81	77	6	30104854	●
8.36	+0.005	8	117	33	36	81	77	6	30104856	●
8.37	+0.005	8	117	33	36	81	77	6	30104858	●
8.38	+0.005	8	117	33	36	81	77	6	30104860	●
8.39	+0.005	8	117	33	36	81	77	6	30104862	●
8.40	+0.005	8	117	33	36	81	77	6	30104864	●
8.41	+0.005	8	117	33	36	81	77	6	30104866	●
8.42	+0.005	8	117	33	36	81	77	6	30104868	●
8.43	+0.005	8	117	33	36	81	77	6	30104870	●
8.44	+0.005	8	117	33	36	81	77	6	30104872	●
8.45	+0.005	8	117	33	36	81	77	6	30104874	●
8.46	+0.005	8	117	33	36	81	77	6	30104876	●
8.47	+0.005	8	117	33	36	81	77	6	30104878	●
8.48	+0.005	8	117	33	36	81	77	6	30104880	●
8.49	+0.005	8	117	33	36	81	77	6	30104882	●
8.50	+0.005	8	117	33	36	81	77	6	30104884	●

All dimensions in mm.
 For machining values see end of catalogue.

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- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

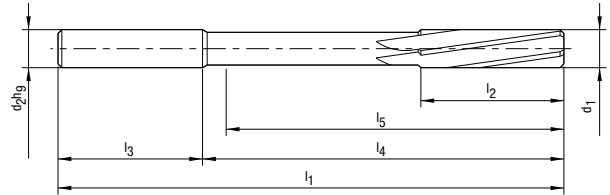
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
8.51	+0.005	9	125	36	40	85	81	6	30104886	●
8.52	+0.005	9	125	36	40	85	81	6	30104888	●
8.53	+0.005	9	125	36	40	85	81	6	30104890	●
8.54	+0.005	9	125	36	40	85	81	6	30104892	●
8.55	+0.005	9	125	36	40	85	81	6	30104894	●
8.56	+0.005	9	125	36	40	85	81	6	30104896	●
8.57	+0.005	9	125	36	40	85	81	6	30104898	●
8.58	+0.005	9	125	36	40	85	81	6	30104900	●
8.59	+0.005	9	125	36	40	85	81	6	30104902	●
8.60	+0.005	9	125	36	40	85	81	6	30104904	●
8.61	+0.005	9	125	36	40	85	81	6	30104906	●
8.62	+0.005	9	125	36	40	85	81	6	30104908	●
8.63	+0.005	9	125	36	40	85	81	6	30104910	●
8.64	+0.005	9	125	36	40	85	81	6	30104912	●
8.65	+0.005	9	125	36	40	85	81	6	30104914	●
8.66	+0.005	9	125	36	40	85	81	6	30104916	●
8.67	+0.005	9	125	36	40	85	81	6	30104918	●
8.68	+0.005	9	125	36	40	85	81	6	30104920	●
8.69	+0.005	9	125	36	40	85	81	6	30104922	●
8.70	+0.005	9	125	36	40	85	81	6	30104924	●
8.71	+0.005	9	125	36	40	85	81	6	30104926	●
8.72	+0.005	9	125	36	40	85	81	6	30104928	●
8.73	+0.005	9	125	36	40	85	81	6	30104930	●
8.74	+0.005	9	125	36	40	85	81	6	30104932	●
8.75	+0.005	9	125	36	40	85	81	6	30104934	●
8.76	+0.005	9	125	36	40	85	81	6	30104936	●
8.77	+0.005	9	125	36	40	85	81	6	30104938	●
8.78	+0.005	9	125	36	40	85	81	6	30104940	●
8.79	+0.005	9	125	36	40	85	81	6	30104942	●
8.80	+0.005	9	125	36	40	85	81	6	30104944	●
8.81	+0.005	9	125	36	40	85	81	6	30104946	●
8.82	+0.005	9	125	36	40	85	81	6	30104948	●
8.83	+0.005	9	125	36	40	85	81	6	30104950	●
8.84	+0.005	9	125	36	40	85	81	6	30104952	●
8.85	+0.005	9	125	36	40	85	81	6	30104954	●
8.86	+0.005	9	125	36	40	85	81	6	30104956	●
8.87	+0.005	9	125	36	40	85	81	6	30104958	●
8.88	+0.005	9	125	36	40	85	81	6	30104960	●

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

All dimensions in mm.

For machining values see end of catalogue.

Machine Reamer | 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
8.89	+0.005	9	125	36	40	85	81	6	30104962	●
8.90	+0.005	9	125	36	40	85	81	6	30104964	●
8.91	+0.005	9	125	36	40	85	81	6	30104966	●
8.92	+0.005	9	125	36	40	85	81	6	30104968	●
8.93	+0.005	9	125	36	40	85	81	6	30104970	●
8.94	+0.005	9	125	36	40	85	81	6	30104972	●
8.95	+0.005	9	125	36	40	85	81	6	30104974	●
8.96	+0.005	9	125	36	40	85	81	6	30104976	●
8.97	+0.005	9	125	36	40	85	81	6	30104978	●
8.98	+0.005	9	125	36	40	85	81	6	30104980	●
8.99	+0.005	9	125	36	40	85	81	6	30104982	●
9.00	+0.005	9	125	36	40	85	81	6	30104984	●
9.01	+0.005	9	125	36	40	85	81	6	30104986	●
9.02	+0.005	9	125	36	40	85	81	6	30104988	●
9.03	+0.005	9	125	36	40	85	81	6	30104990	●
9.04	+0.005	9	125	36	40	85	81	6	30104992	●
9.05	+0.005	9	125	36	40	85	81	6	30104994	●
9.06	+0.005	9	125	36	40	85	81	6	30104996	●
9.07	+0.005	9	125	36	40	85	81	6	30104998	●
9.08	+0.005	9	125	36	40	85	81	6	30105000	●
9.09	+0.005	9	125	36	40	85	81	6	30105002	●
9.10	+0.005	9	125	36	40	85	81	6	30105004	●
9.11	+0.005	9	125	36	40	85	81	6	30105006	●
9.12	+0.005	9	125	36	40	85	81	6	30105008	●
9.13	+0.005	9	125	36	40	85	81	6	30105010	●
9.14	+0.005	9	125	36	40	85	81	6	30105012	●
9.15	+0.005	9	125	36	40	85	81	6	30105014	●
9.16	+0.005	9	125	36	40	85	81	6	30105016	●
9.17	+0.005	9	125	36	40	85	81	6	30105018	●
9.18	+0.005	9	125	36	40	85	81	6	30105020	●
9.19	+0.005	9	125	36	40	85	81	6	30105022	●
9.20	+0.005	9	125	36	40	85	81	6	30105024	●
9.21	+0.005	9	125	36	40	85	81	6	30105026	●
9.22	+0.005	9	125	36	40	85	81	6	30105028	●
9.23	+0.005	9	125	36	40	85	81	6	30105030	●
9.24	+0.005	9	125	36	40	85	81	6	30105032	●
9.25	+0.005	9	125	36	40	85	81	6	30105034	●
9.26	+0.005	9	125	36	40	85	81	6	30105036	●
9.27	+0.005	9	125	36	40	85	81	6	30105038	●
9.28	+0.005	9	125	36	40	85	81	6	30105040	●
9.29	+0.005	9	125	36	40	85	81	6	30105042	●
9.30	+0.005	9	125	36	40	85	81	6	30105044	●
9.31	+0.005	9	125	36	40	85	81	6	30105046	●
9.32	+0.005	9	125	36	40	85	81	6	30105048	●
9.33	+0.005	9	125	36	40	85	81	6	30105050	●
9.34	+0.005	9	125	36	40	85	81	6	30105052	●

All dimensions in mm.
For machining values see end of catalogue.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

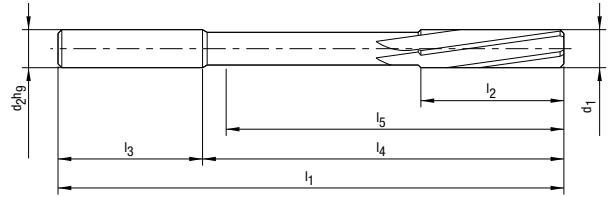
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d_1	Tol.	$d_2 h_9$	l_1	l_2	l_3	l_4	l_5	z	Order No.	Stock
9.35	+0.005	9	125	36	40	85	81	6	30105054	●
9.36	+0.005	9	125	36	40	85	81	6	30105056	●
9.37	+0.005	9	125	36	40	85	81	6	30105058	●
9.38	+0.005	9	125	36	40	85	81	6	30105060	●
9.39	+0.005	9	125	36	40	85	81	6	30105062	●
9.40	+0.005	9	125	36	40	85	81	6	30105064	●
9.41	+0.005	9	125	36	40	85	81	6	30105066	●
9.42	+0.005	9	125	36	40	85	81	6	30105068	●
9.43	+0.005	9	125	36	40	85	81	6	30105070	●
9.44	+0.005	9	125	36	40	85	81	6	30105072	●
9.45	+0.005	9	125	36	40	85	81	6	30105074	●
9.46	+0.005	9	125	36	40	85	81	6	30105076	●
9.47	+0.005	9	125	36	40	85	81	6	30105078	●
9.48	+0.005	9	125	36	40	85	81	6	30105090	●
9.49	+0.005	9	125	36	40	85	81	6	30105092	●
9.50	+0.005	9	125	36	40	85	81	6	30105094	●
9.51	+0.005	10	133	38	40	93	89	6	30105096	●
9.52	+0.005	10	133	38	40	93	89	6	30105098	●
9.53	+0.005	10	133	38	40	93	89	6	30105100	●
9.54	+0.005	10	133	38	40	93	89	6	30105102	●
9.55	+0.005	10	133	38	40	93	89	6	30105104	●
9.56	+0.005	10	133	38	40	93	89	6	30105106	●
9.57	+0.005	10	133	38	40	93	89	6	30105108	●
9.58	+0.005	10	133	38	40	93	89	6	30105110	●
9.59	+0.005	10	133	38	40	93	89	6	30105112	●
9.60	+0.005	10	133	38	40	93	89	6	30105114	●
9.61	+0.005	10	133	38	40	93	89	6	30105116	●
9.62	+0.005	10	133	38	40	93	89	6	30105118	●
9.63	+0.005	10	133	38	40	93	89	6	30105120	●
9.64	+0.005	10	133	38	40	93	89	6	30105122	●
9.65	+0.005	10	133	38	40	93	89	6	30105124	●
9.66	+0.005	10	133	38	40	93	89	6	30105126	●
9.67	+0.005	10	133	38	40	93	89	6	30105128	●
9.68	+0.005	10	133	38	40	93	89	6	30105130	●
9.69	+0.005	10	133	38	40	93	89	6	30105132	●
9.70	+0.005	10	133	38	40	93	89	6	30105134	●
9.71	+0.005	10	133	38	40	93	89	6	30105136	●
9.72	+0.005	10	133	38	40	93	89	6	30105138	●

All dimensions in mm.
 For machining values see end of catalogue.

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- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

Machine Reamer | 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
9.73	+0.005	10	133	38	40	93	89	6	30105140	●
9.74	+0.005	10	133	38	40	93	89	6	30105142	●
9.75	+0.005	10	133	38	40	93	89	6	30105144	●
9.76	+0.005	10	133	38	40	93	89	6	30105146	●
9.77	+0.005	10	133	38	40	93	89	6	30105148	●
9.78	+0.005	10	133	38	40	93	89	6	30105150	●
9.79	+0.005	10	133	38	40	93	89	6	30105152	●
9.80	+0.005	10	133	38	40	93	89	6	30105154	●
9.81	+0.005	10	133	38	40	93	89	6	30105156	●
9.82	+0.005	10	133	38	40	93	89	6	30105158	●
9.83	+0.005	10	133	38	40	93	89	6	30105160	●
9.84	+0.005	10	133	38	40	93	89	6	30105162	●
9.85	+0.005	10	133	38	40	93	89	6	30105164	●
9.86	+0.005	10	133	38	40	93	89	6	30105166	●
9.87	+0.005	10	133	38	40	93	89	6	30105168	●
9.88	+0.005	10	133	38	40	93	89	6	30105170	●
9.89	+0.005	10	133	38	40	93	89	6	30105172	●
9.90	+0.005	10	133	38	40	93	89	6	30105174	●
9.91	+0.005	10	133	38	40	93	89	6	30105176	●
9.92	+0.005	10	133	38	40	93	89	6	30105178	●
9.93	+0.005	10	133	38	40	93	89	6	30105180	●
9.94	+0.005	10	133	38	40	93	89	6	30105182	●
9.95	+0.005	10	133	38	40	93	89	6	30105184	●
9.96	+0.005	10	133	38	40	93	89	6	30105186	●
9.97	+0.005	10	133	38	40	93	89	6	30105188	●
9.98	+0.005	10	133	38	40	93	89	6	30105190	●
9.99	+0.005	10	133	38	40	93	89	6	30105192	●
10.00	+0.005	10	133	38	40	93	89	6	30105194	●
10.01	+0.005	10	133	38	40	93	89	6	30105196	●
10.02	+0.005	10	133	38	40	93	89	6	30105198	●
10.03	+0.005	10	133	38	40	93	89	6	30105200	●
10.04	+0.005	10	133	38	40	93	89	6	30105202	●
10.05	+0.005	10	133	38	40	93	89	6	30105204	●
10.06	+0.005	10	133	38	40	93	89	6	30105206	●
10.07	+0.005	10	133	38	40	93	89	6	30105208	●
10.08	+0.005	10	133	38	40	93	89	6	30105210	●
10.09	+0.005	10	133	38	40	93	89	6	30105212	●
10.10	+0.005	10	133	38	40	93	89	6	30105214	●
10.11	+0.005	10	133	38	40	93	89	6	30105216	●
10.12	+0.005	10	133	38	40	93	89	6	30105218	●
10.13	+0.005	10	133	38	40	93	89	6	30105220	●
10.14	+0.005	10	133	38	40	93	89	6	30105222	●
10.15	+0.005	10	133	38	40	93	89	6	30105224	●
10.16	+0.005	10	133	38	40	93	89	6	30105226	●
10.17	+0.005	10	133	38	40	93	89	6	30105228	●
10.18	+0.005	10	133	38	40	93	89	6	30105230	●

All dimensions in mm.
For machining values see end of catalogue.

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- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

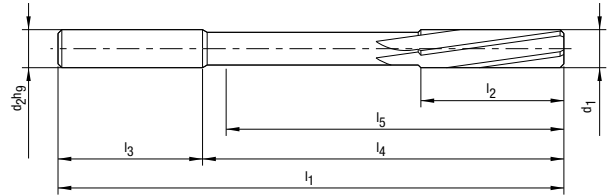
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513								
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.					Stock			
10.19	+0.005	10	133	38	40	93	89	6	30105232					●			
10.20	+0.005	10	133	38	40	93	89	6	30105234					●			
10.21	+0.005	10	133	38	40	93	89	6	30105236					●			
10.22	+0.005	10	133	38	40	93	89	6	30105238					●			
10.23	+0.005	10	133	38	40	93	89	6	30105240					●			
10.24	+0.005	10	133	38	40	93	89	6	30105242					●			
10.25	+0.005	10	133	38	40	93	89	6	30105244					●			
10.26	+0.005	10	133	38	40	93	89	6	30105246					●			
10.27	+0.005	10	133	38	40	93	89	6	30105248					●			
10.28	+0.005	10	133	38	40	93	89	6	30105250					●			
10.29	+0.005	10	133	38	40	93	89	6	30105252					●			
10.30	+0.005	10	133	38	40	93	89	6	30105254					●			
10.31	+0.005	10	133	38	40	93	89	6	30105256					●			
10.32	+0.005	10	133	38	40	93	89	6	30105258					●			
10.33	+0.005	10	133	38	40	93	89	6	30105260					●			
10.34	+0.005	10	133	38	40	93	89	6	30105262					●			
10.35	+0.005	10	133	38	40	93	89	6	30105264					●			
10.36	+0.005	10	133	38	40	93	89	6	30105266					●			
10.37	+0.005	10	133	38	40	93	89	6	30105268					●			
10.38	+0.005	10	133	38	40	93	89	6	30105270					●			
10.39	+0.005	10	133	38	40	93	89	6	30105272					●			
10.40	+0.005	10	133	38	40	93	89	6	30105274					●			
10.41	+0.005	10	133	38	40	93	89	6	30105276					●			
10.42	+0.005	10	133	38	40	93	89	6	30105278					●			
10.43	+0.005	10	133	38	40	93	89	6	30105280					●			
10.44	+0.005	10	133	38	40	93	89	6	30105282					●			
10.45	+0.005	10	133	38	40	93	89	6	30105284					●			
10.46	+0.005	10	133	38	40	93	89	6	30105286					●			
10.47	+0.005	10	133	38	40	93	89	6	30105288					●			
10.48	+0.005	10	133	38	40	93	89	6	30105290					●			
10.49	+0.005	10	133	38	40	93	89	6	30105292					●			
10.50	+0.005	10	133	38	40	93	89	6	30105294					●			
10.51	+0.005	10	133	38	40	93	89	6	30105296					●			
10.52	+0.005	10	133	38	40	93	89	6	30105298					●			
10.53	+0.005	10	133	38	40	93	89	6	30105300					●			
10.54	+0.005	10	133	38	40	93	89	6	30105302					●			
10.55	+0.005	10	133	38	40	93	89	6	30105304					●			
10.56	+0.005	10	133	38	40	93	89	6	30105306					●			

All dimensions in mm.
 For machining values see end of catalogue.

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- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

Machine Reamer | 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
10.57	+0.005	10	133	38	40	93	89	6	30105308	●
10.58	+0.005	10	133	38	40	93	89	6	30105310	●
10.59	+0.005	10	133	38	40	93	89	6	30105312	●
10.60	+0.005	10	133	38	40	93	89	6	30105314	●
10.61	+0.005	10	142	41	40	102	98	6	30105316	●
10.62	+0.005	10	142	41	40	102	98	6	30105318	●
10.63	+0.005	10	142	41	40	102	98	6	30105320	●
10.64	+0.005	10	142	41	40	102	98	6	30105322	●
10.65	+0.005	10	142	41	40	102	98	6	30105324	●
10.66	+0.005	10	142	41	40	102	98	6	30105326	●
10.67	+0.005	10	142	41	40	102	98	6	30105328	●
10.68	+0.005	10	142	41	40	102	98	6	30105330	●
10.69	+0.005	10	142	41	40	102	98	6	30105332	●
10.70	+0.005	10	142	41	40	102	98	6	30105334	●
10.71	+0.005	10	142	41	40	102	98	6	30105336	●
10.72	+0.005	10	142	41	40	102	98	6	30105338	●
10.73	+0.005	10	142	41	40	102	98	6	30105340	●
10.74	+0.005	10	142	41	40	102	98	6	30105342	●
10.75	+0.005	10	142	41	40	102	98	6	30105344	●
10.76	+0.005	10	142	41	40	102	98	6	30105346	●
10.77	+0.005	10	142	41	40	102	98	6	30105348	●
10.78	+0.005	10	142	41	40	102	98	6	30105350	●
10.79	+0.005	10	142	41	40	102	98	6	30105352	●
10.80	+0.005	10	142	41	40	102	98	6	30105354	●
10.81	+0.005	10	142	41	40	102	98	6	30105356	●
10.82	+0.005	10	142	41	40	102	98	6	30105358	●
10.83	+0.005	10	142	41	40	102	98	6	30105360	●
10.84	+0.005	10	142	41	40	102	98	6	30105362	●
10.85	+0.005	10	142	41	40	102	98	6	30105364	●
10.86	+0.005	10	142	41	40	102	98	6	30105366	●
10.87	+0.005	10	142	41	40	102	98	6	30105368	●
10.88	+0.005	10	142	41	40	102	98	6	30105370	●
10.89	+0.005	10	142	41	40	102	98	6	30105372	●
10.90	+0.005	10	142	41	40	102	98	6	30105374	●
10.91	+0.005	10	142	41	40	102	98	6	30105376	●
10.92	+0.005	10	142	41	40	102	98	6	30105378	●
10.93	+0.005	10	142	41	40	102	98	6	30105380	●
10.94	+0.005	10	142	41	40	102	98	6	30105382	●
10.95	+0.005	10	142	41	40	102	98	6	30105384	●
10.96	+0.005	10	142	41	40	102	98	6	30105386	●
10.97	+0.005	10	142	41	40	102	98	6	30105388	●
10.98	+0.005	10	142	41	40	102	98	6	30105390	●
10.99	+0.005	10	142	41	40	102	98	6	30105392	●
11.00	+0.005	10	142	41	40	102	98	6	30105394	●
11.01	+0.005	10	142	41	40	102	98	6	30105396	●
11.02	+0.005	10	142	41	40	102	98	6	30105398	●

All dimensions in mm.
For machining values see end of catalogue.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

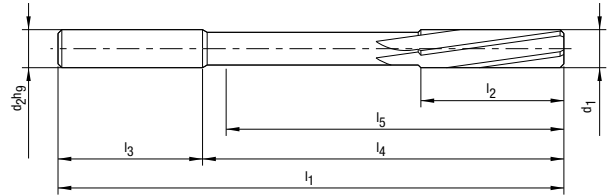
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
11.03	+0.005	10	142	41	40	102	98	6	30105400	●
11.04	+0.005	10	142	41	40	102	98	6	30105402	●
11.05	+0.005	10	142	41	40	102	98	6	30105404	●
11.06	+0.005	10	142	41	40	102	98	6	30105406	●
11.07	+0.005	10	142	41	40	102	98	6	30105408	●
11.08	+0.005	10	142	41	40	102	98	6	30105410	●
11.09	+0.005	10	142	41	40	102	98	6	30105412	●
11.10	+0.005	10	142	41	40	102	98	6	30105414	●
11.11	+0.005	10	142	41	40	102	98	6	30105416	●
11.12	+0.005	10	142	41	40	102	98	6	30105418	●
11.13	+0.005	10	142	41	40	102	98	6	30105420	●
11.14	+0.005	10	142	41	40	102	98	6	30105422	●
11.15	+0.005	10	142	41	40	102	98	6	30105424	●
11.16	+0.005	10	142	41	40	102	98	6	30105426	●
11.17	+0.005	10	142	41	40	102	98	6	30105428	●
11.18	+0.005	10	142	41	40	102	98	6	30105430	●
11.19	+0.005	10	142	41	40	102	98	6	30105432	●
11.20	+0.005	10	142	41	40	102	98	6	30105434	●
11.21	+0.005	10	142	41	40	102	98	6	30105436	●
11.22	+0.005	10	142	41	40	102	98	6	30105438	●
11.23	+0.005	10	142	41	40	102	98	6	30105440	●
11.24	+0.005	10	142	41	40	102	98	6	30105442	●
11.25	+0.005	10	142	41	40	102	98	6	30105444	●
11.26	+0.005	10	142	41	40	102	98	6	30105446	●
11.27	+0.005	10	142	41	40	102	98	6	30105448	●
11.28	+0.005	10	142	41	40	102	98	6	30105450	●
11.29	+0.005	10	142	41	40	102	98	6	30105452	●
11.30	+0.005	10	142	41	40	102	98	6	30105454	●
11.31	+0.005	10	142	41	40	102	98	6	30105456	●
11.32	+0.005	10	142	41	40	102	98	6	30105458	●
11.33	+0.005	10	142	41	40	102	98	6	30105460	●
11.34	+0.005	10	142	41	40	102	98	6	30105462	●
11.35	+0.005	10	142	41	40	102	98	6	30105464	●
11.36	+0.005	10	142	41	40	102	98	6	30105466	●
11.37	+0.005	10	142	41	40	102	98	6	30105468	●
11.38	+0.005	10	142	41	40	102	98	6	30105470	●
11.39	+0.005	10	142	41	40	102	98	6	30105472	●
11.40	+0.005	10	142	41	40	102	98	6	30105474	●

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

All dimensions in mm.

For machining values see end of catalogue.

Machine Reamer I 030513

Preferred series made of HSS-E, Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 Ø 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h9	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
11.41	+0.005	10	142	41	40	102	98	6	30105476	●
11.42	+0.005	10	142	41	40	102	98	6	30105478	●
11.43	+0.005	10	142	41	40	102	98	6	30105480	●
11.44	+0.005	10	142	41	40	102	98	6	30105482	●
11.45	+0.005	10	142	41	40	102	98	6	30105484	●
11.46	+0.005	10	142	41	40	102	98	6	30105486	●
11.47	+0.005	10	142	41	40	102	98	6	30105488	●
11.48	+0.005	10	142	41	40	102	98	6	30105490	●
11.49	+0.005	10	142	41	40	102	98	6	30105492	●
11.50	+0.005	10	142	41	40	102	98	6	30105494	●
11.51	+0.005	10	142	41	40	102	98	6	30105496	●
11.52	+0.005	10	142	41	40	102	98	6	30105498	●
11.53	+0.005	10	142	41	40	102	98	6	30105500	●
11.54	+0.005	10	142	41	40	102	98	6	30105502	●
11.55	+0.005	10	142	41	40	102	98	6	30105504	●
11.56	+0.005	10	142	41	40	102	98	6	30105506	●
11.57	+0.005	10	142	41	40	102	98	6	30105508	●
11.58	+0.005	10	142	41	40	102	98	6	30105510	●
11.59	+0.005	10	142	41	40	102	98	6	30105512	●
11.60	+0.005	10	142	41	40	102	98	6	30105514	●
11.61	+0.005	10	142	41	40	102	98	6	30105516	●
11.62	+0.005	10	142	41	40	102	98	6	30105518	●
11.63	+0.005	10	142	41	40	102	98	6	30105520	●
11.64	+0.005	10	142	41	40	102	98	6	30105522	●
11.65	+0.005	10	142	41	40	102	98	6	30105524	●
11.66	+0.005	10	142	41	40	102	98	6	30105526	●
11.67	+0.005	10	142	41	40	102	98	6	30105528	●
11.68	+0.005	10	142	41	40	102	98	6	30105530	●
11.69	+0.005	10	142	41	40	102	98	6	30105532	●
11.70	+0.005	10	142	41	40	102	98	6	30105534	●
11.71	+0.005	10	142	41	40	102	98	6	30105536	●
11.72	+0.005	10	142	41	40	102	98	6	30105538	●
11.73	+0.005	10	142	41	40	102	98	6	30105540	●
11.74	+0.005	10	142	41	40	102	98	6	30105542	●
11.75	+0.005	10	142	41	40	102	98	6	30105544	●
11.76	+0.005	10	142	41	40	102	98	6	30105546	●
11.77	+0.005	10	142	41	40	102	98	6	30105548	●
11.78	+0.005	10	142	41	40	102	98	6	30105550	●
11.79	+0.005	10	142	41	40	102	98	6	30105552	●
11.80	+0.005	10	142	41	40	102	98	6	30105554	●
11.81	+0.005	10	151	44	40	111	106	6	30105556	●
11.82	+0.005	10	151	44	40	111	106	6	30105558	●
11.83	+0.005	10	151	44	40	111	106	6	30105560	●
11.84	+0.005	10	151	44	40	111	106	6	30105562	●
11.85	+0.005	10	151	44	40	111	106	6	30105564	●
11.86	+0.005	10	151	44	40	111	106	6	30105566	●

All dimensions in mm.
 For machining values see end of catalogue.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

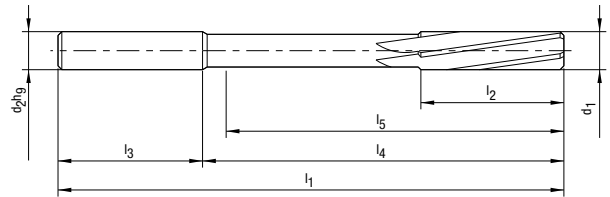
Machine Reamer I 030513

Preferred series made of HSS-E, \varnothing 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,
 \varnothing 3.76 – 12.05 mm to DIN 212-2 with interior centre

DIN 212-1 B	DIN 212-2 B
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	0.95 – 12.05 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	3 – 6
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030513	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions									030513	
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
11.87	+0.005	10	151	44	40	111	106	6	30105568	●
11.88	+0.005	10	151	44	40	111	106	6	30105570	●
11.89	+0.005	10	151	44	40	111	106	6	30105572	●
11.90	+0.005	10	151	44	40	111	106	6	30105574	●
11.91	+0.005	10	151	44	40	111	106	6	30105576	●
11.92	+0.005	10	151	44	40	111	106	6	30105578	●
11.93	+0.005	10	151	44	40	111	106	6	30105580	●
11.94	+0.005	10	151	44	40	111	106	6	30105582	●
11.95	+0.005	10	151	44	40	111	106	6	30105584	●
11.96	+0.005	10	151	44	40	111	106	6	30105586	●
11.97	+0.005	10	151	44	40	111	106	6	30105588	●
11.98	+0.005	10	151	44	40	111	106	6	30105590	●
11.99	+0.005	10	151	44	40	111	106	6	30105592	●
12.00	+0.005	10	151	44	40	111	106	6	30105594	●
12.01	+0.005	10	151	44	40	111	106	6	30105596	●
12.02	+0.005	10	151	44	40	111	106	6	30105598	●
12.03	+0.005	10	151	44	40	111	106	6	30105600	●
12.04	+0.005	10	151	44	40	111	106	6	30105602	●
12.05	+0.005	10	151	44	40	111	106	6	30105604	●

All dimensions in mm.
 For machining values see end of catalogue.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

Helical Machine Reamer | 030610

Preferred series made of HSS-E,

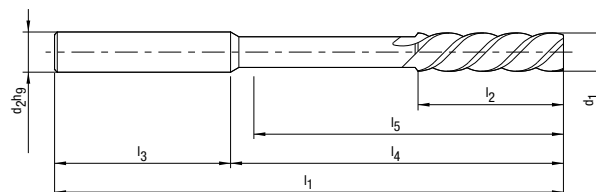
Ø 0.95 – 3.75 mm to DIN 212-1 with two-sided centring tips,

Ø 3.76 – 20.00 mm to DIN 212-2 with interior centre

DIN 212-1 C	DIN 212-2 C
≤ 3.75 mm	≥ 3.76 mm

Design

Diameter:	1.00 – 20.00 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted, with approx. 45° left-hand spiral
Number of cutting edges:	2 – 3
Dimensions:	As per DIN 212-1 or DIN 212-2



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030610	HSS-E	Uncoated	■	■								■	■				

Dimensions									030610	
d ₁	Tol.	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Order No.	Stock
1.00	H7	1	34	5.5	19	15	9.5	2	30105682	●
1.10	H7	1.1	36	6.5	20.5	15.5	10	2	30310927	○
1.20	H7	1.2	38	7.5	21.5	16.5	10.5	2	30105683	●
1.40	H7	1.4	40	8	22	18	12	2	30105684	●
1.50	H7	1.5	40	8	22	18	12	2	30105685	●
1.60	H7	1.6	43	9	23	20	13.5	2	30105686	●
1.80	H7	1.8	46	10	24	22	15	2	30105687	●
2.00	H7	2	49	11	25	24	17	3	30105688	●
2.20	H7	2.2	53	12	28	25	18	3	30105689	●
2.50	H7	2.5	57	14	28	29	22	3	30105700	●
3.00	H7	3	61	15	28	33	25	3	30105702	●
3.20	H7	3.2	65	16	28	37	29	3	30105703	●
3.50	H7	3.5	70	18	28	42	34	3	30105704	●
4.00	H7	4	75	19	28	47	39	3	30105705	●
4.50	H7	4.5	80	21	28	52	42	3	30105707	●
5.00	H7	5	86	23	28	58	48	3	30105709	●
5.50	H7	5.6	93	26	36	57	46	3	30105711	●
6.00	H7	5.6	93	26	36	57	46	3	30105713	●
6.50	H7	6.3	101	28	36	65	54	3	30105715	●
7.00	H7	7.1	109	31	36	73	61	3	30105717	●
7.50	H7	7.1	109	31	36	73	61	3	30105719	●
8.00	H7	8	117	33	36	81	67	3	30105721	●
8.50	H7	8	117	33	36	81	67	3	30105723	●
9.00	H7	9	125	36	40	85	70	3	30105725	●
9.50	H7	9	125	36	40	85	70	3	30105727	●
10.00	H7	10	133	38	40	93	78	3	30105729	●
11.00	H7	10	142	41	40	102	86	3	30105731	●
12.00	H7	10	151	44	40	111	94	3	30105733	●
13.00	H7	10	151	44	40	111	93	3	30105735	●
14.00	H7	12.5	160	47	45	115	97	3	30105737	●
15.00	H7	12.5	162	50	45	117	98	3	30105739	●
16.00	H7	12.5	170	52	45	125	106	3	30105741	●
17.00	H7	14	175	54	45	130	110	3	30105743	●
18.00	H7	14	182	56	45	137	117	3	30105745	●
19.00	H7	16	189	58	48	141	120	3	30105747	●
20.00	H7	16	195	60	48	147	126	3	30105749	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Helical Machine Reamer - Configurable | 030610

Configurable series made of HSS-E

DIN 212-1 C	DIN 212-2 C
≤ 3.75 mm	≥ 3.76 mm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030610	HSS-E	Uncoated	■	■								■	■				

Dimensions								
d ₁	d ₂ h ₉	l ₁	l ₂	l ₃	l ₄	l ₅	z	Stock
0.950 - 1.060	1	34	5.5	19	15	9.5	2	○
1.061 - 1.180	1.1	36	6.5	20.5	15.5	10	2	○
1.181 - 1.320	1.2	38	7.5	21.5	16.5	10.5	2	○
1.321 - 1.410	1.4	40	8	22	18	12	2	○
1.411 - 1.500	1.5	40	8	22	18	12	2	○
1.501 - 1.700	1.6	43	9	23	20	13.5	2	○
1.701 - 1.900	1.8	46	10	24	22	15	2	○
1.901 - 2.120	2	49	11	25	24	17	3	○
2.121 - 2.360	2.2	53	12	28	25	18	3	○
2.361 - 2.650	2.5	57	14	28	29	22	3	○
2.651 - 3.030	3	61	15	28	33	25	3	○
3.031 - 3.350	3.2	65	16	28	37	29	3	○
3.351 - 3.750	3.5	70	18	28	42	34	3	○
3.751 - 4.250	4	75	19	28	47	39	3	○
4.251 - 4.750	4.5	80	21	28	52	42	3	○
4.751 - 5.300	5	86	23	28	58	48	3	○
5.301 - 5.600	5.6	93	26	36	57	46	3	○
5.601 - 6.030	5.6	93	26	36	57	46	3	○
6.031 - 6.700	6.3	101	28	36	65	54	3	○
6.701 - 7.200	7.1	109	31	36	73	61	3	○
7.201 - 7.500	7.1	109	31	36	73	61	3	○
7.501 - 8.200	8	117	33	36	81	67	3	○
8.201 - 8.500	8	117	33	36	81	67	3	○
8.501 - 9.200	9	125	36	40	85	70	3	○
9.201 - 9.500	9	125	36	40	85	70	3	○
9.501 - 10.200	10	133	38	40	93	78	3	○
10.201 - 11.200	10	142	41	40	102	86	3	○
11.201 - 12.200	10	151	44	40	111	94	3	○
12.201 - 13.200	10	151	44	40	111	93	3	○
13.201 - 14.000	12.5	160	47	45	115	97	3	○
14.001 - 15.000	12.5	162	50	45	117	98	3	○
15.001 - 16.000	12.5	170	52	45	125	106	3	○
16.001 - 17.000	14	175	54	45	130	110	3	○
17.001 - 18.000	14	182	56	45	137	117	3	○
18.001 - 19.000	16	189	58	48	141	120	3	○
19.001 - 20.000	16	195	60	48	147	126	3	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

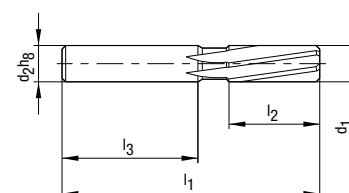
Automatic Lathe Reamer | 030716

Preferred series made of HSS-E, short design

DIN
8089
B

Design

Diameter: 4.00 – 20.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 6 – 8
 Dimensions: As per DIN 8089



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030716	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions							030716	
d ₁	Tol.	d ₂ h8	l ₁	l ₂	l ₃	z	Order No.	Stock
4.00	H7	3.55	56	20	28	6	30105762	○
4.50	H7	4	63	22	28	6	30105764	○
5.00	H7	4	63	22	28	6	30105766	○
5.50	H7	5	63	22	28	6	30105768	○
6.00	H7	5	63	22	28	6	30105770	○
6.50	H7	5	63	22	28	6	30105772	○
7.00	H7	6.3	71	25	36	6	30105774	○
7.50	H7	6.3	71	25	36	6	30105776	○
8.00	H7	6.3	71	25	36	6	30105778	○
8.50	H7	6.3	71	25	36	6	30105780	○
9.00	H7	8	71	25	36	6	30105782	○
9.50	H7	8	71	25	36	6	30105784	○
10.00	H7	8	71	25	36	6	30105786	○
10.50	H7	8	71	25	36	6	30105788	○
11.00	H7	10	80	28	40	6	30105790	○
11.50	H7	10	80	28	40	6	30105792	○
12.00	H7	10	80	28	40	6	30105794	○
13.00	H7	10	80	28	40	6	30105796	○
14.00	H7	12.5	90	32	45	8	30105798	○
15.00	H7	12.5	90	32	45	8	30105800	○
16.00	H7	12.5	90	32	45	8	30105802	○
17.00	H7	12.5	90	32	45	8	30105804	○
18.00	H7	16	100	36	48	8	30105806	○
19.00	H7	16	100	36	48	8	30105808	○
20.00	H7	16	100	36	48	8	30105810	○

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Automatic Lathe Reamer - Configurable | 030716

Configurable series made of HSS-E, short design

DIN 8089 B

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030716	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions							
d ₁	d ₂ h8	l ₁	l ₂	l ₃	z	Stock	
3.750 - 4.250	3.55	56	20	28	6	○	
4.251 - 4.700	4	63	22	28	6	○	
4.701 - 5.300	4	63	22	28	6	○	
5.301 - 5.600	5	63	22	28	6	○	
5.601 - 6.100	5	63	22	28	6	○	
6.101 - 6.700	5	63	22	28	6	○	
6.701 - 7.200	6.3	71	25	36	6	○	
7.201 - 7.500	6.3	71	25	36	6	○	
7.501 - 8.200	6.3	71	25	36	6	○	
8.201 - 8.700	6.3	71	25	36	6	○	
8.701 - 9.200	8	71	25	36	6	○	
9.201 - 9.700	8	71	25	36	6	○	
9.701 - 10.200	8	71	25	36	6	○	
10.201 - 10.600	8	71	25	36	6	○	
10.601 - 11.200	10	80	28	40	6	○	
11.201 - 11.700	10	80	28	40	6	○	
11.701 - 12.200	10	80	28	40	6	○	
12.201 - 13.200	10	80	28	40	6	○	
13.201 - 14.200	12.5	90	32	45	8	○	
14.201 - 15.200	12.5	90	32	45	8	○	
15.201 - 16.200	12.5	90	32	45	8	○	
16.201 - 17.200	12.5	90	32	45	8	○	
17.201 - 18.200	16	100	36	48	8	○	
18.201 - 19.200	16	100	36	48	8	○	
19.201 - 20.200	16	100	36	48	8	○	

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

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○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

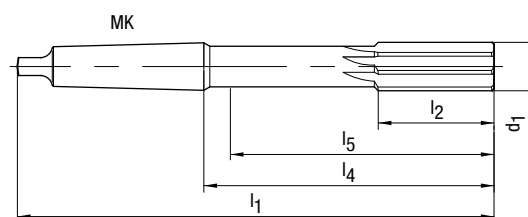
Machine Reamer | 030110

Preferred series made of HSS-E

 DIN
 208
 A

Design

Diameter: 5.00 – 32.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 6 – 10
 Dimensions: As per DIN 208



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030110	HSS-E	Uncoated	■	■	□			■	■		■	■	■	■			

Dimensions								030110	
d ₁	Tol.	l ₁	l ₂	l ₄	l ₅	MK	z	Order No.	Stock
5.00	H7	133	23	67.5	58	1	6	30102665	●
6.00	H7	138	26	72.5	64	1	6	30102667	●
7.00	H7	150	31	84.5	76	1	6	30102669	●
8.00	H7	156	33	90.5	83	1	6	30102671	●
9.00	H7	162	36	96.5	90	1	6	30102673	●
10.00	H7	168	38	102.5	96	1	6	30102675	●
11.00	H7	175	41	109.5	105	1	6	30102677	●
12.00	H7	182	44	116.5	112	1	6	30102679	●
13.00	H7	182	44	116.5	112	1	6	30102681	●
14.00	H7	189	47	123.5	119	1	8	30102683	●
15.00	H7	204	50	124	117	2	8	30102685	●
16.00	H7	210	52	130	124	2	8	30102687	●
17.00	H7	214	54	134	129	2	8	30102689	●
18.00	H7	219	56	139	134	2	8	30102691	●
19.00	H7	223	58	143	138	2	8	30102693	●
20.00	H7	228	60	148	143	2	8	30102695	●
21.00	H7	232	62	152	147	2	8	30102697	●
22.00	H7	237	64	157	152	2	8	30102699	●
23.00	H7	241	66	161	156	2	8	30102701	●
24.00	H7	268	68	169	164	3	8	30102703	●
25.00	H7	268	68	169	164	3	8	30102705	●
26.00	H7	273	70	174	169	3	8	30102707	●
27.00	H7	277	71	178	173	3	10	30102709	●
28.00	H7	277	71	178	173	3	10	30102711	●
29.00	H7	281	73	182	177	3	10	30102713	●
30.00	H7	281	73	182	177	3	10	30102715	●
31.00	H7	285	75	186	181	3	10	30102717	●
32.00	H7	317	77	193	188	4	10	30102719	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

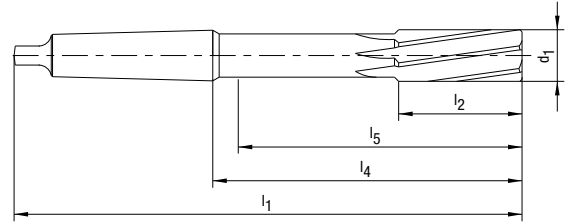
Machine Reamers | 030111, 033111

Preferred series made of HSS-E

DIN
208
B

Design

Diameter: 3.00 – 50.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 6 – 12
 Dimensions: As per DIN 208



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030111	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			
033111	HSS-E	TiN	■	■	□			■	■	□							

Dimensions								030111			033111		
d ₁	Tol.	l ₁	l ₂	l ₄	l ₅	MK	z	Order No.	Stock	Order No.	Stock		
3.00	H7	113	15	47.5	42	1	6	30102748	●				
4.00	H7	124	19	58.5	53	1	6	30102750	●				
5.00	H7	133	23	67.5	58	1	6	30102752	●				
6.00	H7	138	26	72.5	64	1	6	30102754	●				
7.00	H7	150	31	84.5	76	1	6	30102756	●				
8.00	H7	156	33	90.5	83	1	6	30102758	●				
9.00	H7	162	36	96.5	90	1	6	30102760	●				
10.00	H7	168	38	102.5	96	1	6	30102762	●	30107929	●		
11.00	H7	175	41	109.5	105	1	6	30102764	●	30107931	●		
12.00	H7	182	44	116.5	112	1	6	30102766	●	30107933	●		
13.00	H7	182	44	116.5	112	1	6	30102768	●	30107935	●		
14.00	H7	189	47	123.5	119	1	8	30102770	●	30107937	●		
15.00	H7	204	50	124	117	2	8	30102772	●	30107939	●		
16.00	H7	210	52	130	124	2	8	30102774	●	30107941	●		
17.00	H7	214	54	134	129	2	8	30102776	●	30107943	●		
18.00	H7	219	56	139	134	2	8	30102778	●	30107945	●		
19.00	H7	223	58	143	138	2	8	30102780	●	30107947	●		
20.00	H7	228	60	148	143	2	8	30102782	●	30107949	●		
21.00	H7	232	62	152	147	2	8	30102784	●				
22.00	H7	237	64	157	152	2	8	30102786	●				
23.00	H7	241	66	161	156	2	8	30102788	●				
24.00	H7	268	68	169	164	3	8	30102790	●				
25.00	H7	268	68	169	164	3	8	30102792	●				
26.00	H7	273	70	174	169	3	8	30102794	●				
27.00	H7	277	71	178	173	3	10	30102796	●				
28.00	H7	277	71	178	173	3	10	30102798	●				
29.00	H7	281	73	182	177	3	10	30102800	●				
30.00	H7	281	73	182	177	3	10	30102802	●				
31.00	H7	285	75	186	181	3	10	30102804	●				
32.00	H7	317	77	193	188	4	10	30102806	●				
33.00	H7	317	77	193	188	4	10	30102808	●				
34.00	H7	321	78	197	191	4	10	30102810	●				
35.00	H7	321	78	197	191	4	10	30102812	●				
36.00	H7	325	79	201	195	4	10	30102814	●				
37.00	H7	325	79	201	195	4	10	30102816	●				
38.00	H7	329	81	205	199	4	10	30102818	●				
40.00	H7	329	81	205	199	4	10	30102820	●				
42.00	H7	333	82	209	204	4	12	30102822	●				

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Machine Reamers | 030111, 033111

Preferred series made of HSS-E

DIN
208
B

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030111	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			
033111	HSS-E	TiN	■	■	□			■	■	□							

Dimensions								030111		033111	
d ₁	Tol.	l ₁	l ₂	l ₄	l ₅	MK	z	Order No.	Stock	Order No.	Stock
44.00	H7	336	83	212	206	4	12	30102824	●		
45.00	H7	336	83	212	206	4	12	30102826	●		
46.00	H7	340	84	216	210	4	12	30102828	●		
47.00	H7	340	84	216	210	4	12	30102830	●		
48.00	H7	344	86	220	214	4	12	30102832	●		
50.00	H7	344	86	220	214	4	12	30102834	●		

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Machine Reamers - Configurable | 030110, 030111, 033111

Configurable series made of HSS-E

DIN 208 A	DIN 208 B
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Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030110	HSS-E	Uncoated	■	■	□			■	■		■	■	■	■			
030111	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			
033111	HSS-E	TiN	■	■	□			■	■	□							

Dimensions							030110	030111	033111
d ₁	l ₁	l ₂	l ₄	l ₅	MK	z	Stock	Stock	Stock
2.810 - 3.000	113	15	47.5	42	1	6		○	
3.001 - 3.350	117	16	51.5	46	1	6		○	
3.351 - 3.750	120	18	54.5	49	1	6		○	
3.751 - 4.250	124	19	58.5	53	1	6		○	
4.251 - 4.750	128	21	62.5	57	1	6		○	
4.751 - 5.300	133	23	67.5	58	1	6	○	○	
5.301 - 6.050	138	26	72.5	64	1	6	○	○	
6.051 - 6.700	144	28	78.5	70	1	6	○	○	
6.701 - 7.500	150	31	84.5	76	1	6	○	○	
7.501 - 8.500	156	33	90.5	83	1	6	○	○	
8.501 - 9.500	162	36	96.5	90	1	6	○	○	
9.501 - 10.600	168	38	102.5	96	1	6	○	○	○
10.601 - 11.800	175	41	109.5	105	1	6	○	○	○
11.801 - 12.200	182	44	116.5	112	1	6	○	○	○
12.201 - 13.200	182	44	116.5	112	1	6	○	○	○
13.201 - 14.100	189	47	123.5	119	1	8	○	○	○
14.101 - 15.100	204	50	124	117	2	8	○	○	○
15.101 - 16.100	210	52	130	124	2	8	○	○	○
16.101 - 17.100	214	54	134	129	2	8	○	○	○
17.101 - 18.100	219	56	139	134	2	8	○	○	○
18.101 - 19.100	223	58	143	138	2	8	○	○	○
19.101 - 20.100	228	60	148	143	2	8	○	○	○
20.101 - 21.200	232	62	152	147	2	8	○	○	
21.201 - 22.400	237	64	157	152	2	8	○	○	
22.401 - 23.600	241	66	161	156	2	8	○	○	
23.601 - 25.100	268	68	169	164	3	8	○	○	
25.100 - 26.500	273	70	174	169	3	8	○	○	
26.501 - 28.100	277	71	178	173	3	10	○	○	
28.100 - 30.100	281	73	182	177	3	10	○	○	
30.101 - 31.500	285	75	186	181	3	10	○	○	
31.501 - 33.500	317	77	193	188	4	10	○	○	
33.501 - 35.500	321	78	197	191	4	10		○	
35.501 - 37.500	325	79	201	195	4	10		○	
37.501 - 40.100	329	81	205	199	4	10		○	
40.101 - 42.500	333	82	209	204	4	12		○	
42.501 - 45.100	336	83	212	206	4	12		○	
45.101 - 47.500	340	84	216	210	4	12		○	
47.501 - 50.100	344	86	220	214	4	12		○	

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

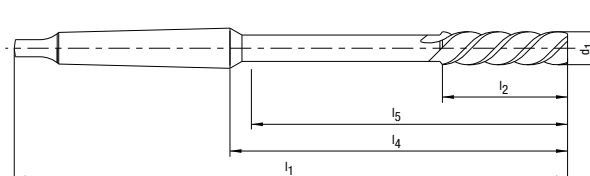
Helical Machine Reamer | 030310

Preferred series made of HSS-E

 DIN
 208
 C

Design

Diameter: 5.00 – 32.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted, with approx. 45° left-hand spiral
 Number of cutting edges: 3
 Dimensions: As per DIN 208



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030310	HSS-E	Uncoated	■	■								■	■				

Dimensions								030310	
d ₁	Tol.	l ₁	l ₂	l ₄	l ₅	MK	z	Order No.	Stock
5.00	H7	133	23	67.5	53	1	3	30102871	●
6.00	H7	138	26	72.5	57	1	3	30102873	●
7.00	H7	150	31	84.5	68	1	3	30102875	●
8.00	H7	156	33	90.5	73	1	3	30102877	●
9.00	H7	162	36	96.5	80	1	3	30102879	●
10.00	H7	168	38	102.5	85	1	3	30102881	●
11.00	H7	175	41	109.5	93	1	3	30102883	●
12.00	H7	182	44	116.5	100	1	3	30102885	●
13.00	H7	182	44	116.5	100	1	3	30102887	●
14.00	H7	189	47	123.5	106	1	3	30102889	●
15.00	H7	204	50	124	104	2	3	30102891	●
16.00	H7	210	52	130	110	2	3	30102893	●
17.00	H7	214	54	134	115	2	3	30102895	●
18.00	H7	219	56	139	119	2	3	30102897	●
19.00	H7	223	58	143	123	2	3	30102899	●
20.00	H7	228	60	148	127	2	3	30102901	●
21.00	H7	232	62	152	131	2	3	30102903	●
22.00	H7	237	64	157	135	2	3	30102905	●
23.00	H7	241	66	161	139	2	3	30102907	●
24.00	H7	268	68	169	146	3	3	30102909	●
25.00	H7	268	68	169	146	3	3	30102911	●
26.00	H7	273	70	174	150	3	3	30102913	●
27.00	H7	277	71	178	153	3	3	30102915	●
28.00	H7	277	71	178	153	3	3	30102917	●
29.00	H7	281	73	182	156	3	3	30102919	●
30.00	H7	281	73	182	156	3	3	30102921	●
31.00	H7	285	75	186	160	3	3	30102923	●
32.00	H7	317	77	193	166	4	3	30102925	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Helical Machine Reamer | 030310

Configurable series made of HSS-E

DIN 208 C

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030310	HSS-E	Uncoated	■	■								■	■				

Dimensions								
d ₁	l ₁	l ₂	l ₄	l ₅	MK	z	Stock	
4.751 - 5.300	133	23	67.5	53	1	3	○	
5.301 - 6.050	138	26	72.5	57	1	3	○	
6.051 - 6.700	144	28	78.5	63	1	3	○	
6.701 - 7.500	150	31	84.5	68	1	3	○	
7.501 - 8.500	156	33	90.5	73	1	3	○	
8.501 - 9.500	162	36	96.5	80	1	3	○	
9.501 - 10.600	168	38	102.5	85	1	3	○	
10.601 - 11.800	175	41	109.5	93	1	3	○	
11.801 - 12.200	182	44	116.5	100	1	3	○	
12.201 - 13.200	182	44	116.5	100	1	3	○	
13.201 - 14.100	189	47	123.5	106	1	3	○	
14.101 - 15.100	204	50	124	104	2	3	○	
15.101 - 16.100	210	52	130	110	2	3	○	
16.101 - 17.100	214	54	134	115	2	3	○	
17.101 - 18.100	219	56	139	119	2	3	○	
18.101 - 19.100	223	58	143	123	2	3	○	
19.101 - 20.100	228	60	148	127	2	3	○	
20.101 - 21.200	232	62	152	131	2	3	○	
21.201 - 22.400	237	64	157	135	2	3	○	
22.401 - 23.600	241	66	161	139	2	3	○	
23.601 - 25.100	268	68	169	146	3	3	○	
25.101 - 26.500	273	70	174	150	3	3	○	
26.501 - 28.100	277	71	178	153	3	3	○	
28.101 - 30.100	281	73	182	156	3	3	○	
30.101 - 31.500	285	75	186	160	3	3	○	
31.501 - 32.200	317	77	193	166	4	3	○	

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

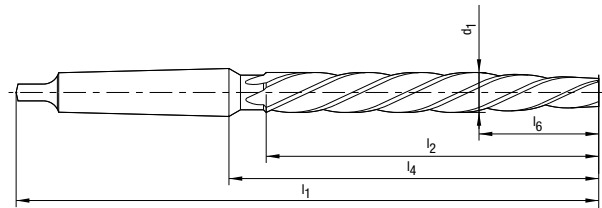
Bridge Reamer | 030010

Preferred series made of HSS, lead approx. 1:10 taper on lead length l₆

DIN
311

Design

Diameter: 6.40 – 40.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 3 – 5
 Dimensions: As per DIN 311



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030010	HSS	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions *								030010	
d ₁	Tol.	l ₁	l ₂	l ₄	l ₆	MK	z	Order No.	Stock
6.40	k11	151	75	85.5	19	1	3	30102602	●
7.40	k11	156	80	90.5	22	1	3	30102604	●
8.40	k11	161	85	95.5	25	1	3	30102606	●
9.50	k11	166	90	100.5	27	1	4	30102608	●
10.00	k11	171	95	105.5	30	1	4	30102610	●
11.00	k11	176	100	110.5	33	1	4	30102612	●
12.00	k11	199	105	119	39	2	4	30102614	●
13.00	k11	199	105	119	39	2	4	30102616	●
14.00	k11	209	115	129	42	2	4	30102618	●
15.00	k11	219	125	139	45	2	4	30102620	●
16.00	k11	229	135	149	48	2	4	30102622	●
17.00	k11	251	135	152	51	3	4	30102624	●
18.00	k11	261	145	162	58	3	4	30102626	●
19.00	k11	261	145	162	58	3	4	30102628	●
20.00	k11	271	155	172	62	3	4	30102630	●
21.00	k11	271	155	172	62	3	4	30102632	●
22.00	k11	281	165	182	66	3	4	30102634	●
23.00	k11	281	165	182	66	3	4	30102636	●
24.00	k11	296	180	197	72	3	4	30102638	●
25.00	k11	296	180	197	72	3	4	30102640	●
26.00	k11	296	180	197	72	3	4	30102642	●
27.00	k11	311	195	212	78	3	4	30102644	●
28.00	k11	311	195	212	78	3	4	30102646	●
30.00	k11	311	195	212	78	3	5	30102648	●
31.00	k11	326	210	227	84	3	5	30102650	●
32.00	k11	354	210	230	84	4	5	30102652	●
33.00	k11	354	210	230	84	4	5	30102654	●
34.00	k11	364	220	240	88	4	5	30102656	●
37.00	k11	364	220	240	88	4	5	30102658	●
40.00	k11	374	230	250	92	4	5	30102660	●

* Intermediate diameters and special tolerances are available on request as a special production!

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

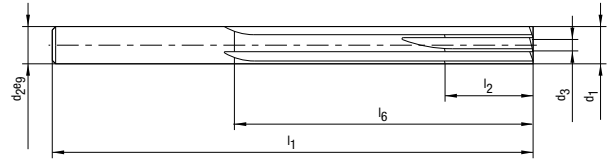
Machine End Face Reamer WN 141 | 030810

Preferred series made of HSS-E, face cutting

BECK
Norm

Design

Diameter:	2.50 – 12.00 mm
Cutting direction:	Right-hand cutting
Flute direction:	Straight fluted
Number of cutting edges:	4 – 6
Dimensions:	Acc. to work standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030810	HSS-E	Uncoated	■	■	□			■	■		■	■	■	■			

Dimensions								030810	
d ₁	Tol.	d _{2 e9}	d ₃	l ₁	l ₂	l ₆	z	Order No.	Stock
2.50	H7	2.5		57	12	33	4	30107503	●
3.00	H7	3	1.5	61	12	33	6	30107504	●
3.50	H7	3.5	1.5	70	12	39	6	30107505	●
4.00	H7	4	1.7	75	16	44	6	30107506	●
4.50	H7	4.5	1.7	80	16	48	6	30107508	●
5.00	H7	5	1.7	86	20	53	6	30107510	●
5.50	H7	5.5	2	93	20	59	6	30312212	○
6.00	H7	6	2	93	20	59	6	30107512	●
6.50	H7	6.5	2	101	20	65	6	30312214	○
7.00	H7	7	2.5	109	22	69	6	30107514	●
7.50	H7	7.5	2.5	109	22	69	6	30312215	○
8.00	H7	8	3	117	24	71	6	30107516	●
8.50	H7	8.5	3	117	24	71	6	30312216	○
9.00	H7	9	3.5	125	24	77	6	30107518	●
9.50	H7	9.5	3.5	125	24	77	6	30312232	○
10.00	H7	10	4.5	133	26	84	6	30107520	●
11.00	H7	11	4.5	142	26	89	6	30107522	●
12.00	H7	12	4.5	151	26	96.5	6	30107524	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Machine End Face Reamer WN 141 - Configurable | 030810

Configurable series made of HSS-E, face cutting

 BECK
 Norm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030810	HSS-E	Uncoated	■	■	□			■	■		■	■	■	■			

Dimensions								
d ₁	d _{2 e9}	d ₃	l ₁	l ₂	l ₆	z	Stock	
2.200 - 2.690	2.5		57	12	33	4	○	
2.691 - 3.100	3	1.5	61	12	33	6	○	
3.101 - 3.650	3.5	1.5	70	12	39	6	○	
3.651 - 4.200	4	1.7	75	16	44	6	○	
4.201 - 4.700	4.5	1.7	80	16	48	6	○	
4.701 - 5.200	5	1.7	86	20	53	6	○	
5.201 - 5.700	5.5	2	93	20	59	6	○	
5.701 - 6.110	6	2	93	20	59	6	○	
6.111 - 6.700	6.5	2	101	20	65	6	○	
6.701 - 7.200	7	2.5	109	22	69	6	○	
7.201 - 7.630	7.5	2.5	109	22	69	6	○	
7.631 - 8.200	8	3	117	24	71	6	○	
8.201 - 8.630	8.5	3	117	24	71	6	○	
8.631 - 9.200	9	3.5	125	24	77	6	○	
9.201 - 9.630	9.5	3.5	125	24	77	6	○	
9.631 - 10.200	10	4.5	133	26	84	6	○	
10.201 - 11.200	11	4.5	142	26	89	6	○	
11.201 - 12.220	12	4.5	151	26	96.5	6	○	

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

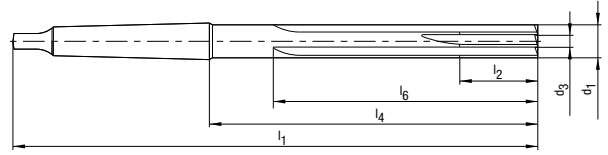
Machine End Face Reamer WN 142 | 030811

Preferred series made of HSS-E, face cutting

BECK
Norm

Design

Diameter: 3.00 – 32.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 6 – 10
 Dimensions: Acc. to work standard



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030811	HSS-E	Uncoated	■	■	□			■	■		■	■	■	■			

Dimensions									030811	
d ₁	Tol.	d ₃	l ₁	l ₂	l ₄	l ₆	MK	z	Order No.	Stock
3.00	H7	1.5	114	12	48.5	33	1	6	30107526	●
3.50	H7	1.5	120	12	54.5	39	1	6	30107527	●
4.00	H7	1.7	124	16	58.5	44	1	6	30107528	●
4.50	H7	1.7	128	16	62.5	48	1	6	30107530	●
5.00	H7	1.7	133	20	67.5	53	1	6	30107532	●
5.50	H7	2	138	20	72.5	59	1	6	30316948	○
6.00	H7	2	138	20	72.5	59	1	6	30107534	●
6.50	H7	2	144	20	78.5	65	1	6	30316951	○
7.00	H7	2.5	150	22	84.5	69	1	6	30107536	●
7.50	H7	2.5	150	22	84.5	69	1	6	30316954	○
8.00	H7	3	156	24	90.5	71	1	6	30107538	●
8.50	H7	3	156	24	90.5	71	1	6	30316955	○
9.00	H7	3.5	162	24	96.5	77	1	6	30107540	●
9.50	H7	3.5	162	24	96.5	77	1	6	30316957	○
10.00	H7	4.5	168	26	102.5	84	1	6	30107542	●
10.50	H7	4.5	168	26	102.5	84	1	6	30316958	○
11.00	H7	4.5	175	26	109.5	89.5	1	6	30107544	●
11.50	H7	4.5	175	26	109.5	89.5	1	6	30316959	○
12.00	H7	4.5	182	26	116.5	96.5	1	6	30107546	●
13.00	H7	4.5	182	26	116.5	96.5	1	6	30107548	●
14.00	H7	5	189	28	123.5	103.5	1	8	30107550	●
15.00	H7	5	204	28	124	104	2	8	30107552	●
16.00	H7	6	210	30	130	108	2	8	30107554	●
17.00	H7	6	214	30	134	112	2	8	30107556	●
18.00	H7	6	219	30	139	117	2	8	30107558	●
19.00	H7	8	223	32	143	119	2	8	30107560	●
20.00	H7	8	228	32	148	124	2	8	30107562	●
21.00	H7	8	232	32	152	128	2	8	30107564	●
22.00	H7	10	237	34	157	133	2	8	30107566	●
24.00	H7	10	268	34	169	139	3	8	30107568	●
25.00	H7	12	268	36	169	139	3	8	30107570	●
26.00	H7	12	273	36	174	144	3	8	30107572	●
27.00	H7	14	277	38	178	148	3	10	30330852	○
28.00	H7	14	277	38	178	148	3	10	30107574	●
29.00	H7	14	281	42	182	150	3	10	30137427	○
30.00	H7	16	281	42	182	150	3	10	30107576	●
31.00	H7	16	285	44	186	154	3	10	30107578	●
32.00	H7	16	317	44	193	157	4	10	30107579	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Machine End Face Reamer WN 142 | 030811

Preferred series made of HSS-E, face cutting

 BECK
 Norm

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
030811	HSS-E	Uncoated	■	■	□			■	■		■	■	■	■			

Dimensions								
d ₁	d ₃	l ₁	l ₂	l ₄	l ₆	MK	z	Stock
2.690 - 3.100	1.5	114	12	48.5	33	1	6	○
3.101 - 3.650	1.5	120	12	54.5	39	1	6	○
3.651 - 4.200	1.7	124	16	58.5	44	1	6	○
4.201 - 4.700	1.7	128	16	62.5	48	1	6	○
4.701 - 5.200	1.7	133	20	67.5	53	1	6	○
5.201 - 5.700	2	138	20	72.5	59	1	6	○
5.701 - 6.110	2	138	20	72.5	59	1	6	○
6.111 - 6.700	2	144	20	78.5	65	1	6	○
6.701 - 7.200	2.5	150	22	84.5	69	1	6	○
7.201 - 7.630	2.5	150	22	84.5	69	1	6	○
7.631 - 8.200	3	156	24	90.5	71	1	6	○
8.201 - 8.630	3	156	24	90.5	71	1	6	○
8.631 - 9.200	3.5	162	24	96.5	77	1	6	○
9.201 - 9.630	3.5	162	24	96.5	77	1	6	○
9.631 - 10.200	4.5	168	26	102.5	84	1	6	○
10.201 - 10.690	4.5	168	26	102.5	84	1	6	○
10.691 - 11.200	4.5	175	26	109.5	89.5	1	6	○
11.201 - 11.800	4.5	175	26	109.5	89.5	1	6	○
11.801 - 12.200	4.5	182	26	116.5	96.5	1	6	○
12.201 - 13.200	4.5	182	26	116.5	96.5	1	6	○
13.201 - 14.140	5	189	28	123.5	103.5	1	8	○
14.141 - 15.140	5	204	28	124	104	2	8	○
15.141 - 16.140	6	210	30	130	108	2	8	○
16.141 - 17.140	6	214	30	134	112	2	8	○
17.141 - 18.140	6	219	30	139	117	2	8	○
18.141 - 19.160	8	223	32	143	119	2	8	○
19.161 - 20.160	8	228	32	148	124	2	8	○
20.161 - 21.200	8	232	32	152	128	2	8	○
21.201 - 22.200	10	237	34	157	133	2	8	○
22.201 - 24.200	10	268	34	169	139	3	8	○
24.201 - 25.160	12	268	36	169	139	3	8	○
25.161 - 26.200	12	273	36	174	144	3	8	○
26.201 - 27.200	14	277	38	178	148	3	10	○
27.201 - 28.160	14	277	38	178	148	3	10	○
28.161 - 29.200	14	281	42	182	150	3	10	○
29.201 - 30.160	16	281	42	182	150	3	10	○
30.161 - 31.200	16	285	44	186	154	3	10	○
30.201 - 32.200	16	317	44	193	157	4	10	○

Machine Reamers

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

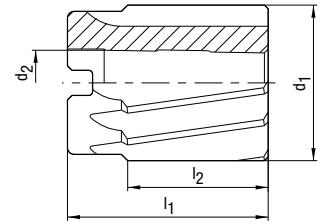
Shell Reamer | 031211

Preferred series made of HSS-E, locating bore with 1:30 taper and driving slot to DIN 138, suitable for tool holders DIN 217 (see end of chapter)

DIN
219
B

Design

Diameter:	25.00 – 100.00 mm
Cutting direction:	Right-hand cutting
Flute direction:	Spiral fluted
Number of cutting edges:	8 – 16
Dimensions:	As per DIN 219



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
031211	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions						031211	
d ₁	Tol.	d ₂	l ₁	l ₂	z	Order No.	Stock
25.00	H7	13	45	32	8	30107691	●
26.00	H7	13	45	32	8	30107693	●
27.00	H7	13	45	32	8	30107695	●
28.00	H7	13	45	32	8	30107697	●
29.00	H7	13	45	32	8	30107699	○
30.00	H7	13	45	32	8	30107701	●
31.00	H7	16	50	36	10	30107703	●
32.00	H7	16	50	36	10	30107705	●
33.00	H7	16	50	36	10	30107707	●
34.00	H7	16	50	36	10	30107709	●
35.00	H7	16	50	36	10	30107711	●
36.00	H7	19	56	40	10	30107713	●
37.00	H7	19	56	40	10	30107715	●
38.00	H7	19	56	40	10	30107717	●
39.00	H7	19	56	40	10	30331334	○
40.00	H7	19	56	40	10	30107720	●
41.00	H7	19	56	40	10	30331335	○
42.00	H7	19	56	40	10	30107722	●
43.00	H7	22	63	45	12	30243223	○
44.00	H7	22	63	45	12	30107724	●
45.00	H7	22	63	45	12	30107726	●
46.00	H7	22	63	45	12	30107728	●
47.00	H7	22	63	45	12	30107730	●
48.00	H7	22	63	45	12	30107732	●
49.00	H7	22	63	45	12	30331336	○
50.00	H7	22	63	45	12	30107734	●
51.00	H7	27	71	50	12	30331337	○
52.00	H7	27	71	50	12	30107736	●
53.00	H7	27	71	50	12	30209556	○
54.00	H7	27	71	50	12	30306651	○
55.00	H7	27	71	50	12	30107738	●
56.00	H7	27	71	50	12	30209557	○
57.00	H7	27	71	50	12	30331338	○
58.00	H7	27	71	50	12	30107740	●
59.00	H7	27	71	50	12	30562201	○
60.00	H7	27	71	50	12	30107742	●
61.00	H7	32	80	56	14	30331432	○
62.00	H7	32	80	56	14	30107744	●

d₂ = nominal diameter d₁ of suitable holder!

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

Suitable holders, see end of chapter

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Shell Reamer | 031211

Preferred series made of HSS-E, locating bore with 1:30 taper and driving slot to DIN 138, suitable for tool holders DIN 217 (see end of chapter)

DIN 219 B

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
031211	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions						031211	
d ₁	Tol.	d ₂	l ₁	l ₂	z	Order No.	Stock
63.00	H7	32	80	56	14	30331433	○
64.00	H7	32	80	56	14	30331434	○
65.00	H7	32	80	56	14	30107746	●
66.00	H7	32	80	56	14	30528877	○
67.00	H7	32	80	56	14	30562204	○
68.00	H7	32	80	56	14	30107748	●
69.00	H7	32	80	56	14	30331441	○
70.00	H7	32	80	56	14	30107750	●
72.00	H7	40	90	63	14	30107752	●
73.00	H7	40	90	63	14	30331443	○
74.00	H7	40	90	63	14	30331444	○
75.00	H7	40	90	63	14	30107754	●
76.00	H7	40	90	63	14	30216490	○
78.00	H7	40	90	63	14	30107756	●
80.00	H7	40	90	63	14	30107758	●
82.00	H7	40	90	63	14	30107760	●
83.00	H7	40	90	63	14	30331446	○
84.00	H7	40	90	63	14	30331447	○
85.00	H7	40	90	63	14	30107762	●
86.00	H7	50	100	71	16	30331449	○
87.00	H7	50	100	71	16	30331450	○
88.00	H7	50	100	71	16	30107764	●
90.00	H7	50	100	71	16	30107766	●
92.00	H7	50	100	71	16	30107768	●
94.00	H7	50	100	71	16	30403707	○
95.00	H7	50	100	71	16	30107770	●
96.00	H7	50	100	71	16	30331451	○
98.00	H7	50	100	71	16	30107772	●
100.00	H7	50	100	71	16	30107774	●

d₂ = nominal diameter d₁ of suitable holder!

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

Suitable holders, see end of chapter

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Shell Reamer - Configurable | 031211

Configurable series made of HSS-E, locating bore with 1:30 taper and driving slot to DIN 138, suitable for tool holders DIN 217 (see end of chapter)

DIN
219
B

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
031211	HSS-E	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions *						
d ₁	d ₂	l ₁	l ₂	z	Stock	
24.200 - 25.200	13	45	32	8	○	
25.201 - 26.200	13	45	32	8	○	
26.201 - 28.200	13	45	32	8	○	
28.200 - 30.200	13	45	32	8	○	
30.201 - 32.200	16	50	36	10	○	
32.201 - 34.200	16	50	36	10	○	
34.201 - 35.200	16	50	36	10	○	
35.201 - 36.200	19	56	40	10	○	
36.201 - 38.200	19	56	40	10	○	
38.201 - 40.200	19	56	40	10	○	
40.201 - 42.200	19	56	40	10	○	
42.201 - 44.200	22	63	45	12	○	
44.201 - 45.200	22	63	45	12	○	
45.201 - 46.200	22	63	45	12	○	
46.201 - 48.200	22	63	45	12	○	
48.201 - 50.200	22	63	45	12	○	
50.201 - 52.200	27	71	50	12	○	
52.201 - 55.200	27	71	50	12	○	
55.201 - 58.200	27	71	50	12	○	
58.201 - 60.200	27	71	50	12	○	
60.201 - 62.200	32	80	56	14	○	
62.201 - 65.200	32	80	56	14	○	
65.201 - 68.200	32	80	56	14	○	
68.201 - 70.200	32	80	56	14	○	
71.201 - 72.200	40	90	63	14	○	
72.201 - 75.200	40	90	63	14	○	
75.201 - 78.200	40	90	63	14	○	
78.201 - 80.200	40	90	63	14	○	
80.201 - 82.200	40	90	63	14	○	
82.201 - 85.200	40	90	63	14	○	
86.000 - 90.200	50	100	71	16	○	
91.000 - 95.200	50	100	71	16	○	
96.000 - 100.200	50	100	71	16	○	

d₂ = nominal diameter d₁ of suitable holder!

* Intermediate diameters, which are not covered by the listed Ø-ranges, are available on request as a special production!

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

Suitable holders, see end of chapter

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

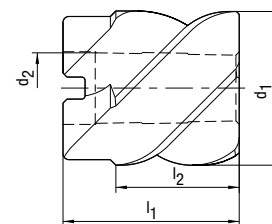
Shell Helical Reamer | 031310

Preferred series made of HSS-E, locating bore with 1:30 taper and driving slot to DIN 138, suitable for tool holders DIN 217 (see end of chapter)

 DIN
 219
 C

Design

Diameter: 25.00 – 100.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 3 – 7
 Dimensions: As per DIN 219



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
031310	HSS-E	Uncoated	■	■								■	■				

Dimensions						031310	
d ₁	Tol.	d ₂	l ₁	l ₂	z	Order No.	Stock
25.00	H7	13	45	32	3	30107776	●
26.00	H7	13	45	32	3	30107778	●
27.00	H7	13	45	32	3	30107780	●
28.00	H7	13	45	32	3	30107782	●
29.00	H7	13	45	32	3	30107784	●
30.00	H7	13	45	32	3	30107786	●
31.00	H7	16	50	36	3	30107788	●
32.00	H7	16	50	36	3	30107790	●
34.00	H7	16	50	36	3	30107794	●
35.00	H7	16	50	36	3	30107796	●
36.00	H7	19	56	40	5	30107798	●
37.00	H7	19	56	40	5	30107800	●
38.00	H7	19	56	40	5	30107802	●
40.00	H7	19	56	40	5	30107804	●
42.00	H7	19	56	40	5	30107806	●
44.00	H7	22	63	45	5	30107808	●
45.00	H7	22	63	45	5	30107810	●
46.00	H7	22	63	45	5	30107812	●
47.00	H7	22	63	45	5	30107814	●
48.00	H7	22	63	45	5	30107816	●
50.00	H7	22	63	45	5	30107818	●
52.00	H7	27	71	50	5	30107820	●
55.00	H7	27	71	50	5	30107822	●
58.00	H7	27	71	50	5	30134726	●
60.00	H7	27	71	50	5	30107825	●
62.00	H7	32	80	56	5	30107827	●
65.00	H7	32	80	56	5	30107829	●
68.00	H7	32	80	56	5	30107831	●
70.00	H7	32	80	56	5	30107833	●
72.00	H7	40	90	63	5	30107835	●
75.00	H7	40	90	63	5	30107837	●
78.00	H7	40	90	63	5	30107839	●
80.00	H7	40	90	63	5	30107841	●
82.00	H7	40	90	63	7	30107843	●
85.00	H7	40	90	63	7	30107845	●
90.00	H7	50	100	71	7	30107849	●
95.00	H7	50	100	71	7	30107853	●
100.00	H7	50	100	71	7	30107857	●

d₂ = nominal diameter d₁ of suitable holder!

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

Suitable holders, see end of chapter

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

Shell Helical Reamer - Configurable I 031310

Configurable series made of HSS-E, locating bore with 1:30 taper and driving slot to DIN 138, suitable for tool holders DIN 217 (see end of chapter)

DIN
219
C

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
031310	HSS-E	Uncoated	■	■								■	■				

Dimensions *						
d ₁	d ₂	l ₁	l ₂	z	Stock	
24.200 - 25.200	13	45	32	3	○	
25.201 - 26.200	13	45	32	3	○	
27.000 - 28.200	13	45	32	3	○	
29.000 - 30.200	13	45	32	3	○	
31.000 - 32.200	16	50	36	3	○	
33.000 - 34.200	16	50	36	3	○	
34.201 - 35.200	16	50	36	3	○	
35.201 - 36.200	19	56	40	5	○	
37.000 - 38.200	19	56	40	5	○	
39.000 - 40.200	19	56	40	5	○	
41.000 - 42.200	19	56	40	5	○	
43.000 - 44.200	22	63	45	5	○	
44.201 - 45.200	22	63	45	5	○	
45.201 - 46.200	22	63	45	5	○	
47.000 - 48.200	22	63	45	5	○	
49.000 - 50.200	22	63	45	5	○	
51.000 - 52.200	27	71	50	5	○	
54.000 - 55.200	27	71	50	5	○	
57.000 - 58.200	27	71	50	5	○	
59.000 - 60.200	27	71	50	5	○	
61.000 - 62.200	32	80	56	5	○	
64.000 - 65.200	32	80	56	5	○	
67.000 - 68.200	32	80	56	5	○	
69.000 - 70.200	32	80	56	5	○	
71.000 - 72.200	40	90	63	5	○	
74.000 - 75.200	40	90	63	5	○	
77.000 - 78.200	40	90	63	5	○	
79.000 - 80.200	40	90	63	5	○	
81.000 - 82.200	40	90	63	7	○	
84.000 - 85.200	40	90	63	7	○	
89.000 - 90.200	50	100	71	7	○	
94.000 - 95.200	50	100	71	7	○	
99.000 - 100.200	50	100	71	7	○	

d₂ = nominal diameter d₁ of suitable holder!

* Intermediate diameters, which are not covered by the listed Ø-ranges, are available on request as a special production!

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and possible coatings on request.

Suitable holders, see end of chapter

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.

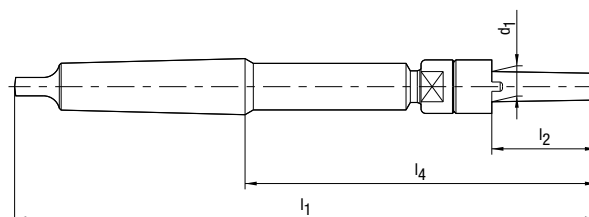
Holder I 031610, 031611, 031612

1:30 taper, with driving ring and release nut, for shell reamers DIN 219, DIN 8054 and shell core drill DIN 222

Design

Diameter: 13.00 – 50.00 mm

Dimensions: As per DIN 217



Dimensions								031610	031611	031612	
d ₁	DIN 219	DIN 8054	DIN 222	l ₁	l ₂	l ₄	MK	Order No.	Order No.	Order No.	Stock
13.00	25 - 30	25 - 35	24 - 35	250	45	151	3	30107905			●
16.00	31 - 35	36 - 45	36 - 45	261	50	162	3	30107907			●
19.00	36 - 42	46 - 52	46 - 53	298	56	174	4	30107909			●
19.00	36 - 42	46 - 52	46 - 53	273	56	174	3		30107921		●
22.00	43 - 50	53 - 62	54 - 63	312	63	188	4	30107911			●
22.00	43 - 50	53 - 62	54 - 63	287	63	188	3		30107923		●
27.00	51 - 60	63 - 75	64 - 75	359	71	203	5	30107913			●
27.00	51 - 60	63 - 75	64 - 75	327	71	203	4			30107925	●
32.00	61 - 71		76 - 90	376	80	220	5	30107915			●
32.00	61 - 71		76 - 90	344	80	220	4			30107927	●
40.00	72 - 85		91 - 100	396	90	240	5	30107917			●
50.00	86 - 100			416	100	260	5	30107919			●

The following spare parts are also available from our stock:

Driving Rings I 031511

Release Nuts I 031512

Washers I 031513

All dimensions in mm.

For machining values see end of catalogue.
Information on custom designs on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry.



Hand Reamers & Taper Reamers

Standard Programme

Ideal for repairs
Difficult to access processing possible
Easy to start the cut in bores



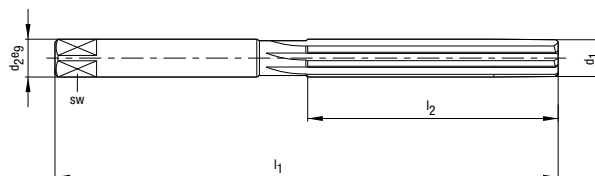
Hand Reamer DIN 206 I 010010

Preferred series made of HSS, with long first cut, cylindrical shank and square end (wrench size "sw" see table)

DIN
206
A

Design

Diameter: 1.00 – 60.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Straight fluted
 Number of cutting edges: 3 – 12
 Please note: Discontinuing production. Available only until supply lasts!
 The product is still available on request as a special production!



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
010010	HSS	Uncoated	■	■	□			■	■		■	■	■	■			

Dimensions							010010	
d ₁	Tol.	d ₂ e9	l ₁	l ₂	sw	z	Order No.	Stock
1.00	H7	1	34	13		3	10070710	●
1.10	H7	1.1	34	13		3	10070711	○
1.30	H7	1.3	38	17		3	10070713	○
1.50	H7	1.5	41	20	1.12	3	10070715	●
1.60	H7	1.6	44	21	1.25	3	10070716	○
1.80	H7	1.8	47	23	1.4	4	10070718	○
2.00	H7	2	50	25	1.6	4	30101631	●
2.20	H7	2.2	54	27	1.8	4	30101633	○
2.50	H7	2.5	58	29	2.1	4	30101636	●
2.80	H7	2.8	62	31	2.1	6	30101639	○
3.00	H7	3	62	31	2.4	6	30101651	●
3.20	H7	3.2	66	33	2.4	6	30101653	○
3.50	H7	3.5	71	35	2.7	6	30101655	●
4.00	H7	4	76	38	3	6	30101663	●
4.50	H7	4.5	81	41	3.4	6	30101673	●
5.00	H7	5	87	44	3.8	6	30101683	●
5.50	H7	5.5	93	47	4.3	6	30101693	●
6.00	H7	6	93	47	4.9	6	30101703	●
6.50	H7	6.5	100	50	4.9	6	30101711	●
7.00	H7	7	107	54	5.5	6	30101721	●
7.50	H7	7.5	107	54	6.2	6	30101731	●
8.00	H7	8	115	58	6.2	6	30101741	●
8.50	H7	8.5	115	58	7	6	30101751	●
9.00	H7	9	124	62	7	6	30101759	●
9.50	H7	9.5	124	62	8	6	30101767	●
10.00	H7	10	133	66	8	6	30101777	●
10.50	H7	10.5	133	66	8	6	30101783	●
11.00	H7	11	142	71	9	6	30101793	●
11.50	H7	11.5	142	71	9	6	30101803	●
12.00	H7	12	152	76	9	6	30101813	●
12.50	H7	12.5	152	76	10	6	30101815	●
13.00	H7	13	152	76	10	6	30101817	●
13.50	H7	13.5	163	81	11	8	30101819	●
14.00	H7	14	163	81	11	8	30101821	●
14.50	H7	14.5	163	81	11	8	30101823	●
15.00	H7	15	163	81	12	8	30101825	●
15.50	H7	15.5	175	87	12	8	30101827	●
16.00	H7	16	175	87	12	8	30101829	●

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Hand Reamer DIN 206 I 010010

Preferred series, with long first cut, cylindrical shank and square end
 (wrench size "sw" see table)

 DIN
 206
 A

Please note: Discontinuing production. Available only until supply lasts! The product is still available on request as a special production!

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
010010	HSS	Uncoated	■	■	□			■	■		■	■	■	■			

Dimensions							010010	
d ₁	Tol.	d ₂ e9	l ₁	l ₂	sw	z	Order No.	Stock
16.50	H7	16.5	175	87	13	8	30101831	●
17.00	H7	17	175	87	13	8	30101833	●
17.50	H7	17.5	188	93	14.5	8	30101835	●
18.00	H7	18	188	93	14.5	8	30101837	●
18.50	H7	18.5	188	93	14.5	8	30101839	●
19.00	H7	19	188	93	14.5	8	30101841	●
19.50	H7	19.5	201	100	16	8	30101843	●
20.00	H7	20	201	100	16	8	30101845	●
21.00	H7	21	201	100	16	8	30101847	●
22.00	H7	22	215	107	18	8	30101849	●
23.00	H7	23	215	107	18	8	30101851	●
24.00	H7	24	231	115	20	8	30101853	●
25.00	H7	25	231	115	20	8	30101855	●
26.00	H7	26	231	115	20	8	30101857	●
27.00	H7	27	247	124	22	10	30101859	●
28.00	H7	28	247	124	22	10	30101861	●
29.00	H7	29	247	124	22	10	30101863	●
30.00	H7	30	247	124	24	10	30101865	●
31.00	H7	31	265	133	24	10	30101867	●
32.00	H7	32	265	133	24	10	30101869	●
33.00	H7	33	265	133	26	10	30101871	●
34.00	H7	34	284	142	26	10	30101873	●
35.00	H7	35	284	142	29	10	30101875	●
36.00	H7	36	284	142	29	10	30101877	●
37.00	H7	37	284	142	29	10	30101879	●
38.00	H7	38	305	152	29	10	30101881	●
39.00	H7	39	305	152	32	10	30101883	●
40.00	H7	40	305	152	32	10	30101885	●
45.00	H7	45	326	163	35	12	30101890	●
50.00	H7	50	347	174	39	12	30101899	●
60.00	H7	60	367	184	49	12	30101901	●

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Hand Reamer DIN 206 – Configurable I 010010

Configurable series made of HSS, with long first cut, cylindrical shank and square end
(wrench size "sw" see table)

DIN
206
A

Please note: Discontinuing production. Available only until supply lasts! The product is still available on request as a special production!

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
010010	HSS	Uncoated	■	■	□			■	■		■	■	■	■			

Dimensions							
d ₁	l ₁	l ₂	sw	z	Stock		
0.950 - 1.090	34	13		3	○		
1.091 - 1.190	34	13		3	○		
1.191 - 1.390	38	17		3	○		
1.191 - 1.590	41	20	1.12	3	○		
1.591 - 1.790	44	21	1.25	3	○		
1.791 - 1.980	47	23	1.4	4	○		
1.981 - 2.120	50	25	1.6	4	○		
2.121 - 2.390	54	27	1.8	4	○		
2.391 - 2.690	58	29	2.1	4	○		
2.691 - 2.890	62	31	2.1	6	○		
2.891 - 3.100	62	31	2.4	6	○		
3.101 - 3.300	66	33	2.4	6	○		
3.301 - 3.600	71	35	2.7	6	○		
3.601 - 4.200	76	38	3	6	○		
4.201 - 4.700	81	41	3.4	6	○		
4.701 - 5.200	87	44	3.8	6	○		
5.201 - 5.600	93	47	4.3	6	○		
5.601 - 6.100	93	47	4.9	6	○		
6.101 - 6.700	100	50	4.9	6	○		
6.701 - 7.100	107	54	5.5	6	○		
7.101 - 7.600	107	54	6.2	6	○		
7.601 - 8.100	115	58	6.2	6	○		
8.101 - 8.600	115	58	7	6	○		
8.601 - 9.100	124	62	7	6	○		
9.101 - 9.600	124	62	8	6	○		
9.601 - 10.100	133	66	8	6	○		
10.101 - 10.600	133	66	8	6	○		
10.601 - 11.100	142	71	9	6	○		
11.101 - 11.600	142	71	9	6	○		
11.601 - 12.300	152	76	9	6	○		
12.301 - 12.550	152	76	10	6	○		
12.551 - 13.200	152	76	10	6	○		
13.201 - 13.550	163	81	11	8	○		
13.551 - 14.200	163	81	11	8	○		
14.201 - 14.550	163	81	11	8	○		
14.551 - 15.100	163	81	12	8	○		
15.101 - 15.800	175	87	12	8	○		
15.801 - 16.200	175	87	12	8	○		
16.201 - 16.700	175	87	13	8	○		
16.701 - 17.100	175	87	13	8	○		
17.101 - 17.550	188	93	14.5	8	○		
17.551 - 18.200	188	93	14.5	8	○		
18.201 - 18.600	188	93	14.5	8	○		
18.601 - 19.100	188	93	14.5	8	○		
19.101 - 19.800	201	100	16	8	○		
19.801 - 20.200	201	100	16	8	○		

All dimensions in mm.
Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Hand Reamer DIN 206 – Configurable | 010010

Configurable series made of HSS, with long first cut, cylindrical shank and square end
 (wrench size "sw" see table)

 DIN
 206
 A

Please note: Discontinuing production. Available only until supply lasts! The product is still available on request as a special production!

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
010010	HSS	Uncoated	■	■	□			■	■		■	■	■	■			

Dimensions						
d ₁	l ₁	l ₂	sw	z		Stock
20.201 - 21.200	201	100	16	8		○
21.201 - 22.200	215	107	18	8		○
22.201 - 23.200	215	107	18	8		○
23.201 - 24.200	231	115	20	8		○
24.201 - 25.200	231	115	20	8		○
25.201 - 26.200	231	115	20	8		○
26.201 - 27.200	247	124	22	10		○
27.201 - 28.200	247	124	22	10		○
28.201 - 29.200	247	124	22	10		○
29.201 - 30.200	247	124	24	10		○
30.201 - 31.200	265	133	24	10		○
31.201 - 32.200	265	133	24	10		○
32.201 - 33.200	265	133	26	10		○
33.201 - 34.200	284	142	26	10		○
34.201 - 35.200	284	142	29	10		○
35.201 - 36.200	284	142	29	10		○
36.201 - 37.200	284	142	29	10		○
37.201 - 38.200	305	152	29	10		○
38.201 - 39.200	305	152	32	10		○
39.201 - 40.200	305	152	32	10		○
44.201 - 45.200	326	163	35	12		○
49.201 - 50.200	347	174	39	12		○
58.201 - 60.200	367	184	49	12		○

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

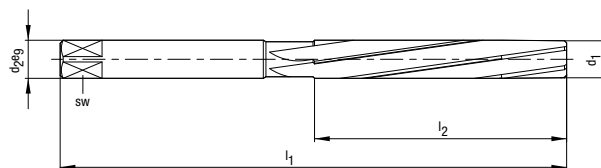
Hand Reamer DIN 206 | 010011

Preferred series made of HSS, with long first cut, cylindrical shank and square end (wrench size "sw" see table)

DIN
206
B

Design

Diameter: 1.00 – 60.00 mm
Cutting direction: Right-hand cutting
Flute direction: Spiral fluted
Number of cutting edges: 3 – 12



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
010011	HSS	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions							010011	
d ₁	Tol.	d ₂ e9	l ₁	l ₂	sw	z	Order No.	Stock
1.00	H7	1	34	13		3	10070720	●
1.10	H7	1.1	34	13		3	10070721	○
1.20	H7	1.2	38	17		3	30611590	○
1.30	H7	1.3	38	17		3	10070722	○
1.40	H7	1.4	41	20	1.12	3	10070723	○
1.50	H7	1.5	41	20	1.12	3	10070724	●
1.60	H7	1.6	44	21	1.25	3	10070725	○
1.80	H7	1.8	47	23	1.4	4	10070726	○
2.00	H7	2	50	25	1.6	4	30101902	●
2.20	H7	2.2	54	27	1.8	4	30101904	○
2.50	H7	2.5	58	29	2	4	30101905	●
2.80	H7	2.8	62	31	2.4	6	30101908	○
3.00	H7	3	62	31	2.4	6	30101909	●
3.20	H7	3.2	66	33	2.4	6	30345568	○
3.50	H7	3.5	71	35	2.7	6	30101911	●
4.00	H7	4	76	38	3	6	30101918	●
4.50	H7	4.5	81	41	3.4	6	30101926	●
5.00	H7	5	87	44	3.8	6	30101932	●
5.50	H7	5.5	93	47	4.3	6	30101936	●
6.00	H7	6	93	47	4.3	6	30101942	●
6.50	H7	6.5	100	50	4.9	6	30101944	●
7.00	H7	7	107	54	5.5	6	30101950	●
7.50	H7	7.5	107	54	5.5	6	30101958	●
8.00	H7	8	115	58	6.2	6	30101966	●
8.50	H7	8.5	115	58	6.2	6	30101970	●
9.00	H7	9	124	62	7	6	30101980	●
9.50	H7	9.5	124	62	7	6	30101990	●
10.00	H7	10	133	66	8	6	30101996	●
10.50	H7	10.5	133	66	8	6	30101998	●
11.00	H7	11	142	71	9	6	30102008	●
11.50	H7	11.5	142	71	9	6	30102018	●
12.00	H7	12	152	76	9	6	30102024	●
12.50	H7	12.5	152	76	10	6	30102026	●
13.00	H7	13	152	76	10	6	30102028	●
13.50	H7	13.5	163	81	11	8	30102030	●
14.00	H7	14	163	81	11	8	30102032	●
14.50	H7	14.5	163	81	12	8	30102034	●
15.00	H7	15	163	81	12	8	30102036	●

All dimensions in mm.
Information on custom designs on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

Hand Reamer DIN 206 I 010011

Preferred series, with long first cut, cylindrical shank and square end
 (wrench size "sw" see table)

 DIN
 206
 B

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
010011	HSS	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions							010011	
d ₁	Tol.	d _{2 e9}	l ₁	l ₂	sw	z	Order No.	Stock
15.50	H7	15.5	175	87	12	8	30102038	●
16.00	H7	16	175	87	12	8	30102040	●
16.50	H7	16.5	175	87	13	8	30102042	●
17.00	H7	17	175	87	13	8	30102044	●
17.50	H7	17.5	188	93	14.5	8	30102046	●
18.00	H7	18	188	93	14.5	8	30102048	●
18.50	H7	18.5	188	93	14.5	8	30102050	●
19.00	H7	19	188	93	14.5	8	30102052	●
19.50	H7	19.5	201	100	16	8	30102054	●
20.00	H7	20	201	100	16	8	30102056	●
21.00	H7	21	201	100	16	8	30102058	●
22.00	H7	22	215	107	18	8	30102060	●
23.00	H7	23	215	107	18	8	30102062	●
24.00	H7	24	231	115	18	8	30102064	●
25.00	H7	25	231	115	20	8	30102066	●
26.00	H7	26	231	115	20	8	30102068	●
27.00	H7	27	247	124	22	10	30102070	●
28.00	H7	28	247	124	22	10	30102072	●
29.00	H7	29	247	124	22	10	30102074	●
30.00	H7	30	247	124	22	10	30102076	●
31.00	H7	31	265	133	24	10	30102078	●
32.00	H7	32	265	133	24	10	30102080	●
33.00	H7	33	265	133	26	10	30102082	●
34.00	H7	34	284	142	26	10	30102084	●
35.00	H7	35	284	142	26	10	30102086	●
36.00	H7	36	284	142	29	10	30102088	●
37.00	H7	37	284	142	29	10	30102090	●
38.00	H7	38	305	152	29	10	30102092	●
39.00	H7	39	305	152	29	10	30102094	●
40.00	H7	40	305	152	32	10	30102096	●
45.00	H7	45	326	163	35	12	30102100	●
50.00	H7	50	347	174	39	12	30102103	●
60.00	H7	60	367	184	49	12	30102105	●

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Hand Reamer DIN 206 – Configurable | 010011

Configurable series made of HSS, with long first cut, cylindrical shank and square end
(wrench size "sw" see table)

DIN
206
B

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
010011	HSS	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions						
d ₁	l ₁	l ₂	sw	z	Stock	
0.950 - 1.060	34	13		3	○	
1.061 - 1.180	34	13		3	○	
1.181 - 1.320	38	17		3	○	
1.321 - 1.410	41	20	1.12	3	○	
1.411 - 1.500	41	20	1.12	3	○	
1.501 - 1.700	44	21	1.25	3	○	
1.701 - 1.900	47	23	1.4	4	○	
1.901 - 2.120	50	25	1.6	4	○	
2.121 - 2.360	54	27	1.8	4	○	
2.361 - 2.650	58	29	2	4	○	
2.651 - 3.000	62	31	2.4	6	○	
3.001 - 3.300	66	33	2.4	6	○	
3.301 - 3.600	71	35	2.7	6	○	
3.601 - 4.200	76	38	3	6	○	
4.201 - 4.700	81	41	3.4	6	○	
4.701 - 5.200	87	44	3.8	6	○	
5.201 - 5.600	93	47	4.3	6	○	
5.601 - 6.100	93	47	4.3	6	○	
6.101 - 6.700	100	50	4.9	6	○	
6.701 - 7.100	107	54	5.5	6	○	
7.101 - 7.600	107	54	5.5	6	○	
7.601 - 8.100	115	58	6.2	6	○	
8.101 - 8.600	115	58	6.2	6	○	
8.601 - 9.100	124	62	7	6	○	
9.101 - 9.600	124	62	7	6	○	
9.601 - 10.100	133	66	8	6	○	
10.101 - 10.600	133	66	8	6	○	
10.601 - 11.100	142	71	9	6	○	
11.101 - 11.600	142	71	9	6	○	
11.601 - 12.300	152	76	9	6	○	
12.301 - 13.200	152	76	10	6	○	
13.201 - 14.200	163	81	11	8	○	
14.201 - 15.100	163	81	12	8	○	
15.100 - 16.200	175	87	12	8	○	
16.201 - 17.200	175	87	13	8	○	
18.201 - 18.200	188	93	14.5	8	○	
18.201 - 19.100	188	93	14.5	8	○	
19.101 - 20.200	201	100	16	8	○	
20.201 - 21.200	201	100	16	8	○	
21.201 - 22.200	215	107	18	8	○	
22.201 - 23.200	215	107	18	8	○	
23.201 - 24.200	231	115	18	8	○	
24.201 - 25.200	231	115	20	8	○	
25.201 - 26.200	231	115	20	8	○	
26.201 - 27.200	247	124	22	10	○	
27.201 - 28.200	247	124	22	10	○	

All dimensions in mm.
Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Hand Reamer DIN 206 – Configurable | 010011

Configurable series made of HSS, with long first cut, cylindrical shank and square end
 (wrench size "sw" see table)

 DIN
 206
 B

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
010011	HSS	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions *						
d ₁	l ₁	l ₂	sw	z		Stock
28.201 - 30.200	247	124	22	10		○
30.201 - 32.200	265	133	24	10		○
32.200 - 33.200	265	133	26	10		○
33.201 - 35.200	284	142	26	10		○
35.201 - 37.200	284	142	29	10		○
37.201 - 39.200	305	152	29	10		○
39.201 - 40.200	305	152	32	10		○
43.000 - 45.200	326	163	35	12		○
48.000 - 50.200	347	174	39	12		○
58.000 - 60.200	367	184	49	12		○

* Intermediate diameters, which are not covered by the listed Ø-ranges, are available on request as special production!

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Hand Reamer DIN 859, Form A – Adjustable | 011010

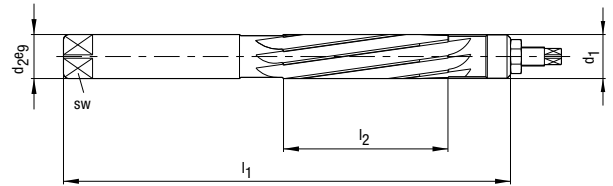
Hand Reamer DIN 859, Form B – Adjustable | 011011

DIN 859 A	DIN 859 B
≤ 5,50 mm	≥ 6,00 mm

Preferred series made of HSS, cylindrical shank and square end (wrench size "sw" see table),
adjustment range approx. 1/100 of the diameter (e.g., Reamer Ø 20 mm = adjustable by 0.2 mm)

Design

Diameter: 4.00 – 60.00 mm
Cutting direction: Right-hand cutting
Flute direction: Straight fluted (up to Ø 5.5 mm)
Spiral fluted (from Ø 6.0 mm)
Number of cutting edges: 6 – 16



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
011010	HSS	Uncoated	■	■	□			■	■		■	■	■	□			
011011	HSS	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions						011010 011011	
d ₁	d _{2 e9}	l ₁	l ₂	sw	z	Order No.	Stock
4.00	4	76	24	3	6	30102107	●
4.50	4.5	81	27	3.4	6	30102109	●
5.00	5	87	30	3.8	6	30102111	●
5.50	5.5	93	33	4.3	6	30102113	●
6.00	6	93	33	4.9	6	30102239	●
6.50	6.5	100	34	4.9	6	30102241	●
7.00	7	107	38	5.5	9	30102243	●
7.50	7.5	107	38	6.2	9	30102245	●
8.00	8	115	42	6.2	9	30102247	●
8.50	8.5	115	42	7	9	30102249	●
9.00	9	124	46	7	9	30102251	●
9.50	9.5	124	46	8	9	30102253	●
10.00	10	133	50	8	9	30102255	●
10.50	10.5	133	50	8	9	30102257	●
11.00	11	142	51	9	9	30102259	●
11.50	11.5	142	51	9	9	30102261	●
12.00	12	152	56	9	9	30102263	●
12.50	12.5	152	56	10	9	30102265	●
13.00	13	152	56	10	9	30102267	●
13.50	13.5	163	61	11	9	30102269	●
14.00	14	163	61	11	9	30102271	●
14.50	14.5	163	61	11	9	30102273	○
15.00	15	163	61	12	9	30102275	●
15.50	15.5	175	67	12	9	30102277	○
16.00	16	175	67	12	9	30102279	●
16.50	16.5	175	67	13	9	30102281	○
17.00	17	175	67	13	9	30102283	●
17.50	17.5	188	68	14.5	9	30137431	○
18.00	18	188	68	14.5	9	30102285	●
18.50	18.5	188	68	14.5	9	30102286	○
19.00	19	188	68	14.5	9	30102288	●
19.50	19.5	201	75	16	9	30102289	○
20.00	20	201	75	16	9	30102291	●
21.00	21	201	75	16	9	30331489	○
22.00	22	215	82	18	12	30102293	●
23.00	23	215	82	18	12	30331490	○
24.00	24	231	85	18	12	30102295	●
25.00	25	231	85	20	12	30102297	●

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

All dimensions in mm.

Information on custom designs on request.

Hand Reamer DIN 859, Form A – Adjustable | 011010

Hand Reamer DIN 859, Form B – Adjustable | 011011

DIN 859 A	DIN 859 B
≤ 5,50 mm	≥ 6.00 mm

Preferred series, cylindrical shank and square end (wrench size "sw" see table),
 adjustment range approx. 1/100 of the diameter (e.g., Reamer Ø 20 mm = adjustable by 0.2 mm)

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
011010	HSS	Uncoated	■	■	□			■	■		■	■	■	□			
011011	HSS	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions						011010 011011	
d ₁	d _{2 e9}	l ₁	l ₂	sw	z	Order No.	Stock
26.00	26	231	85	20	12	30102299	●
27.00	27	247	94	22	12	30102300	○
28.00	28	247	94	22	12	30102302	●
29.00	29	247	94	22	12	30102304	○
30.00	30	247	94	24	12	30102306	●
31.00	31	265	99	24	12	30102308	○
32.00	32	265	99	24	12	30102310	●
33.00	33	265	99	26	12	30331491	○
34.00	34	284	108	26	12	30102312	○
35.00	35	284	108	29	12	30102314	●
36.00	36	284	108	29	12	30102316	●
37.00	37	284	108	29	12	30331493	○
38.00	38	305	111	29	12	30102318	●
39.00	39	305	111	32	12	30102319	○
40.00	40	305	111	32	12	30102321	●
41.00	41	305	111	32	12	30102322	○
42.00	42	305	111	32	12	30331494	○
43.00	43	326	120	35	12	30331495	○
44.00	44	326	120	35	12	30331496	○
45.00	45	326	120	35	12	30102324	●
46.00	46	326	120	35	12	30102326	○
47.00	47	326	120	39	12	30331497	○
48.00	48	347	131	39	12	30331498	○
49.00	49	347	131	39	12	30102328	○
50.00	50	347	131	39	12	30102330	●
51.00	51	347	131	39	16	30331499	○
52.00	52	347	131	39	16	30331500	○
53.00	53	347	131	44	16	30331501	○
54.00	54	367	134	44	16	30331502	○
55.00	55	367	134	44	16	30102332	●
56.00	56	367	134	44	16	30331503	○
57.00	57	367	134	44	16	30331504	○
58.00	58	367	134	44	16	30102333	○
59.00	59	367	134	49	16	30331505	○
60.00	60	367	134	49	16	30102335	●

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Hand Reamer DIN 859, Form A – Adjustable | 011010

Hand Reamer DIN 859, Form B – Adjustable | 011011

DIN 859 A	DIN 859 B
≤ 5,50 mm	≥ 6.00 mm

Configurable series made of HSS, cylindrical shank and square end (wrench size “sw” see table),
adjustment range approx. 1/100 of the diameter (e.g., reamer Ø 20 mm = adjustable by 0.2 mm)

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
011010	HSS	Uncoated	■	■	□			■	■		■	■	■	□			
011011	HSS	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions						
d ₁	l ₁	l ₂	sw	z	Stock	
3.900 - 4.200	76	24	3	6	○	
4.201 - 4.700	81	27	3.4	6	○	
4.701 - 5.200	87	30	3.8	6	○	
5.201 - 5.700	93	33	4.3	6	○	
5.701 - 6.200	93	33	4.9	6	○	
6.201 - 6.700	100	34	4.9	6	○	
6.701 - 7.200	107	38	5.5	9	○	
7.201 - 7.630	107	38	6.2	9	○	
7.631 - 8.200	115	42	6.2	9	○	
8.201 - 8.630	115	42	7	9	○	
8.631 - 9.200	124	46	7	9	○	
9.201 - 9.630	124	46	8	9	○	
9.631 - 10.200	133	50	8	9	○	
10.201 - 10.600	133	50	8	9	○	
10.601 - 11.200	142	51	9	9	○	
11.201 - 11.800	142	51	9	9	○	
11.801 - 12.400	152	56	9	9	○	
12.401 - 13.200	152	56	10	9	○	
13.201 - 13.640	163	61	11	9	○	
13.641 - 14.140	163	61	11	9	○	
14.141 - 14.640	163	61	11	9	○	
14.641 - 15.140	163	61	12	9	○	
15.141 - 15.640	175	67	12	9	○	
15.641 - 16.140	175	67	12	9	○	
16.141 - 16.640	175	67	13	9	○	
16.641 - 17.140	175	67	13	9	○	
17.141 - 17.640	188	68	14.5	9	○	
17.641 - 18.140	188	68	14.5	9	○	
18.141 - 18.400	188	68	14.5	9	○	
18.401 - 19.160	188	68	14.5	9	○	
19.161 - 19.660	201	75	16	9	○	
19.661 - 20.160	201	75	16	9	○	
20.161 - 21.200	201	75	16	9	○	
21.201 - 22.200	215	82	18	12	○	
22.201 - 23.200	215	82	18	12	○	
23.201 - 24.200	231	85	18	12	○	
24.201 - 25.200	231	85	20	12	○	
25.201 - 26.200	231	85	20	12	○	
26.201 - 27.200	247	94	22	12	○	
27.201 - 28.200	247	94	22	12	○	
28.201 - 29.200	247	94	22	12	○	
29.201 - 30.200	247	94	24	12	○	
30.201 - 31.200	265	99	24	12	○	
31.201 - 32.200	265	99	24	12	○	
32.201 - 33.200	265	99	26	12	○	
33.201 - 34.200	284	108	26	12	○	

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

All dimensions in mm.
Information on custom designs on request.

Hand Reamer DIN 859, Form A – Adjustable | 011010

Hand Reamer DIN 859, Form B – Adjustable | 011011

DIN 859 A	DIN 859 B
≤ 5,50 mm	≥ 6,00 mm

Configurable series made of HSS, cylindrical shank and square end (wrench size “sw” see table),
 adjustment range approx. 1/100 of the diameter (e.g., reamer Ø 20 mm = adjustable by 0.2 mm)

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
011010	HSS	Uncoated	■	■	□			■	■		■	■	■	□			
011011	HSS	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions							
d ₁	l ₁	l ₂	sw	z	Stock		
34.201 - 35.200	284	108	29	12	○		
35.201 - 36.200	284	108	29	12	○		
36.201 - 37.200	284	108	29	12	○		
37.201 - 38.200	305	111	29	12	○		
38.201 - 39.200	305	111	32	12	○		
39.201 - 40.200	305	111	32	12	○		
40.201 - 41.200	305	111	32	12	○		
41.201 - 42.200	305	111	32	12	○		
42.201 - 43.200	326	120	35	12	○		
43.201 - 44.200	326	120	35	12	○		
44.201 - 45.200	326	120	35	12	○		
45.201 - 46.200	326	120	35	12	○		
46.201 - 47.200	326	120	39	12	○		
47.201 - 48.200	347	131	39	12	○		
48.201 - 49.200	347	131	39	12	○		
49.201 - 50.200	347	131	39	12	○		
50.201 - 51.200	347	131	39	16	○		
51.201 - 52.200	347	131	39	16	○		
52.201 - 53.200	347	131	44	16	○		
53.201 - 54.200	367	134	44	16	○		
54.201 - 55.200	367	134	44	16	○		
55.201 - 56.200	367	134	44	16	○		
56.201 - 57.200	367	134	44	16	○		
57.201 - 58.200	367	134	44	16	○		
58.201 - 59.200	367	134	49	16	○		
59.201 - 60.200	367	134	49	16	○		

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Quick Adjustable Reamer WN 50 | 012011

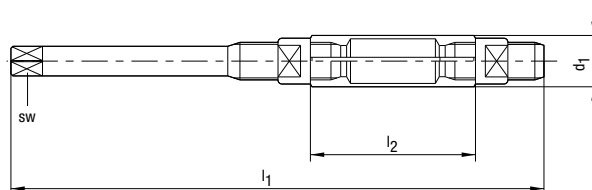
Preferred series, with interchangeable blades made of HSS, large adjustment range, outstandingly suitable for repair work

Improved geometry,
simpler handling,
better performance,
same price

BECK
Norm

Design

Diameter: 6.40 – 80.00 mm
Cutting direction: Right-hand cutting



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
012011	HSS	Uncoated	■	■	□			■	■		■	■	■				

Dimensions								012011	
d ₁ ± 0.01	Size	Ø (mm)	Ø (inch)	l ₁	l ₂	sw	z	Order No.	Stock
6.40	000	6.40 - 7.20		110	32	3	4	30102341	●
7.20	00	7.20 - 8.00		110	32	3.4	4	30102339	●
8.00	0	8.00 - 9.00	21/64 - 23/64	115	34	3.8	5	30102337	●
9.00	1	9.00 - 10.00	23/64 - 25/64	115	34	4.3	5	30102343	●
10.00	2	10.00 - 11.00	25/64 - 7/16	115	34	4.9	5	30102345	●
11.00	3	11.00 - 12.00	7/16 - 15/32	125	35	4.9	5	30102347	●
12.00	4	12.00 - 13.50	15/32 - 17/32	135	41	6.2	5	30102349	●
13.50	5	13.50 - 15.50	17/32 - 39/64	146	50	7	5	30102351	●
15.50	6	15.50 - 18.00	39/64 - 45/64	166	60	8	5	30102353	●
18.00	7	18.00 - 21.00	45/64 - 53/64	178	65	9	5	30102355	●
21.00	8	21.00 - 24.00	53/64 - 61/64	195	76	11	5	30102357	●
24.00	9	24.00 - 27.50	61/64 - 1 5/64	218	82	12	5	30102359	●
27.50	10	27.50 - 31.50	1 5/64 - 1 15/64	245	86	14.5	5	30102361	●
31.50	11	31.50 - 37.00	1 15/64 - 1 29/64	280	98	18	6	30102363	●
37.00	12	37.00 - 45.00	1 29/64 - 1 49/64	325	108	20	6	30102365	●
45.00	13	45.00 - 55.00	1 49/64 - 2 5/32	370	118	26	6	30102367	●
55.00	14	55.00 - 67.00	2 5/32 - 2 41/64	400	125	32	6	30102369	●
67.00	15	67.00 - 80.00	2 41/64 - 3 5/32	435	140	39	8	30102371	●
80.00	16	80.00 - 95.00	3 5/32 - 3 3/4	475	155	49	8	30102373	●

All dimensions in mm.
Information on custom designs on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

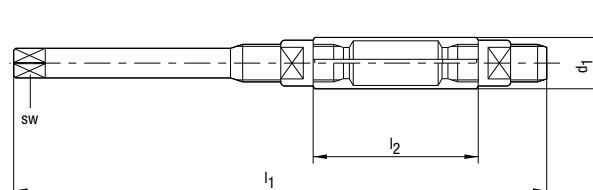
Set of Quick Adjustable Reamers WN 50 | 012015, 012016

With interchangeable blades made of HSS, in wooden box, large adjustment range

 BECK
 Norm

Design

Diameter: 8.00 – 45.00 mm
 Cutting direction: Right-hand cutting



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
012015	HSS	Uncoated	■	■	□			■	■		■	■	■				
012016	HSS	Uncoated	■	■	□			■	■		■	■	■				

			012015			012016		
Scope	Size	Range	Order No.	Stock	Order No.	Stock		
11-teilig	0-10	8.00 – 31.50 mm	30135917	●				
13-teilig	0-12	8.00 – 45.00 mm			30135916	●		

Spare blade set for quick adjustable reamer WN 50 | 012013

Available only as a set

Size	l ₁	z	Order No.	Stock
000	32	4	30134531	●
00	32	4	30134519	●
0	34	5	30134496	●
1	34	5	30134534	●
2	34	5	30134535	●
3	35	5	30134536	●
4	41	5	30134537	●
5	50	5	30134538	●
6	60	5	30134539	●
7	65	5	30134540	●
8	76	5	30134541	●
9	82	5	30134542	●
10	86	5	30134543	●
11	98	6	30134544	●
12	108	6	30134545	●
13	118	6	30134546	●
14	125	6	30134547	●
15	140	8	30134548	●
16	155	8	30134549	●

Adjustment nuts for quick adjustable reamer WN 50 | 012014

Size	Thread	Order No.	Stock
000	M 5 x 0.75	10070246	●
00	M 5.5 x 0.75	10070245	●
0	M 6.5 x 0.75	10070244	●
1	M 7 x 0.75	10070247	●
2	M 7.5 x 0.75	10070248	●
3	M 8 x 0.75	10070249	●
4	M 9.5 x 1	10070250	●
5	M 10.5 x 1	10070251	●
6	M 12.5 x 1.25	10070252	●
7	M 14.5 x 1.25	10070253	●
8	M 16 x 1.25	10070254	●
9	M 18 x 1.25	10070255	●
10	M 22 x 1.5	10070256	●
11	M 25 x 1.5	10070257	●
12	M 30 x 1.5	10070258	●
13	M 37 x 1.5	10070259	●
14	M 46 x 1.5	10076837	●
15	M 55 x 2	10076838	●
16	M 68 x 2	10076839	●

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Helical Machine Taper Reamer DIN 2179 with 1:50 taper | 021010

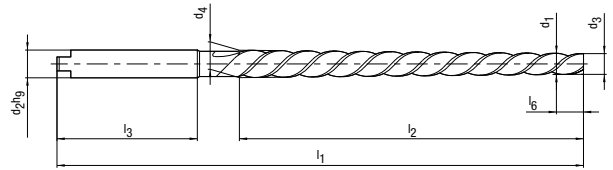
DIN
2179

Preferred series made of HSS-E, for reaming holes for taper pins to

DIN 1, DIN 258, DIN 7977 and DIN 7978, with cylindrical shank and driving tang to DIN 1809

Design

Diameter: 1.00 – 12.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted, with 45° left-hand spiral
 Number of cutting edges: 2 – 3



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
021010	HSS-E	Uncoated	■	■	★			■	■		■	■	■				

Dimensions									021010	
d ₁	d ₂ h ₉	d ₃	d ₄	l ₁	l ₂	l ₃	l ₆	z	Order No.	Stock
1.00	1.4	0.8	1.46	60	33	23	10	2	30102455	●
1.50	2.1	1.4	2.14	70	37	29	5	2	30102456	●
2.00	3.15	1.9	2.86	86	48	29	5	3	30102457	●
2.50	3.15	2.4	3.36	86	48	29	5	3	30102458	●
3.00	4	2.9	4.06	100	58	32	5	3	30102459	●
4.00	5	3.9	5.26	112	68	34	5	3	30102461	●
5.00	6.3	4.9	6.36	122	73	38	5	3	30102463	●
6.00	8	5.9	8	160	105	42	5	3	30102465	●
6.50	8.5	6.4	8.78	185	119	46	5	3	30102467	●
8.00	10	7.9	10.8	207	145	46	5	3	30102469	●
10.00	12.5	9.9	13.4	245	175	50	5	3	30102471	●
12.00	16	11.8	16	290	210	58	10	3	30102473	●

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

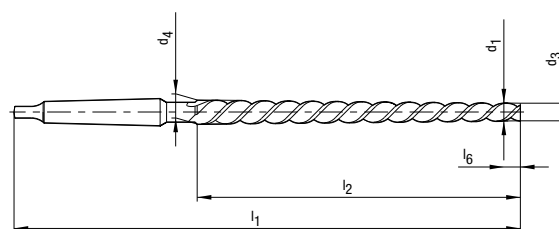
Helical Machine Taper Reamer DIN 2180 with 1:50 taper | 021011

 DIN
 2180

Preferred series made of HSS-E, for reaming holes for taper pins to DIN 1, DIN 258, DIN 7977 and DIN 7978, with Morse taper shank

Design

Diameter: 5.00 – 50.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted, with 45° left-hand spiral
 Number of cutting edges: 3 – 8



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
021011	HSS-E	Uncoated	■	■	★			■	■		■	■	■				

Dimensions								021011	
d_1	d_3	d_4	l_1	l_2	l_6	MK	z	Order No.	Stock
5.00	4.9	6.36	155	73	5	1	3	30102475	●
6.00	5.9	8	187	105	5	1	3	30102477	●
8.00	7.9	10.8	227	145	5	1	3	30102479	●
10.00	9.9	13.4	257	175	5	1	3	30102481	●
12.00	11.8	16	315	210	10	2	3	30102483	●
13.00	12.86	16.74	295	194	10	2	3	30102485	●
14.00	13.86	17.74	295	194	10	2	3	30102487	●
16.00	15.8	20.4	335	230	10	2	3	30102489	●
20.00	19.8	24.8	377	250	10	3	3	30102491	●
25.00	24.7	30.7	427	300	15	3	3	30102493	●
30.00	29.7	36.1	475	320	15	4	4	30102495	●
40.00	39.7	46.5	495	340	15	4	6	30102497	●
50.00	49.7	56.9	550	360	15	5	8	30102499	●

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry.

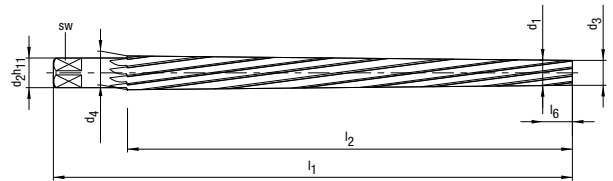
Hand Taper Reamer DIN 9 with 1:50 taper I 020011

DIN
9 B

Preferred series made of HSS-E, for reaming holes for taper pins to DIN 1, DIN 258, DIN 7977 and DIN 7978, with cylindrical shank and square end (wrench size "sw" see table)

Design

Diameter: 3.00 – 50.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Spiral fluted
 Number of cutting edges: 5 – 12



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
020011	HSS	Uncoated	■	■	□			■	■		■	■	■	■			

Dimensions									020011	
d ₁	d ₂ h11	d ₃	d ₄	l ₁	l ₂	l ₆	sw	z	Order No.	Stock
3.00	4	2.9	4.06	80	58	5	3	5	30102415	●
3.50	4.5	3.4	4.66	87	63	5	3.4	5	30102416	●
4.00	5	3.9	5.26	93	68	5	3.8	5	30102418	●
4.50	5.6	4.4	5.8	95	70	5	4.3	5	30102420	●
5.00	6.3	4.9	6.36	100	73	5	4.9	5	30102422	●
5.50	7.1	5.4	7.2	118	90	5	5.5	6	30102424	●
6.00	8	5.9	8	135	105	5	6.2	6	30102426	●
6.50	8	6.4	8.6	140	110	5	6.2	6	30102428	●
7.00	9	6.9	9.4	160	125	5	7	6	30102430	●
8.00	10	7.9	10.8	180	145	5	8	6	30102432	●
9.00	11.2	8.9	12.1	195	160	5	9	6	30102434	●
10.00	12.5	9.9	13.4	215	175	5	10	6	30102436	●
12.00	14	11.8	16	255	210	10	11	8	30102438	●
13.00	16	12.8	17	255	210	10	12	8	30102440	●
14.00	16	13.8	18	255	210	10	12	8	30102442	●
16.00	18	15.8	20.4	280	230	10	14.5	8	30102444	●
20.00	22.4	19.8	24.8	310	250	10	18	8	30102446	●
25.00	28	24.7	30.7	370	300	15	22	10	30102448	●
30.00	31.5	29.7	36.1	400	320	15	24	10	30102450	●
40.00	40	39.7	46.5	430	340	15	32	12	30102452	●
50.00	50	49.7	56.9	460	360	15	39	12	30102454	●

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Hand Taper Reamer DIN 204 | 024011

Preferred series made of HSS, finishing reamer for Morse tapers, with cylindrical shank and square end (wrench size "sw" see table)

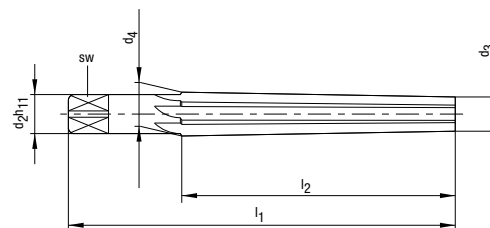
 DIN
 204 A

Design

Cutting direction: Right-hand cutting

Flute direction: Straight fluted

Number of cutting edges: 6 – 14



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
024011	HSS	Uncoated	■	■	□			■	■		■	■	■	□			

Dimensions								024011	
for MK	d ₂ h11	d ₃	d ₄	l ₁	l ₂	sw	z	Order No.	Stock
0	8	6,547	9,722	93	61	6,2	6	30102559	●
1	10	9,571	12,863	102	66	8	7	30102561	●
2	14	14,733	18,679	121	79	11	8	30102563	●
3	20	20,010	24,829	146	96	16	8	30102565	●
4	25	26,229	32,410	179	119	20	10	30102567	●
5	31,5	37,873	45,767	222	150	24	12	30102569	●
6	45	54,172	65,016	300	208	35	14	30102571	●

All dimensions in mm.
 Information on custom designs on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.



Core Drills

Standard Programme

Simple handling
Can be matched to reaming tools
Economical and efficient



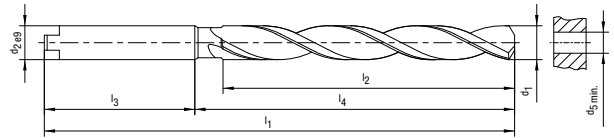
Core Drill - Finish Size I 050010

Preferred series made of HSS, with cylindrical shank and driving tang as per DIN 1809

DIN
344

Design

Diameter:	5.00 – 20.00 mm
Cutting direction:	Right-hand cutting
Flute direction:	Approx. 27° right-hand spiral
Number of cutting edges:	3
Dimensions:	As per DIN 344



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050010	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions									050010	
d ₁	Tol.	d ₂ e9	l ₁	l ₂	l ₃	l ₄	d ₅ min	z	Order No.	Stock
5.00	h8	5	108	65	32	76	3.5	3	30110316	●
6.00	h8	6	116	71	34	82	4.2	3	30110318	●
7.00	h8	7	133	84	39	94	4.9	3	30110320	●
8.00	h8	8	142	91	41	101	5.6	3	30110322	●
9.00	h8	9	151	98	43	108	6.3	3	30110324	●
10.00	h8	10	162	107	45	117	7.0	3	30110326	●
11.00	h8	11	173	114	45	128	7.7	3	30110328	●
12.00	h8	12	184	123	47	137	8.4	3	30110330	●
13.00	h8	13	184	123	47	137	9.1	3	30110332	●
14.00	h8	14	194	132	47	147	9.8	3	30110334	●
15.00	h8	15	202	137	50	152	10.5	3	30110336	●
16.00	h8	16	211	143	53	158	11.2	3	30110338	●
17.00	h8	17	218	146	52	166	11.9	3	30110340	●
18.00	h8	18	226	152	56	170	12.6	3	30110342	●
19.00	h8	19	234	158	58	176	13.3	3	30110344	●
20.00	h8	20	242	164	60	182	14.0	3	30110346	●

All dimensions in mm.
Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

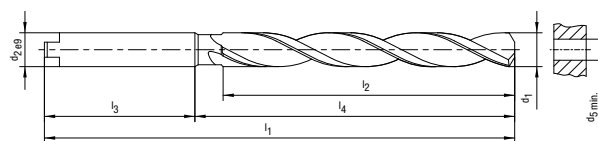
Core Drill - Under Size I 050011

Preferred series made of HSS, with cylindrical shank and driving tang as per DIN 1809

DIN
344

Design

Diameter: 4.80 – 19.70 mm
 Cutting direction: Right-hand cutting
 Flute direction: Approx. 27° right-hand spiral
 Number of cutting edges: 3
 Dimensions: As per DIN 344



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050011	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions									050011	
d ₁	Tol.	d ₂ e9	l ₁	l ₂	l ₃	l ₄	d ₅ min	z	Order No.	Stock
4.80	h8	5	108	65	32	76	3.5	3	30110348	●
5.80	h8	6	116	71	34	82	4.2	3	30110350	●
6.80	h8	7	133	84	39	94	4.9	3	30110352	●
7.80	h8	8	142	91	41	101	5.6	3	30110354	●
8.80	h8	9	151	98	43	108	6.3	3	30110356	●
9.80	h8	10	162	107	45	117	7.0	3	30110358	●
10.75	h8	11	173	114	45	128	7.7	3	30110360	●
11.75	h8	12	184	123	47	137	8.4	3	30110362	●
12.75	h8	13	184	123	47	137	9.1	3	30110364	●
13.75	h8	14	194	132	47	147	9.8	3	30110366	●
14.75	h8	15	202	137	50	152	10.5	3	30110369	●
15.75	h8	16	211	143	53	158	11.2	3	30110371	●
16.75	h8	17	218	146	52	166	11.9	3	30110373	●
17.75	h8	18	226	152	56	170	12.6	3	30110375	●
18.70	h8	19	234	158	58	176	13.3	3	30110377	●
19.70	h8	20	242	164	60	182	14.0	3	30110379	●

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Core Drill - Configurable | 050010

Configurable series made of HSS, with cylindrical shank and driving tang as per DIN 1809

DIN
344

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050010	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions								
d ₁	d ₂ e9	l ₁	l ₂	l ₃	l ₄	d ₅ min	z	Stock
4.700 - 5.200	5	108	65	32	76	3.5	3	○
5.201 - 5.700	5.5	116	71	34	82	4.2	3	○
5.701 - 6.200	6	116	71	34	82	4.2	3	○
6.201 - 6.700	6.5	124	77	36	93	4.2	3	○
6.701 - 7.200	7	133	84	39	94	4.9	3	○
7.201 - 7.700	7.5	133	84	39	94	4.9	3	○
7.701 - 8.200	8	142	91	41	101	5.6	3	○
8.201 - 8.700	8.5	142	91	41	101	5.6	3	○
8.701 - 9.200	9	151	98	43	108	6.3	3	○
9.201 - 9.700	9.5	151	98	43	108	6.3	3	○
9.701 - 10.200	10	162	107	45	117	7.0	3	○
10.201 - 10.600	10.5	162	107	45	117	7.0	3	○
10.601 - 11.200	11	173	114	45	128	7.7	3	○
11.201 - 11.700	11.5	173	114	45	128	7.7	3	○
11.701 - 12.400	12	184	123	47	137	8.4	3	○
12.401 - 13.400	13	184	123	47	137	9.1	3	○
13.401 - 14.400	14	194	132	47	147	9.8	3	○
14.401 - 15.400	15	202	137	50	152	10.5	3	○
15.401 - 16.400	16	211	143	53	158	11.2	3	○
16.401 - 17.400	17	218	146	52	166	11.9	3	○
17.401 - 18.400	18	226	152	56	170	12.6	3	○
18.401 - 19.200	19	234	158	58	176	13.3	3	○
19.201 - 20.200	20	242	164	60	182	14.0	3	○

All dimensions in mm.
Information on custom designs on request.

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- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

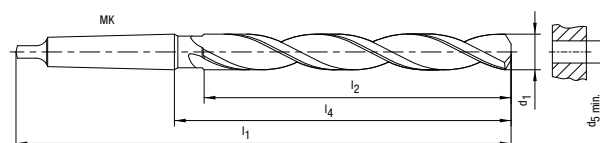
Core Drill - Finish Size I 050110

Preferred series made of HSS, with Morse taper shank

DIN
343

Design

Diameter: 8.00 – 50.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Approx. 27° right-hand spiral
 Number of cutting edges: 3
 Dimensions: As per DIN 343



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050110	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions								050110	
d ₁	Tol.	l ₁	l ₂	l ₄	MK	d _{5 min}	z	Order No.	Stock
8.00	h8	156	68	90.5	1	5.6	3	30110381	●
9.00	h8	162	74	96.5	1	6.3	3	30110383	●
10.00	h8	168	80	102.5	1	7.0	3	30110385	●
11.00	h8	175	84	109.5	1	7.7	3	30110387	●
12.00	h8	182	91	116.5	1	8.4	3	30110389	●
13.00	h8	182	91	116.5	1	9.1	3	30110391	●
14.00	h8	189	98	123.5	1	9.8	3	30110393	●
15.00	h8	212	106	132	2	10.5	3	30110395	●
16.00	h8	218	108	138	2	11.2	3	30110397	●
17.00	h8	223	113	143	2	11.9	3	30110399	●
18.00	h8	228	118	148	2	12.6	3	30110401	●
19.00	h8	233	123	153	2	13.3	3	30110403	●
20.00	h8	238	128	158	2	14.0	3	30110405	●
21.00	h8	243	129	163	2	14.6	3	30110407	●
22.00	h8	248	134	168	2	15.3	3	30110409	●
23.00	h8	253	139	173	2	16.0	3	30110411	●
24.00	h8	281	148	182	3	16.6	3	30110413	●
25.00	h8	281	144	182	3	17.3	3	30110415	●
26.00	h8	286	149	187	3	18.0	3	30110417	●
27.00	h8	291	154	192	3	18.6	3	30110419	●
28.00	h8	291	162	192	3	19.3	3	30110421	●
29.00	h8	296	167	197	3	20.0	3	30110423	●
30.00	h8	296	167	197	3	20.5	3	30110425	●
31.00	h8	301	170	202	3	21.0	3	30110427	●
32.00	h8	334	178	210	4	22.0	3	30110429	●
33.00	h8	334	178	210	4	23.0	3	30110431	●
34.00	h8	339	183	215	4	24.0	3	30110433	●
35.00	h8	339	181	215	4	25.0	3	30110435	●
36.00	h8	344	186	220	4	25.5	3	30110437	●
37.00	h8	344	186	220	4	26.0	3	30110439	●
38.00	h8	349	191	225	4	26.5	3	30110441	●
39.00	h8	349	189	225	4	27.0	3	30110443	●
40.00	h8	349	189	225	4	28.0	3	30110445	●

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

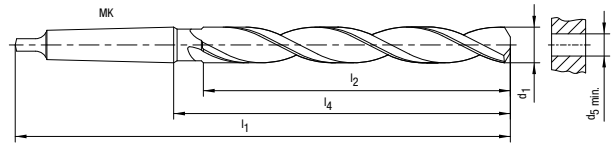
Core Drill - Finish Size I 050110

Preferred series made of HSS, with Morse taper shank

DIN
343

Design

Diameter: 8.00 – 50.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Approx. 27° right-hand spiral
 Number of cutting edges: 3
 Dimensions: As per DIN 343



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050110	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions								050110		
d ₁	Tol.	l ₁	l ₂	l ₄	MK	d _{5 min}	z	Order No.	Stock	
41.00	h8	354	194	230	4	28.5	3	30110447	●	
42.00	h8	354	194	230	4	29.0	3	30110449	●	
43.00	h8	359	197	235	4	30.0	3	30110451	●	
44.00	h8	359	197	235	4	30.5	3	30110453	●	
45.00	h8	359	197	235	4	31.0	3	30110455	●	
46.00	h8	364	202	240	4	32.0	3	30110457	●	
47.00	h8	364	200	240	4	32.5	3	30110459	●	
48.00	h8	369	205	245	4	33.0	3	30110461	●	
49.00	h8	369	205	245	4	34.0	3	30110463	●	
50.00	h8	369	205	245	4	34.5	3	30110465	●	

All dimensions in mm.
 Information on custom designs on request.

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- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

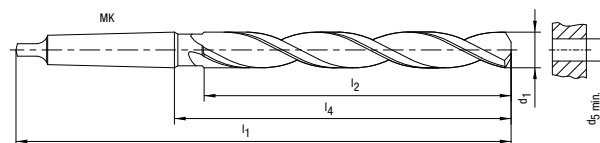
Core Drill - Under Size I 050111

Preferred series made of HSS, with Morse taper shank

DIN
343

Design

Diameter: 7.80 – 49.60 mm
 Cutting direction: Right-hand cutting
 Flute direction: Approx. 27° right-hand spiral
 Number of cutting edges: 3
 Dimensions: As per DIN 343



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050111	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions								050111	
d ₁	Tol.	l ₁	l ₂	l ₄	MK	d _{5 min}	z	Order No.	Stock
7.80	h8	156	68	90.5	1	5.6	3	30110467	●
8.80	h8	162	74	96.5	1	6.3	3	30110469	●
9.80	h8	168	80	102.5	1	7.0	3	30110471	●
10.75	h8	175	84	109.5	1	7.7	3	30110473	●
11.75	h8	182	91	116.5	1	8.4	3	30110475	●
12.75	h8	182	91	116.5	1	9.1	3	30110477	●
13.75	h8	189	98	123.5	1	9.8	3	30110479	●
14.75	h8	212	106	132	2	10.5	3	30110481	●
15.75	h8	218	108	138	2	11.2	3	30110483	●
16.75	h8	223	113	143	2	11.9	3	30110485	●
17.75	h8	228	118	148	2	12.6	3	30110487	●
18.70	h8	233	123	153	2	13.3	3	30110489	●
19.70	h8	238	128	158	2	14.0	3	30110491	●
20.70	h8	243	129	163	2	14.6	3	30110493	●
21.70	h8	248	134	168	2	15.3	3	30110495	●
22.70	h8	253	139	173	2	16.0	3	30110497	●
23.70	h8	281	148	182	3	16.6	3	30110499	●
24.70	h8	281	144	182	3	17.3	3	30110501	●
25.70	h8	286	149	187	3	18.0	3	30110503	●
26.70	h8	291	154	192	3	18.6	3	30110505	●
27.70	h8	291	162	192	3	19.3	3	30110507	●
28.70	h8	296	167	197	3	20.0	3	30110509	●
29.70	h8	296	167	197	3	20.5	3	30110511	●
30.60	h8	301	170	202	3	21.0	3	30110513	●
31.60	h8	334	178	210	4	22.0	3	30110515	●
32.60	h8	334	178	210	4	23.0	3	30110517	●
33.60	h8	339	183	215	4	24.0	3	30110519	●
34.60	h8	339	181	215	4	25.0	3	30110521	●
35.60	h8	344	186	220	4	25.5	3	30110523	●
36.60	h8	344	186	220	4	26.0	3	30110525	●
37.60	h8	349	191	225	4	26.5	3	30110527	●
38.60	h8	349	189	225	4	27.0	3	30110529	●
39.60	h8	349	189	225	4	28.0	3	30110531	●

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

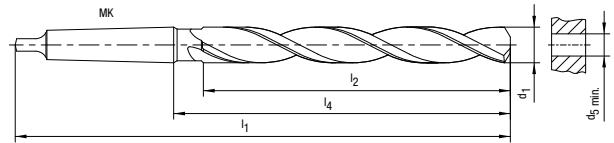
Core Drill - Under Size I 050111

Preferred series made of HSS, with Morse taper shank

DIN
343

Design

Diameter: 7.80 – 49.60 mm
 Cutting direction: Right-hand cutting
 Flute direction: Approx. 27° right-hand spiral
 Number of cutting edges: 3
 Dimensions: As per DIN 343



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050111	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions								050111	
d ₁	Tol.	l ₁	l ₂	l ₄	MK	d _{5 min}	z	Order No.	Stock
40.60	h8	354	194	230	4	28.5	3	30110533	●
41.60	h8	354	194	230	4	29.0	3	30110535	●
42.60	h8	359	197	235	4	30.0	3	30110537	●
43.60	h8	359	197	235	4	30.5	3	30110539	●
44.60	h8	359	197	235	4	31.0	3	30110541	●
45.60	h8	364	202	240	4	32.0	3	30110543	●
46.60	h8	364	200	240	4	32.5	3	30110545	●
47.60	h8	369	205	245	4	33.0	3	30110547	●
48.60	h8	369	205	245	4	34.0	3	30110549	●
49.60	h8	369	205	245	4	34.5	3	30110551	●

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Core Drill - Configurable | 050110

Configurable series made of HSS, with Morse taper shank

 DIN
 343

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050110	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions							
d ₁	l ₁	l ₂	l ₄	MK	d _{5 min}	z	Stock
7.600 - 8.200	156	68	90.5	1	5.6	3	○
8.201 - 8.700	156	68	90.5	1	5.6	3	○
8.701 - 9.200	162	74	96.5	1	6.3	3	○
9.201 - 9.700	162	74	96.5	1	6.3	3	○
9.701 - 10.200	168	80	102.5	1	7.0	3	○
10.201 - 10.700	168	80	102.5	1	7.0	3	○
10.701 - 11.200	175	84	109.5	1	7.7	3	○
11.201 - 11.700	175	84	109.5	1	7.7	3	○
11.701 - 12.200	182	91	116.5	1	8.4	3	○
12.201 - 12.700	182	91	116.5	1	9.1	3	○
12.701 - 13.200	182	91	116.5	1	9.1	3	○
13.201 - 13.700	189	98	123.5	1	9.8	3	○
13.701 - 14.200	189	98	123.5	1	9.8	3	○
14.201 - 14.700	212	106	132	2	10.5	3	○
14.701 - 15.200	212	106	132	2	10.5	3	○
15.201 - 15.700	218	108	138	2	11.2	3	○
15.701 - 16.200	218	108	138	2	11.2	3	○
16.201 - 16.700	223	113	143	2	11.9	3	○
16.701 - 17.200	223	113	143	2	11.9	3	○
17.201 - 17.700	228	118	148	2	12.6	3	○
17.701 - 18.200	228	118	148	2	12.6	3	○
18.201 - 19.200	233	123	153	2	13.3	3	○
19.201 - 20.200	238	128	158	2	14.0	3	○
20.201 - 21.200	243	129	163	2	14.6	3	○
21.201 - 22.200	248	134	168	2	15.3	3	○
22.201 - 23.200	253	139	173	2	16.0	3	○
23.201 - 24.200	281	148	182	3	16.6	3	○
24.201 - 25.200	281	144	182	3	17.3	3	○
25.201 - 26.200	286	149	187	3	18.0	3	○
26.201 - 27.200	291	154	192	3	18.6	3	○
27.201 - 28.200	291	162	192	3	19.3	3	○
28.201 - 29.200	296	167	197	3	20.0	3	○
29.201 - 30.200	296	167	197	3	20.5	3	○
30.201 - 31.200	301	170	202	3	21.0	3	○
31.201 - 32.200	334	178	210	4	22.0	3	○
32.201 - 33.200	334	178	210	4	23.0	3	○
33.201 - 34.200	339	183	215	4	24.0	3	○
34.201 - 35.200	339	181	215	4	25.0	3	○
35.201 - 36.200	344	186	220	4	25.5	3	○
36.201 - 37.200	344	186	220	4	26.0	3	○
37.201 - 38.200	349	191	225	4	26.5	3	○
38.201 - 39.200	349	189	225	4	27.0	3	○
39.201 - 40.200	349	189	225	4	28.0	3	○
40.201 - 41.200	354	194	230	4	28.5	3	○
41.201 - 42.200	354	194	230	4	29.0	3	○

 All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Core Drill - Configurable | 050110

Configurable series made of HSS, with Morse taper shank

DIN
343

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050110	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions							
d ₁	l ₁	l ₂	l ₄	MK	d _{5 min}	z	Stock
42.201 - 43.200	359	197	235	4	30.0	3	○
43.201 - 44.200	359	197	235	4	30.5	3	○
44.201 - 45.200	359	197	235	4	31.0	3	○
45.201 - 46.200	364	202	240	4	32.0	3	○
46.201 - 47.200	364	200	240	4	32.5	3	○
47.201 - 48.200	369	205	245	4	33.0	3	○
48.201 - 49.200	369	205	245	4	34.0	3	○
49.201 - 50.200	369	205	245	4	34.5	3	○

All dimensions in mm.
Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

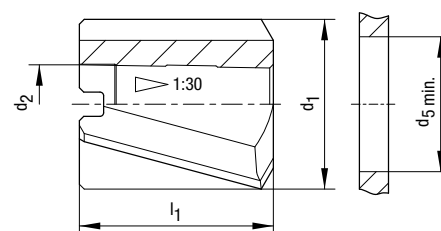
Shell Core Drill - Finish Size | 050310

Preferred series made of HSS, locating bore with 1:30 taper and driving slot to DIN 138, suitable for tool holders DIN 217 (see end chapter "Machine Reamers")

DIN
222

Design

Diameter: 24.00 – 100.00 mm
 Cutting direction: Right-hand cutting
 Flute direction: Approx. 15° right-hand spiral
 Number of cutting edges: 4 – 6
 Dimensions: As per DIN 222



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050310	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions						050310	
d ₁	Tol.	l ₁	d ₂	d _{5 min}	z	Order No.	Stock
24.00	h8	45	13	20	4	30110598	●
25.00	h8	45	13	21	4	30110600	●
26.00	h8	45	13	22	4	30110602	●
27.00	h8	45	13	23	4	30110604	●
28.00	h8	45	13	24	4	30110606	●
29.00	h8	45	13	25	4	30110608	●
30.00	h8	45	13	26	4	30110610	●
31.00	h8	45	13	27	4	30110612	●
32.00	h8	45	13	28	4	30110614	●
33.00	h8	45	13	29	4	30110616	●
34.00	h8	45	13	30	4	30110618	●
35.00	h8	45	13	31	4	30110620	●
36.00	h8	50	16	31	4	30110622	●
37.00	h8	50	16	32	4	30110624	●
38.00	h8	50	16	33	4	30110626	●
39.00	h8	50	16	34	4	30110628	●
40.00	h8	50	16	35	4	30110630	●
42.00	h8	50	16	37	4	30110632	●
44.00	h8	50	16	39	4	30110634	●
45.00	h8	50	16	40	4	30110636	●
46.00	h8	56	19	40	4	30110638	●
47.00	h8	56	19	41	4	30110640	●
48.00	h8	56	19	42	4	30110642	●
50.00	h8	56	19	44	4	30110644	●
52.00	h8	56	19	46	4	30110646	●
55.00	h8	63	22	48	4	30110648	●
58.00	h8	63	22	51	4	30110650	●
60.00	h8	63	22	53	4	30110652	●
62.00	h8	63	22	55	4	30110654	●
65.00	h8	71	27	57	4	30110656	●
68.00	h8	71	27	60	4	30110658	●
70.00	h8	71	27	62	4	30110660	●
72.00	h8	71	27	64	4	30110662	●
75.00	h8	71	27	67	4	30110664	●
78.00	h8	80	32	68	6	30110666	●
80.00	h8	80	32	70	6	30110668	●
82.00	h8	80	32	72	6	30110670	●
85.00	h8	80	32	75	6	30110672	●
88.00	h8	80	32	78	6	30110674	●
90.00	h8	80	32	80	6	30110676	●
95.00	h8	90	40	83	6	30110678	●
98.00	h8	90	40	86	6	30110680	●
100.00	h8	90	40	88	6	30110682	●

d₂ = nominal diameter d₁ of suitable holder.

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

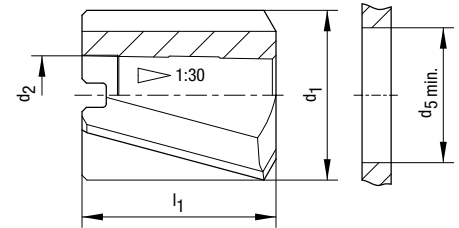
Shell Core Drill - Under Size | 050311

Preferred series made of HSS, locating bore with 1:30 taper and driving slot to DIN 138, suitable for tool holders DIN 217 (see end chapter "Machine Reamers")

DIN
222

Design

Diameter: 23.70 – 99.50 mm
 Cutting direction: Right-hand cutting
 Flute direction: Approx. 15° right-hand spiral
 Number of cutting edges: 4 – 6
 Dimensions: As per DIN 222



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050311	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions						050311	
d ₁	Tol.	l ₁	d ₂	d _{5 min.}	z	Order No.	Stock
23.70	h8	45	13	20	4	30110684	●
24.70	h8	45	13	21	4	30110686	●
25.70	h8	45	13	22	4	30110688	●
26.70	h8	45	13	23	4	30110690	●
27.70	h8	45	13	24	4	30110692	●
28.70	h8	45	13	25	4	30110694	●
29.70	h8	45	13	26	4	30110696	●
30.60	h8	45	13	27	4	30110698	●
31.60	h8	45	13	28	4	30110700	●
32.60	h8	45	13	29	4	30110702	●
33.60	h8	45	13	30	4	30110704	●
34.60	h8	45	13	31	4	30110706	●
35.60	h8	50	16	31	4	30110708	●
36.60	h8	50	16	32	4	30110710	●
37.60	h8	50	16	33	4	30110712	●
38.60	h8	50	16	34	4	30110714	●
39.60	h8	50	16	35	4	30110716	●
41.60	h8	50	16	37	4	30110718	●
43.60	h8	50	16	39	4	30110720	●
44.60	h8	50	16	40	4	30110722	●
45.60	h8	56	19	40	4	30110724	●
46.60	h8	56	19	41	4	30110726	●
47.60	h8	56	19	42	4	30110728	●
49.60	h8	56	19	44	4	30110730	●
51.50	h8	56	19	46	4	30110732	●
54.50	h8	63	22	48	4	30110734	●
57.50	h8	63	22	51	4	30110736	●
59.50	h8	63	22	53	4	30110738	●
61.50	h8	63	22	55	4	30110740	●
64.50	h8	71	27	57	4	30110742	●
67.50	h8	71	27	60	4	30110744	●
69.50	h8	71	27	62	4	30110746	●
71.50	h8	71	27	64	4	30110748	●
74.50	h8	71	27	67	4	30110750	●
77.50	h8	80	32	68	6	30110752	●
79.50	h8	80	32	70	6	30110754	●
81.50	h8	80	32	72	6	30110756	●
84.50	h8	80	32	75	6	30110758	●
87.50	h8	80	32	78	6	30110760	●
89.50	h8	80	32	80	6	30110762	●
94.50	h8	90	40	83	6	30110764	●
97.50	h8	90	40	86	6	30110766	●
99.50	h8	90	40	88	6	30110768	●

d₂ = nominal diameter d₁ of suitable holder.

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.

- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.

Shell Core Drill - Configurable | 050310

Configurable series made of HSS, locating bore with 1:30 taper and driving slot to DIN 138, suitable for tool holders DIN 217 (see end chapter "Machine Reamers")

 DIN
 222

Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050310	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions						
d ₁	l ₁	d ₂	d _{5 min}	z	Stock	
23.200 - 24.200	45	13	20	4	○	
24.201 - 25.200	45	13	21	4	○	
25.201 - 26.200	45	13	22	4	○	
26.201 - 27.200	45	13	23	4	○	
27.201 - 28.200	45	13	24	4	○	
28.201 - 29.200	45	13	25	4	○	
29.201 - 30.200	45	13	26	4	○	
30.201 - 31.200	45	13	27	4	○	
31.201 - 32.200	45	13	28	4	○	
32.201 - 33.200	45	13	29	4	○	
33.201 - 34.200	45	13	30	4	○	
34.201 - 35.200	45	13	31	4	○	
35.201 - 36.200	50	16	31	4	○	
36.201 - 37.200	50	16	32	4	○	
37.201 - 38.200	50	16	33	4	○	
38.201 - 39.200	50	16	34	4	○	
39.201 - 40.200	50	16	35	4	○	
41.201 - 42.200	50	16	37	4	○	
43.201 - 44.200	50	16	39	4	○	
44.201 - 45.200	50	16	40	4	○	
45.201 - 46.200	56	19	40	4	○	
46.201 - 47.200	56	19	41	4	○	
47.201 - 48.200	56	19	42	4	○	
49.201 - 50.200	56	19	44	4	○	
51.201 - 52.200	56	19	46	4	○	
54.201 - 55.200	63	22	48	4	○	
57.201 - 58.200	63	22	51	4	○	
59.201 - 60.200	63	22	53	4	○	
61.201 - 62.200	63	22	55	4	○	
64.201 - 65.200	71	27	57	4	○	
67.201 - 68.200	71	27	60	4	○	
69.201 - 70.200	71	27	62	4	○	
70.201 - 72.200	71	27	64	4	○	
74.201 - 75.200	71	27	67	4	○	
76.201 - 78.200	80	32	68	6	○	
79.201 - 80.200	80	32	70	6	○	
81.201 - 82.200	80	32	72	6	○	
84.201 - 85.200	80	32	75	6	○	
86.501 - 88.200	80	32	78	6	○	
88.501 - 90.200	80	32	80	6	○	
93.501 - 95.200	90	40	83	6	○	
96.501 - 98.200	90	40	86	6	○	
98.501 - 100.200	90	40	88	6	○	

d₂ = nominal diameter d₁ of suitable holder.

All dimensions in mm.
 Information on custom designs on request.

- These products are available ex stock.
- These products are available from semi-finished stock on short notice.
- Outstanding material suitability.
- Limited material suitability.
- ★ Suitability only with special blade geometry and coating.



Countersinks, Counterbores

Standard Programme

Addition for bore machining
Increase in tool life due to coating
Comprehensive stock



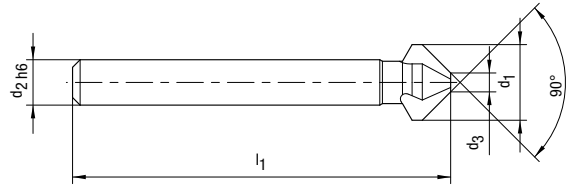
Countersink, 90° | 041020

Preferred series made of solid carbide, suitable for use in hydraulic chucks or shrink chucks

sDIN
335
C

Design

Diameter: 6.30 – 31.00 mm
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3
 Special features: Radially relieved



Product code	Design	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
041020	Precision	Solid carbide	Uncoated	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Dimensions					041020	
d ₁	d ₂ h6	d ₃	l ₁	z	Order No.	Stock
6.30	5	1.5	45	3	30110278	●
8.30	6	2	50	3	30110280	●
10.40	6	2.5	50	3	30110282	●
12.40	8	2.8	56	3	30110284	●
16.50	10	3.2	60	3	30110286	●
20.50	10	3.5	63	3	30110288	●
25.00	10	3.8	67	3	30110290	●
31.00	12	4.2	71	3	30110292	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

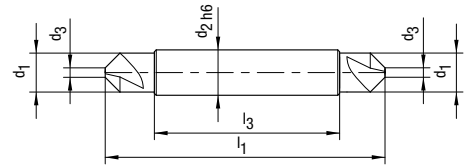
Countersink, 90° | 041021

Preferred series made of solid carbide, double-sided design

sDIN
335
C

Design

Diameter: 8.30 – 12.40 mm
Cutting direction: Right-hand cutting
Number of cutting edges: 3
Special features: Radially relieved



Product code	Design	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
041021	Precision	Solid carbide	Uncoated	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Dimensions						041021	
d ₁	d ₂ h6	d ₃	l ₁	l ₃	z	Order No.	Stock
8.30	10	2	67	46	3	30110294	●
10.40	12	2.5	74	47	3	30110296	●
12.40	14	2.8	76	45	3	30110298	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

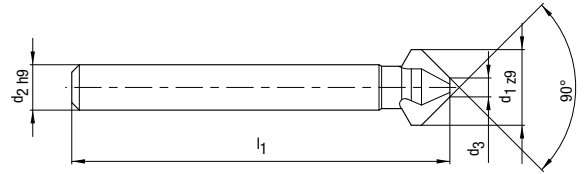
Countersinks, 90°

051209, 051210, 051220, 053212, 053210

Preferred series made of HSS and HSS-E

DIN
335
C**Design**

Diameter: 4.30 – 31.00 mm
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3
 Special features: Radially relieved



Product code	Design	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051209	Standard	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			
051210	Precision	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			
051220	Precision	HSS-E	Uncoated	■	■	■	□	□	■	■	□	■	■	■	■			
053212	Precision	HSS	TiAlN	■	■	□	□	□	■	■	■	■						
053210	Precision	HSS	TiN	■	■	□	□	□	■	■	■	■						

Dimensions					051209		051210		051220		053212		053210	
d _{1 z9}	d _{2 h9}	d ₃	l ₁	z	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
4.30	4	1.3	40	3	30111054	●	30111110	●						
4.80	4	1.5	40	3	30111056	●	30111112	●					30117658	●
5.00	4	1.5	40	3	30111058	●	30111114	●					30117660	●
5.30	4	1.5	40	3	30111060	●	30111116	●						
5.80	5	1.5	45	3	30111062	●	30111118	●						
6.00	5	1.5	45	3	30111064	●	30111120	●					30117662	●
6.30	5	1.5	45	3	30111066	●	30111122	●	30111177	●	30117700	●	30117664	●
7.00	6	1.8	50	3	30111068	●	30111124	●					30117666	●
7.30	6	1.8	50	3	30111070	●	30111126	●					30117668	●
8.00	6	2	50	3	30111072	●	30111128	●					30117670	●
8.30	6	2	50	3	30111074	●	30111130	●	30111178	●	30117702	●	30117672	●
9.40	6	2.2	50	3	30111076	●	30111132	●					30117674	●
10.00	6	2.5	50	3	30111078	●	30111134	●					30117676	●
10.40	6	2.5	50	3	30111080	●	30111136	●	30111179	●	30117704	●	30117678	●
11.50	8	2.8	56	3	30111082	●	30111138	●					30117680	●
12.40	8	2.8	56	3	30111084	●	30111140	●	30111180	●	30117706	●	30117682	●
13.40	8	2.9	56	3	30111086	●	30111142	●						
14.40	8	3	56	3	30111088	●	30111144	●						
15.00	10	3.2	60	3	30111090	●	30111146	●	30111181	●	30117709	●	30117684	●
16.50	10	3.2	60	3	30111092	●	30111148	●	30111182	●	30117711	●	30117686	●
19.00	10	3.5	63	3	30111094	●	30111150	●					30117688	●
20.50	10	3.5	63	3	30111096	●	30111152	●	30111183	●	30117713	●	30117690	●
23.00	10	3.8	67	3	30111098	●	30111154	●					30117692	●
25.00	10	3.8	67	3	30111100	●	30111156	●	30111184	●	30117715	●	30117694	●
26.00	10	3.8	67	3	30111102	●	30111158	●						
28.00	12	4	71	3	30111104	●	30111160	●						
30.00	12	4.2	71	3	30111106	●	30111162	●						
31.00	12	4.2	71	3	30111108	●	30111164	●	30111185	●	30117717	●	30117696	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

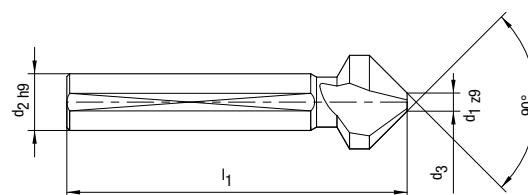
Countersinks, 90° | 051207, 053207

Preferred series made of HSS, shank with 3 clamping surfaces

DIN
335
C

Design

Diameter: 11.50 – 31.00 mm
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3
 Special features: Radially relieved



Product code	Design	Cutting material	Coating	P1	P2	P3	M1	M2	K1	K2	K3	N1	N2	N3	N4	N5	S	H
051207	Precision	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			
053207	Precision	HSS	TiN	■	■	□	□	□	■	■	■	■						

Dimensions					051207			053207		
d1z9	d2 h9	d3	l1	z	Order No.	Stock	Order No.	Stock		
11.50	8	2.8	56	3	30111000	●	30117648	●		
12.40	8	2.8	56	3	30111002	●	30117649	●		
13.40	8	2.9	56	3	30111004	●	30117650	●		
15.00	10	3.2	60	3	30111006	●	30117651	●		
16.50	10	3.2	60	3	30111008	●	30117652	●		
19.00	10	3.5	63	3	30111010	●	30117653	●		
20.50	10	3.5	63	3	30111012	●	30117654	●		
23.00	10	3.8	67	3	30111014	●	30117655	●		
25.00	10	3.8	67	3	30111016	●	30117656	●		
26.00	10	3.8	67	3	30111018	●				
28.00	12	4	71	3	30111020	●				
30.00	12	4.2	71	3	30111022	●				
31.00	12	4.2	71	3	30111024	●	30136388	●		

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

Countersink Sets, 90° | 051212, 051218, 053218, 053220

Preferred series made of HSS

DIN
335
C**Design**

Diameter: See table
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3
 Special features: Radially relieved



Product code	Design	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051212	Standard	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			
051218	Standard	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			
053218	Precision	HSS	TiAlN	■	■	□	□	□	■	■	■	■						
053220	Precision	HSS	TiN	■	■	□	□	□	■	■	■	■						

		051212		051218		053218		053220	
Scope	Included diameters mm	Order No.	Stock	Order No.	Stock	Order No.	Stock	Order No.	Stock
12-piece	5.30/5.80/6.30/7.30/8.30/9.40/10.40/13.40/16.50/20.50/25.00	30111174	●						
5-piece	6.30/10.40/16.50/20.50/25.00			30111176	●	30117718	●	30359531	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

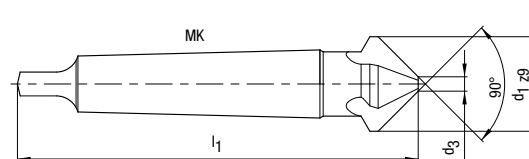
Countersinks, 90° | 051309, 051310, 053310

Preferred series made of HSS

 DIN
 335
 D

Design

Diameter: 15.00 – 31.00 mm
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3
 Special features: Radially relieved



Product code	Design	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051309	Standard	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			
051310	Precision	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			
053310	Precision	HSS	TiN	■	■	□	□	□	■	■	■	■						

Dimensions					051309		051310		053310	
d _{1 z9}	d ₃	l ₁	MK	z	Order No.	Stock	Order No.	Stock	Order No.	Stock
15.00	3.2	85	1	3	30111186	●	30111220	●		
16.50	3.2	85	1	3	30111188	●	30111222	●		
19.00	3.5	100	2	3	30111190	●	30111224	●		
20.50	3.5	100	2	3	30111192	●	30111226	●		
23.00	3.8	106	2	3	30111194	●	30111228	●		
25.00	3.8	106	2	3	30111196	●	30111230	●	30117720	●
26.00	3.8	106	2	3	30111198	●	30111232	●		
28.00	4	112	2	3	30111200	●	30111234	●		
30.00	4.2	112	2	3	30111202	●	30111236	●		
31.00	4.2	112	2	3	30111204	●	30111238	●	30117722	●
34.00	4.5	118	2	3	30111206	●	30111240	●		
37.00	4.8	118	2	3	30111208	●	30111242	●	30117724	●
40.00	10	140	3	3	30111210	●	30111244	●	30117726	●
50.00	14	150	3	3	30111212	●	30111246	●	30117728	●
63.00	16	180	4	3	30111214	●	30111248	●	30117730	●
80.00	22	190	4	3	30111216	●	30111250	●		
100.00	28	200	4	3	30111218	●	30111252	●		

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

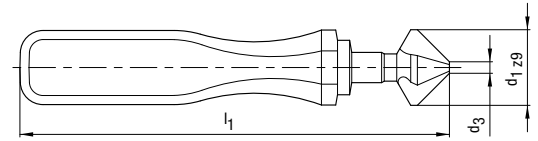
Hand Deburring Tool, 90° | 051211

Preferred series made of HSS, with plastic handle

DIN
335

Design

Diameter: 12.40 – 25.00 mm
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3
 Special features: Radially relieved



Product code	Design	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051211	Standard	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions				051211	
d ₁ z ₉	d ₃	l ₁	z	Order No.	Stock
12.40	2.8	133	3	30111167	●
16.50	3.2	135	3	30111169	●
20.50	3.5	138	3	30111171	●
25.00	3.8	142	3	30111173	●

All dimensions in mm.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

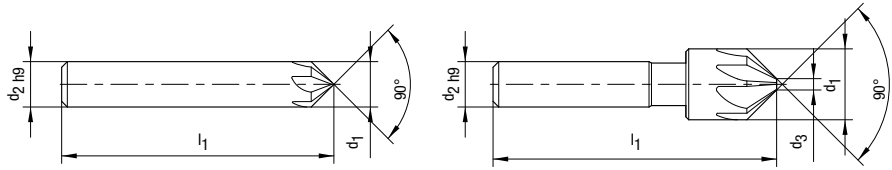
Countersink, 90° | 050810

Preferred series made of HSS, multi-fluted countersink for machining high-strength materials with tensile strength over 1000 N/mm²)

DIN
335
A

Design

Diameter: 8.00 – 20.00 mm
Cutting direction: Right-hand cutting
Number of cutting edges: 5 – 7



Product code	Design	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050810	Standard	HSS	Uncoated	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>

Dimensions					050810	
d ₁	d ₂ h ₉	d ₃	l ₁	z	Order No.	Stock
8.00	8		48	5	30110910	●
12.50	8	2	48	5	30110912	●
16.00	10	3.2	56	7	30110914	●
20.00	10	5	60	7	30110916	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

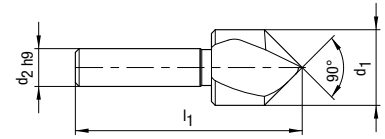
Countersink WN 181, 90° | 051011

Preferred series made of HSS, single-edged design

BECK
Norm

Design

Diameter: 6.00 – 31.50 mm
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3
 Special features: Radially relieved, sharp point



Product code	Design	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051011	Single-edged	HSS	Uncoated	■	■				□	□		■	■	■	□			

Dimensions			051011	
d ₁	d ₂ h9	l ₁	Order No.	Stock
6.00	6	45	30110944	●
8.00	8	50	30110946	●
10.00	8	49	30110948	●
12.50	8	49	30110950	●
16.00	10	56	30110952	●
20.00	10	60	30110954	●
25.00	12	75	30110956	●
31.50	12	80	30110958	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

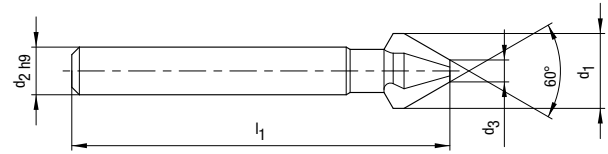
Countersinks, 60° | 051110, 053320

Preferred series made of HSS

DIN
334
C

Design

Diameter: 6.30 – 25.00 mm
Cutting direction: Right-hand cutting
Number of cutting edges: 3
Special features: Radially relieved



Product code	Design	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051110	Precision	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			
053320	Precision	HSS	TiN	■	■	□	□	□	■	■	■	■						

Dimensions					051110		053320	
d ₁	d ₂ h ₉	d ₃	l ₁	z	Order No.	Stock	Order No.	Stock
6.30	5	1.6	45	3	30110968	●	30117732	●
8.00	6	2	50	3	30110970	●	30117734	●
10.00	6	2.5	50	3	30110972	●	30117736	●
12.50	8	3.2	56	3	30110974	●	30117738	●
16.00	10	4	63	3	30110976	●	30117740	●
20.00	10	5	67	3	30110978	●	30117742	●
22.50	10	5.6	71	3	30110980	●	30117744	●
25.00	10	6.3	71	3	30110982	●	30117746	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

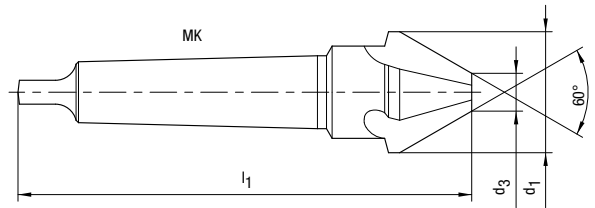
Countersink, 60° | 051111

Preferred series made of HSS

DIN
334
D

Design

Diameter: 16.00 – 80.00 mm
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3
 Special features: Radially relieved



Product code	Design	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051111	Precision	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions					051111	
d ₁	d ₃	l ₁	MK	z	Order No.	Stock
16.00	4	90	1	3	30110984	●
20.00	5	106	2	3	30110986	●
25.00	6.3	112	2	3	30110988	●
31.50	10	118	2	3	30110990	●
40.00	12.5	150	3	3	30110992	●
50.00	16	160	3	3	30110994	●
63.00	20	190	4	3	30110996	●
80.00	25	200	4	3	30110998	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

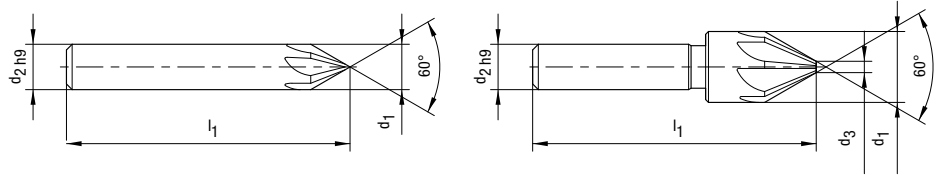
Countersink, 60° I 050610

Preferred series made of HSS, multi-fluted countersink for machining high-strength materials with tensile strength over 1000 N/mm²)

DIN
334
A

Design

Diameter: 8.00 – 20.00 mm
Cutting direction: Right-hand cutting
Number of cutting edges: 5 – 7



Product code	Design	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
050610	Standard	HSS	Uncoated	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>

Dimensions					050610	
d ₁	d ₂ h9	d ₃	l ₁	z	Order No.	Stock
8.00	8		50	5	30110881	●
12.50	8	2	50	5	30110883	●
16.00	10	3.2	60	7	30110885	●
20.00	10	5	63	7	30110887	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

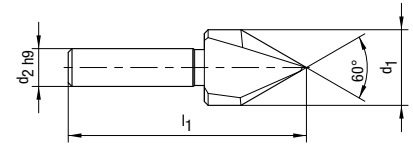
Countersink WN 180, 60° | 051010

Preferred series made of HSS, single-edged design

BECK
Norm

Design

Diameter: 12.40 – 25.00 mm
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3
 Special features: Radially relieved, sharp point



Product code	Design	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051010	Single-edged	HSS	Uncoated	■	■				□	□		■	■	■	□			

Dimensions			051010	
d ₁	d ₂ h9	l ₁	Order No.	Stock
6.00	6	45	30135229	●
8.00	8	50	30110930	●
10.00	8	52	30110932	●
12.50	8	52	30110934	●
16.00	10	60	30110936	●
20.00	10	63	30110938	●
25.00	12	82	30110940	●
31.50	12	90	30110942	●

All dimensions in mm.

For machining values see end of catalogue.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

Counterbores I 051510, 053510

Preferred series made of HSS, for fine through bore

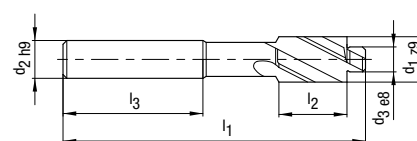
DIN
373

Design

Diameter: 6.00 – 20.00 mm

Cutting direction: Right-hand cutting

Number of cutting edges: 3



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051510	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			
053510	HSS	TiN	■	■	■	□	□	■	■	■	■						

Dimensions								051510		053510	
d ₁ z9	d ₂ h9	d ₃ e8	Thread	l ₁	l ₂	l ₃	z	Order No.	Stock	Order No.	Stock
6.00	5	3.2	M3	71	14	31.5	3	30165316	●	30117754	●
6.50	5	3.2	M3	71	14	31.5	3	30111323	●	30117755	●
6.50	5	3.7	M3.5	71	14	31.5	3	30111325	●		
8.00	5	4.3	M4	71	14	31.5	3	30111327	●	30117756	●
10.00	8	5.3	M5	80	18	35.5	3	30111329	●	30117757	●
11.00	8	6.4	M6	80	18	35.5	3	30111331	●	30117758	●
15.00	12.5	8.4	M8	100	22	40	3	30111333	●	30117759	●
18.00	12.5	10.5	M10	100	22	40	3	30111335	●	30117760	●
20.00	12.5	13	M12	100	22	40	3	30111337	●	30117761	●

All dimensions in mm.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

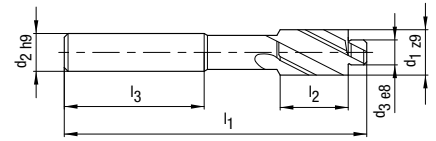
Counterbores | 051511, 053511

Preferred series made of HSS, for medium through bore

DIN
373

Design

Diameter: 6.00 – 20.00 mm
Cutting direction: Right-hand cutting
Number of cutting edges: 3



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051511	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			
053511	HSS	TiN	■	■	■	□	□	■	■	■	■						

Dimensions								051511		053511	
d ₁ z ₉	d ₂ h ₉	d ₃ e ₈	Thread	l ₁	l ₂	l ₃	z	Order No.	Stock	Order No.	Stock
6.00	5	3.4	M3	71	14	31.5	3	30165317	●	30117762	●
6.50	5	3.4	M3	71	14	31.5	3	30111339	●	30117763	●
6.50	5	3.9	M3.5	71	14	31.5	3	30111341	●		
8.00	5	4.5	M4	71	14	31.5	3	30111343	●	30117764	●
10.00	8	5.5	M5	80	18	35.5	3	30111345	●	30117765	●
11.00	8	6.6	M6	80	18	35.5	3	30111347	●	30117766	●
15.00	12.5	9	M8	100	22	40	3	30111349	●	30117767	●
18.00	12.5	11	M10	100	22	40	3	30111351	●	30117768	●
20.00	12.5	13.5	M12	100	22	40	3	30111353	●	30117769	●

All dimensions in mm.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

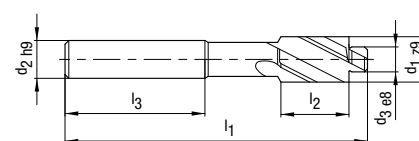
Counterbore I 051512

Preferred series made of HSS, for tapping bore

DIN
373

Design

Diameter: 6.00 – 20.00 mm
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051512	HSS	Uncoated	■	■	□			■	■	■	■	■	■	■			

Dimensions								051512	
d ₁ z ₉	d ₂ h ₉	d ₃ e ₈	Thread	l ₁	l ₂	l ₃	z	Order No.	Stock
6.00	5	2.5	M3	71	14	31.5	3	30165315	●
6.50	5	2.5	M3	71	14	31.5	3	30111355	●
6.50	5	2.9	M3.5	71	14	31.5	3	30111357	●
8.00	5	3.3	M4	71	14	31.5	3	30111359	●
10.00	8	4.2	M5	80	18	35.5	3	30111361	●
11.00	8	5	M6	80	18	35.5	3	30111363	●
15.00	12.5	6.8	M8	100	22	40	3	30111365	●
18.00	12.5	8.5	M10	100	22	40	3	30111367	●
20.00	12.5	10.2	M12	100	22	40	3	30111369	●

All dimensions in mm.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

Counterbore Sets, 90° | 051513, 051514, 051515

Preferred series made of HSS

DIN
373

Design

Diameter: See table
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3
 Scope of supply: With metal cassette



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051513	HSS	Uncoated	■	■	□			■	■	■	■	■	■	■			
051514	HSS	Uncoated	■	■	□			■	■	■	■	■	■	■			
051515	HSS	Uncoated	■	■	□			■	■	■	■	■	■	■			

			051513		051514		051515	
Scope	Thread	Design	Order No.	Stock	Order No.	Stock	Order No.	Stock
6-piece	M3. M4. M5. M6. M8. M10	for fine through bore	30111371	●				
6-piece	M3. M4. M5. M6. M8. M10	for medium through bore			30111372	●		
6-piece	M3. M4. M5. M6. M8. M10	for tapping bore					30359523	●

All dimensions in mm.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

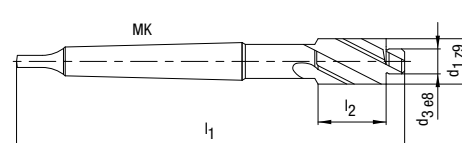
Counterbore WN 178 | 051710

Preferred series made of HSS, fine through bore

BECK
Norm

Design

Diameter: 18.00 – 40.00 mm
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051710	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions							051710	
d ₁ z ₉	d ₃ e ₈	Thread	l ₁	l ₂	MK	z	Order No.	Stock
18.00	10.5	M10	150	25	2	3	30111529	●
20.00	13	M12	150	25	2	3	30111531	●
24.00	15	M14	162	30	2	3	30111533	●
26.00	17	M16	192	35	3	3	30111535	●
30.00	19	M18	192	35	3	3	30111537	●
33.00	21	M20	204	40	3	3	30111539	●
36.00	23	M22	204	40	3	3	30111541	●
40.00	25	M24	204	40	3	3	30111543	●

All dimensions in mm.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

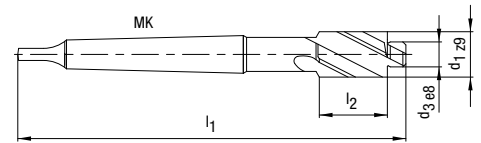
Counterbore WN 178 I 051711

Preferred series made of HSS, medium through bore

BECK
Norm

Design

Diameter: 18.00 – 40.00 mm
Cutting direction: Right-hand cutting
Number of cutting edges: 3



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051711	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions							051711	
d ₁ z ₉	d ₃ e ₈	Thread	l ₁	l ₂	MK	z	Order No.	Stock
18.00	11	M10	150	25	2	3	30111545	●
20.00	13.5	M12	150	25	2	3	30111547	●
24.00	15.5	M14	162	30	2	3	30111549	●
26.00	17.5	M16	192	35	3	3	30111551	●
30.00	20	M18	192	35	3	3	30111553	●
33.00	22	M20	204	40	3	3	30111555	●
36.00	24	M22	204	40	3	3	30111557	●
40.00	26	M24	204	40	3	3	30111559	●

All dimensions in mm.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

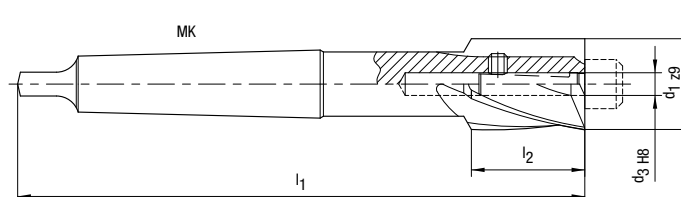
Counterbore I 051610

Preferred series made of HSS, for interchangeable pilots DIN 1868

DIN
375

Design

Diameter: 15.00 – 63.00 mm
 Cutting direction: Right-hand cutting
 Number of cutting edges: 3 – 4



Product code	Cutting material	Coating	P ₁	P ₂	P ₃	M ₁	M ₂	K ₁	K ₂	K ₃	N ₁	N ₂	N ₃	N ₄	N ₅	S	H
051610	HSS	Uncoated	■	■	□			■	■	□	■	■	■	■			

Dimensions						051610	
d _{1 z9}	d _{3 H8}	l ₁	l ₂	MK	z	Order No.	Stock
15.00	4	132	22	2	3	30111374	●
18.00	5	140	25	2	3	30111376	●
20.00	5	140	25	2	3	30111378	●
24.00	6	150	30	2	3	30111380	●
26.00	8	180	35	3	3	30111382	●
30.00	8	180	35	3	3	30111384	●
33.00	10	190	40	3	3	30111386	●
36.00	10	190	40	3	3	30111388	●
40.00	10	190	40	3	3	30111390	●
43.00	12	236	50	4	4	30111392	●
46.00	12	236	50	4	4	30111394	●
50.00	12	236	50	4	4	30111397	●
54.00	16	250	63	4	4	30111399	●
58.00	16	250	63	4	4	30111401	●
61.00	16	250	63	4	4	30111403	●
63.00	16	250	63	4	4	30111405	●

All dimensions in mm.

Information on special designs and other coatings on request.

● These products are available ex stock.

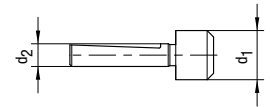
○ These products are available from semi-finished stock on short notice.

■ Outstanding material suitability.

□ Limited material suitability.

★ Suitability only with special blade geometry and coating.

Pilots DIN 1868 | 051611

DIN
1868

Preferred series made of HSS, for counterbore DIN 375, for fine through bore

Dimensions				051611	
d ₁	d ₂ f7	Thread	For counterbore Ø	Order No.	Stock
8.40	4	M 8	15	30111409	●
8.40	5	M 8	18 / 20	30111424	●
10.50	5	M 10	18 / 20	30111414	●
10.50	6	M 10	24	30111432	●
13.00	5	M 12	20	30111418	●
13.00	6	M 12	24	30111438	●
13.00	8	M 12	26	30111452	●
15.00	6	M 14	24	30111442	●
15.00	8	M 14	26 / 30	30111458	●
17.00	8	M 16	26 / 30	30111462	●
17.00	10	M 16	33	30111474	●
19.00	8	M 18	30	30111466	●
19.00	10	M 18	33 / 36	30111478	●
21.00	10	M 20	33 / 36 / 40	30111484	●
23.00	10	M 22	36 / 40	30111488	●
23.00	12	M 22	43	30111500	●
25.00	10	M 24	40	30111492	●
25.00	12	M 24	43 / 46	30111504	●

Preferred series made of HSS, for counterbore DIN 375, for medium through bore

Dimensions				051611	
d ₁	d ₂ f7	Thread	For counterbore Ø	Order No.	Stock
9.00	4	M 8	15	30111411	●
9.00	5	M 8	18 / 20	30111428	●
11.00	5	M 10	18 / 20	30111416	●
11.00	6	M 10	24	30111434	●
13.50	5	M 12	20	30111420	●
13.50	6	M 12	24	30111440	●
13.50	8	M 12	26	30111454	●
15.50	6	M 14	24	30111444	●
15.50	8	M 14	26 / 30	30111460	●
17.50	8	M 16	26 / 30	30111464	●
17.50	10	M 16	33	30111476	●
20.00	8	M 18	30	30111468	●
20.00	10	M 18	33 / 36	30111482	●
22.00	10	M 20	33 / 36 / 40	30111486	●
24.00	10	M 22	36 / 40	30111490	●
24.00	12	M 22	43	30111502	●
26.00	10	M 24	40	30111494	●
26.00	12	M 24	43 / 46	30111505	●
30.00	12	M 27	43 / 46	30111509	●
30.00	16	M 27	54	30111519	●
33.00	12	M 30	50	30111511	●
33.00	16	M 30	54 / 61	30111523	●
36.00	16	M 33	54 / 58 / 63	30111525	●
39.00	16	M 36	58 / 61	30111527	●

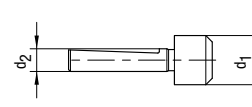
All dimensions in mm.

Information on special designs and other coatings on request.

● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.

Pilots DIN 1868 | 051611

 DIN
 1868


Preferred series made of HSS, for counterbore DIN 375, for tapping bore

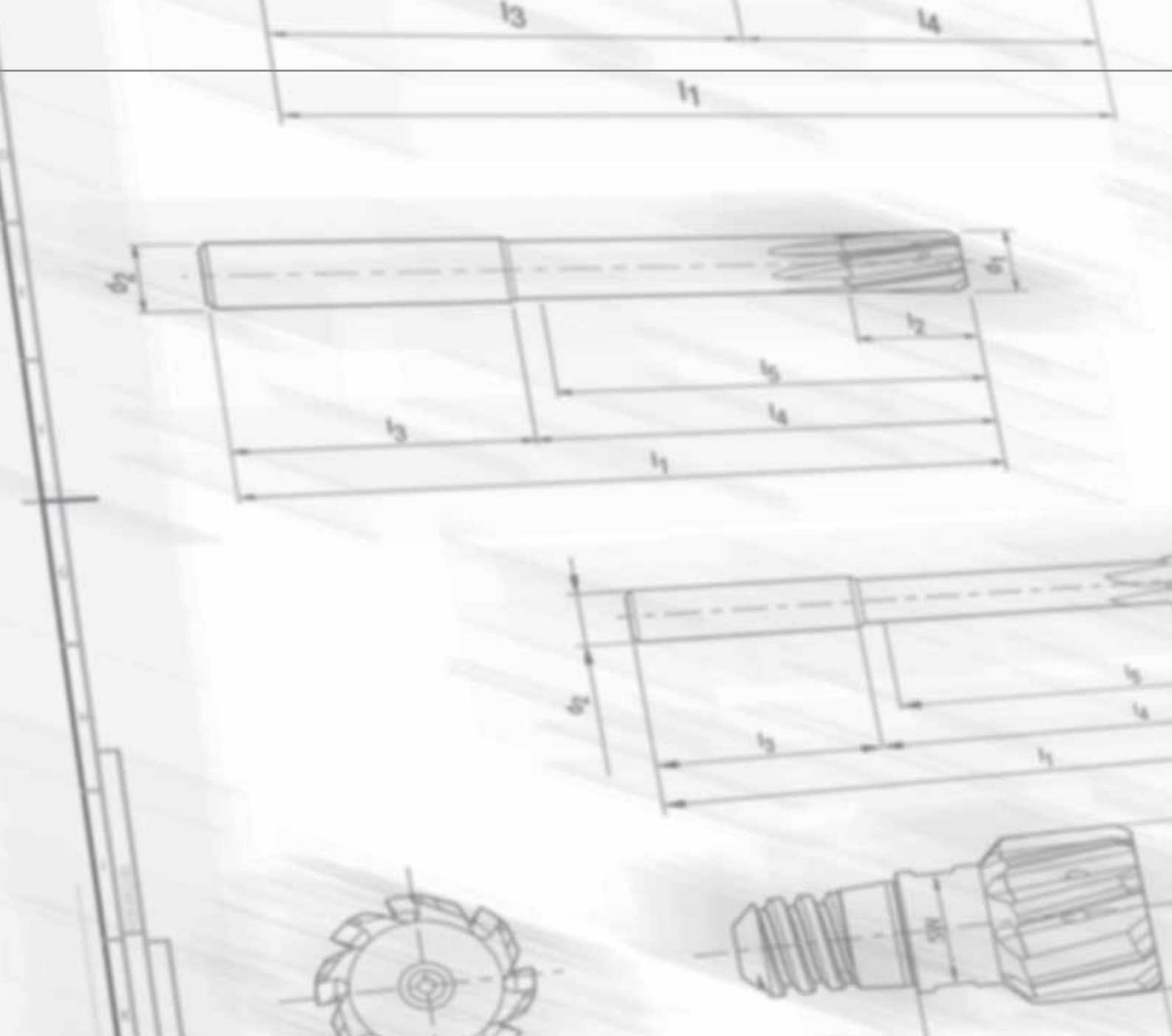
Dimensions				051611	
d_1	d_2 f7	Thread	For counterbore \emptyset	Order No.	Stock
6.80	4	M 8	15	30111407	●
6.80	5	M 8	18 / 20	30111422	●
8.50	5	M 10	18 / 20	30111426	●
8.50	6	M 10	24	30111446	●
10.20	5	M 12	20	30111412	●
10.20	6	M 12	24	30111430	●
10.20	8	M 12	26	30111448	●
12.00	6	M 14	24	30111436	●
12.00	8	M 14	26 / 30	30111450	●
14.00	8	M 16	26 / 30	30111456	●
14.00	10	M 16	33	30111470	●
15.50	8	M 18	30	30111460	●
15.50	10	M 18	33 / 36	30111472	●
17.50	10	M 20	33 / 36 / 40	30111476	●
19.50	10	M 22	36 / 40	30111480	●
19.50	12	M 22	43	30111496	●
21.00	10	M 24	40	30111484	●
21.00	12	M 24	43 / 46	30111498	●
24.00	12	M 27	43 / 46	30111502	●
24.00	16	M 27	54	30111513	●
26.50	12	M 30	50	30111507	●
26.50	16	M 30	54 / 61	30111515	●
29.50	16	M 33	54 / 58 / 63	30111517	●
32.00	16	M 36	58 / 61	30111521	●

All dimensions in mm.

Information on special designs and other coatings on request.

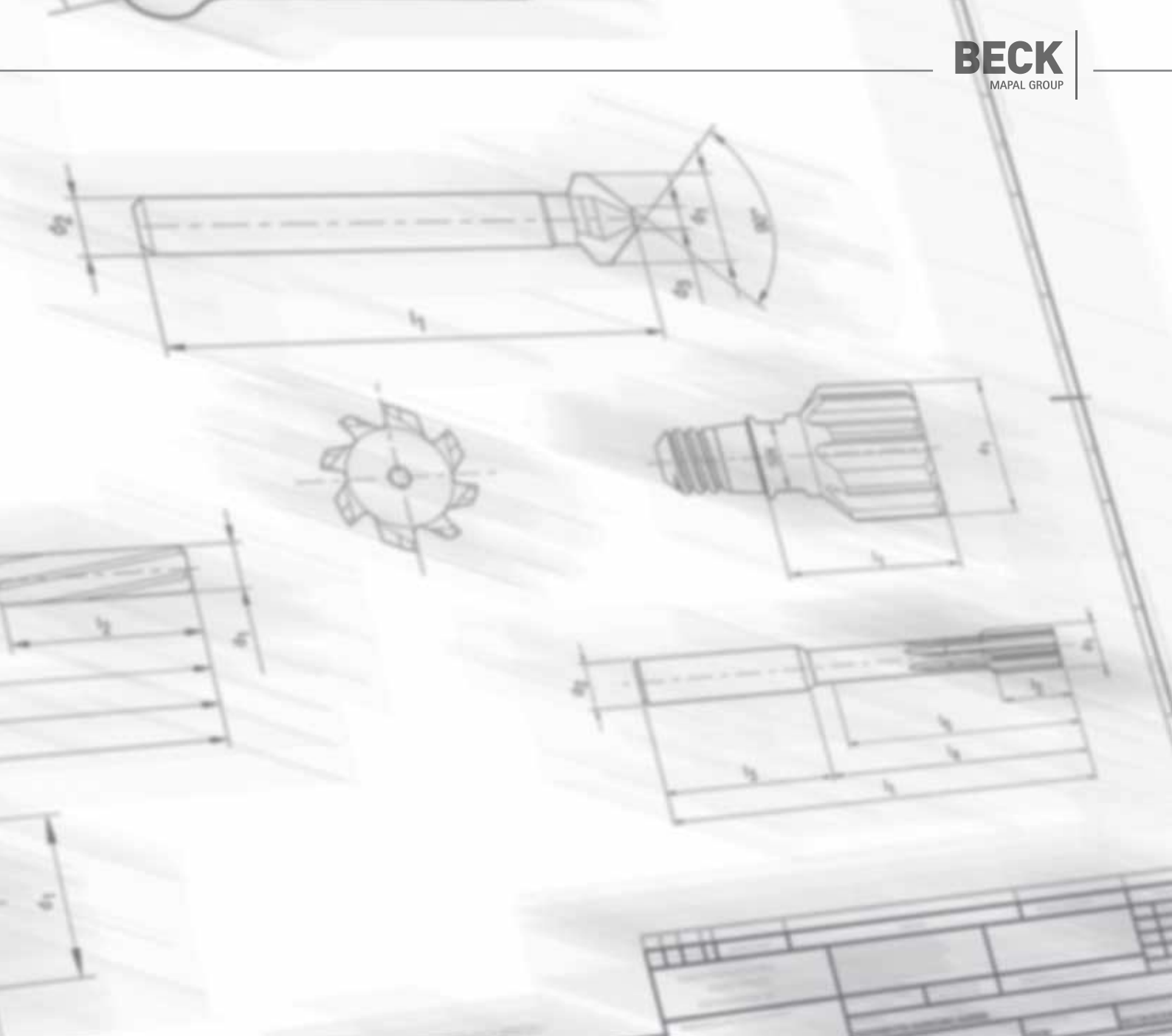
● These products are available ex stock.

○ These products are available from semi-finished stock on short notice.



Technical Information – Machining values

The recommended parameters are reference values. These can be adapted depending on the application environment (machine, fixture).



Machining Values for High Performance Reamers MR

	Material	Application data	ø [mm]				Cutting material
			8.00-9.70	9.70-16.00	16.00-30.00	30.00-40.00	
			z = 4	z = 6	z = 6	z = 8	
P ₁	Steel < 700 N/mm ²	vc [m/min.]	150				Cermet
		f [mm/rev.]	0.40	1.00	1.50	2.00	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
P ₂	Steel 700-900 N/mm ²	vc [m/min.]	120				Cermet
		f [mm/rev.]	0.40	1.00	1.50	2.00	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
P ₃	Steel 900-1,200 N/mm ²	vc [m/min.]	130				Carbide + BSP-Coating
		f [mm/rev.]	0.40	1.00	1.50	2.00	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
M ₁	Stainless and corrosion-resistant steels < 700 N/mm ² *	vc [m/min.]	40				Carbide + Coating
		f [mm/rev.]	0.30	0.40	0.50	1.20	
		Allowance a [mm]	0.10	0.20	0.20	0.30	
M ₂	Stainless and corrosion-resistant steels > 700 N/mm ² *	vc [m/min.]	30				Carbide + Coating
		f [mm/rev.]	0.30	0.40	0.50	1.20	
		Allowance a [mm]	0.10	0.20	0.20	0.30	
K ₁	Grey cast iron (GG)	vc [m/min.]	110				Carbide + BSP-Coating
		f [mm/rev.]	0.60	1.50	1.80	2.50	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
K ₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	120				Cermet
		f [mm/rev.]	0.60	1.50	1.80	2.50	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
K ₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	90				Carbide + BSP-Coating
		f [mm/rev.]	0.60	1.50	1.80	2.50	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
N ₁	Cu-/Zn-/Mg-alloys	vc [m/min.]	50				Carbide
		f [mm/rev.]	0.20	0.40	0.50	0.60	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
N ₂	Aluminium alloys (Si < 7 %)	vc [m/min.]	50				Carbide
		f [mm/rev.]	0.20	0.40	0.50	0.60	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
N ₃	Aluminium alloys (Si > 7 %)	vc [m/min.]	30				Carbide
		f [mm/rev.]	0.20	0.40	0.50	0.60	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
N ₄	Plastics	vc [m/min.]	40				Carbide
		f [mm/rev.]	0.25	0.40	0.50	0.60	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
S	Titanium *	vc [m/min.]	15				Carbide + Coating
		f [mm/rev.]	0.06	0.20	0.25	0.30	
		Allowance a [mm]	0.10	0.15	0.20	0.20	
H	Hardened materials < 63 HRC*	vc [m/min.]	10				Carbide + Coating
		f [mm/rev.]	0.06	0.15	0.20	0.25	
		Allowance a [mm]	0.10	0.15	0.20	0.20	

*With special blade geometry and coating.

Machining Values for High Performance Reamers RR

	Material	Application data	ø [mm]						Cutting material	
			< 5.00 mm	5.00-6.20	6.20-8.00	8.00-12.00	12.00-16.00	16.00-30.00		30.00-40.00
P ₁	Steel < 700 N/mm ²	vc [m/min.]	140						Cermet	
		f [mm/rev.]	0.10	0.15	0.40	0.60	0.80	1.00		1.40
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.20	0.20		0.30
P ₂	Steel 700-900 N/mm ²	vc [m/min.]	120						Cermet	
		f [mm/rev.]	0.10	0.12	0.40	0.60	0.80	1.00		1.40
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.20	0.20		0.30
P ₃	Steel 900-1,200 N/mm ²	vc [m/min.]	90						Cermet	
		f [mm/rev.]	0.10	0.12	0.40	0.60	0.80	1.00		1.40
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.20	0.20		0.30
K ₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	120						Cermet	
		f [mm/rev.]	0.20	0.40	0.50	0.70	1.20	1.60		2.00
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.20	0.20		0.30
K ₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	90						Cermet	
		f [mm/rev.]	0.20	0.40	0.50	0.70	1.20	1.60		2.00
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.20	0.20		0.30

Machining Values for High Performance Reamers VR

	Material	Application data	ø [mm]						Cutting material	
			10.00-11.75	11.76-13.75	13.76-17.75	17.76-21.75	21.76-24.75	24.76-30.25		30.26-40.00
			z = 6	z = 8	z = 10	z = 12	z = 14	z = 16		z = 18
P ₁	Steel < 700 N/mm ²	vc [m/min.]	180 (fz = 0.08 – 0.13 mm)						Cermet	
		f [mm/rev.]	0.60	0.80	1.00	1.10	1.20	1.40		1.50
		Allowance a [mm]	0.10	0.20	0.20	0.20	0.20	0.20		0.20
P ₂	Steel 700-900 N/mm ²	vc [m/min.]	150 (fz = 0.08 – 0.13 mm)						Cermet	
		f [mm/rev.]	0.60	0.80	1.00	1.10	1.20	1.40		1.50
		Allowance a [mm]	0.10	0.20	0.20	0.20	0.20	0.20		0.20
P ₃	Steel 900-1,200 N/mm ²	vc [m/min.]	120 (fz = 0.08 – 0.13 mm)						Cermet	
		f [mm/rev.]	0.60	0.80	1.00	1.10	1.20	1.40		1.50
		Allowance a [mm]	0.10	0.20	0.20	0.20	0.20	0.20		0.20
M ₁	Stainless and corrosion-resistant steels < 700 N/mm ² *	vc [m/min.]	30 (fz = 0.05 – 0.10 mm)						Carbide + Coating	
		f [mm/rev.]	0.40	0.50	0.60	0.70	0.80	1.00		1.10
		Allowance a [mm]	0.10	0.10	0.15	0.20	0.20	0.20		0.20
K ₁	Grey cast iron (GG)	vc [m/min.]	200 (fz = 0.20 – 0.50 mm)						CBN	
		f [mm/rev.]	1.20	1.60	2.00	2.40	2.80	3.20		3.60
		Allowance a [mm]	0.20	0.20	0.20	0.20	0.20	0.20		0.20
K ₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	100 (fz = 0.15 – 0.25 mm)						Cermet	
		f [mm/rev.]	1.00	1.30	1.50	1.80	2.10	2.40		2.70
		Allowance a [mm]	0.10	0.20	0.20	0.20	0.20	0.20		0.20
K ₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	90 (fz = 0.10 – 0.40 mm)						Carbide + Coating	
		f [mm/rev.]	1.00	1.30	1.50	1.80	2.10	2.40		2.70
		Allowance a [mm]	0.10	0.20	0.20	0.20	0.20	0.20		0.20
N ₁	Cu-/Zn-/Mg-alloys	vc [m/min.]	60 (fz = 0.02 – 0.07 mm)						Carbide	
		f [mm/rev.]	0.30	0.40	0.50	0.60	0.70	0.80		0.80
		Allowance a [mm]	0.10	0.20	0.20	0.20	0.20	0.20		0.20
N ₂	Aluminium alloys (Si < 7 %)	vc [m/min.]	250 (fz = 0.075 – 0.30 mm)						PCD	
		f [mm/rev.]	1.60	2.00	2.20	2.50	3.00	3.20		3.50
		Allowance a [mm]	0.20	0.20	0.20	0.20	0.20	0.20		0.20
N ₃	Aluminium alloys (Si > 7 %)	vc [m/min.]	250 (fz = 0.075 – 0.30 mm)						PCD	
		f [mm/rev.]	1.60	2.00	2.20	2.50	3.00	3.20		3.50
		Allowance a [mm]	0.20	0.20	0.20	0.20	0.20	0.20		0.20
H	Hardened materials < 63 HRC*	vc [m/min.]	80 (fz = 0.02 – 0.05 mm)						CBN	
		f [mm/rev.]	0.10	0.16	0.20	0.24	0.28	0.32		0.36
		Allowance a [mm]	0.10	0.10	0.10	0.10	0.10	0.10		0.10

*With special blade geometry and coating.

Machining Values for HNC Solid Carbide Reamers (uncoated)

	Material	Application data	ø [mm]						Cutting material
			< 5.00 mm	5.00-6.20	6.20-8.00	8.00-12.00	12.00-16.00	16.00-20.00	
P ₁	Steel < 700 N/mm ²	vc [m/min.]	30						Solid carbide
		f [mm/rev.]	0.15	0.18	0.20	0.20	0.30	0.30	
		Allowance a [mm]	0.10	0.10	0.20	0.20	0.20	0.30	
P ₂	Steel 700-900 N/mm ²	vc [m/min.]	20						Solid carbide
		f [mm/rev.]	0.15	0.18	0.20	0.20	0.30	0.30	
		Allowance a [mm]	0.10	0.10	0.20	0.20	0.20	0.30	
P ₃	Steel 900-1,200 N/mm ²	vc [m/min.]	15						Solid carbide
		f [mm/rev.]	0.15	0.18	0.20	0.20	0.30	0.30	
		Allowance a [mm]	0.10	0.10	0.20	0.20	0.20	0.30	
K ₁	Grey cast iron (GG)	vc [m/min.]	30						Solid carbide
		f [mm/rev.]	0.15	0.18	0.20	0.20	0.25	0.30	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.20	0.30	
K ₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	20						Solid carbide
		f [mm/rev.]	0.15	0.18	0.20	0.20	0.25	0.30	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.20	0.30	
K ₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	20						Solid carbide
		f [mm/rev.]	0.15	0.18	0.20	0.20	0.25	0.30	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.20	0.30	
N ₁	Cu-/Zn-/Mg-alloys	vc [m/min.]	50						Solid carbide
		f [mm/rev.]	0.15	0.18	0.20	0.20	0.30	0.35	
		Allowance a [mm]	0.10	0.10	0.15	0.20	0.20	0.30	
N ₂	Aluminium alloys (Si < 7 %)	vc [m/min.]	50						Solid carbide
		f [mm/rev.]	0.15	0.15	0.15	0.20	0.20	0.30	
		Allowance a [mm]	0.15	0.15	0.20	0.20	0.20	0.30	
N ₃	Aluminium alloys (Si > 7 %)	vc [m/min.]	30						Solid carbide
		f [mm/rev.]	0.15	0.15	0.15	0.20	0.20	0.30	
		Allowance a [mm]	0.15	0.15	0.20	0.20	0.20	0.30	
N ₄	Plastics	vc [m/min.]	40						Solid carbide
		f [mm/rev.]	0.15	0.15	0.15	0.35	0.35	0.40	
		Allowance a [mm]	0.15	0.15	0.20	0.20	0.20	0.30	

Machining Values for High Performance Reamers HCS

	Material	Application data	ø [mm]						Cutting material	
			< 5.00 mm	5.00-6.20	6.20-8.00	8.00-12.00	12.00-16.00	16.00-30.00		30.00-40.00
P ₁	Steel < 700 N/mm ²	vc [m/min.]	140						Cermet	
		f [mm/rev.]	0.10	0.15	0.40	0.60	0.80	1.00		1.40
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.20	0.20		0.30
P ₂	Steel 700-900 N/mm ²	vc [m/min.]	120						Cermet	
		f [mm/rev.]	0.10	0.12	0.40	0.60	0.80	1.00		1.40
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.20	0.20		0.30
P ₃	Steel 900-1,200 N/mm ²	vc [m/min.]	90						Cermet	
		f [mm/rev.]	0.10	0.12	0.40	0.60	0.80	1.00		1.40
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.20	0.20		0.30
K ₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	120						Cermet	
		f [mm/rev.]	0.20	0.40	0.50	0.70	1.20	1.60		2.00
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.20	0.20		0.30
K ₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	90						Cermet	
		f [mm/rev.]	0.20	0.40	0.50	0.70	1.20	1.60		2.00
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.20	0.20		0.30

*With special blade geometry and coating.

Machining Values for HNC Solid Carbide Reamers (coated)

	Material	Application data	ø [mm]						Cutting material
			< 5.00 mm	5.00-6.20	6.20-8.00	8.00-12.00	12.00-16.00	16.00-20.00	
P₁	Steel < 700 N/mm ²	vc [m/min.]	180						Solid carbide + BSP-Coating
		f [mm/rev.]	0.20	0.30	0.50	0.80	1.10	1.50	
		Allowance a [mm]	0.10	0.10	0.10	0.15	0.20	0.20	
P₂	Steel 700-900 N/mm ²	vc [m/min.]	180						Solid carbide + BSP-Coating
		f [mm/rev.]	0.20	0.30	0.50	0.80	1.10	1.50	
		Allowance a [mm]	0.10	0.10	0.10	0.15	0.20	0.20	
P₃	Steel 900-1,200 N/mm ²	vc [m/min.]	140						Solid carbide + BSP-Coating
		f [mm/rev.]	0.20	0.30	0.50	0.80	1.10	1.50	
		Allowance a [mm]	0.10	0.10	0.10	0.15	0.20	0.20	
M₁	Stainless and corrosion-resistant steels < 700 N/mm ² *	vc [m/min.]	40						Solid carbide + BVA-Coating
		f [mm/rev.]	0.10	0.15	0.30	0.40	0.50	0.60	
		Allowance a [mm]	0.05	0.10	0.10	0.10	0.20	0.20	
M₂	Stainless and corrosion-resistant steels > 700 N/mm ² *	vc [m/min.]	30						Solid carbide + BVA-Coating
		f [mm/rev.]	0.10	0.15	0.30	0.40	0.50	0.60	
		Allowance a [mm]	0.05	0.10	0.10	0.10	0.20	0.20	
K₁	Grey cast iron (GG)	vc [m/min.]	110						Solid carbide + BSP-Coating
		f [mm/rev.]	0.30	0.40	0.60	1.00	1.30	1.80	
		Allowance a [mm]	0.10	0.10	0.15	0.20	0.20	0.30	
K₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	150						Solid carbide + BSP-Coating
		f [mm/rev.]	0.30	0.40	0.60	1.00	1.30	1.80	
		Allowance a [mm]	0.10	0.10	0.15	0.20	0.20	0.30	
K₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	90						Solid carbide + BSP-Coating
		f [mm/rev.]	0.30	0.40	0.60	1.00	1.30	1.80	
		Allowance a [mm]	0.10	0.10	0.15	0.20	0.20	0.30	
N₂	Aluminium alloys (Si < 7 %)	vc [m/min.]	250						Solid carbide + BAL-Coating
		f [mm/rev.]	0.50	0.60	0.80	1.30	1.50	1.80	
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.30	0.30	
N₃	Aluminium alloys (Si > 7 %)	vc [m/min.]	250						Solid carbide + BAL-Coating
		f [mm/rev.]	0.50	0.60	0.80	1.30	1.50	1.80	
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.30	0.30	
N₅	Plastics, reinforced	vc [m/min.]	100						Solid carbide + Diamond-Coating
		f [mm/rev.]	0.40	0.50	0.70	0.90	1.20	1.50	
		Allowance a [mm]	0.10	0.10	0.10	0.20	0.20	0.20	
S	Titanium *	vc [m/min.]	15						Solid carbide + BTi-Coating
		f [mm/rev.]	0.08	0.12	0.15	0.10	0.20	0.25	
		Allowance a [mm]	0.05	0.05	0.10	0.10	0.15	0.20	
H	Hardened materials < 63 HRC*	vc [m/min.]	10						Solid carbide + BHV-Coating
		f [mm/rev.]	0.06	0.10	0.12	0.12	0.18	0.18	
		Allowance a [mm]	0.05	0.05	0.05	0.10	0.10	0.20	

*With special blade geometry and coating.

Machining Values for Replaceable Reamers XR 01

	Material	Application data	ø [mm]				Cutting material
			8.00-9.70	9.70-16.00	16.00-30.00	30.00-40.00	
			z = 4	z = 6	z = 6	z = 8	
P ₁	Steel < 700 N/mm ²	vc [m/min.]	150				Cermet
		f [mm/rev.]	0.40	1.00	1.50	2.00	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
P ₂	Steel 700-900 N/mm ²	vc [m/min.]	120				Cermet
		f [mm/rev.]	0.40	1.00	1.50	2.00	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
P ₃	Steel 900-1,200 N/mm ²	vc [m/min.]	130				Carbide + BSP-Coating
		f [mm/rev.]	0.40	1.00	1.50	2.00	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
M ₁	Stainless and corrosion-resistant steels < 700 N/mm ² *	vc [m/min.]	40				Carbide + BVA-Coating
		f [mm/rev.]	0.30	0.40	0.50	1.20	
		Allowance a [mm]	0.10	0.20	0.20	0.30	
M ₂	Stainless and corrosion-resistant steels > 700 N/mm ² *	vc [m/min.]	30				Carbide + BVA-Coating
		f [mm/rev.]	0.30	0.40	0.50	1.20	
		Allowance a [mm]	0.10	0.20	0.20	0.30	
K ₁	Grey cast iron (GG)	vc [m/min.]	110				Carbide + Coating
		f [mm/rev.]	0.60	1.50	1.80	2.50	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
K ₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	120				Cermet
		f [mm/rev.]	0.60	1.50	1.80	2.50	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
K ₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	90				Carbide + Coating
		f [mm/rev.]	0.60	1.50	1.80	2.50	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
N ₁	Cu-/Zn-/Mg-alloys	vc [m/min.]	50				Carbide
		f [mm/rev.]	0.20	0.40	0.50	0.60	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
N ₂	Aluminium alloys (Si < 7 %)	vc [m/min.]	300				PCD
		f [mm/rev.]	0.60	1.80	2.00	2.50	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
N ₃	Aluminium alloys (Si > 7 %)	vc [m/min.]	300				PCD
		f [mm/rev.]	0.60	1.80	2.00	2.50	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
N ₄	Plastics	vc [m/min.]	40				Carbide
		f [mm/rev.]	0.25	0.40	0.50	0.60	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
S	Titanium *	vc [m/min.]	15				Carbide + Coating
		f [mm/rev.]	0.06	0.20	0.25	0.30	
		Allowance a [mm]	0.10	0.15	0.20	0.25	
H	Hardened materials < 63 HRC*	vc [m/min.]	10				Carbide + Coating
		f [mm/rev.]	0.06	0.15	0.20	0.25	
		Allowance a [mm]	0.10	0.15	0.20	0.20	

*With special blade geometry and coating.

Machining Values for Replaceable Reamers XR 06

	Material	Application data	ø [mm]				Cutting material
			8.00-12.00	12.00-16.00	16.00-30.00	30.00-40.00	
			z = 6	z = 6	z = 6	z = 8	
P₁	Steel < 700 N/mm ²	vc [m/min.]	160				Carbide + BSP-Coating
		f [mm/rev.]	0.70	1.00	1.50	2.00	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
P₂	Steel 700-900 N/mm ²	vc [m/min.]	160				Carbide + BSP-Coating
		f [mm/rev.]	0.70	1.00	1.50	2.00	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
P₃	Steel 900-1,200 N/mm ²	vc [m/min.]	130				Carbide + BSP-Coating
		f [mm/rev.]	0.70	1.00	1.50	2.00	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
M₁	Stainless and corrosion-resistant steels < 700 N/mm ² *	vc [m/min.]	40				Carbide + BVA-Coating
		f [mm/rev.]	0.40	0.40	0.50	1.50	
		Allowance a [mm]	0.15	0.15	0.20	0.25	
M₂	Stainless and corrosion-resistant steels > 700 N/mm ² *	vc [m/min.]	30				Carbide + BVA-Coating
		f [mm/rev.]	0.40	0.40	0.50	1.50	
		Allowance a [mm]	0.15	0.15	0.20	0.25	
K₁	Grey cast iron (GG)	vc [m/min.]	110				Carbide + BSP-Coating
		f [mm/rev.]	0.80	1.50	1.80	2.50	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
K₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	120				Carbide + BSP-Coating
		f [mm/rev.]	0.80	1.50	1.80	2.50	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
K₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	90				Carbide + BSP-Coating
		f [mm/rev.]	0.80	1.50	1.80	2.50	
		Allowance a [mm]	0.20	0.20	0.30	0.30	
S	Titanium *	vc [m/min.]	15				Carbide + BTi-Coating
		f [mm/rev.]	0.10	0.20	0.25	0.30	
		Allowance a [mm]	0.10	0.15	0.20	0.25	

*With special blade geometry and coating.

Machining Values for Carbide Machine Reamers

	Material	Application data	ø [mm]						Cutting material
			< 5.00 mm	5.00-8.00	8.00-12.00	12.00-16.00	16.00-30.00	30.00-50.00	
P ₁	Steel < 700 N/mm ²	vc [m/min.]	20						Carbide
		f [mm/rev.]	0.10	0.15	0.20	0.25	0.30	0.40	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
P ₂	Steel 700-900 N/mm ²	vc [m/min.]	15						Carbide
		f [mm/rev.]	0.10	0.15	0.20	0.25	0.30	0.40	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
P ₃	Steel 900-1,200 N/mm ²	vc [m/min.]	12						Carbide
		f [mm/rev.]	0.10	0.15	0.20	0.25	0.30	0.40	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
K ₁	Grey cast iron (GG)	vc [m/min.]	18						Carbide
		f [mm/rev.]	0.10	0.20	0.30	0.30	0.40	0.50	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
K ₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	15						Carbide
		f [mm/rev.]	0.10	0.20	0.30	0.30	0.40	0.50	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
K ₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	10						Carbide
		f [mm/rev.]	0.10	0.20	0.30	0.30	0.40	0.50	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
N ₁	Cu-/Zn-/Mg-alloys	vc [m/min.]	30						Carbide
		f [mm/rev.]	0.15	0.20	0.25	0.30	0.40	0.50	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
N ₂	Aluminium alloys (Si < 7 %)	vc [m/min.]	40						Carbide
		f [mm/rev.]	0.15	0.20	0.25	0.30	0.40	0.50	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
N ₃	Aluminium alloys (Si > 7 %)	vc [m/min.]	25						Carbide
		f [mm/rev.]	0.15	0.20	0.25	0.30	0.40	0.50	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
N ₄	Plastics	vc [m/min.]	40						Carbide
		f [mm/rev.]	0.15	0.20	0.25	0.30	0.40	0.50	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	

	Material	Application data	ø [mm]						Cutting material
			< 5.00 mm	5.00-8.00	8.00-12.00	12.00-16.00	16.00-30.00	30.00-50.00	
P ₁	Steel < 700 N/mm ²	vc [m/min.]	30						Carbide + TiAlN
		f [mm/rev.]	0.10	0.15	0.20	0.25	0.30	0.40	
		Allowance a [mm]	0.10	0.10	0.20	0.20	0.30	0.30	
P ₂	Steel 700-900 N/mm ²	vc [m/min.]	25						Carbide + TiAlN
		f [mm/rev.]	0.10	0.15	0.20	0.25	0.30	0.40	
		Allowance a [mm]	0.10	0.10	0.20	0.20	0.30	0.30	
P ₃	Steel 900-1,200 N/mm ²	vc [m/min.]	15						Carbide + TiAlN
		f [mm/rev.]	0.10	0.15	0.20	0.25	0.30	0.40	
		Allowance a [mm]	0.10	0.10	0.20	0.20	0.30	0.30	
M ₁	Stainless and corrosion-resistant steels < 700 N/mm ² *	vc [m/min.]	15						Carbide + Coating
		f [mm/rev.]	0.08	0.10	0.15	0.20	0.25	0.30	
		Allowance a [mm]	0.08	0.10	0.10	0.20	0.20	0.30	
M ₂	Stainless and corrosion-resistant steels > 700 N/mm ² *	vc [m/min.]	10						Carbide + Coating
		f [mm/rev.]	0.08	0.10	0.15	0.20	0.25	0.30	
		Allowance a [mm]	0.08	0.10	0.10	0.20	0.20	0.30	
K ₁	Grey cast iron (GG)	vc [m/min.]	30						Carbide + TiAlN
		f [mm/rev.]	0.10	0.20	0.30	0.30	0.40	0.50	
		Allowance a [mm]	0.10	0.10	0.20	0.20	0.30	0.30	
K ₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	25						Carbide + TiAlN
		f [mm/rev.]	0.10	0.20	0.30	0.30	0.40	0.50	
		Allowance a [mm]	0.10	0.10	0.20	0.20	0.30	0.30	
K ₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	20						Carbide + TiAlN
		f [mm/rev.]	0.10	0.20	0.30	0.30	0.40	0.50	
		Allowance a [mm]	0.10	0.10	0.20	0.20	0.30	0.30	
S	Titanium *	vc [m/min.]	10						Carbide + Coating
		f [mm/rev.]	0.06	0.10	0.12	0.18	0.20	0.25	
		Allowance a [mm]	0.05	0.10	0.10	0.15	0.20	0.20	
H	Hardened materials < 63 HRC*	vc [m/min.]	8						Carbide + Coating
		f [mm/rev.]	0.05	0.08	0.10	0.13	0.15	0.20	
		Allowance a [mm]	0.05	0.05	0.10	0.10	0.15	0.20	

*With special blade geometry and coating.

Machining Values for HSS-E Machine Reamers

	Material	Application data	ø [mm]						Cutting material
			< 5.00 mm	5.00-8.00	8.00-12.00	12.00-16.00	16.00-30.00	30.00-50.00	
P₁	Steel < 700 N/mm ²	vc [m/min.]	12						HSS-E
		f [mm/rev.]	0.10	0.15	0.20	0.25	0.30	0.40	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
P₂	Steel 700-900 N/mm ²	vc [m/min.]	10						HSS-E
		f [mm/rev.]	0.10	0.15	0.20	0.25	0.30	0.40	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
P₃	Steel 900-1,200 N/mm ²	vc [m/min.]	10						HSS-E
		f [mm/rev.]	0.10	0.15	0.20	0.25	0.30	0.40	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
K₁	Grey cast iron (GG)	vc [m/min.]	12						HSS-E / HSS-E + TiN
		f [mm/rev.]	0.15	0.20	0.25	0.30	0.35	0.40	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
K₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	10						HSS-E / HSS-E + TiN
		f [mm/rev.]	0.15	0.20	0.25	0.30	0.35	0.40	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
K₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	10						HSS-E / HSS-E + TiN
		f [mm/rev.]	0.15	0.20	0.25	0.30	0.35	0.40	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
N₁	Cu-/Zn-/Mg-alloys	vc [m/min.]	20						HSS-E
		f [mm/rev.]	0.15	0.20	0.20	0.25	0.30	0.40	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
N₂	Aluminium alloys (Si < 7 %)	vc [m/min.]	15						HSS-E
		f [mm/rev.]	0.15	0.20	0.20	0.25	0.30	0.40	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	
N₄	Plastics	vc [m/min.]	25						HSS-E
		f [mm/rev.]	0.15	0.20	0.20	0.25	0.30	0.40	
		Allowance a [mm]	0.10	0.15	0.20	0.20	0.30	0.30	

*With special blade geometry and coating.

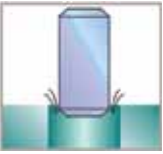
Machining Values for Solid Carbide Countersinks

	Material	Application data	ø [mm]							
			< 5.00	5.00-8.00	8.00-12.00	12.00-16.00	16.00-20.00	20.00-25.00	25.00-40.00	40.00-63.00
P₁	Steel < 700 N/mm ²	vc [m/min.]	60							
		f [mm/rev.]	0.06	0.08	0.10	0.12	0.14	0.18	0.22	0.30
P₂	Steel 700-900 N/mm ²	vc [m/min.]	50							
		f [mm/rev.]	0.04	0.06	0.08	0.10	0.12	0.14	0.18	0.25
P₃	Steel 900-1,200 N/mm ²	vc [m/min.]	18							
		f [mm/rev.]	0.03	0.04	0.05	0.06	0.08	0.10	0.12	0.16
M₁	Stainless and corrosion-resistant steels < 700 N/mm ² *	vc [m/min.]	16							
		f [mm/rev.]	0.04	0.05	0.06	0.07	0.08	0.09	0.12	0.14
M₂	Stainless and corrosion-resistant steels > 700 N/mm ² *	vc [m/min.]	16							
		f [mm/rev.]	0.04	0.05	0.06	0.07	0.08	0.09	0.12	0.14
K₁	Grey cast iron (GG)	vc [m/min.]	25							
		f [mm/rev.]	0.06	0.10	0.12	0.14	0.18	0.20	0.25	0.28
K₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	25							
		f [mm/rev.]	0.06	0.10	0.12	0.14	0.18	0.20	0.25	0.28
K₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	18							
		f [mm/rev.]	0.06	0.10	0.12	0.14	0.18	0.20	0.25	0.28
N₁	Cu-/Zn-/Mg-alloys	vc [m/min.]	65							
		f [mm/rev.]	0.10	0.12	0.14	0.18	0.20	0.20	0.30	0.40
N₂	Aluminium alloys (Si < 7 %)	vc [m/min.]	75							
		f [mm/rev.]	0.08	0.10	0.12	0.14	0.18	0.22	0.26	0.30
N₃	Aluminium alloys (Si > 7 %)	vc [m/min.]	50							
		f [mm/rev.]	0.08	0.10	0.12	0.14	0.18	0.22	0.26	0.30
N₄	Plastics	vc [m/min.]	65							
		f [mm/rev.]	0.10	0.12	0.14	0.18	0.20	0.24	0.30	0.40
S	Titanium	vc [m/min.]	16							
		f [mm/rev.]	0.04	0.05	0.06	0.07	0.08	0.09	0.12	0.14
H	Hardened materials < 63 HRC	vc [m/min.]	8							
		f [mm/rev.]	0.04	0.05	0.06	0.08	0.08	0.10	---	---

Machining Values for HSS Countersinks

	Material	Application data	ø [mm]							
			< 5.00	5.00-8.00	8.00-12.00	12.00-16.00	16.00-20.00	20.00-25.00	25.00-40.00	40.00-63.00
P₁	Steel < 700 N/mm ²	vc [m/min.]	60							
		f [mm/rev.]	0.06	0.08	0.10	0.12	0.14	0.18	0.22	0.30
P₂	Steel 700-900 N/mm ²	vc [m/min.]	50							
		f [mm/rev.]	0.04	0.06	0.08	0.10	0.12	0.14	0.18	0.25
P₃	Steel 900-1,200 N/mm ²	vc [m/min.]	18							
		f [mm/rev.]	0.03	0.04	0.05	0.06	0.08	0.10	0.12	0.16
M₁	Stainless and corrosion-resistant steels < 700 N/mm ² *	vc [m/min.]	16							
		f [mm/rev.]	0.04	0.05	0.06	0.07	0.08	0.09	0.12	0.14
M₂	Stainless and corrosion-resistant steels > 700 N/mm ² *	vc [m/min.]	16							
		f [mm/rev.]	0.04	0.05	0.06	0.07	0.08	0.09	0.12	0.14
K₁	Grey cast iron (GG)	vc [m/min.]	25							
		f [mm/rev.]	0.06	0.10	0.12	0.14	0.18	0.20	0.25	0.28
K₂	Spheroidal graphite cast iron (up to GGG50)	vc [m/min.]	25							
		f [mm/rev.]	0.06	0.10	0.12	0.14	0.18	0.20	0.25	0.28
K₃	Spheroidal graphite cast iron (> GGG50)	vc [m/min.]	18							
		f [mm/rev.]	0.06	0.10	0.12	0.14	0.18	0.20	0.25	0.28
N₁	Cu-/Zn-/Mg-alloys	vc [m/min.]	65							
		f [mm/rev.]	0.10	0.12	0.14	0.18	0.20	0.20	0.30	0.40
N₂	Aluminium alloys (Si < 7 %)	vc [m/min.]	75							
		f [mm/rev.]	0.08	0.10	0.12	0.14	0.18	0.22	0.26	0.30
N₃	Aluminium alloys (Si > 7 %)	vc [m/min.]	50							
		f [mm/rev.]	0.08	0.10	0.12	0.14	0.18	0.22	0.26	0.30
N₄	Plastics	vc [m/min.]	65							
		f [mm/rev.]	0.10	0.12	0.14	0.18	0.20	0.24	0.30	0.40
S	Titanium	vc [m/min.]	16							
		f [mm/rev.]	0.04	0.05	0.06	0.07	0.08	0.09	0.12	0.14
H	Hardened materials < 63 HRC	vc [m/min.]	8							
		f [mm/rev.]	0.04	0.05	0.06	0.08	0.08	0.10	---	---

Troubleshooting on Reamers



Bore becomes too large

- Missing lubrication (built up edge formation)
- Roundness of the cutting lead is not OK (after regrinding)
- From approx. 20 mm and up tool diameter: The tool vibrates in the spindle
- The hole allowance is too large.
- Axial offset between tool and preboring (lathe)
- Oil lubrication tends to result in larger bores



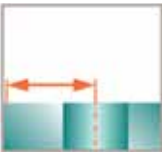
Bore becomes too small

- The reamer is not sharp
- The bore allowance is too small.
- The workpiece is very thin-walled and springs back.



Bore is larger at the entry as outlet (initial width)

- The tool vibrates in the spindle
- Axial offset between tool and preboring (lathe)



Gauge is not exactly met

- Gauge of prebore is not correct
- Roundness of the cutting lead is not OK (after regrinding)



The bore is crowned or oval

- The workpiece is strained during machining



The surface quality is poor

- Missing or insufficient lubrication (built up edge formation)
- The tool is damaged (cutting edge broken)
- The prebore already has scores
- Roundness of the cutting lead is not OK (after regrinding)

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August Beck GmbH & Co. KG
Präzisionswerkzeugfabrik

Ebinger Straße 115 | D-72474 Winterlingen
Tel.: + 49 (0) 74 34 - 270-0 | Fax: + 49 (0) 74 34 - 270-1700
info@august-beck.de | www.august-beck.de