

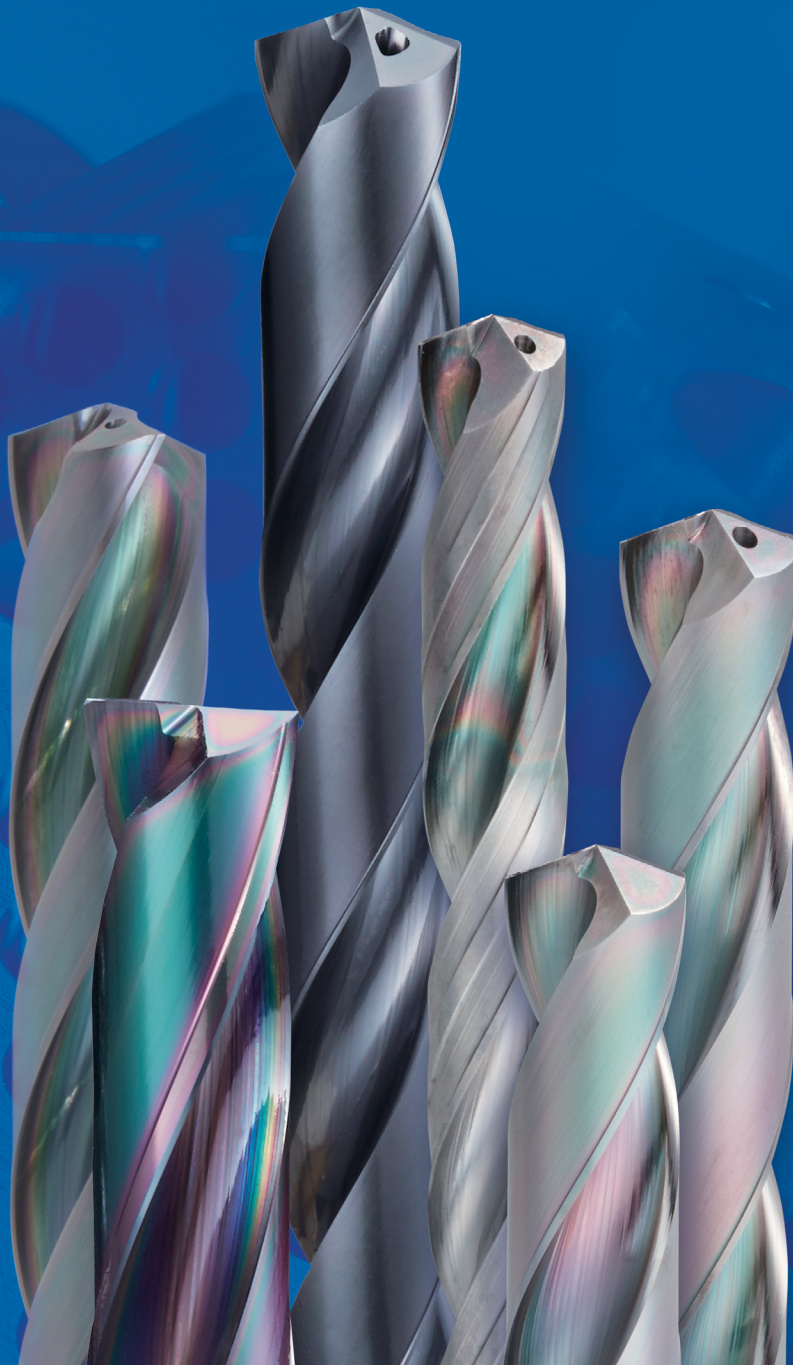


OSG's A Brand Drill Lineup

Vol 4

# A-DRILLS

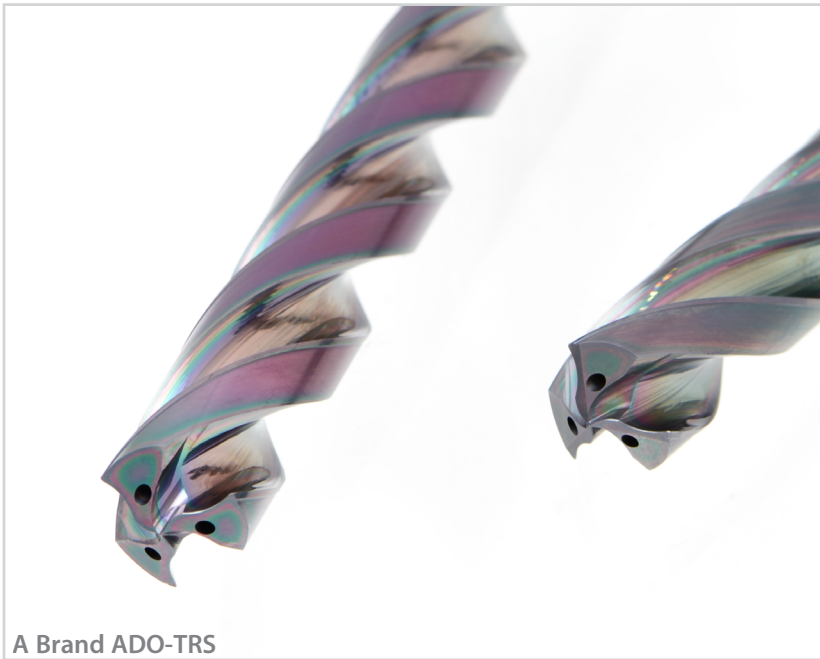
ADO-TRS 3D & 5D • ADFO 3D • ADF 2D • ADFLS 2D  
ADO 3D-50D • AD 2D & 4D • ADO-SUS 3D, 5D & 8D • AD-LDS



# A-Drills

Drills Designed with A Brand Values in Mind

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A Brand ADO-TRS

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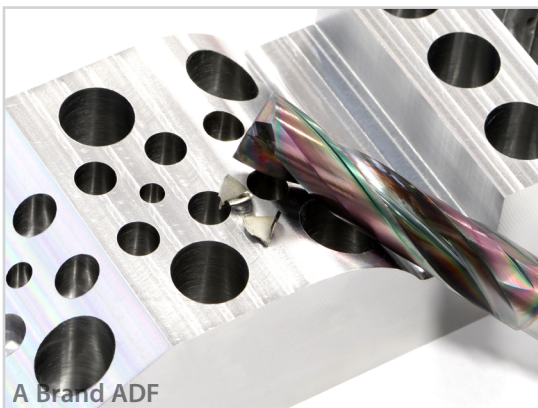
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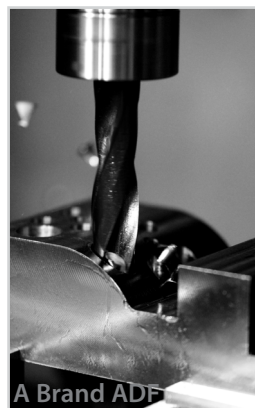
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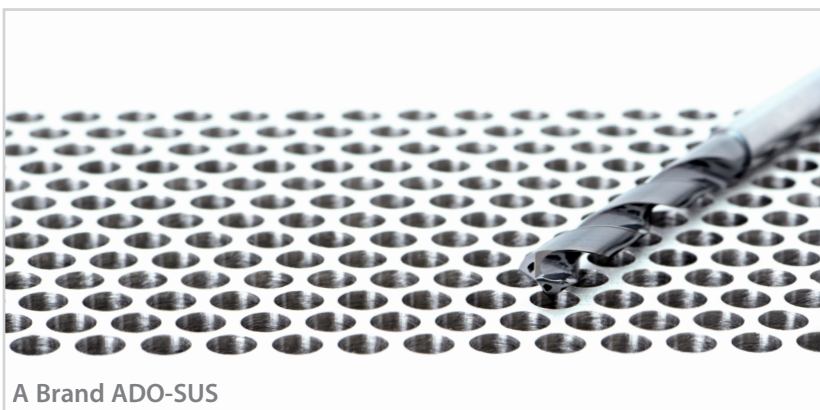
A Brand ADF



A Brand ADF

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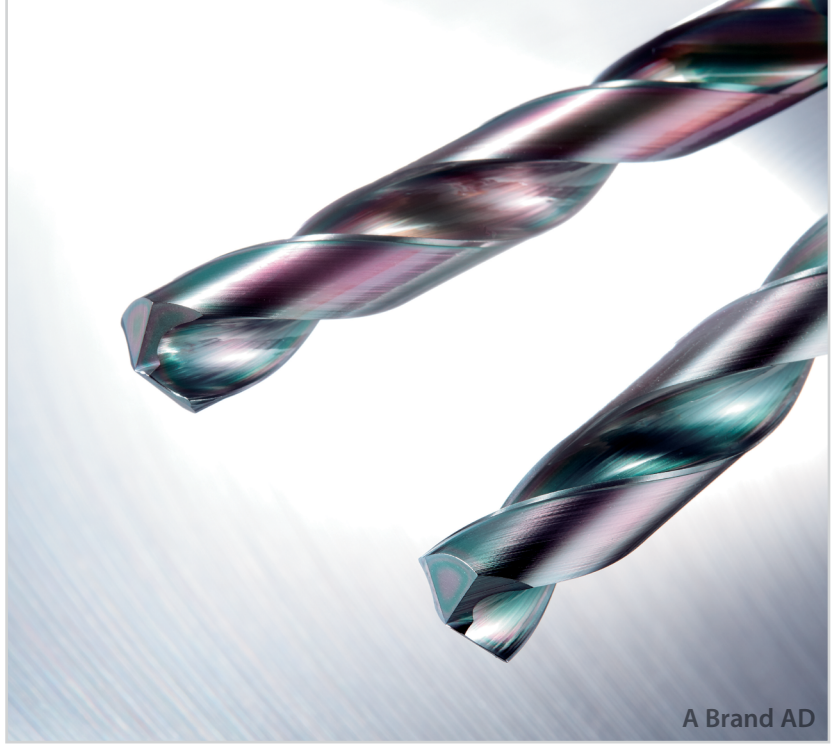
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A Brand AD

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A Brand ADO



A Brand ADO

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A Brand ADO-SUS

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# The A Brand Story

*The joy of delivering new values*

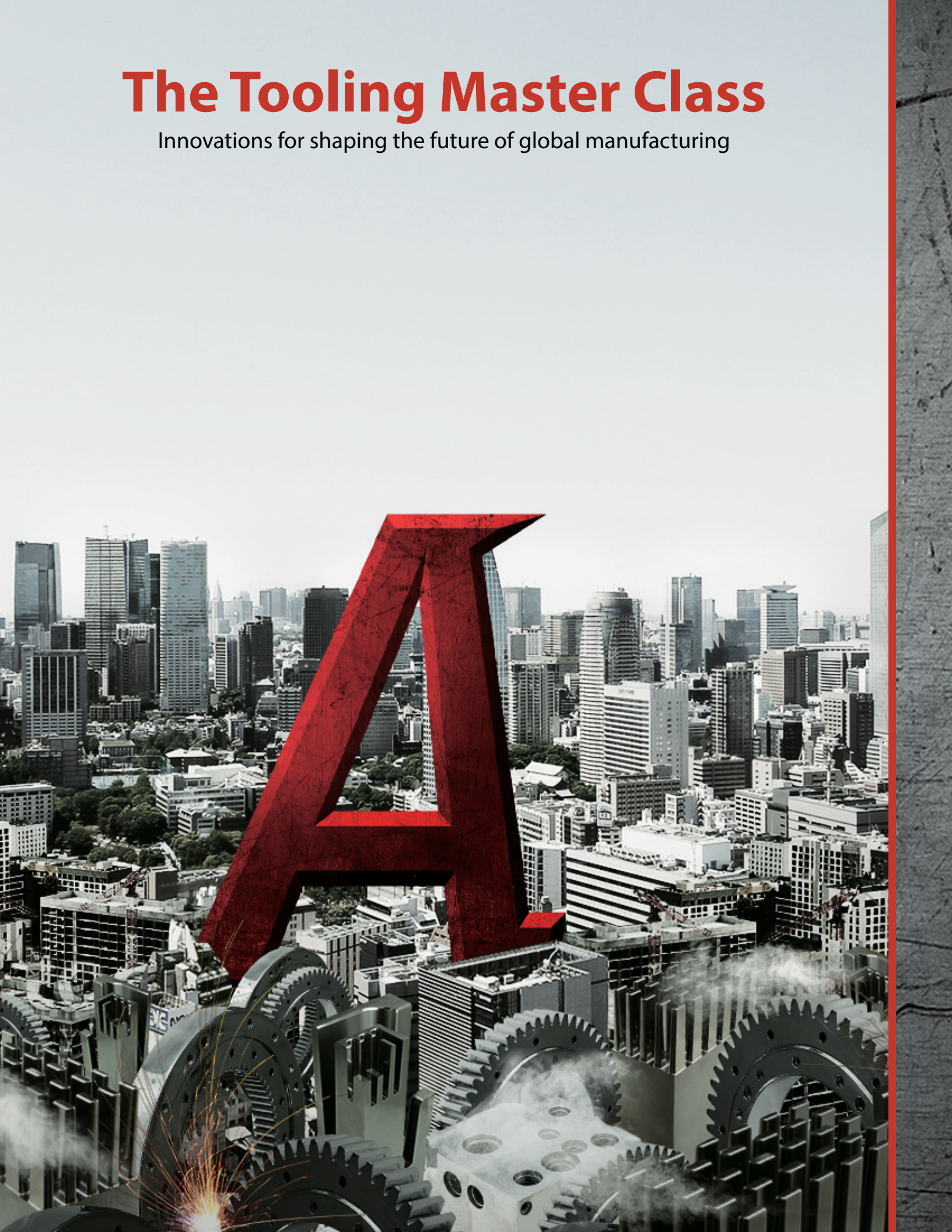
The A Brand represents a new evolution in cutting tool technology. With a commitment to only the best, the A Brand emanates innovations essential for shaping the future of global manufacturing. The A Brand is not only a premium tooling brand, it also represents the quality assurance OSG guarantees to each and every customer. The A Brand is composed of OSG's latest high performance threading, drilling and milling tool innovations. Developed with attention to the finest details, manufacturers will experience the level of quality, reliability and satisfaction that can only be delivered by the A Brand tooling master class.

Advanced tool qualities have been incorporated into the A Brand products, including a versatility that enables a wide range of processing in different work materials, an excellent capability to perform difficult processing tasks, and high efficiency that leads to shortened production time and cost savings. Expectations have risen that the A Brand will bring innovations into the manufacturing field, and pass on OSG's technologies from today to the future. To better understand the concept of the A Brand, interviews were conducted with OSG experts who have devoted their manufacturing careers to the development of A Brand products. They spoke enthusiastically about how their passions underpinned the development process.



# The Tooling Master Class

Innovations for shaping the future of global manufacturing



# The A Brand

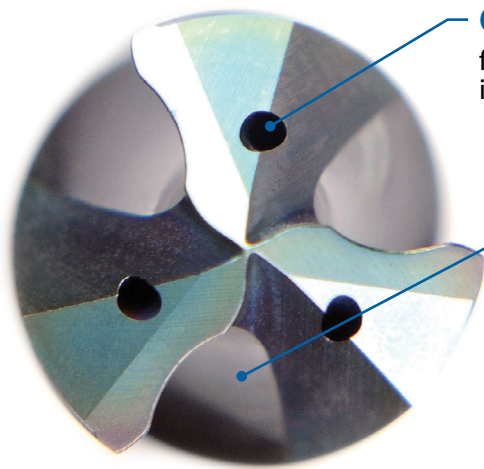
*The Tooling Master Class*

## LINE-UP

The A Brand is not only a premium tooling brand, it also represents the quality assurance OSG guarantees to each and every customer.

To better accommodate evolving manufacturing needs, the A Brand offering has been expanded. Whether you are looking for better tools or need assistance in choosing the right tool, give one of the A Brand products a try. You will experience a level of quality, reliability and satisfaction that can only be delivered by the A Brand tooling master class.





## Coolant-Through

for reduced heat and improved chip evacuation.

## 3 Flute Design

for reduced vibration and stable drilling.

## EgiAs Coating

for exceptional wear resistance and toughness.



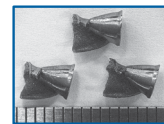
## 3-Flutes vs 2-Flutes

### 3 Advantages of a 3-Flute Design



### High Feed Rate:

OSG's ADO-TRS drills have a specially shaped flute (PAT.P.) that breaks steel chips into small, manageable pieces for easy evacuation. This allows for increased feed rates up to 1.5 to 2 times faster than 2-fluted drills.



### High Precision:

The 120° equal spacing margins of the 3-flute design allows for more stable, vibration-free hole processing, thereby increasing hole quality and tolerance.

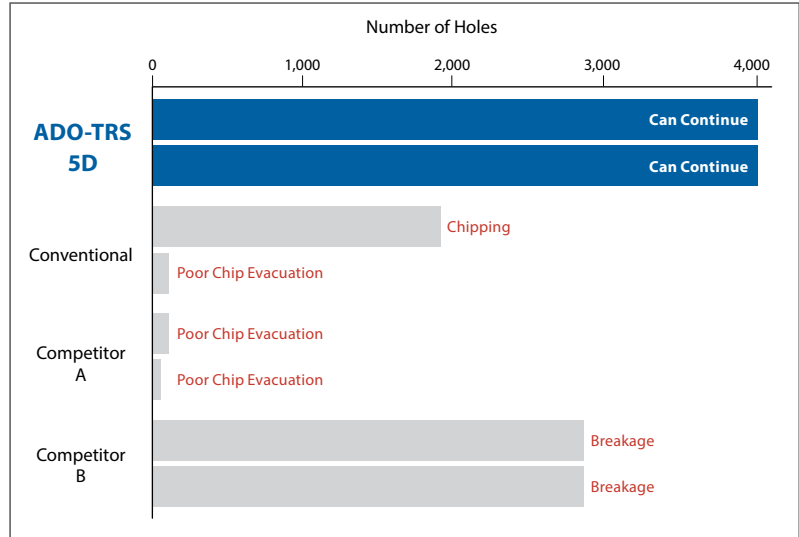
### Reduced Work Hardening:

The amount of work hardening and depth of work hardening have a tendency to be proportional to the feed per revolution. When compared to conventional 2-flute drills with the same feed per revolution, the 3-flute design has proven to decrease work hardening.

## Tool Life in Carbon Steel

### 1065 Carbon Steel

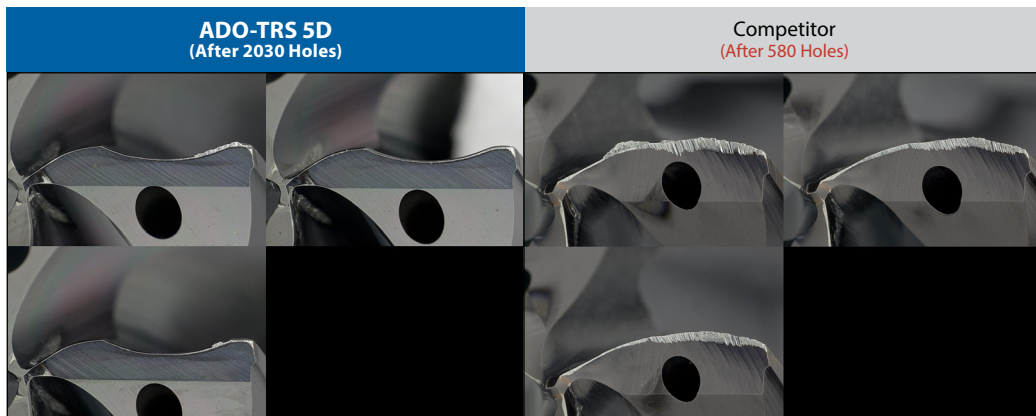
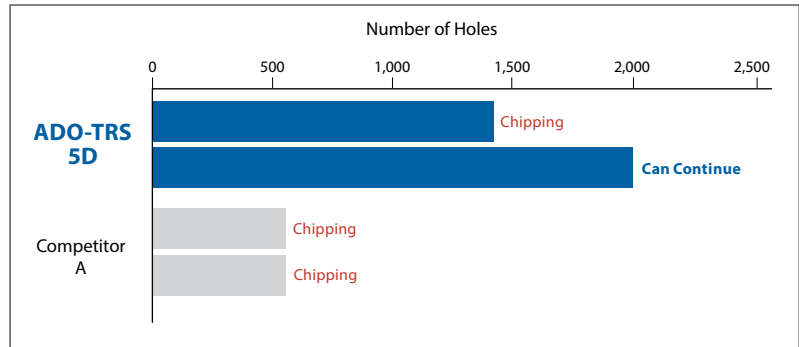
Tool	ADO-TRS-5D	Conventional	Competitors
Drill Size	Ø5mm		
Work Material	1065 Carbon Steel		
Cutting Speed	330 SFM (6,430 RPM)		
Feed Rate	64.3 IPM (0.010 IPR)		
Depth of Hole	25 mm (Through)		
Coolant	MQL		
Machine	Horizontal Machining Center		



## Tool Life in Cast Iron

### Gray Cast Iron

Tool	ADO-TRS 5D	Competitor A
Drill Size	Ø8.5mm	
Work Material	Gray Cast Iron	
Cutting Speed	230 SFM (2,625 RPM)	
Feed Rate	44.6 IPM (0.017 IPR)	
Depth of Hole	43 mm	
Coolant	Water Soluble	
Machine	Vertical Machining Center	



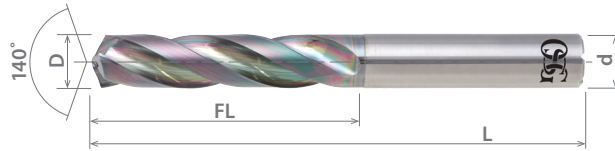


## List 6600

A BRAND ADO-TRS-3D



<b>SPEED FEED</b> 17	<b>CARBIDE</b>	<b>EgiAs</b>	<b>3 FLUTE</b>	<b>STUB</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
-------------------------	----------------	--------------	----------------	-------------	------------	--------------------	--------------------------



Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
3 ≤ D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8720300	●	-	-	-	3.000	0.11811	18.00	66.00	-	3.00
660012517	●	1/8	-	-	3.175	0.12500	20.00	74.00	0.125	-
8720330	●	-	-	-	3.300	0.12992	20.00	74.00	-	4.00
660013217	●	-	-	-	3.360	0.13228	21.00	74.00	-	4.00
660013517	●	-	-	-	3.440	0.13543	21.00	74.00	-	4.00
8720350	●	-	-	-	3.500	0.13780	21.00	74.00	-	4.00
660013817	●	-	-	-	3.520	0.13858	22.00	74.00	-	4.00
660014017	●	-	-	-	3.570	0.14055	22.00	74.00	-	4.00
8720366	●	-	-	-	3.660	0.14409	22.00	74.00	-	4.00
660014817	●	-	-	-	3.770	0.14843	23.00	74.00	-	4.00
8720386	●	-	-	-	3.860	0.15197	24.00	74.00	-	4.00
660015617	●	5/32	-	-	3.969	0.15625	24.00	74.00	0.156	-
8720400	●	-	-	-	4.000	0.15748	24.00	74.00	-	4.00
660015917	●	-	-	-	4.050	0.15945	25.00	80.00	-	6.00
660016117	●	-	20	-	4.089	0.16100	25.00	80.00	-	6.00
8720410	●	-	-	-	4.100	0.16142	25.00	80.00	-	6.00
660016317	●	-	-	-	4.160	0.16378	25.00	80.00	-	6.00
8720420	●	-	-	-	4.200	0.16535	26.00	80.00	-	6.00
660016817	●	-	-	-	4.270	0.16811	26.00	80.00	-	6.00
8720430	●	-	-	-	4.300	0.16929	26.00	80.00	-	6.00
660017217	●	11/64	-	-	4.366	0.17188	27.00	80.00	0.188	-
8720440	●	-	-	-	4.400	0.17323	27.00	80.00	-	6.00
660017517	●	-	-	-	4.460	0.17559	27.00	80.00	-	6.00
8720450	●	-	-	-	4.500	0.17717	27.00	80.00	-	6.00
8720460	●	-	-	-	4.600	0.18110	28.00	80.00	-	6.00
660018317	●	-	-	-	4.660	0.18346	28.00	80.00	-	6.00
8720470	●	-	-	-	4.700	0.18504	29.00	80.00	-	6.00
660018717	●	3/16	-	-	4.763	0.18750	29.00	80.00	0.188	-
8720480	●	-	-	-	4.800	0.18898	29.00	80.00	-	6.00
8720490	●	-	-	-	4.900	0.19291	30.00	80.00	-	6.00
8720500	●	-	-	-	5.000	0.19685	25.00	80.00	-	6.00
8720510	●	-	-	-	5.100	0.20079	26.00	82.00	-	6.00
660020317	●	13/64	-	-	5.159	0.20313	26.00	82.00	0.250	-
8720520	●	-	-	-	5.200	0.20472	26.00	82.00	-	6.00
8720530	●	-	-	-	5.300	0.20866	27.00	82.00	-	6.00
8720540	●	-	-	-	5.400	0.21260	27.00	82.00	-	6.00
660021317	●	-	3	-	5.410	0.21300	28.00	82.00	-	6.00
8720550	●	-	-	-	5.500	0.21654	28.00	82.00	-	6.00
660021817	●	7/32	-	-	5.556	0.21875	28.00	82.00	0.250	-
8720560	●	-	-	-	5.600	0.22047	28.00	82.00	-	6.00
8720570	●	-	-	-	5.700	0.22441	29.00	82.00	-	6.00
8720580	●	-	-	-	5.800	0.22835	29.00	82.00	-	6.00
8720590	●	-	-	-	5.900	0.23228	30.00	82.00	-	6.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H						
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel						
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium							
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010	1035	1065	4140	4340															
1018	1045																		

○ Good ● Best



# A Brand ADO-TRS

Advanced Performance High Feed 3-Flute Carbide Drills

## List 6600 (Continued)



SPEED FEED  
17

CARBIDE

EgiAs



3 FLUTE

STUB

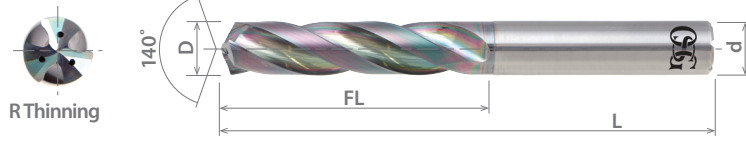
30°

SHANK  
h6

PACKED  
1 PIECE

A BRAND ADO-TRS-3D

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
3 ≤ D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
660023417	●	15/64	-	-	5.953	0.23438	30.00	82.00	0.250	-
8720600	●	-	-	-	6.000	0.23622	30.00	82.00	-	6.00
8720610	●	-	-	-	6.100	0.24016	31.00	88.00	-	8.00
8720620	●	-	-	-	6.200	0.24409	31.00	88.00	-	8.00
8720630	●	-	-	-	6.300	0.24803	32.00	88.00	-	8.00
660025017	●	1/4	-	E	6.350	0.25000	32.00	88.00	0.250	-
8720640	●	-	-	-	6.400	0.25197	32.00	88.00	-	8.00
8720650	●	-	-	-	6.500	0.25591	33.00	88.00	-	8.00
660025717	●	-	-	F	6.528	0.25700	33.00	88.00	-	8.00
8720660	●	-	-	-	6.600	0.25984	33.00	88.00	-	8.00
8720670	●	-	-	-	6.700	0.26378	34.00	88.00	-	8.00
660026517	●	17/64	-	-	6.747	0.26563	34.00	88.00	0.313	-
8720680	●	-	-	-	6.800	0.26772	34.00	88.00	-	8.00
8720690	●	-	-	-	6.900	0.27165	35.00	88.00	-	8.00
8720700	●	-	-	-	7.000	0.27559	35.00	88.00	-	8.00
8720710	●	-	-	-	7.100	0.27953	36.00	94.00	-	8.00
660028117	●	9/32	-	-	7.144	0.28125	36.00	94.00	0.313	-
8720720	●	-	-	-	7.200	0.28346	36.00	94.00	-	8.00
8720730	●	-	-	-	7.300	0.28740	37.00	94.00	-	8.00
8720738	●	-	-	-	7.380	0.29055	37.00	94.00	-	8.00
8720740	●	-	-	-	7.400	0.29134	37.00	94.00	-	8.00
8720750	●	-	-	-	7.500	0.29528	38.00	94.00	-	8.00
660029617	●	19/64	-	-	7.541	0.29688	38.00	94.00	0.313	-
8720760	●	-	-	-	7.600	0.29921	38.00	94.00	-	8.00
8720770	●	-	-	-	7.700	0.30315	39.00	94.00	-	8.00
8720780	●	-	-	-	7.800	0.30709	39.00	94.00	-	8.00
8720790	●	-	-	-	7.900	0.31102	40.00	94.00	-	8.00
660031217	●	5/16	-	-	7.938	0.31250	40.00	94.00	0.313	-
8720800	●	-	-	-	8.000	0.31496	40.00	94.00	-	8.00
8720810	●	-	-	-	8.100	0.31890	41.00	101.00	-	10.00
8720820	●	-	-	-	8.200	0.32283	41.00	101.00	-	10.00
8720830	●	-	-	-	8.300	0.32677	42.00	101.00	-	10.00
660032817	●	21/64	-	-	8.334	0.32813	42.00	101.00	0.375	-
8720840	●	-	-	-	8.400	0.33071	42.00	101.00	-	10.00
660033217	●	-	-	Q	8.433	0.33200	43.00	101.00	-	10.00
8720850	●	-	-	-	8.500	0.33465	43.00	101.00	-	10.00
8720860	●	-	-	-	8.600	0.33858	43.00	101.00	-	10.00
8720870	●	-	-	-	8.700	0.34252	44.00	101.00	-	10.00
660034317	●	11/32	-	-	8.731	0.34375	44.00	101.00	0.375	-
8720880	●	-	-	-	8.800	0.34646	44.00	101.00	-	10.00
8720890	●	-	-	-	8.900	0.35039	45.00	101.00	-	10.00
8720900	●	-	-	-	9.000	0.35433	45.00	101.00	-	10.00
8720910	●	-	-	-	9.100	0.35827	46.00	106.00	-	10.00
660035917	●	23/64	-	-	9.128	0.35938	46.00	106.00	0.375	-
8720920	●	-	-	-	9.200	0.36220	46.00	106.00	-	10.00
8720925	●	-	-	-	9.250	0.36417	47.00	106.00	-	10.00
8720930	●	-	-	-	9.300	0.36614	47.00	106.00	-	10.00
8720938	●	-	-	-	9.380	0.36929	47.00	106.00	-	10.00
8720940	●	-	-	-	9.400	0.37008	47.00	106.00	-	10.00
8720950	●	-	-	-	9.500	0.37402	48.00	106.00	-	10.00
660037517	●	3/8	-	-	9.525	0.37500	48.00	106.00	0.375	-
8720960	●	-	-	-	9.600	0.37795	48.00	106.00	-	10.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



## List 6600 (Continued)

A BRAND ADO-TRS-3D



SPEED FEED 17	CARBIDE	EgiAs	3 FLUTE	STUB	30°	SHANK h6	PACKED 1 PIECE
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EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8720970	●	-	-	-	9.700	0.38189	49.00	106.00	-	10.00
8720980	●	-	-	-	9.800	0.38583	49.00	106.00	-	10.00
8720990	●	-	-	-	9.900	0.38976	50.00	106.00	-	10.00
660039017	●	25/64	-	-	9.922	0.39063	50.00	106.00	0.438	-
8721000	●	-	-	-	10.000	0.39370	50.00	106.00	-	10.00
8721010	●	-	-	-	10.100	0.39764	51.00	113.00	-	12.00
8721020	●	-	-	-	10.200	0.40157	51.00	113.00	-	12.00
8721030	●	-	-	-	10.300	0.40551	52.00	113.00	-	12.00
660040617	●	13/32	-	-	10.319	0.40625	52.00	113.00	0.438	-
8721040	●	-	-	-	10.400	0.40945	52.00	113.00	-	12.00
8721050	●	-	-	-	10.500	0.41339	53.00	113.00	-	12.00
8721060	●	-	-	-	10.600	0.41732	53.00	113.00	-	12.00
8721070	●	-	-	-	10.700	0.42126	54.00	113.00	-	12.00
660042217	●	27/64	-	-	10.716	0.42188	54.00	113.00	0.438	-
8721080	●	-	-	-	10.800	0.42520	54.00	113.00	-	12.00
8721090	●	-	-	-	10.900	0.42913	55.00	113.00	-	12.00
8721100	●	-	-	-	11.000	0.43307	55.00	113.00	-	12.00
8721110	●	-	-	-	11.100	0.43701	56.00	120.00	-	12.00
660043717	●	7/16	-	-	11.113	0.43750	56.00	120.00	0.438	-
8721120	●	-	-	-	11.200	0.44094	56.00	120.00	-	12.00
8721125	●	-	-	-	11.250	0.44291	57.00	120.00	-	12.00
8721130	●	-	-	-	11.300	0.44488	57.00	120.00	-	12.00
8721138	●	-	-	-	11.380	0.44803	57.00	120.00	-	12.00
8721140	●	-	-	-	11.400	0.44882	57.00	120.00	-	12.00
8721150	●	-	-	-	11.500	0.45276	58.00	120.00	-	12.00
660045317	●	29/64	-	-	11.509	0.45313	58.00	120.00	0.500	-
8721160	●	-	-	-	11.600	0.45669	58.00	120.00	-	12.00
8721170	●	-	-	-	11.700	0.46063	59.00	120.00	-	12.00
8721180	●	-	-	-	11.800	0.46457	59.00	120.00	-	12.00
8721190	●	-	-	-	11.900	0.46850	60.00	120.00	-	12.00
660046817	●	15/32	-	-	11.906	0.46875	60.00	120.00	0.500	-
8721200	●	-	-	-	12.000	0.47244	60.00	120.00	-	12.00
8721210	●	-	-	-	12.100	0.47638	61.00	128.00	-	14.00
660048417	●	31/64	-	-	12.303	0.48438	62.00	128.00	0.500	-
8721250	●	-	-	-	12.500	0.49213	63.00	128.00	-	14.00
8721260	●	-	-	-	12.600	0.49606	63.00	128.00	-	14.00
660050017	●	1/2	-	-	12.700	0.50000	64.00	128.00	0.500	-
8721280	●	-	-	-	12.800	0.50394	64.00	128.00	-	14.00
8721300	●	-	-	-	13.000	0.51181	65.00	128.00	-	14.00
8721310	●	-	-	-	13.100	0.51575	66.00	134.00	-	14.00
8721325	●	-	-	-	13.250	0.52165	67.00	134.00	-	14.00
8721330	●	-	-	-	13.300	0.52362	67.00	134.00	-	14.00
8721338	●	-	-	-	13.380	0.52677	67.00	134.00	-	14.00
660053117	●	17/32	-	-	13.494	0.53125	68.00	134.00	0.625	-
8721350	●	-	-	-	13.500	0.53150	68.00	134.00	-	14.00
8721360	●	-	-	-	13.600	0.53543	68.00	134.00	-	14.00
8721370	●	-	-	-	13.700	0.53937	69.00	134.00	-	14.00
8721380	●	-	-	-	13.800	0.54331	69.00	134.00	-	14.00
8721390	●	-	-	-	13.900	0.54724	70.00	134.00	-	14.00
8721400	●	-	-	-	14.000	0.55118	70.00	134.00	-	14.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium	Hardened Steel			
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC
1010	1018	1035	1045	1065	4140	4340										
○	○	○	○	○		○	○	○		○		○	○	○	○	○

○ Good ○ Best



# A Brand ADO-TRS

Advanced Performance High Feed 3-Flute Carbide Drills

## List 6600 (Continued)



SPEED FEED  
17

CARBIDE

EgiAs



3 FLUTE

STUB

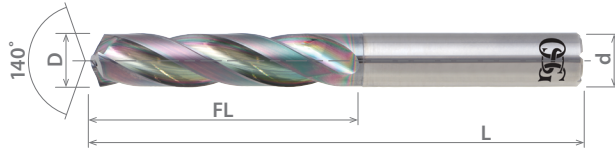
30°

SHANK  
h6

PACKED  
1 PIECE

A BRAND ADO-TRS-3D

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
3 ≤ D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
8721410	●	-	-	-	14.100	0.55512	71.00	140.00	-	16.00
8721420	●	-	-	-	14.200	0.55906	71.00	140.00	-	16.00
660056217	●	9/16	-	-	14.288	0.56250	72.00	140.00	0.625	-
8721430	●	-	-	-	14.300	0.56299	72.00	140.00	-	16.00
8721450	●	-	-	-	14.500	0.57087	73.00	140.00	-	16.00
8721470	●	-	-	-	14.700	0.57874	74.00	140.00	-	16.00
8721500	●	-	-	-	15.000	0.59055	75.00	140.00	-	16.00
660059317	●	19/32	-	-	15.081	0.59375	76.00	145.00	0.625	-
8721510	●	-	-	-	15.100	0.59449	76.00	145.00	-	16.00
8721520	●	-	-	-	15.200	0.59843	76.00	145.00	-	16.00
8721530	●	-	-	-	15.300	0.60236	77.00	145.00	-	16.00
8721550	●	-	-	-	15.500	0.61024	78.00	145.00	-	16.00
8721560	●	-	-	-	15.600	0.61417	78.00	145.00	-	16.00
660062517	●	5/8	-	-	15.875	0.62500	80.00	145.00	0.625	-
8721600	●	-	-	-	16.000	0.62992	80.00	145.00	-	16.00
8721650	●	-	-	-	16.500	0.64961	83.00	150.00	-	18.00
660065617	●	21/32	-	-	16.669	0.65625	85.00	150.00	0.750	-
660066317	●	-	-	-	16.840	0.66299	85.00	150.00	-	18.00
8721700	●	-	-	-	17.000	0.66929	85.00	150.00	-	18.00
8721725	●	-	-	-	17.250	0.67913	87.00	155.00	-	18.00
660068717	●	11/16	-	-	17.463	0.68750	88.00	155.00	0.750	-
8721750	●	-	-	-	17.500	0.68898	88.00	155.00	-	18.00
660070317	●	45/64	-	-	17.859	0.70313	90.00	155.00	0.750	-
8721800	●	-	-	-	18.000	0.70866	90.00	155.00	-	18.00
660071817	●	23/32	-	-	18.256	0.71875	92.00	160.00	0.750	-
8721850	●	-	-	-	18.500	0.72835	93.00	160.00	-	20.00
8721900	●	-	-	-	19.000	0.74803	95.00	160.00	-	20.00
660075017	●	3/4	-	-	19.050	0.75000	95.00	160.00	0.750	-
8721925	●	-	-	-	19.250	0.75787	97.00	165.00	-	20.00
8721950	●	-	-	-	19.500	0.76772	98.00	165.00	-	20.00
8722000	●	-	-	-	20.000	0.78740	100.00	165.00	-	20.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H					
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel					
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium						
Low	Medium	High							6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010	1035	1065	4140	4340														
1018	1045																	

○ Good ● Best



## List 6610

A BRAND ADO-TRS-5D



SPEED FEED  
17

CARBIDE

EgiAs



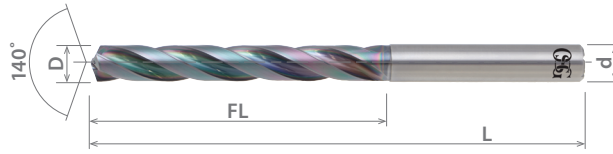
3 FLUTE

JOBBER

30°

SHANK  
h6

PACKED  
1 PIECE



Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
3 ≤ D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)				Flute Length	Overall Length	Shank Diameter		
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8722300	●	-	-	-	3.000	0.11811	27.00	78.00	-	3.00
661012517	●	1/8	-	-	3.175	0.12500	29.00	86.00	0.125	-
8722330	●	-	-	-	3.300	0.12992	30.00	86.00	-	4.00
8722350	●	-	-	-	3.500	0.13780	32.00	86.00	-	4.00
8722366	●	-	-	-	3.660	0.14409	33.00	86.00	-	4.00
661015617	●	5/32	-	-	3.969	0.15625	36.00	86.00	0.156	-
8722400	●	-	-	-	4.000	0.15748	36.00	86.00	-	4.00
661016117	●	-	20	-	4.089	0.16100	37.00	95.00	-	6.00
8722410	●	-	-	-	4.100	0.16142	37.00	95.00	-	6.00
8722420	●	-	-	-	4.200	0.16535	38.00	95.00	-	6.00
8722430	●	-	-	-	4.300	0.16929	39.00	95.00	-	6.00
661017217	●	11/64	-	-	4.366	0.17188	40.00	95.00	0.188	-
8722440	●	-	-	-	4.400	0.17323	40.00	95.00	-	6.00
8722450	●	-	-	-	4.500	0.17717	41.00	95.00	-	6.00
8722460	●	-	-	-	4.600	0.18110	42.00	95.00	-	6.00
8722470	●	-	-	-	4.700	0.18504	43.00	95.00	-	6.00
661018717	●	3/16	-	-	4.763	0.18750	43.00	95.00	0.188	-
8722480	●	-	-	-	4.800	0.18898	44.00	95.00	-	6.00
8722490	●	-	-	-	4.900	0.19291	45.00	95.00	-	6.00
8722500	●	-	-	-	5.000	0.19685	45.00	95.00	-	6.00
8722510	●	-	-	-	5.100	0.20079	41.00	100.00	-	6.00
661020317	●	13/64	-	-	5.159	0.20313	42.00	100.00	0.250	-
8722520	●	-	-	-	5.200	0.20472	42.00	100.00	-	6.00
8722530	●	-	-	-	5.300	0.20866	43.00	100.00	-	6.00
8722540	●	-	-	-	5.400	0.21260	44.00	100.00	-	6.00
661021317	●	-	3	-	5.410	0.21300	44.00	100.00	-	6.00
8722550	●	-	-	-	5.500	0.21654	44.00	100.00	-	6.00
661021817	●	7/32	-	-	5.556	0.21875	45.00	100.00	0.250	-
8722560	●	-	-	-	5.600	0.22047	45.00	100.00	-	6.00
8722570	●	-	-	-	5.700	0.22441	46.00	100.00	-	6.00
8722580	●	-	-	-	5.800	0.22835	47.00	100.00	-	6.00
8722590	●	-	-	-	5.900	0.23228	48.00	100.00	-	6.00
661023417	●	15/64	-	-	5.953	0.23438	48.00	100.00	0.250	-
8722600	●	-	-	-	6.000	0.23622	48.00	100.00	-	6.00
8722610	●	-	-	-	6.100	0.24016	49.00	109.00	-	8.00
8722620	●	-	-	-	6.200	0.24409	50.00	109.00	-	8.00
8722630	●	-	-	-	6.300	0.24803	51.00	109.00	-	8.00
661025017	●	1/4	-	E	6.350	0.25000	52.00	109.00	0.250	-
8722640	●	-	-	-	6.400	0.25197	52.00	109.00	-	8.00
8722650	●	-	-	-	6.500	0.25591	52.00	109.00	-	8.00
661025717	●	-	-	F	6.528	0.25700	53.00	109.00	-	8.00
8722660	●	-	-	-	6.600	0.25984	53.00	109.00	-	8.00
8722670	●	-	-	-	6.700	0.26378	54.00	109.00	-	8.00
661026517	●	17/64	-	-	6.747	0.26563	55.00	109.00	0.313	-

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
Low	Medium	High							6061	Casting						
1010	1035	1065	4140	4340				6061	7075							
1018	1045															

○ Good ● Best



# A Brand ADO-TRS

Advanced Performance High Feed 3-Flute Carbide Drills

## List 6610 (Continued)



SPEED FEED  
17

CARBIDE

EgiAs



3 FLUTE

JOBBER

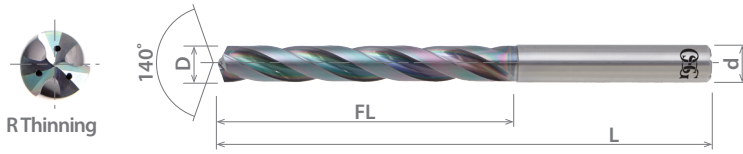
30°

SHANK  
h6

PACKED  
1 PIECE

A BRAND ADO-TRS-5D

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
3 ≤ D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



R Thinning

EDP Number		Diameter (D)				Flute Length	Overall Length	Shank Diameter		
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8722680	●	-	-	-	6.800	0.26772	55.00	109.00	-	8.00
8722690	●	-	-	-	6.900	0.27165	56.00	109.00	-	8.00
8722700	●	-	-	-	7.000	0.27559	56.00	109.00	-	8.00
8722710	●	-	-	-	7.100	0.27953	57.00	118.00	-	8.00
661028117	●	9/32	-	-	7.144	0.28125	58.00	118.00	0.313	-
8722720	●	-	-	-	7.200	0.28346	58.00	118.00	-	8.00
8722730	●	-	-	-	7.300	0.28740	59.00	118.00	-	8.00
8722738	●	-	-	-	7.380	0.29055	60.00	118.00	-	8.00
8722740	●	-	-	-	7.400	0.29134	60.00	118.00	-	8.00
8722750	●	-	-	-	7.500	0.29528	60.00	118.00	-	8.00
661029617	●	19/64	-	-	7.541	0.29688	60.00	118.00	0.313	-
8722760	●	-	-	-	7.600	0.29921	61.00	118.00	-	8.00
8722770	●	-	-	-	7.700	0.30315	62.00	118.00	-	8.00
8722780	●	-	-	-	7.800	0.30709	63.00	118.00	-	8.00
8722790	●	-	-	-	7.900	0.31102	64.00	118.00	-	8.00
661031217	●	5/16	-	-	7.938	0.31250	64.00	118.00	0.313	-
8722800	●	-	-	-	8.000	0.31496	64.00	118.00	-	8.00
8722810	●	-	-	-	8.100	0.31890	65.00	128.00	-	10.00
8722820	●	-	-	-	8.200	0.32283	66.00	128.00	-	10.00
8722830	●	-	-	-	8.300	0.32677	67.00	128.00	-	10.00
661032817	●	21/64	-	-	8.334	0.32813	67.00	128.00	0.375	-
8722840	●	-	-	-	8.400	0.33071	68.00	128.00	-	10.00
661033217	●	-	-	Q	8.433	0.33200	68.00	128.00	-	10.00
8722850	●	-	-	-	8.500	0.33465	68.00	128.00	-	10.00
8722860	●	-	-	-	8.600	0.33858	69.00	128.00	-	10.00
8722870	●	-	-	-	8.700	0.34252	70.00	128.00	-	10.00
661034317	●	11/32	-	-	8.731	0.34375	70.00	128.00	0.375	-
8722880	●	-	-	-	8.800	0.34646	71.00	128.00	-	10.00
8722890	●	-	-	-	8.900	0.35039	72.00	128.00	-	10.00
8722900	●	-	-	-	9.000	0.35433	72.00	128.00	-	10.00
8722910	●	-	-	-	9.100	0.35827	73.00	136.00	-	10.00
661035917	●	23/64	-	-	9.128	0.35938	73.00	136.00	0.375	-
8722920	●	-	-	-	9.200	0.36220	74.00	136.00	-	10.00
8722925	●	-	-	-	9.250	0.36417	74.00	136.00	-	10.00
8722930	●	-	-	-	9.300	0.36614	75.00	136.00	-	10.00
8722938	●	-	-	-	9.380	0.36929	76.00	136.00	-	10.00
8722940	●	-	-	-	9.400	0.37008	76.00	136.00	-	10.00
8722950	●	-	-	-	9.500	0.37402	76.00	136.00	-	10.00
661037517	●	3/8	-	-	9.525	0.37500	76.00	136.00	0.375	-
8722960	●	-	-	-	9.600	0.37795	77.00	136.00	-	10.00
8722970	●	-	-	-	9.700	0.38189	78.00	136.00	-	10.00
8722980	●	-	-	-	9.800	0.38583	79.00	136.00	-	10.00
8722990	●	-	-	-	9.900	0.38976	80.00	136.00	-	10.00
661039017	●	25/64	-	-	9.922	0.39063	80.00	136.00	0.438	-
8723000	●	-	-	-	10.000	0.39370	80.00	136.00	-	10.00
8723010	●	-	-	-	10.100	0.39764	81.00	146.00	-	12.00
8723020	●	-	-	-	10.200	0.40157	82.00	146.00	-	12.00
8723030	●	-	-	-	10.300	0.40551	83.00	146.00	-	12.00
661040617	●	13/32	-	-	10.319	0.40625	83.00	146.00	0.438	-
8723040	●	-	-	-	10.400	0.40945	84.00	146.00	-	12.00
8723050	●	-	-	-	10.500	0.41339	84.00	146.00	-	12.00
8723060	●	-	-	-	10.600	0.41732	85.00	146.00	-	12.00
8723070	●	-	-	-	10.700	0.42126	86.00	146.00	-	12.00
661042217	●	27/64	-	-	10.716	0.42188	86.00	146.00	0.438	-

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



## List 6610 (Continued)

A BRAND ADO-TRS-5D



<b>SPEED FEED</b> 17	<b>CARBIDE</b>	<b>EgiAs</b>		<b>3 FLUTE</b>	<b>JOBBER</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8723080	●	-	-	-	10.800	0.42520	87.00	146.00	-	12.00
8723090	●	-	-	-	10.900	0.42913	88.00	146.00	-	12.00
8723100	●	-	-	-	11.000	0.43307	88.00	146.00	-	12.00
8723110	●	-	-	-	11.100	0.43701	89.00	156.00	-	12.00
661043717	●	7/16	-	-	11.113	0.43750	89.00	156.00	0.438	-
8723120	●	-	-	-	11.200	0.44094	90.00	156.00	-	12.00
8723125	●	-	-	-	11.250	0.44291	90.00	156.00	-	12.00
8723130	●	-	-	-	11.300	0.44488	91.00	156.00	-	12.00
8723138	●	-	-	-	11.380	0.44803	92.00	156.00	-	12.00
8723140	●	-	-	-	11.400	0.44882	92.00	156.00	-	12.00
8723150	●	-	-	-	11.500	0.45276	92.00	156.00	-	12.00
661045317	●	29/64	-	-	11.509	0.45313	92.00	156.00	0.500	-
8723160	●	-	-	-	11.600	0.45669	93.00	156.00	-	12.00
8723170	●	-	-	-	11.700	0.46063	94.00	156.00	-	12.00
8723180	●	-	-	-	11.800	0.46457	95.00	156.00	-	12.00
8723190	●	-	-	-	11.900	0.46850	96.00	156.00	-	12.00
661046817	●	15/32	-	-	11.906	0.46875	96.00	156.00	0.500	-
8723200	●	-	-	-	12.000	0.47244	96.00	156.00	-	12.00
8723220	●	-	-	-	12.200	0.48031	98.00	167.00	-	14.00
661048417	●	31/64	-	-	12.303	0.48438	99.00	167.00	0.500	-
8723250	●	-	-	-	12.500	0.49213	100.00	167.00	-	14.00
8723260	●	-	-	-	12.600	0.49606	101.00	167.00	-	14.00
661050017	●	1/2	-	-	12.700	0.50000	102.00	167.00	0.500	-
8723300	●	-	-	-	13.000	0.51181	104.00	167.00	-	14.00
8723310	●	-	-	-	13.100	0.51575	105.00	176.00	-	14.00
8723325	●	-	-	-	13.250	0.52165	106.00	176.00	-	14.00
8723330	●	-	-	-	13.300	0.52362	107.00	176.00	-	14.00
8723338	●	-	-	-	13.380	0.52677	108.00	176.00	-	14.00
661053117	●	17/32	-	-	13.494	0.53125	108.00	176.00	0.625	-
8723350	●	-	-	-	13.500	0.53150	108.00	176.00	-	14.00
8723360	●	-	-	-	13.600	0.53543	109.00	176.00	-	14.00
8723380	●	-	-	-	13.800	0.54331	111.00	176.00	-	14.00
8723400	●	-	-	-	14.000	0.55118	112.00	176.00	-	14.00
8723410	●	-	-	-	14.100	0.55512	113.00	185.00	-	16.00
8723420	●	-	-	-	14.200	0.55906	114.00	185.00	-	16.00
661056217	●	9/16	-	-	14.288	0.56250	115.00	185.00	0.625	-
8723430	●	-	-	-	14.300	0.56299	115.00	185.00	-	16.00
8723450	●	-	-	-	14.500	0.57087	116.00	185.00	-	16.00
8723470	●	-	-	-	14.700	0.57874	118.00	185.00	-	16.00
8723500	●	-	-	-	15.000	0.59055	120.00	185.00	-	16.00
661059317	●	19/32	-	-	15.081	0.59375	121.00	193.00	0.625	-
8723510	●	-	-	-	15.100	0.59449	121.00	193.00	-	16.00
8723520	●	-	-	-	15.200	0.59843	122.00	193.00	-	16.00
8723530	●	-	-	-	15.300	0.60236	123.00	193.00	-	16.00
8723550	●	-	-	-	15.500	0.61024	124.00	193.00	-	16.00
661062517	●	5/8	-	-	15.875	0.62500	128.00	193.00	0.625	-
8723600	●	-	-	-	16.000	0.62992	128.00	193.00	-	16.00
661063317	●	-	-	-	16.100	0.63386	129.00	201.00	-	18.00
8723650	●	-	-	-	16.500	0.64961	132.00	201.00	-	18.00
661065617	●	21/32	-	-	16.669	0.65625	134.00	201.00	0.750	-
661066317	●	-	-	-	16.840	0.66299	135.00	201.00	-	18.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H						
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel						
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium							
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010	1035	1045	1065	4140	4340														
1018	1045																		

○ Good ● Best



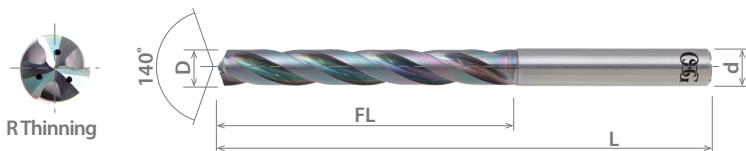
# A Brand ADO-TRS

Advanced Performance High Feed 3-Flute Carbide Drills

## List 6610 (Continued)

**A**  **SPEED FEED 17** **CARBIDE** **EgiAs** **3 FLUTE** **JOBBER** **30°** **SHANK h6** **PACKED 1 PIECE**

A BRAND ADO-TRS-5D



Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
3 ≤ D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8723700	●	-	-	-	17.000	0.66929	136.00	201.00	-	18.00
8723725	●	-	-	-	17.250	0.67913	138.00	209.00	-	18.00
661068717	●	11/16	-	-	17.463	0.68750	140.00	209.00	0.750	-
8723750	●	-	-	-	17.500	0.68898	140.00	209.00	-	18.00
661070317	●	45/64	-	-	17.859	0.70313	143.00	209.00	0.750	-
8723800	●	-	-	-	18.000	0.70866	144.00	209.00	-	18.00
661071817	●	23/32	-	-	18.256	0.71875	147.00	217.00	0.750	-
8723850	●	-	-	-	18.500	0.72835	148.00	217.00	-	20.00
8723900	●	-	-	-	19.000	0.74803	152.00	217.00	-	20.00
661075017	●	3/4	-	-	19.050	0.75000	154.00	217.00	0.750	-
8723925	●	-	-	-	19.250	0.75787	154.00	217.00	-	20.00
8723950	●	-	-	-	19.500	0.76772	156.00	225.00	-	20.00
8724000	●	-	-	-	20.000	0.78740	160.00	225.00	-	20.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium				
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
1010	1035	1065	4140	4340				6061	7075			6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1018	1045	1065	4140	4340				6061	7075			6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC

○ Good ○ Best





## List 6600 - A Brand ADO-TRS: 3D

## List 6610 - A Brand ADO-TRS: 5D

### General Drilling Operations

Work Material		Carbon Steels, Mild Steels 1010, 1050, 12L14		Alloy Steels 4140, 4130		Stainless Steels 400SS, 17-4PH		Cast Iron		Ductile Cast Iron	
Drilling Speed		260-395 SFM		260-395 SFM		130-200 SFM		260-395 SFM		195-330 SFM	
Drill Dia.		Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR
mm	Inch										
3	-	10,700	0.004 - 0.006	10,700	0.004 - 0.006	5,200	0.004 - 0.006	10,700	0.004 - 0.007	8,400	0.004 - 0.006
-	1/8	10,100	0.004 - 0.006	10,100	0.004 - 0.006	4,900	0.004 - 0.006	10,100	0.004 - 0.007	7,900	0.004 - 0.006
4	-	7,900	0.005 - 0.009	7,900	0.005 - 0.009	4,000	0.005 - 0.007	7,900	0.005 - 0.009	6,350	0.005 - 0.009
-	3/16	6,700	0.007 - 0.010	6,700	0.007 - 0.010	3,300	0.007 - 0.009	6,700	0.007 - 0.011	5,300	0.007 - 0.010
6	-	5,300	0.007 - 0.013	5,300	0.007 - 0.013	2,650	0.007 - 0.009	5,300	0.008 - 0.014	4,250	0.007 - 0.013
-	1/4	5,000	0.007 - 0.014	5,000	0.007 - 0.014	2,500	0.007 - 0.010	5,000	0.009 - 0.015	4,000	0.007 - 0.014
8	-	3,950	0.009 - 0.017	3,950	0.009 - 0.017	2,000	0.009 - 0.013	3,950	0.011 - 0.019	3,200	0.009 - 0.017
-	3/8	3,300	0.012 - 0.021	3,300	0.012 - 0.021	1,700	0.011 - 0.015	3,300	0.013 - 0.023	2,650	0.012 - 0.021
10	-	3,150	0.012 - 0.022	3,150	0.012 - 0.022	1,600	0.012 - 0.016	3,150	0.014 - 0.024	2,550	0.012 - 0.022
-	7/16	2,850	0.013 - 0.023	2,850	0.013 - 0.023	1,450	0.013 - 0.017	2,850	0.015 - 0.026	2,300	0.013 - 0.023
12	-	2,650	0.014 - 0.024	2,650	0.014 - 0.024	1,350	0.014 - 0.019	2,650	0.017 - 0.028	2,100	0.014 - 0.024
-	1/2	2,500	0.015 - 0.025	2,500	0.015 - 0.025	1,250	0.015 - 0.020	2,500	0.018 - 0.028	2,000	0.015 - 0.025
14	-	2,250	0.017 - 0.028	2,250	0.017 - 0.028	1,150	0.017 - 0.022	2,250	0.019 - 0.030	1,800	0.017 - 0.028
-	5/8	2,000	0.019 - 0.031	2,000	0.019 - 0.031	1,000	0.019 - 0.025	2,000	0.022 - 0.034	1,600	0.019 - 0.031
16	-	2,000	0.019 - 0.031	2,000	0.019 - 0.031	1,000	0.019 - 0.025	2,000	0.022 - 0.034	1,600	0.019 - 0.031
18	-	1,750	0.021 - 0.032	1,750	0.021 - 0.032	900	0.021 - 0.028	1,750	0.025 - 0.035	1,400	0.021 - 0.032
-	3/4	1,650	0.023 - 0.034	1,650	0.023 - 0.034	850	0.023 - 0.030	1,650	0.026 - 0.037	1,300	0.023 - 0.034
20	-	1,600	0.024 - 0.035	1,600	0.024 - 0.035	800	0.024 - 0.031	1,600	0.028 - 0.039	1,250	0.024 - 0.035

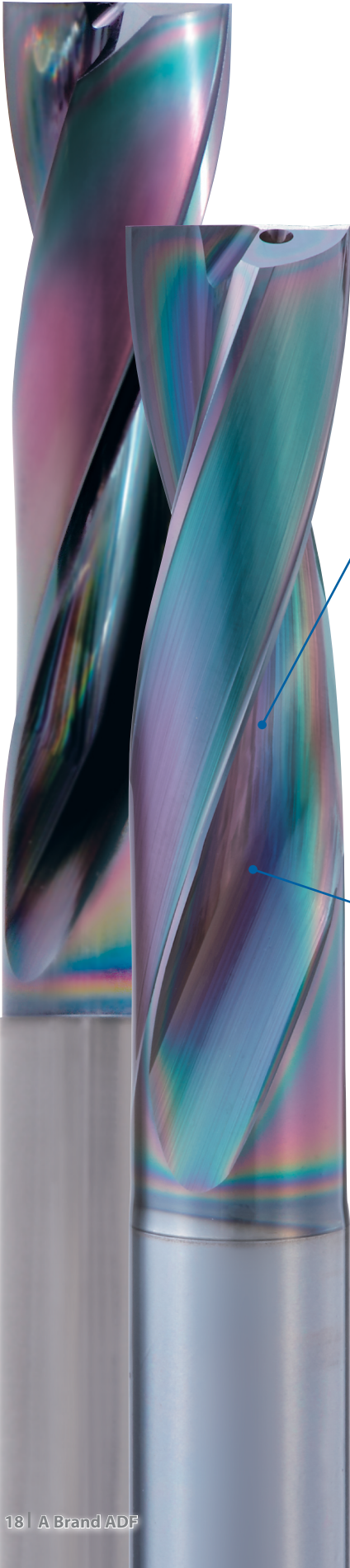
### General Drilling Operations

Work Material		Cast Aluminum		Special Alloy Steels, Hardened Steels					
Hardness				26-30 HRC		30-34 HRC		34-43 HRC	
Drilling Speed		260-660 SFM		195-295 SFM		160-230 SFM		130-160 SFM	
Drill Dia.		Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR
mm	Inch								
3	-	14,900	0.004 - 0.009	7,900	0.004 - 0.006	6,500	0.004 - 0.006	4,700	0.004 - 0.005
-	1/8	14,100	0.005 - 0.009	7,500	0.004 - 0.006	6,100	0.004 - 0.006	4,400	0.004 - 0.005
4	-	11,150	0.006 - 0.012	5,900	0.005 - 0.008	4,750	0.005 - 0.008	3,500	0.005 - 0.007
-	3/16	9,400	0.007 - 0.014	5,000	0.006 - 0.009	4,100	0.006 - 0.009	3,000	0.006 - 0.008
6	-	7,450	0.009 - 0.019	3,950	0.007 - 0.012	3,150	0.007 - 0.012	2,350	0.007 - 0.009
-	1/4	7,000	0.010 - 0.020	3,750	0.007 - 0.012	3,000	0.007 - 0.012	2,200	0.007 - 0.010
8	-	5,600	0.013 - 0.025	2,950	0.009 - 0.016	2,350	0.009 - 0.016	1,750	0.009 - 0.013
-	3/8	4,700	0.015 - 0.030	2,500	0.011 - 0.019	2,000	0.011 - 0.019	1,450	0.011 - 0.015
10	-	4,450	0.016 - 0.031	2,400	0.012 - 0.020	1,900	0.012 - 0.020	1,400	0.012 - 0.016
-	7/16	4,000	0.017 - 0.035	2,150	0.013 - 0.022	1,700	0.013 - 0.022	1,250	0.013 - 0.017
12	-	3,700	0.019 - 0.038	2,000	0.014 - 0.024	1,550	0.014 - 0.024	1,150	0.014 - 0.019
-	1/2	3,500	0.020 - 0.040	1,850	0.015 - 0.024	1,500	0.015 - 0.024	1,100	0.015 - 0.020
14	-	3,200	0.022 - 0.044	1,700	0.017 - 0.025	1,350	0.017 - 0.025	1,000	0.017 - 0.022
-	5/8	2,800	0.025 - 0.050	1,500	0.019 - 0.025	1,200	0.019 - 0.025	900	0.019 - 0.025
16	-	2,800	0.025 - 0.050	1,500	0.019 - 0.025	1,200	0.019 - 0.025	900	0.019 - 0.025
18	-	2,500	0.028 - 0.057	1,300	0.021 - 0.028	1,050	0.021 - 0.028	800	0.021 - 0.028
-	3/4	2,350	0.030 - 0.060	1,250	0.023 - 0.030	1,000	0.023 - 0.030	750	0.023 - 0.030
20	-	2,250	0.031 - 0.063	1,200	0.024 - 0.031	950	0.024 - 0.031	700	0.024 - 0.031



# A Brand ADFO & ADF

Features & Benefits



**Double Margin (ADFO)**  
for increased stability.

**Sharp Gash Angle**  
produces chips with fine curl.

**20° Helix**  
for high rigidity.

**Improved Cutting Edge**  
for reduced cutting forces and smaller chip size.

**Balanced Point Form**  
for stable hole entry.

**Wide Flute Room**  
facilitates stable chip evacuation.

**EgiAs Coating**  
for exceptional wear resistance and toughness.

## EgiAs Coating

### Exceptional Wear Resistance & Toughness

Constructed with extreme toughness, high wear and heat resistance characteristics to ensure stable and consistent tool life. Suppresses friction with the wear resistance layer; prevents breakage with the nano periodical layer.

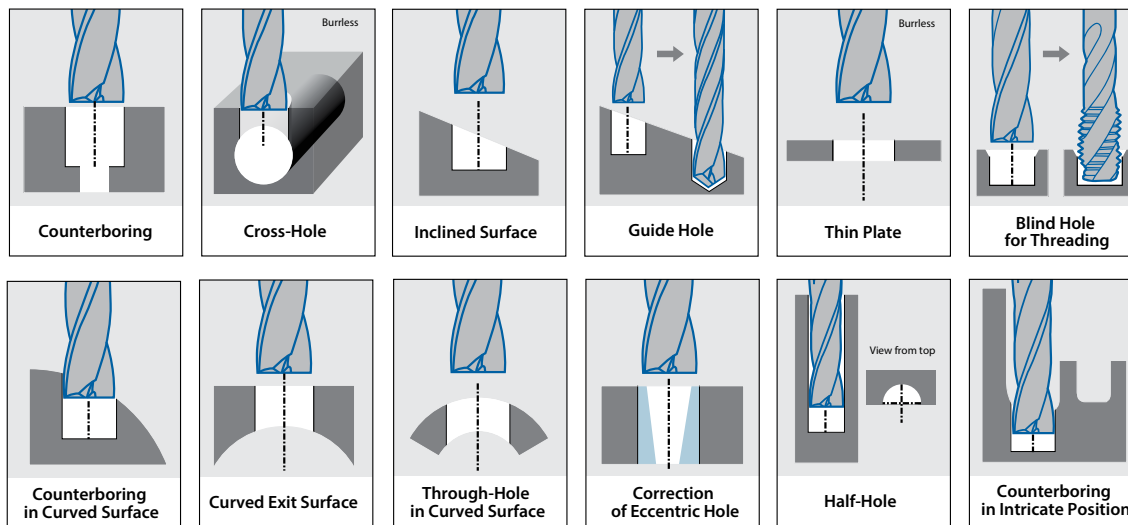
A Brand ADF After drilling 1,620 holes (Still good)	Competitor After drilling 660 holes (Chipping)
Material: Carbon Steel (1050) Cutting Speed: 246 SFM (3,981 RPM) • Feed Rate: 9.4 IPM (0.002 IPR)	



## Multi-Purpose Flat Drills

The ADFO and ADF are Suitable for a Wide Variety of Applications


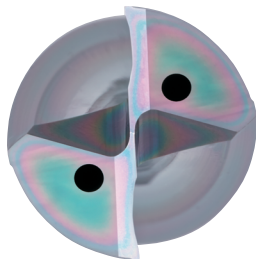
The ADFO & ADF drills are capable of drilling in numerous applications such as inclined surfaces, curved surfaces, flat-bottom holes and more.



## Application Guide

Exceptional Wear Resistance & Toughness

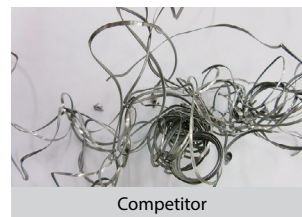
Constructed with extreme toughness, high wear and heat resistance characteristics to ensure stable and consistent tool life. Suppresses friction with the wear resistance layer; prevents breakage with the nano periodical layer.

ADF 2D & ADFLS 2D	ADFO 3D
 <ul style="list-style-type: none"> <li>• General purpose</li> <li>• Suitable up to 2D</li> <li>• Suitable for a wide variety of applications</li> </ul>	 <ul style="list-style-type: none"> <li>• Up to 3D Drilling</li> <li>• Suitable for stainless steel applications</li> </ul>

When machining stainless steel, the ADFO breaks chips into small, manageable pieces



ADFO 3D



Competitor

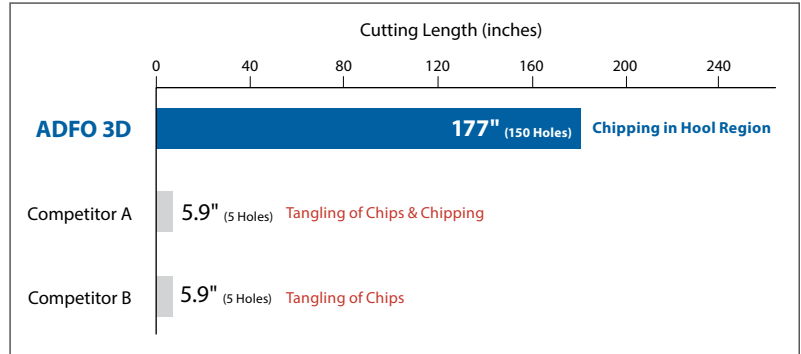
## Superior Performance in Stainless Steel

### 304 Stainless Steel

The ADFO demonstrated exceptional results in stainless steel against its competitors, machining over 100 holes while the competitor tooling failed at just 5 holes.

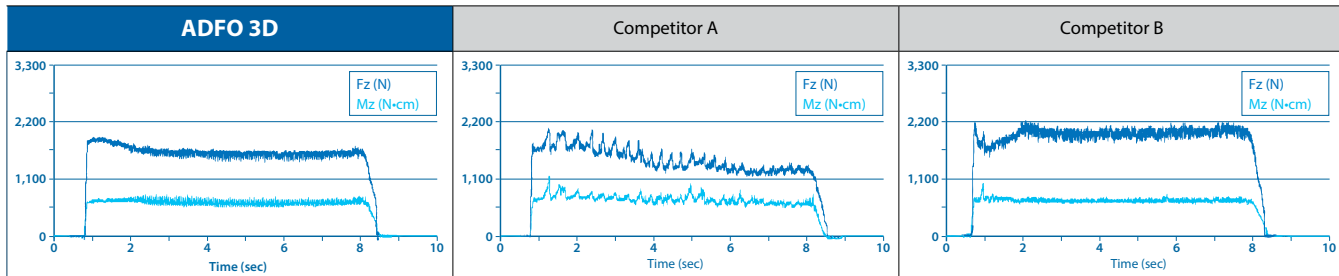


Tool	ADFO 3D	Competitors
Drill Size	Ø10mm	
Machined Surface	Flat Surface	
Work Material	304 Stainless Steel	
Cutting Speed	164 SFM (1,592 RPM)	
Feed Rate	9.4 IPM (0.006 IPR)	
Depth of Hole	30 mm (Through)	
Coolant	Water Soluble	
Machine	Horizontal Machining Center	



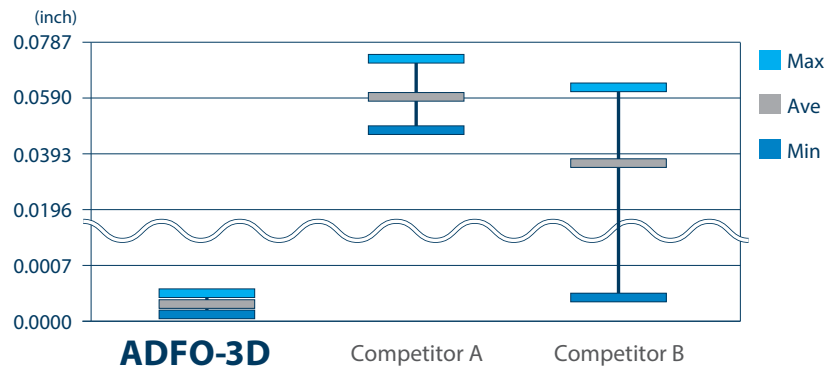
### Cutting Resistance Waveform

With its 20° helica grooves, the ADFO maintained stable thrust and torque throughout the machining process.



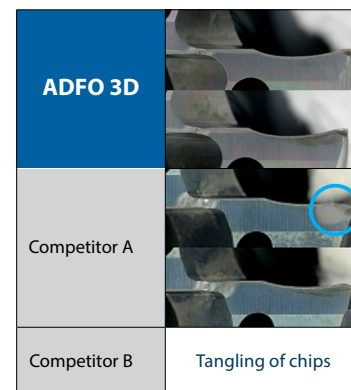
### Hole Expansion Comparison

ADFO 3D has minimal hole expansion variation when compared to the competitors.



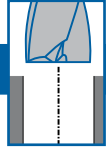
### Durability

The ADFO showed minimal wear after 5 holes, while the competitors showed chipping and tangling of chips.



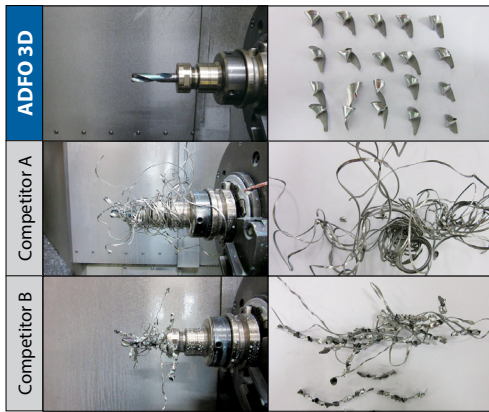
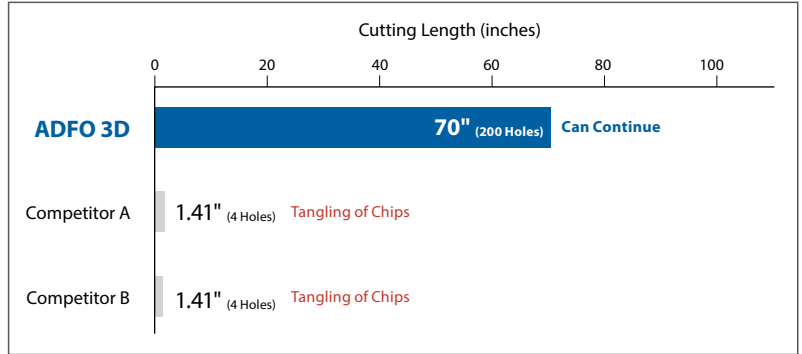
## Stable Processing of Stainless in Small Diameter

### 304 Stainless Steel

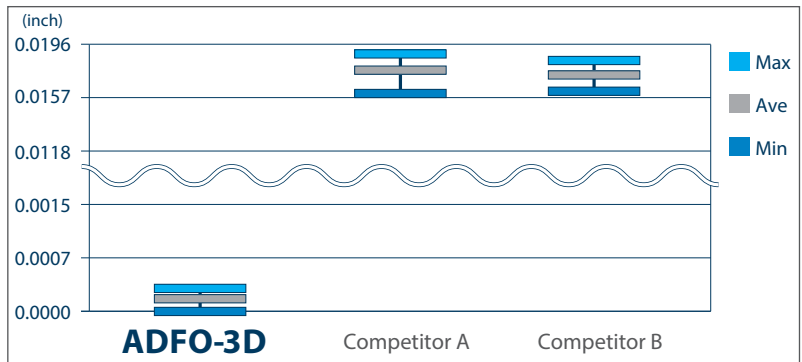


Even at smaller diameters, the ADFO demonstrated controlled hole expansion and exceptional durability.

Tool	ADFO 3D	Competitors
Drill Size	Ø3mm	
Machined Surface	Flat Surface	
Work Material	304 Stainless Steel	
Cutting Speed	164 SFM (5,305 RPM)	
Feed Rate	9.4 IPM (0.002 IPR)	
Depth of Hole	9 mm (Through)	
Coolant	Water Soluble	
Machine	Horizontal Machining Center	



### Hole Expansion Comparison



## Burrs Suppression

### 400 Stainless Steel

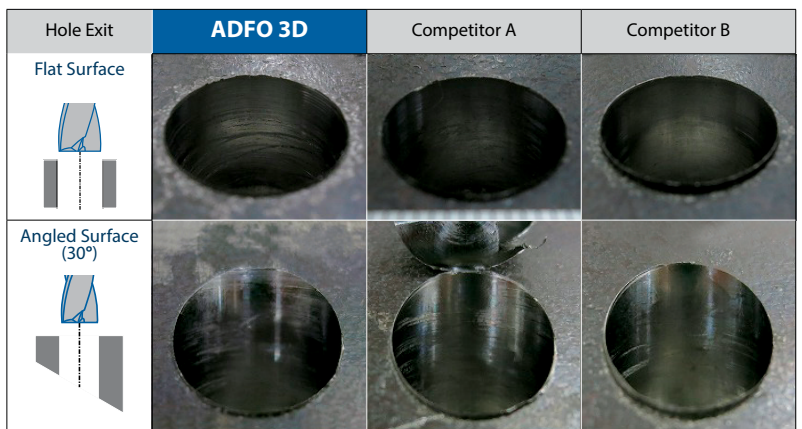
The ADFO's proprietary cutting edge geometry suppresses burrs when machining through holes.

Tool	ADFO 3D	
Drill Size	Ø16mm	
Machined Surface	Flat Surface	Angled Surface
Work Material	400 Stainless Steel	
Cutting Speed	328 SFM (1,989 RPM)	
Feed Rate	25 IPM (0.013 IPR)	12.5 IPM (0.006 IPR)
Depth of Hole	10 mm (Through)	16.5 mm (Through)
Coolant	Water Soluble	
Machine	Horizontal Machining Center	

Note: All tooling for this test was ran at the same parameters as the ADFO.

### Exit Hole Comparison

ADFO suppresses burrs on exit of the material.



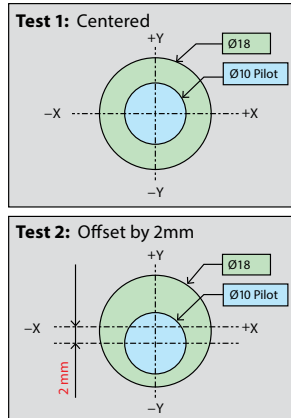
## Counterboring

Grey Cast Iron

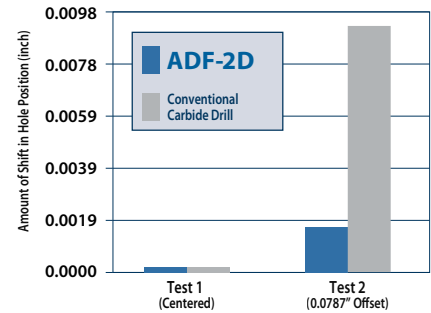
Both A Brand ADF Drills and conventional drills show little to no positional inaccuracies when processed over the center of a pre-existing hole. However, when it is necessary to process the drill off-center over a pre-existing hole, the position and straightness of the hole made with the ADF is **5 times more accurate** than the conventional drill.



Tool	ADF-2D	Conventional Carbide Drill
Drill Size	Ø18	Ø18
Machined Surface	Flat Surface	Flat Surface
Work Material	Grey Cast Iron	Grey Cast Iron
Cutting Speed	246 SFM (1,327 RPM)	246 SFM (1,327 RPM)
Feed Rate	5.2 IPM (0.004 IPR)	5.2 IPM (0.004 IPR)
Depth of Hole	34 mm (Blind)	34 mm (Blind)
Coolant	Water Soluble	Water Soluble
Machine	Horizontal Machining Center	Horizontal Machining Center



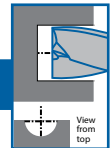
Shift Amount in Hole Position Centered vs Offset



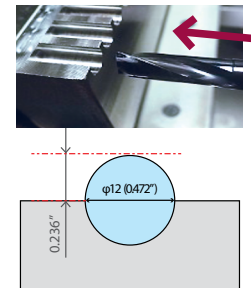
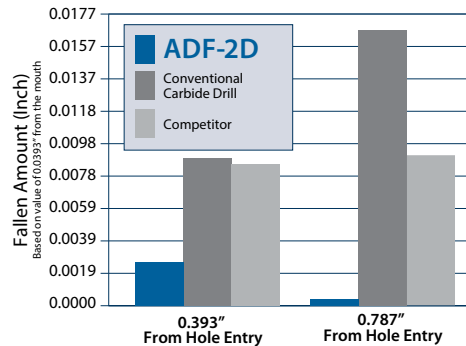
## Half-Hole

Carbon Steel (1050)

The ADF minimized the amount of shift when drilling a half-hole as compared to both the conventional and competitor drills.



Tool	ADF-2D	Conventional Carbide Drill	Competitor
Drill Size	Ø12	Ø12	Ø12
Machined Surface	Flat Surface	Flat Surface	Flat Surface
Work Material	Carbon Steel (1050)	Carbon Steel (1050)	Carbon Steel (1050)
Cutting Speed	121 SFM (979 RPM)	121 SFM (979 RPM)	121 SFM (979 RPM)
Feed Rate	5.9 IPM (0.006 IPR)	5.9 IPM (0.006 IPR)	5.9 IPM (0.006 IPR)
Depth of Hole	24 mm (Blind)	24 mm (Blind)	24 mm (Blind)
Coolant	Water Soluble	Water Soluble	Water Soluble
Machine	Horizontal Machining Center	Horizontal Machining Center	Horizontal Machining Center



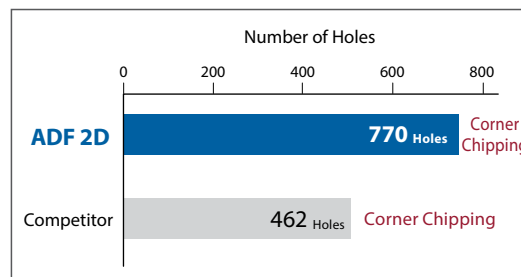
## Inclined Surface

Alloy Steel (4140)

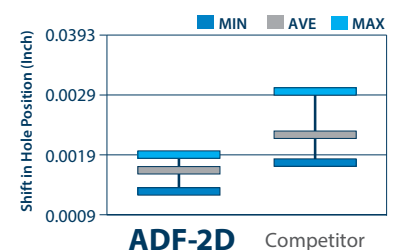
The ADF maintained accurate hole position and resisted chipping while drilling on an inclined surface.



Tool	ADF-2D	Competitor
Drill Size	Ø10	Ø10
Machined Surface	Angled Surface (30°)	Angled Surface (30°)
Work Material	Alloy Steel (4140)	Alloy Steel (4140)
Cutting Speed	200 SFM (1,944 RPM)	200 SFM (1,944 RPM)
Feed Rate	7.7 IPM (0.004 IPR)	7.7 IPM (0.004 IPR)
Depth of Hole	20 mm (Blind)	20 mm (Blind)
Coolant	Water Soluble	Water Soluble
Machine	Horizontal Machining Center	Horizontal Machining Center



Shift in Hole Position ADF vs Competitor



## List 5720

A BRAND ADFO-3D, Flat Drill



SPEED FEED  
34

CARBIDE

EgiAs



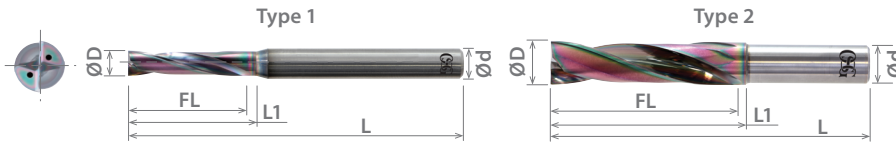
2 FLUTE

STUB

20°

SHANK  
h6

PACKED  
1 PIECE



Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
3 ≤ D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length		Neck Length	Overall Length	Shank Diameter		Type
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L1 (mm)	L (mm)	d (in)	d (mm)		
3334300	●	-	-	-	3.000	0.11811	15.00	16.00	55.00	-	4.00	1	
3334302	●	-	-	-	3.100	0.12205	15.00	16.00	55.00	-	4.00	1	
572012517	●	1/8	-	-	3.175	0.12500	15.00	17.00	55.00	0.125	-	2	
3334304	●	-	-	-	3.200	0.12598	15.00	16.00	55.00	-	4.00	1	
3334305	●	-	-	-	3.300	0.12992	15.00	16.00	55.00	-	4.00	1	
3334306	●	-	-	-	3.400	0.13386	16.00	17.00	55.00	-	4.00	1	
3334307	●	-	-	-	3.500	0.13780	16.00	17.00	55.00	-	4.00	1	
3334309	●	-	-	-	3.600	0.14173	16.00	17.00	55.00	-	4.00	1	
3334312	●	-	-	-	3.700	0.14567	16.00	17.00	55.00	-	4.00	1	
3334313	●	-	-	-	3.800	0.14961	19.00	20.00	60.00	-	4.00	1	
3334314	●	-	-	-	3.900	0.15354	19.00	20.00	60.00	-	4.00	1	
572015617	●	5/32	-	-	3.969	0.15625	19.00	20.00	60.00	0.188	-	1	
3334315	●	-	-	-	4.000	0.15748	19.00	20.00	60.00	-	4.00	2	
3334317	●	-	-	-	4.100	0.16142	21.00	22.00	60.00	-	6.00	1	
3334318	●	-	-	-	4.200	0.16535	21.00	22.00	60.00	-	6.00	1	
3334319	●	-	-	-	4.300	0.16929	21.00	22.00	60.00	-	6.00	1	
3334320	●	-	-	-	4.400	0.17323	21.00	22.00	60.00	-	6.00	1	
3334321	●	-	-	-	4.500	0.17717	21.00	22.00	60.00	-	6.00	1	
3334323	●	-	-	-	4.600	0.18110	21.00	22.00	60.00	-	6.00	1	
3334326	●	-	-	-	4.700	0.18504	21.00	22.00	60.00	-	6.00	1	
572018717	●	3/16	-	-	4.763	0.18750	24.00	27.00	65.00	0.188	-	2	
3334327	●	-	-	-	4.800	0.18898	24.00	25.00	65.00	-	6.00	1	
3334328	●	-	-	-	4.900	0.19291	24.00	25.00	65.00	-	6.00	1	
3334329	●	-	-	-	5.000	0.19685	24.00	25.00	65.00	-	6.00	1	
3334331	●	-	-	-	5.100	0.20079	24.00	25.00	65.00	-	6.00	1	
3334332	●	-	-	-	5.200	0.20472	24.00	25.00	65.00	-	6.00	1	
3334333	●	-	-	-	5.300	0.20866	24.00	25.00	65.00	-	6.00	1	
3334334	●	-	-	-	5.400	0.21260	27.00	28.00	65.00	-	6.00	1	
3334335	●	-	-	-	5.500	0.21654	27.00	28.00	65.00	-	6.00	1	
572021817	●	7/32	-	-	5.556	0.21875	27.00	28.00	65.00	0.250	-	1	
3334338	●	-	-	-	5.600	0.22047	27.00	28.00	65.00	-	6.00	1	
3334339	●	-	-	-	5.700	0.22441	27.00	28.00	65.00	-	6.00	1	
3334340	●	-	-	-	5.800	0.22835	27.00	28.00	65.00	-	6.00	1	
3334341	●	-	-	-	5.900	0.23228	27.00	28.00	65.00	-	6.00	1	
3334342	●	-	-	-	6.000	0.23622	27.00	28.00	65.00	-	6.00	2	
3334344	●	-	-	-	6.100	0.24016	30.00	31.00	70.00	-	8.00	1	
3334345	●	-	-	-	6.200	0.24409	30.00	31.00	70.00	-	8.00	1	
3334346	●	-	-	-	6.300	0.24803	30.00	31.00	70.00	-	8.00	1	
572025017	●	1/4	-	E	6.350	0.25000	30.00	32.00	70.00	0.250	-	2	
3334347	●	-	-	-	6.400	0.25197	30.00	31.00	70.00	-	8.00	1	
3334348	●	-	-	-	6.500	0.25591	30.00	31.00	70.00	-	8.00	1	
3334350	●	-	-	-	6.600	0.25984	30.00	31.00	70.00	-	8.00	1	
3334351	●	-	-	-	6.700	0.26378	30.00	31.00	70.00	-	8.00	1	

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H						
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel						
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium							
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
1010	1035	1045	1065	4140	4340														
1018	1045	1065	4140	4340															

○ Good ● Best



# A Brand ADFO

Advanced Performance Coolant-Through Flat Drill

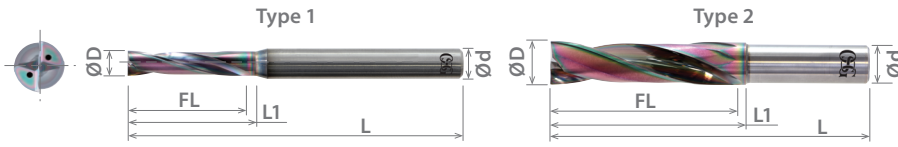
## List 5720 (Continued)

A BRAND ADFO-3D, Flat Drill



SPEED FEED 34	CARBIDE	EgiAs	2 FLUTE	STUB	20°	SHANK h6	PACKED 1 PIECE
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Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
3 ≤ D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number		Diameter (D)					Flute Length	Neck Length	Overall Length	Shank Diameter		Type
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L1 (mm)	L (mm)	d (in)	d (mm)	
3334352	●	-	-	-	6.800	0.26772	30.00	31.00	70.00	-	8.00	1
3334353	●	-	-	-	6.900	0.27165	30.00	31.00	70.00	-	8.00	1
3334354	●	-	-	-	7.000	0.27559	30.00	31.00	70.00	-	8.00	1
3334356	●	-	-	-	7.100	0.27953	34.00	35.00	75.00	-	8.00	1
572028117	●	9/32	-	-	7.144	0.28125	34.00	34.00	75.00	0.313	-	1
3334357	●	-	-	-	7.200	0.28346	34.00	35.00	75.00	-	8.00	1
3334358	●	-	-	-	7.300	0.28740	34.00	35.00	75.00	-	8.00	1
3334359	●	-	-	-	7.400	0.29134	34.00	35.00	75.00	-	8.00	1
3334360	●	-	-	-	7.500	0.29528	34.00	35.00	75.00	-	8.00	1
3334361	●	-	-	-	7.600	0.29921	34.00	35.00	75.00	-	8.00	1
3334362	●	-	-	-	7.700	0.30315	34.00	35.00	75.00	-	8.00	1
3334363	●	-	-	-	7.800	0.30709	34.00	35.00	75.00	-	8.00	1
3334364	●	-	-	-	7.900	0.31102	34.00	35.00	75.00	-	8.00	1
572031217	●	5/16	-	-	7.938	0.31250	34.00	36.00	75.00	0.313	-	2
3334365	●	-	-	-	8.000	0.31496	34.00	35.00	75.00	-	8.00	2
3334367	●	-	-	-	8.100	0.31890	38.00	39.00	80.00	-	10.00	1
3334368	●	-	-	-	8.200	0.32283	38.00	39.00	80.00	-	10.00	1
3334369	●	-	-	-	8.300	0.32677	38.00	39.00	80.00	-	10.00	1
572032817	●	21/64	-	-	8.334	0.32813	38.00	37.00	80.00	0.375	-	1
3334370	●	-	-	-	8.400	0.33071	38.00	39.00	80.00	-	10.00	1
3334371	●	-	-	-	8.500	0.33465	38.00	39.00	80.00	-	10.00	1
3334373	●	-	-	-	8.600	0.33858	38.00	39.00	80.00	-	10.00	1
3334374	●	-	-	-	8.700	0.34252	38.00	39.00	80.00	-	10.00	1
3334375	●	-	-	-	8.800	0.34646	38.00	39.00	80.00	-	10.00	1
3334376	●	-	-	-	8.900	0.35039	38.00	39.00	80.00	-	10.00	1
3334377	●	-	-	-	9.000	0.35433	38.00	39.00	80.00	-	10.00	1
3334379	●	-	-	-	9.100	0.35827	42.00	43.00	85.00	-	10.00	1
572035917	●	23/64	-	-	9.128	0.35938	42.00	43.00	85.00	0.375	-	1
3334380	●	-	-	-	9.200	0.36220	42.00	43.00	85.00	-	10.00	1
3334381	●	-	-	-	9.300	0.36614	42.00	43.00	85.00	-	10.00	1
3334382	●	-	-	-	9.400	0.37008	42.00	43.00	85.00	-	10.00	1
3334383	●	-	-	-	9.500	0.37402	42.00	43.00	85.00	-	10.00	1
572037517	●	3/8	-	-	9.525	0.37500	42.00	44.00	85.00	0.375	-	2
3334384	●	-	-	-	9.600	0.37795	42.00	43.00	85.00	-	10.00	1
3334385	●	-	-	-	9.700	0.38189	42.00	43.00	85.00	-	10.00	1
3334386	●	-	-	-	9.800	0.38583	42.00	43.00	85.00	-	10.00	1
3334387	●	-	-	-	9.900	0.38976	42.00	43.00	85.00	-	10.00	1
3334388	●	-	-	-	10.000	0.39370	42.00	43.00	85.00	-	10.00	2
3334390	●	-	-	-	10.100	0.39764	46.00	47.00	90.00	-	12.00	1
3334391	●	-	-	-	10.200	0.40157	46.00	47.00	90.00	-	12.00	1
3334392	●	-	-	-	10.300	0.40551	46.00	47.00	90.00	-	12.00	1
572040617	●	13/32	-	-	10.319	0.40625	46.00	48.00	90.00	0.438	-	1
3334393	●	-	-	-	10.400	0.40945	46.00	47.00	90.00	-	12.00	1
3334394	●	-	-	-	10.500	0.41339	46.00	47.00	90.00	-	12.00	1
3334395	●	-	-	-	10.600	0.41732	46.00	47.00	90.00	-	12.00	1
3334396	●	-	-	-	10.700	0.42126	46.00	47.00	90.00	-	12.00	1
3334397	●	-	-	-	10.800	0.42520	46.00	47.00	90.00	-	12.00	1
3334398	●	-	-	-	10.900	0.42913	46.00	47.00	90.00	-	12.00	1
3334399	●	-	-	-	11.000	0.43307	46.00	47.00	90.00	-	12.00	1
3334401	●	-	-	-	11.100	0.43701	50.00	51.00	95.00	-	12.00	1
572043717	●	7/16	-	-	11.113	0.43750	50.00	52.00	95.00	0.438	-	2
3334402	●	-	-	-	11.200	0.44094	50.00	51.00	95.00	-	12.00	1
3334403	●	-	-	-	11.300	0.44488	50.00	51.00	95.00	-	12.00	1

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked





## List 5720 (Continued)

A BRAND ADFO-3D, Flat Drill



SPEED FEED  
34

CARBIDE

EgiAs



2 FLUTE

STUB

20°

SHANK  
h6

PACKED  
1 PIECE

EDP Number		Diameter (D)					Flute Length	Neck Length	Overall Length	Shank Diameter		Type
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L1 (mm)	L (mm)	d (in)	d (mm)	
3334404	●	-	-	-	11.400	0.44882	50.00	51.00	95.00	-	12.00	1
3334405	●	-	-	-	11.500	0.45276	50.00	51.00	95.00	-	12.00	1
572045317	●	29/64	-	-	11.509	0.45313	50.00	52.00	95.00	0.500	-	1
3334406	●	-	-	-	11.600	0.45669	50.00	51.00	95.00	-	12.00	1
3334407	●	-	-	-	11.700	0.46063	50.00	51.00	95.00	-	12.00	1
3334408	●	-	-	-	11.800	0.46457	50.00	51.00	95.00	-	12.00	1
3334409	●	-	-	-	11.900	0.46850	50.00	51.00	95.00	-	12.00	1
572046817	●	15/32	-	-	11.906	0.46875	50.00	52.00	95.00	0.500	-	1
3334410	●	-	-	-	12.000	0.47244	50.00	51.00	95.00	-	12.00	2
3334412	●	-	-	-	12.100	0.47638	56.00	57.00	100.00	-	14.00	1
3334413	●	-	-	-	12.200	0.48031	56.00	57.00	100.00	-	14.00	1
3334414	●	-	-	-	12.300	0.48425	56.00	57.00	100.00	-	14.00	1
3334415	●	-	-	-	12.400	0.48819	56.00	57.00	100.00	-	14.00	1
3334416	●	-	-	-	12.500	0.49213	56.00	57.00	100.00	-	14.00	1
3334417	●	-	-	-	12.600	0.49606	56.00	57.00	100.00	-	14.00	1
3334418	●	1/2	-	-	12.700	0.50000	56.00	57.00	100.00	-	14.00	1
3334419	●	-	-	-	12.800	0.50394	56.00	57.00	100.00	-	14.00	1
3334420	●	-	-	-	12.900	0.50787	56.00	57.00	100.00	-	14.00	1
3334421	●	-	-	-	13.000	0.51181	56.00	57.00	100.00	-	14.00	1
3334422	●	-	-	-	13.100	0.51575	60.00	61.00	105.00	-	14.00	1
3334423	●	-	-	-	13.200	0.51969	60.00	61.00	105.00	-	14.00	1
3334424	●	-	-	-	13.300	0.52362	60.00	61.00	105.00	-	14.00	1
3334425	●	-	-	-	13.400	0.52756	60.00	61.00	105.00	-	14.00	1
3334426	●	-	-	-	13.500	0.53150	60.00	61.00	105.00	-	14.00	1
3334427	●	-	-	-	13.600	0.53543	60.00	61.00	105.00	-	14.00	1
3334428	●	-	-	-	13.700	0.53937	60.00	61.00	105.00	-	14.00	1
3334429	●	-	-	-	13.800	0.54331	60.00	61.00	105.00	-	14.00	1
3334430	●	-	-	-	13.900	0.54724	60.00	61.00	105.00	-	14.00	1
3334431	●	-	-	-	14.000	0.55118	60.00	61.00	105.00	-	14.00	2
3334432	●	-	-	-	14.100	0.55512	64.00	65.00	110.00	-	16.00	1
3334433	●	-	-	-	14.200	0.55906	64.00	65.00	110.00	-	16.00	1
572056217	●	9/16	-	-	14.288	0.56250	64.00	66.00	110.00	0.625	-	1
3334434	●	-	-	-	14.300	0.56299	64.00	65.00	110.00	-	16.00	1
3334435	●	-	-	-	14.400	0.56693	64.00	65.00	110.00	-	16.00	1
3334436	●	-	-	-	14.500	0.57087	64.00	65.00	110.00	-	16.00	1
3334437	●	-	-	-	14.600	0.57480	64.00	65.00	110.00	-	16.00	1
3334438	●	-	-	-	14.700	0.57874	64.00	65.00	110.00	-	16.00	1
3334439	●	-	-	-	14.800	0.58268	64.00	65.00	110.00	-	16.00	1
3334440	●	-	-	-	14.900	0.58661	64.00	65.00	110.00	-	16.00	1
3334441	●	-	-	-	15.000	0.59055	64.00	65.00	110.00	-	16.00	1
3334442	●	-	-	-	15.100	0.59449	68.00	69.00	115.00	-	16.00	1
3334443	●	-	-	-	15.200	0.59843	68.00	69.00	115.00	-	16.00	1
3334444	●	-	-	-	15.300	0.60236	68.00	69.00	115.00	-	16.00	1
3334445	●	-	-	-	15.400	0.60630	68.00	69.00	115.00	-	16.00	1
3334446	●	-	-	-	15.500	0.61024	68.00	69.00	115.00	-	16.00	1
3334447	●	-	-	-	15.600	0.61417	68.00	69.00	115.00	-	16.00	1
3334448	●	-	-	-	15.700	0.61811	68.00	69.00	115.00	-	16.00	1
3334449	●	-	-	-	15.800	0.62205	68.00	69.00	115.00	-	16.00	1
572062517	●	5/8	-	-	15.875	0.62500	68.00	70.00	115.00	0.625	-	2
3334450	●	-	-	-	15.900	0.62598	68.00	69.00	115.00	-	16.00	1
3334451	●	-	-	-	16.000	0.62992	68.00	69.00	115.00	-	16.00	2

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium				
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
1010	1035	1065	4140	4340	○	○	○	○	○			○	○			
1018	1045															

○ Good ○ Best



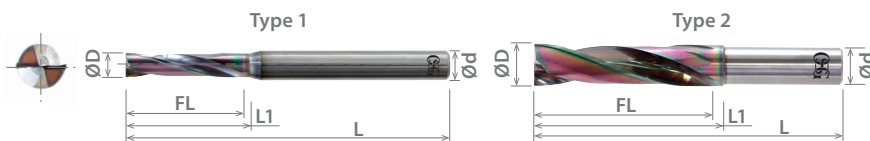


## List 5700

A BRAND ADF-2D, Flat Drill



<b>SPEED FEED</b> 35	<b>CARBIDE</b>	<b>IchAda</b>	<b>EgiAs</b>	<b>2 FLUTE</b>	<b>STUB</b>	<b>20°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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Cutting Diameter Tolerance		
Size (mm)	mm	inch
D < 2	+0 / -0.009	+0 / -0.0004
2 < D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number	Diameter (D)					Flute Length	Neck Length	Overall Length	Shank Diameter		Type
	Fractional Size	Wire Gage	Letter Size	mm	Inch				d (in)	d (mm)	
3330020	-	-	-	0.200	0.00787	0.60	0.70	40.00	-	3.00	1
3330025	-	-	-	0.250	0.00984	0.80	0.90	40.00	-	3.00	1
3330030	-	-	-	0.300	0.01181	0.90	1.00	40.00	-	3.00	1
3330035	-	-	-	0.350	0.01378	1.10	1.20	40.00	-	3.00	1
570001511	1/64	-	-	0.397	0.01563	1.20	1.30	40.00	-	3.00	1
3330040	-	-	-	0.400	0.01575	1.20	1.30	40.00	-	3.00	1
3330045	-	-	-	0.450	0.01772	1.40	1.50	40.00	-	3.00	1
3330050	-	-	-	0.500	0.01969	1.70	1.90	40.00	-	3.00	1
3330055	-	-	-	0.550	0.02165	1.90	2.10	40.00	-	3.00	1
3330060	-	-	-	0.600	0.02362	2.00	2.20	40.00	-	3.00	1
3330065	-	-	-	0.650	0.02559	2.20	2.40	40.00	-	3.00	1
3330070	-	-	-	0.700	0.02756	2.40	2.60	40.00	-	3.00	1
3330071	-	-	-	0.710	0.02795	2.40	2.60	40.00	-	3.00	1
3330072	-	-	-	0.720	0.02835	2.40	2.60	40.00	-	3.00	1
3330074	-	-	-	0.740	0.02913	2.50	2.70	40.00	-	3.00	1
3330075	-	-	-	0.750	0.02953	2.60	2.80	40.00	-	3.00	1
570003111	1/32	-	-	0.794	0.03125	2.70	2.90	40.00	-	3.00	1
3330080	-	-	-	0.800	0.03150	2.70	2.90	40.00	-	3.00	1
3330081	-	-	-	0.810	0.03189	2.80	3.00	40.00	-	3.00	1
3330085	-	-	-	0.850	0.03346	2.90	3.10	40.00	-	3.00	1
3330089	-	-	-	0.890	0.03504	3.00	3.20	40.00	-	3.00	1
3330090	-	-	-	0.900	0.03543	3.10	3.30	40.00	-	3.00	1
3330091	-	-	-	0.910	0.03583	3.10	3.30	40.00	-	3.00	1
3330092	-	-	-	0.920	0.03622	3.10	3.30	40.00	-	3.00	1
3330095	-	-	-	0.950	0.03740	3.20	3.40	40.00	-	3.00	1
3330100	-	-	-	1.000	0.03937	4.00	4.30	45.00	-	3.00	1
3330109	-	-	-	1.090	0.04291	4.40	4.70	45.00	-	3.00	1
3330110	-	-	-	1.100	0.04331	4.40	4.70	45.00	-	3.00	1
3330111	-	-	-	1.110	0.04370	4.40	4.70	45.00	-	3.00	1
3330112	-	-	-	1.120	0.04409	4.50	4.80	45.00	-	3.00	1
570004611	3/64	-	-	1.191	0.04688	4.80	5.10	45.00	-	3.00	1
3330120	-	-	-	1.200	0.04724	4.80	5.10	45.00	-	3.00	1
3330125	-	-	-	1.250	0.04921	5.00	5.30	45.00	-	3.00	1
3330126	-	-	-	1.260	0.04961	5.00	5.30	45.00	-	3.00	1
3330127	-	-	-	1.270	0.05000	5.10	5.40	45.00	-	3.00	1
3330128	-	-	-	1.280	0.05039	5.10	5.40	45.00	-	3.00	1
3330129	-	-	-	1.290	0.05079	5.20	5.50	45.00	-	3.00	1
3330130	-	-	-	1.300	0.05118	5.20	5.50	45.00	-	3.00	1
3330135	-	-	-	1.350	0.05315	5.40	5.70	45.00	-	3.00	1
3330140	-	-	-	1.400	0.05512	5.60	5.90	45.00	-	3.00	1
3330144	-	-	-	1.440	0.05669	5.80	6.10	45.00	-	3.00	1
3330145	-	-	-	1.450	0.05709	5.80	6.10	45.00	-	3.00	1
3330146	-	-	-	1.460	0.05748	5.80	6.10	45.00	-	3.00	1

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked

Note: Sizes smaller than 2mm available with IchAda coating. Sizes 2mm and larger available with EgiAs coating.



CONTINUED

P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel					Aluminum		Nickel Alloy	Titanium				
Low	Medium	High			4140 4340	300	400	17-4 PH	6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010 1018	1035 1045	1065														
○	○	○	○	○	○	○	○	○	○			○	○			

○ Good ○ Best



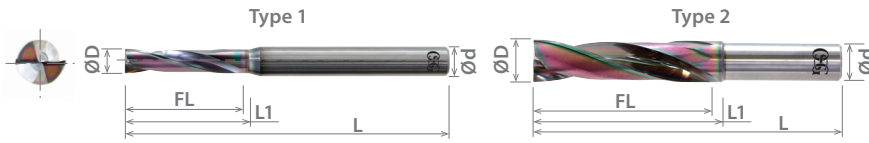
## List 5700 (Continued)



<b>SPEED FEED</b> 35	<b>CARBIDE</b>	<b>IchAda</b>	<b>EgiAs</b>	<b>2 FLUTE</b>	<b>STUB</b>	<b>20°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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A BRAND ADF-2D, Flat Drill

Cutting Diameter Tolerance		
Size (mm)	mm	inch
D < 2	+0 / -0.009	+0 / -0.0004
2 < D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number	Stocking Status	Diameter (D)				Flute Length	Neck Length	Overall Length	Shank Diameter		Type	
		Fractional Size	Wire Gage	Letter Size	mm				Inch	d (in)		d (mm)
3330147	●	-	-	-	1.470	0.05787	5.90	6.20	45.00	-	3.00	1
3330148	●	-	-	-	1.480	0.05827	5.90	6.20	45.00	-	3.00	1
3330150	●	-	-	-	1.500	0.05906	6.00	6.30	45.00	-	3.00	1
3330153	●	-	-	-	1.530	0.06024	6.10	6.40	45.00	-	3.00	1
3330154	●	-	-	-	1.540	0.06063	6.20	6.50	45.00	-	3.00	1
3330155	●	-	-	-	1.550	0.06102	6.20	6.50	45.00	-	3.00	1
3330156	●	-	-	-	1.560	0.06142	6.20	6.50	45.00	-	3.00	1
3330157	●	-	-	-	1.570	0.06181	6.30	6.60	45.00	-	3.00	1
3330158	●	-	-	-	1.580	0.06220	6.30	6.60	45.00	-	3.00	1
570006211	●	1/16	-	-	1.588	0.06250	6.40	6.70	45.00	-	3.00	1
3330160	●	-	-	-	1.600	0.06299	6.40	6.70	45.00	-	3.00	1
3330170	●	-	-	-	1.700	0.06693	6.80	7.10	45.00	-	3.00	1
3330175	●	-	-	-	1.750	0.06890	7.00	7.30	45.00	-	3.00	1
3330180	●	-	-	-	1.800	0.07087	7.20	7.50	45.00	-	3.00	1
3330182	●	-	-	-	1.820	0.07165	7.30	7.60	45.00	-	3.00	1
3330183	●	-	-	-	1.830	0.07205	7.30	7.60	45.00	-	3.00	1
3330184	●	-	-	-	1.840	0.07244	7.40	7.70	45.00	-	3.00	1
3330185	●	-	-	-	1.850	0.07283	7.40	7.70	45.00	-	3.00	1
3330186	●	-	-	-	1.860	0.07323	7.40	7.70	45.00	-	3.00	1
3330190	●	-	-	-	1.900	0.07480	7.60	7.90	45.00	-	3.00	1
3330195	●	-	-	-	1.950	0.07677	7.80	8.10	45.00	-	3.00	1
570007811	●	5/64	-	-	1.984	0.07813	7.90	8.20	45.00	-	3.00	1
3330200	●	-	-	-	2.000	0.07874	10.00	10.30	50.00	-	4.00	1
3330210	●	-	-	-	2.100	0.08268	10.00	10.50	50.00	-	4.00	1
3330220	●	-	-	-	2.200	0.08661	11.00	10.60	50.00	-	4.00	1
3330230	●	-	-	-	2.300	0.09055	11.00	10.80	50.00	-	4.00	1
570009311	●	3/32	-	-	2.381	0.09375	11.00	11.00	50.00	-	4.00	1
3330240	●	-	-	-	2.400	0.09449	12.00	11.00	50.00	-	4.00	1
3330250	●	-	-	-	2.500	0.09843	12.00	11.20	50.00	-	4.00	1
3330260	●	-	-	-	2.600	0.10236	13.00	11.40	50.00	-	4.00	1
3330270	●	-	-	-	2.700	0.10630	13.00	11.60	50.00	-	4.00	1
3330280	●	-	-	-	2.800	0.11024	14.00	11.80	50.00	-	4.00	1
3330290	●	-	-	-	2.900	0.11417	14.00	11.90	50.00	-	4.00	1
3330300	●	-	-	-	3.000	0.11811	15.00	11.40	55.00	-	6.00	1
3330310	●	-	-	-	3.100	0.12205	15.00	11.60	55.00	-	6.00	1
570012511	●	1/8	-	-	3.175	0.12500	15.00	17.00	55.00	0.125	-	2
3330320	●	-	-	-	3.200	0.12598	15.00	11.80	55.00	-	6.00	1
3330330	●	-	-	-	3.300	0.12992	15.00	12.00	55.00	-	6.00	1
3330340	●	-	-	-	3.400	0.13386	16.00	12.10	55.00	-	6.00	1
3330350	●	-	-	-	3.500	0.13780	16.00	12.30	55.00	-	6.00	1
3330360	●	-	-	-	3.600	0.14173	16.00	12.50	55.00	-	6.00	1
3330370	●	-	-	-	3.700	0.14567	16.00	12.70	55.00	-	6.00	1
3330380	●	-	-	-	3.800	0.14961	19.00	17.90	60.00	-	6.00	1
3330390	●	-	-	-	3.900	0.15354	19.00	18.10	60.00	-	6.00	1
570015611	●	5/32	-	-	3.969	0.15625	19.00	20.50	60.00	0.188	-	1
3330400	●	-	-	-	4.000	0.15748	19.00	18.30	60.00	-	6.00	1
3330410	●	-	-	-	4.100	0.16142	19.00	18.50	60.00	-	6.00	1
3330420	●	-	-	-	4.200	0.16535	21.00	18.60	60.00	-	6.00	1
3330430	●	-	-	-	4.300	0.16929	21.00	18.80	60.00	-	6.00	1
3330440	●	-	-	-	4.400	0.17323	21.00	19.00	60.00	-	6.00	1
3330450	●	-	-	-	4.500	0.17717	21.00	19.20	60.00	-	6.00	1
3330460	●	-	-	-	4.600	0.18110	21.00	19.40	60.00	-	6.00	1

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked

Note: Sizes smaller than 2mm available with IchAda coating. Sizes 2mm and larger available with EgiAs coating.



## List 5700 (Continued)



<b>SPEED FEED</b> 35	<b>CARBIDE</b>	<b>IchAda</b>	<b>EgiAs</b>	<b>2 FLUTE</b>	<b>STUB</b>	<b>20°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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A BRAND ADF-2D, Flat Drill

EDP Number		Diameter (D)					Flute Length	Neck Length	Overall Length	Shank Diameter		Type
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L1 (mm)	L (mm)	d (in)	d (mm)	
3330470	●	-	-	-	4.700	0.18504	21.00	19.60	60.00	-	6.00	1
570018711	●	3/16	-	-	4.763	0.18750	24.00	27.00	65.00	0.188	-	2
3330480	●	-	-	-	4.800	0.18898	24.00	24.80	65.00	-	6.00	1
3330490	●	-	-	-	4.900	0.19291	24.00	24.90	65.00	-	6.00	1
3330500	●	-	-	-	5.000	0.19685	24.00	25.10	65.00	-	6.00	1
3330510	●	-	-	-	5.100	0.20079	24.00	25.30	65.00	-	6.00	1
3330520	●	-	-	-	5.200	0.20472	24.00	25.50	65.00	-	6.00	1
3330530	●	-	-	-	5.300	0.20866	24.00	25.70	65.00	-	6.00	1
3330540	●	-	-	-	5.400	0.21260	27.00	25.90	65.00	-	6.00	1
3330550	●	-	-	-	5.500	0.21654	27.00	26.10	65.00	-	6.00	1
570021811	●	7/32	-	-	5.556	0.21875	27.00	25.50	65.00	0.250	-	1
3330560	●	-	-	-	5.600	0.22047	27.00	26.30	65.00	-	6.00	1
3330570	●	-	-	-	5.700	0.22441	27.00	26.40	65.00	-	6.00	1
3330580	●	-	-	-	5.800	0.22835	27.00	26.60	65.00	-	6.00	1
3330590	●	-	-	-	5.900	0.23228	27.00	26.80	65.00	-	6.00	1
3330600	●	-	-	-	6.000	0.23622	27.00	27.00	65.00	-	6.00	2
3330610	●	-	-	-	6.100	0.24016	30.00	32.00	70.00	-	6.00	2
3330620	●	-	-	-	6.200	0.24409	30.00	32.00	70.00	-	6.00	2
3330630	●	-	-	-	6.300	0.24803	30.00	32.00	70.00	-	6.00	2
570025011	●	1/4	-	E	6.350	0.25000	30.00	32.00	70.00	0.250	-	2
3330640	●	-	-	-	6.400	0.25197	30.00	32.00	70.00	-	6.00	2
3330650	●	-	-	-	6.500	0.25591	30.00	32.00	70.00	-	6.00	2
3330660	●	-	-	-	6.600	0.25984	30.00	32.00	70.00	-	6.00	2
3330670	●	-	-	-	6.700	0.26378	30.00	32.00	70.00	-	6.00	2
3330680	●	-	-	-	6.800	0.26772	30.00	32.00	70.00	-	6.00	2
3330690	●	-	-	-	6.900	0.27165	30.00	32.00	70.00	-	6.00	2
3330700	●	-	-	-	7.000	0.27559	30.00	32.00	70.00	-	6.00	2
3330710	●	-	-	-	7.100	0.27953	34.00	36.00	75.00	-	6.00	2
570028111	●	9/32	-	-	7.144	0.28125	34.00	34.50	75.00	0.313	-	1
3330720	●	-	-	-	7.200	0.28346	34.00	36.00	75.00	-	6.00	2
3330730	●	-	-	-	7.300	0.28740	34.00	36.00	75.00	-	6.00	2
3330740	●	-	-	-	7.400	0.29134	34.00	36.00	75.00	-	6.00	2
3330750	●	-	-	-	7.500	0.29528	34.00	36.00	75.00	-	6.00	2
3330760	●	-	-	-	7.600	0.29921	34.00	36.00	75.00	-	6.00	2
3330770	●	-	-	-	7.700	0.30315	34.00	36.00	75.00	-	6.00	2
3330780	●	-	-	-	7.800	0.30709	34.00	36.00	75.00	-	6.00	2
3330790	●	-	-	-	7.900	0.31102	34.00	36.00	75.00	-	6.00	2
570031211	●	5/16	-	-	7.938	0.31250	34.00	36.00	75.00	0.313	-	2
3330800	●	-	-	-	8.000	0.31496	34.00	36.00	75.00	-	8.00	2
3330810	●	-	-	-	8.100	0.31890	38.00	40.00	80.00	-	8.00	2
3330820	●	-	-	-	8.200	0.32283	38.00	40.00	80.00	-	8.00	2
3330830	●	-	-	-	8.300	0.32677	38.00	40.00	80.00	-	8.00	2
570032811	●	21/64	-	-	8.334	0.32813	38.00	37.80	80.00	0.375	-	1
3330840	●	-	-	-	8.400	0.33071	38.00	40.00	80.00	-	8.00	2
3330850	●	-	-	-	8.500	0.33465	38.00	40.00	80.00	-	8.00	2
3330860	●	-	-	-	8.600	0.33858	38.00	40.00	80.00	-	8.00	2
3330870	●	-	-	-	8.700	0.34252	38.00	40.00	80.00	-	8.00	2
3330880	●	-	-	-	8.800	0.34646	38.00	40.00	80.00	-	8.00	2
3330890	●	-	-	-	8.900	0.35039	38.00	40.00	80.00	-	8.00	2
3330900	●	-	-	-	9.000	0.35433	38.00	40.00	80.00	-	8.00	2

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked

Note: Sizes smaller than 2mm available with IchAda coating. Sizes 2mm and larger available with EgiAs coating.



CONTINUED ➔

P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium				
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC
1010	1035	1065	4140	4340	○	○	○	○	○	○			○	○		
1018	1045							○								

○ Good ○ Best



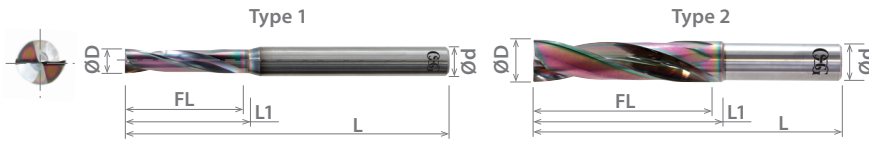
## List 5700 (Continued)



SPEED FEED 35	CARBIDE	IchAda	EgiAs	2 FLUTE	STUB	20°	SHANK h6	PACKED 1 PIECE
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A BRAND ADF-2D, Flat Drill

Cutting Diameter Tolerance		
Size (mm)	mm	inch
D < 2	+0 / -0.009	+0 / -0.0004
2 < D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number	Fractional Size	Wire Gage	Diameter (D)		Flute Length (FL)	Neck Length (L1)	Overall Length (L)	Shank Diameter		Type	
			Letter Size	mm				Inch	d (in)		d (mm)
3330910	-	-	-	9.100	0.35827	42.00	44.00	85.00	-	8.00	2
570035911	23/64	-	-	9.128	0.35938	42.00	43.30	85.00	0.375	-	1
3330920	-	-	-	9.200	0.36220	42.00	44.00	85.00	-	8.00	2
3330930	-	-	-	9.300	0.36614	42.00	44.00	85.00	-	8.00	2
3330940	-	-	-	9.400	0.37008	42.00	44.00	85.00	-	8.00	2
3330950	-	-	-	9.500	0.37402	42.00	44.00	85.00	-	8.00	2
570037511	3/8	-	-	9.525	0.37500	42.00	44.00	85.00	0.375	-	2
3330960	-	-	-	9.600	0.37795	42.00	44.00	85.00	-	8.00	2
3330970	-	-	-	9.700	0.38189	42.00	44.00	85.00	-	8.00	2
3330980	-	-	-	9.800	0.38583	42.00	44.00	85.00	-	8.00	2
3330990	-	-	-	9.900	0.38976	42.00	44.00	85.00	-	8.00	2
3331000	-	-	-	10.000	0.39370	42.00	44.00	85.00	-	10.00	2
3331010	-	-	-	10.100	0.39764	46.00	48.00	90.00	-	10.00	2
3331020	-	-	-	10.200	0.40157	46.00	48.00	90.00	-	10.00	2
3331030	-	-	-	10.300	0.40551	46.00	48.00	90.00	-	10.00	2
570040611	13/32	-	-	10.319	0.40625	46.00	46.50	90.00	0.438	-	1
3331040	-	-	-	10.400	0.40945	46.00	48.00	90.00	-	10.00	2
3331050	-	-	-	10.500	0.41339	46.00	48.00	90.00	-	10.00	2
3331060	-	-	-	10.600	0.41732	46.00	48.00	90.00	-	10.00	2
3331070	-	-	-	10.700	0.42126	46.00	48.00	90.00	-	10.00	2
3331080	-	-	-	10.800	0.42520	46.00	48.00	90.00	-	10.00	2
3331090	-	-	-	10.900	0.42913	46.00	48.00	90.00	-	10.00	2
3331100	-	-	-	11.000	0.43307	46.00	48.00	90.00	-	10.00	2
3331110	-	-	-	11.100	0.43701	50.00	52.00	95.00	-	10.00	2
570043711	7/16	-	-	11.113	0.43750	50.00	52.00	95.00	0.438	-	2
3331120	-	-	-	11.200	0.44094	50.00	52.00	95.00	-	10.00	2
3331130	-	-	-	11.300	0.44488	50.00	52.00	95.00	-	10.00	2
3331140	-	-	-	11.400	0.44882	50.00	52.00	95.00	-	10.00	2
3331150	-	-	-	11.500	0.45276	50.00	52.00	95.00	-	10.00	2
570045311	29/64	-	-	11.509	0.45313	50.00	49.80	95.00	0.500	-	1
3331160	-	-	-	11.600	0.45669	50.00	52.00	95.00	-	10.00	2
3331170	-	-	-	11.700	0.46063	50.00	52.00	95.00	-	10.00	2
3331180	-	-	-	11.800	0.46457	50.00	52.00	95.00	-	10.00	2
3331190	-	-	-	11.900	0.46850	50.00	52.00	95.00	-	10.00	2
570046811	15/32	-	-	11.906	0.46875	50.00	50.50	95.00	0.500	-	1
3331200	-	-	-	12.000	0.47244	50.00	52.00	95.00	-	12.00	2
3331210	-	-	-	12.100	0.47638	56.00	58.00	100.00	-	12.00	2
3331220	-	-	-	12.200	0.48031	56.00	58.00	100.00	-	12.00	2
3331230	-	-	-	12.300	0.48425	56.00	58.00	100.00	-	12.00	2
3331240	-	-	-	12.400	0.48819	56.00	58.00	100.00	-	12.00	2
3331250	-	-	-	12.500	0.49213	56.00	58.00	100.00	-	12.00	2
3331260	-	-	-	12.600	0.49606	56.00	58.00	100.00	-	12.00	2
3331270	1/2	-	-	12.700	0.50000	56.00	58.00	100.00	-	12.00	2
3331280	-	-	-	12.800	0.50394	56.00	58.00	100.00	-	12.00	2
3331290	-	-	-	12.900	0.50787	56.00	58.00	100.00	-	12.00	2
3331300	-	-	-	13.000	0.51181	56.00	58.00	100.00	-	12.00	2
3331310	-	-	-	13.100	0.51575	60.00	62.00	105.00	-	12.00	2
3331320	-	-	-	13.200	0.51969	60.00	62.00	105.00	-	12.00	2
3331330	-	-	-	13.300	0.52362	60.00	62.00	105.00	-	12.00	2
3331340	-	-	-	13.400	0.52756	60.00	62.00	105.00	-	12.00	2
3331350	-	-	-	13.500	0.53150	60.00	62.00	105.00	-	12.00	2
3331360	-	-	-	13.600	0.53543	60.00	62.00	105.00	-	12.00	2

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked

Note: Sizes smaller than 2mm available with IchAda coating. Sizes 2mm and larger available with EgiAs coating.



## List 5700 (Continued)



SPEED FEED 35	CARBIDE	IchAda	EgiAs	2 FLUTE	STUB	20°	SHANK h6	PACKED 1 PIECE
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A BRAND ADF-2D, Flat Drill

EDP Number		Diameter (D)					Flute Length	Neck Length	Overall Length	Shank Diameter		Type
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L1 (mm)	L (mm)	d (in)	d (mm)	
3331370	●	-	-	-	13.700	0.53937	60.00	62.00	105.00	-	12.00	2
3331380	●	-	-	-	13.800	0.54331	60.00	62.00	105.00	-	12.00	2
3331390	●	-	-	-	13.900	0.54724	60.00	62.00	105.00	-	12.00	2
3331400	●	-	-	-	14.000	0.55118	60.00	62.00	105.00	-	12.00	2
3331410	●	-	-	-	14.100	0.55512	64.00	66.00	110.00	-	12.00	2
3331420	●	-	-	-	14.200	0.55906	64.00	66.00	110.00	-	12.00	2
570056211	●	9/16	-	-	14.288	0.56250	64.00	63.00	110.00	0.625	-	1
3331430	●	-	-	-	14.300	0.56299	64.00	66.00	110.00	-	12.00	2
3331440	●	-	-	-	14.400	0.56693	64.00	66.00	110.00	-	12.00	2
3331450	●	-	-	-	14.500	0.57087	64.00	66.00	110.00	-	12.00	2
3331460	●	-	-	-	14.600	0.57480	64.00	66.00	110.00	-	12.00	2
3331470	●	-	-	-	14.700	0.57874	64.00	66.00	110.00	-	12.00	2
3331480	●	-	-	-	14.800	0.58268	64.00	66.00	110.00	-	12.00	2
3331490	●	-	-	-	14.900	0.58661	64.00	66.00	110.00	-	12.00	2
3331500	●	-	-	-	15.000	0.59055	64.00	66.00	110.00	-	12.00	2
3331510	●	-	-	-	15.100	0.59449	68.00	70.00	115.00	-	12.00	2
3331520	●	-	-	-	15.200	0.59843	68.00	70.00	115.00	-	12.00	2
3331530	●	-	-	-	15.300	0.60236	68.00	70.00	115.00	-	12.00	2
3331540	●	-	-	-	15.400	0.60630	68.00	70.00	115.00	-	12.00	2
3331550	●	-	-	-	15.500	0.61024	68.00	70.00	115.00	-	12.00	2
3331560	●	-	-	-	15.600	0.61417	68.00	70.00	115.00	-	12.00	2
3331570	●	-	-	-	15.700	0.61811	68.00	70.00	115.00	-	12.00	2
3331580	●	-	-	-	15.800	0.62205	68.00	70.00	115.00	-	12.00	2
570062511	●	5/8	-	-	15.875	0.62500	68.00	70.00	115.00	0.625	-	2
3331590	●	-	-	-	15.900	0.62598	68.00	70.00	115.00	-	12.00	2
3331600	●	-	-	-	16.000	0.62992	68.00	70.00	115.00	-	16.00	2
3331650	●	-	-	-	16.500	0.64961	74.00	76.00	125.00	-	16.00	2
3331700	●	-	-	-	17.000	0.66929	74.00	76.00	125.00	-	16.00	2
570068711	●	11/16	-	-	17.463	0.68750	78.00	77.10	130.00	0.750	-	1
3331750	●	-	-	-	17.500	0.68898	78.00	80.00	130.00	-	16.00	2
3331800	●	-	-	-	18.000	0.70866	78.00	80.00	130.00	-	16.00	2
3331850	●	-	-	-	18.500	0.72835	84.00	86.00	135.00	-	16.00	2
3331900	●	-	-	-	19.000	0.74803	84.00	86.00	135.00	-	16.00	2
570075011	●	3/4	-	-	19.050	0.75000	88.00	90.00	140.00	0.750	-	2
3331950	●	-	-	-	19.500	0.76772	88.00	90.00	140.00	-	16.00	2
3332000	●	-	-	-	20.000	0.78740	88.00	90.00	140.00	-	20.00	2

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked

Note: Sizes smaller than 2mm available with IchAda coating. Sizes 2mm and larger available with EgiAs coating.



P					M			K	N		S		H						
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel						
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium							
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
1010	1035	1065	4140																
1018	1045		4340																

○ Good ○ Best



# A Brand ADFLS

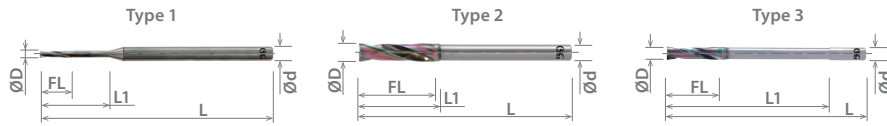
Advanced Performance Long Shank Flat Drill

## List 5705

A BRAND ADFLS-2D, Long Shank, Flat Drill

**A**  **SPEED FEED** 36 **CARBIDE** **EgiAs** **2 FLUTE** **STUB** **20°** **SHANK** h6 **PACKED** 1 PIECE

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
3 ≤ D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number		Diameter (D)					Flute Length FL (mm)	Neck Length L1 (mm)	Overall Length L (mm)	Shank Diameter		Type
		Fractional Size	Wire Gage	Letter Size	mm	Inch				d (in)	d (mm)	
3332300	●	-	-	-	3.000	0.11811	15.00	30.00	100.00	-	6.00	1
3332310	●	-	-	-	3.100	0.12205	15.00	31.00	100.00	-	6.00	1
570512517	●	1/8	-	-	3.175	0.12500	15.00	32.00	100.00	0.125	-	2
3332320	●	-	-	-	3.200	0.12598	15.00	32.00	100.00	-	6.00	1
3332330	●	-	-	-	3.300	0.12992	15.00	33.00	100.00	-	6.00	1
3332340	●	-	-	-	3.400	0.13386	16.00	34.00	100.00	-	6.00	1
3332350	●	-	-	-	3.500	0.13780	16.00	35.00	100.00	-	6.00	1
3332360	●	-	-	-	3.600	0.14173	16.00	36.00	100.00	-	6.00	1
3332370	●	-	-	-	3.700	0.14567	16.00	37.00	100.00	-	6.00	1
3332380	●	-	-	-	3.800	0.14961	19.00	38.00	100.00	-	6.00	1
3332390	●	-	-	-	3.900	0.15354	19.00	39.00	100.00	-	6.00	1
570515617	●	5/32	-	-	3.969	0.15625	19.00	40.00	100.00	0.188	-	1
3332400	●	-	-	-	4.000	0.15748	19.00	40.00	100.00	-	6.00	1
3332410	●	-	-	-	4.100	0.16142	19.00	41.00	100.00	-	6.00	1
3332420	●	-	-	-	4.200	0.16535	21.00	42.00	100.00	-	6.00	1
3332430	●	-	-	-	4.300	0.16929	21.00	43.00	100.00	-	6.00	1
3332440	●	-	-	-	4.400	0.17323	21.00	44.00	100.00	-	6.00	1
3332450	●	-	-	-	4.500	0.17717	21.00	45.00	100.00	-	6.00	1
3332460	●	-	-	-	4.600	0.18110	21.00	46.00	100.00	-	6.00	1
3332470	●	-	-	-	4.700	0.18504	21.00	47.00	100.00	-	6.00	1
570518717	●	3/16	-	-	4.763	0.18750	24.00	48.00	100.00	0.188	-	2
3332480	●	-	-	-	4.800	0.18898	24.00	48.00	100.00	-	6.00	1
3332490	●	-	-	-	4.900	0.19291	24.00	49.00	100.00	-	6.00	1
3332500	●	-	-	-	5.000	0.19685	24.00	50.00	110.00	-	6.00	1
3332510	●	-	-	-	5.100	0.20079	24.00	51.00	110.00	-	6.00	1
3332520	●	-	-	-	5.200	0.20472	24.00	52.00	110.00	-	6.00	1
3332530	●	-	-	-	5.300	0.20866	24.00	53.00	110.00	-	6.00	1
3332540	●	-	-	-	5.400	0.21260	27.00	54.00	110.00	-	6.00	1
3332550	●	-	-	-	5.500	0.21654	27.00	55.00	110.00	-	6.00	1
570521817	●	7/32	-	-	5.556	0.21875	27.00	56.00	110.00	0.250	-	1
3332560	●	-	-	-	5.600	0.22047	27.00	56.00	110.00	-	6.00	1
3332570	●	-	-	-	5.700	0.22441	27.00	57.00	110.00	-	6.00	1
3332580	●	-	-	-	5.800	0.22835	27.00	58.00	110.00	-	6.00	1
3332590	●	-	-	-	5.900	0.23228	27.00	59.00	110.00	-	6.00	1
3332600	●	-	-	-	6.000	0.23622	27.00	29.00	110.00	-	6.00	2
3334060	●	-	-	-	6.000	0.23622	27.00	60.00	110.00	-	6.00	3
570525017	●	1/4	-	E	6.350	0.25000	30.00	64.00	120.00	0.250	-	2
3332650	●	-	-	-	6.500	0.25591	30.00	32.00	120.00	-	6.00	2
3332680	●	-	-	-	6.800	0.26772	30.00	32.00	120.00	-	6.00	2
3332700	●	-	-	-	7.000	0.27559	30.00	32.00	120.00	-	6.00	2
570528117	●	9/32	-	-	7.144	0.28125	34.00	72.00	130.00	0.313	-	1
3332750	●	-	-	-	7.500	0.29528	34.00	36.00	130.00	-	6.00	2
3332780	●	-	-	-	7.800	0.30709	34.00	36.00	130.00	-	6.00	2
570531217	●	5/16	-	-	7.938	0.31250	34.00	79.00	130.00	0.313	-	2
3332800	●	-	-	-	8.000	0.31496	34.00	36.00	130.00	-	8.00	2
3334080	●	-	-	-	8.000	0.31496	34.00	80.00	130.00	-	8.00	3
570532817	●	21/64	-	-	8.334	0.32813	38.00	83.00	140.00	0.375	-	1
3332850	●	-	-	-	8.500	0.33465	38.00	40.00	140.00	-	8.00	2
3332880	●	-	-	-	8.800	0.34646	38.00	40.00	140.00	-	8.00	2
3332900	●	-	-	-	9.000	0.35433	38.00	40.00	140.00	-	8.00	2
570535917	●	23/64	-	-	9.128	0.35938	42.00	91.00	150.00	0.375	-	1
3332950	●	-	-	-	9.500	0.37402	42.00	44.00	150.00	-	8.00	2

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked





## List 5705 (Continued)



<b>SPEED FEED</b> 36	<b>CARBIDE</b>	<b>EgiAs</b>	<b>2 FLUTE</b>	<b>STUB</b>	<b>20°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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A BRAND ADFLS-2D, Long Shank, Flat Drill

EDP Number		Diameter (D)					Flute Length	Neck Length	Overall Length	Shank Diameter		Type
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L1 (mm)	L (mm)	d (in)	d (mm)	
570537517	●	3/8	-	-	9.525	0.37500	42.00	95.00	150.00	0.375	-	2
3332980	●	-	-	-	9.800	0.38583	42.00	44.00	150.00	-	8.00	2
3333000	●	-	-	-	10.000	0.39370	42.00	44.00	150.00	-	10.00	2
3334100	●	-	-	-	10.000	0.39370	42.00	100.00	150.00	-	10.00	3
570540617	●	13/32	-	-	10.319	0.40625	46.00	103.00	160.00	0.438	-	1
3333050	●	-	-	-	10.500	0.41339	46.00	48.00	160.00	-	10.00	2
3333080	●	-	-	-	10.800	0.42520	46.00	48.00	160.00	-	10.00	2
3333100	●	-	-	-	11.000	0.43307	46.00	48.00	160.00	-	10.00	2
570543717	●	7/16	-	-	11.113	0.43750	50.00	111.00	170.00	0.438	-	2
570545317	●	29/64	-	-	11.509	0.45313	50.00	115.00	170.00	0.500	-	1
3333180	●	-	-	-	11.800	0.46457	50.00	52.00	170.00	-	10.00	2
570546817	●	15/32	-	-	11.906	0.46875	50.00	119.00	170.00	0.500	-	1
3333200	●	-	-	-	12.000	0.47244	50.00	52.00	170.00	-	12.00	2
3334120	●	-	-	-	12.000	0.47244	50.00	120.00	170.00	-	12.00	3
3333250	●	-	-	-	12.500	0.49213	56.00	58.00	180.00	-	12.00	2
570550017	●	1/2	-	-	12.700	0.50000	56.00	127.00	180.00	0.500	-	2
3333300	●	-	-	-	13.000	0.51181	56.00	58.00	180.00	-	12.00	2
3333350	●	-	-	-	13.500	0.53150	60.00	62.00	190.00	-	12.00	2
3333400	●	-	-	-	14.000	0.55118	60.00	62.00	190.00	-	12.00	2
570556217	●	9/16	-	-	14.288	0.56250	64.00	143.00	200.00	0.625	-	1
3333500	●	-	-	-	15.000	0.59055	64.00	66.00	200.00	-	12.00	2
570562517	●	5/8	-	-	15.875	0.62500	68.00	159.00	210.00	0.625	-	2
3333600	●	-	-	-	16.000	0.62992	68.00	70.00	210.00	-	16.00	2
3334160	●	-	-	-	16.000	0.62992	68.00	160.00	210.00	-	16.00	3
3333700	●	-	-	-	17.000	0.66929	74.00	76.00	220.00	-	16.00	2
570568717	●	11/16	-	-	17.463	0.68750	78.00	175.00	230.00	0.750	-	1
3333750	●	-	-	-	17.500	0.68898	78.00	80.00	230.00	-	16.00	2
3333800	●	-	-	-	18.000	0.70866	78.00	80.00	230.00	-	16.00	2
570575017	●	3/4	-	-	19.050	0.75000	88.00	191.00	250.00	0.750	-	2
3334000	●	-	-	-	20.000	0.78740	88.00	90.00	250.00	-	20.00	2
3334200	●	-	-	-	20.000	0.78740	88.00	200.00	250.00	-	20.00	3

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel					Aluminum	Nickel Alloy	Titanium					
Low	Medium	High			300	400	17-4 PH		6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010	1035	1065	4140	4340	○	○	○	○	○	○			○	○		
1018	1045	1065	4140	4340	○	○	○	○	○	○			○	○		

○ Good ○ Best



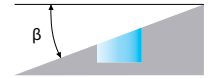
## List 5720 - A Brand ADFO: 3D

### General Drilling Operations

Work Material		Carbon Steels, Mild Steels 1010, 1050, 12L14		Alloy Steels 4140, 4130		Stainless Steels 300SS, 400SS, 17-4PH		Cast Iron		Ductile Cast Iron		Aluminum Alloy 5052,7075	
Hardness				28-35 HRC									
Drilling Speed		200-330 SFM		100-300 SFM		130-200 SFM		200-400 SFM		165-260 SFM		265-650 SFM	
Drill Dia.		Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed
mm	Inch	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR
3	-	10,650	0.002 - 0.004	7,530	0.002 - 0.004	5,300	0.002 - 0.004	10,650	0.002 - 0.004	8,570	0.002 - 0.004	17,000	0.002 - 0.004
-	1/8	10,080	0.002 - 0.004	7,120	0.002 - 0.004	5,040	0.002 - 0.004	10,080	0.002 - 0.004	8,100	0.002 - 0.004	16,040	0.002 - 0.004
4	-	8,000	0.002 - 0.005	5,650	0.002 - 0.005	4,000	0.002 - 0.005	8,000	0.002 - 0.005	6,430	0.002 - 0.005	12,730	0.002 - 0.005
-	3/16	6,720	0.002 - 0.006	4,750	0.002 - 0.006	3,360	0.002 - 0.006	6,720	0.002 - 0.006	5,400	0.002 - 0.006	10,690	0.002 - 0.006
6	-	5,300	0.002 - 0.007	3,770	0.002 - 0.007	2,660	0.002 - 0.007	5,300	0.002 - 0.007	4,280	0.002 - 0.007	8,490	0.002 - 0.007
-	1/4	5,040	0.003 - 0.008	3,560	0.003 - 0.008	2,520	0.003 - 0.008	5,040	0.003 - 0.008	4,050	0.003 - 0.008	8,020	0.003 - 0.008
8	-	4,000	0.003 - 0.009	2,830	0.003 - 0.009	2,000	0.003 - 0.009	4,000	0.003 - 0.009	3,210	0.003 - 0.009	6,370	0.003 - 0.009
-	3/8	3,360	0.004 - 0.011	2,370	0.004 - 0.011	1,680	0.004 - 0.011	3,360	0.004 - 0.011	2,700	0.004 - 0.011	5,350	0.004 - 0.011
10	-	3,200	0.004 - 0.012	2,260	0.004 - 0.012	1,600	0.004 - 0.012	3,200	0.004 - 0.012	2,570	0.004 - 0.012	5,100	0.004 - 0.012
-	7/16	2,880	0.004 - 0.013	2,030	0.004 - 0.013	1,440	0.004 - 0.013	2,880	0.004 - 0.013	2,310	0.004 - 0.013	4,580	0.004 - 0.013
12	-	2,650	0.005 - 0.014	1,880	0.005 - 0.014	1,330	0.005 - 0.014	2,650	0.005 - 0.014	2,140	0.005 - 0.014	4,240	0.005 - 0.014
-	1/2	2,520	0.005 - 0.015	1,780	0.005 - 0.015	1,260	0.005 - 0.015	2,520	0.005 - 0.015	2,020	0.005 - 0.015	4,010	0.005 - 0.015
14	-	2,290	0.006 - 0.017	1,620	0.006 - 0.017	1,140	0.006 - 0.017	2,290	0.006 - 0.017	1,840	0.006 - 0.017	3,640	0.006 - 0.017
-	5/8	2,010	0.006 - 0.019	1,420	0.006 - 0.019	1,010	0.006 - 0.019	2,010	0.006 - 0.019	1,620	0.006 - 0.019	3,210	0.006 - 0.019
16	-	2,000	0.006 - 0.019	1,410	0.006 - 0.019	1,000	0.006 - 0.019	2,000	0.006 - 0.019	1,610	0.006 - 0.019	3,180	0.006 - 0.019
18	-	1,775	0.007 - 0.021	1,260	0.007 - 0.021	890	0.007 - 0.021	1,775	0.007 - 0.021	1,430	0.007 - 0.021	2,830	0.007 - 0.021
-	3/4	1,680	0.008 - 0.023	1,190	0.008 - 0.023	840	0.008 - 0.023	1,680	0.008 - 0.023	1,350	0.008 - 0.023	2,670	0.008 - 0.023
20	-	1,600	0.008 - 0.024	1,130	0.008 - 0.024	800	0.008 - 0.024	1,600	0.008 - 0.024	1,280	0.008 - 0.024	2,550	0.008 - 0.024

### General Drilling Operations

Work Material		Cast Aluminum		Hardened Steel- Pre Hardened Steels		Plastic Mold Steels	
Hardness				Up to 50 HRC		Up to 40 HRC	
Drilling Speed		265-650 SFM		65-100 SFM		65-130 SFM	
Drill Dia.		Speed	Feed	Speed	Feed	Speed	Feed
mm	Inch	RPM	IPR	RPM	IPR	RPM	IPR
3	-	17,000	0.002 - 0.004	2,670	0.001 - 0.004	3,150	0.002 - 0.004
-	1/8	16,040	0.002 - 0.004	2,520	0.001 - 0.004	2,980	0.002 - 0.004
4	-	12,730	0.002 - 0.005	2,000	0.002 - 0.005	2,360	0.002 - 0.005
-	3/16	10,690	0.002 - 0.006	1,680	0.002 - 0.006	1,980	0.002 - 0.006
6	-	8,490	0.002 - 0.007	1,330	0.002 - 0.007	1,580	0.002 - 0.007
-	1/4	8,020	0.003 - 0.008	1,260	0.003 - 0.008	1,490	0.003 - 0.008
8	-	6,370	0.003 - 0.009	1,000	0.003 - 0.009	1,180	0.003 - 0.009
-	3/8	5,350	0.004 - 0.011	840	0.004 - 0.011	990	0.004 - 0.011
10	-	5,100	0.004 - 0.012	800	0.004 - 0.012	950	0.004 - 0.012
-	7/16	4,580	0.004 - 0.013	720	0.004 - 0.013	850	0.004 - 0.013
12	-	4,240	0.005 - 0.014	670	0.005 - 0.014	790	0.005 - 0.014
-	1/2	4,010	0.005 - 0.015	630	0.005 - 0.015	740	0.005 - 0.015
14	-	3,640	0.006 - 0.017	570	0.006 - 0.017	680	0.006 - 0.017
-	5/8	3,210	0.006 - 0.019	500	0.006 - 0.019	600	0.006 - 0.019
16	-	3,180	0.006 - 0.019	500	0.006 - 0.019	590	0.006 - 0.019
18	-	2,830	0.007 - 0.021	450	0.007 - 0.021	530	0.007 - 0.021
-	3/4	2,670	0.008 - 0.023	420	0.008 - 0.023	500	0.008 - 0.023
20	-	2,550	0.008 - 0.024	400	0.008 - 0.024	470	0.008 - 0.024



**Note:**

- The table above assumes a milled-flat surface and water soluble coolant.
- Use a rigid and precise machine and holder.
- Please minimize overhang length as much as possible during machining.
- Adjust the rotational speed and feed in accordance with conditions such as the machining shape, machine rigidity, or work holding.
- Please set up the drill so that the runout of the cutting edge is under 0.0008".
- Please select a cutting fluid that is most suitable for the work material with minimal smoke formation.
- In the case of dry machining, please use air blow to remove chips to prevent clogging.
  - Please do not machine stainless steel dry.
- When machining an inclined plane, adjust the rotational speed and feed in accordance with the angle of the incline (β).
  - When the machining incline angle (β) is less than 30°, please reduce the feed to 40-60%.
  - When the machining incline angle (β) is over 30°, please reduce the speed to 60-80%, the feed to 20-40%.
- Please use step drilling when drilling in pre-drilled holes to improve chip separation.
- If it is necessary to ensure the locating precision of the hole to be machined, adjust the rotational speed and feed as indicated above (in accordance with the machining precision requirement).
- Please always use the appropriate cutting fluid recommended by the cutting fluid manufacturer in the machining of magnesium alloys. Be cautious with the cutting chips as they are highly flammable and may pose a serious fire risk if not properly handled.



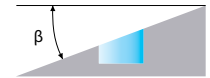
## List 5700 - A Brand ADF: 2D

### General Drilling Operations

Work Material	Carbon Steels, Mild Steels 1010, 1050, 12L14		Alloy Steels 4140, 4130		Stainless Steels 300SS, 400SS, 17-4PH		Cast Iron		Ductile Cast Iron	
	Hardness		28-35 HRC							
Drilling Speed	100-330 SFM		100-300 SFM		35-100 SFM		100-400 SFM		100-260 SFM	
Drill Dia. mm    Inch	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR
	0.2 -	25,000	0.00004 - 0.0002	25,000	0.00004 - 0.0002	25,000	0.00004 - 0.00015	25,000	0.00004 - 0.00024	25,000
- 1/64	25,000	0.00004 - 0.0002	25,000	0.00004 - 0.0002	20,000	0.00004 - 0.00015	25,000	0.00004 - 0.00024	25,000	0.00004 - 0.00024
0.5 -	25,000	0.0001 - 0.0006	25,000	0.0001 - 0.0006	15,900	0.00012 - 0.0004	25,000	0.00012 - 0.0006	25,000	0.00012 - 0.0006
- 1/32	22,000	0.0001 - 0.0006	20,200	0.0001 - 0.0006	10,000	0.00012 - 0.0004	25,000	0.00012 - 0.0006	20,100	0.00012 - 0.0006
1 -	17,500	0.0002 - 0.0012	15,900	0.0002 - 0.0012	8,000	0.0002 - 0.0008	22,500	0.0002 - 0.0012	15,900	0.0002 - 0.0012
- 3/64	14,700	0.0002 - 0.0012	13,500	0.0002 - 0.0012	6,700	0.0002 - 0.0008	21,400	0.0002 - 0.0012	14,200	0.0002 - 0.0012
1.5 -	13,800	0.0003 - 0.0018	12,700	0.0003 - 0.0018	5,300	0.0003 - 0.0012	17,000	0.0003 - 0.0018	11,500	0.0003 - 0.0018
- 1/16	13,100	0.0003 - 0.0018	12,200	0.0003 - 0.0018	5,000	0.0003 - 0.0012	16,000	0.0003 - 0.0018	10,700	0.0003 - 0.0018
2 -	12,850	0.0012 - 0.002	9,700	0.0012 - 0.002	3,980	0.0012 - 0.002	14,550	0.0016 - 0.002	10,310	0.0016 - 0.002
3 -	8,570	0.002 - 0.003	6,470	0.002 - 0.003	2,650	0.002 - 0.003	9,700	0.002 - 0.004	6,870	0.002 - 0.004
- 1/8	8,100	0.002 - 0.003	6,110	0.002 - 0.003	2,500	0.002 - 0.003	9,170	0.002 - 0.004	6,500	0.002 - 0.004
4 -	6,430	0.002 - 0.004	4,850	0.002 - 0.004	1,990	0.002 - 0.004	7,280	0.003 - 0.005	5,150	0.003 - 0.005
- 3/16	5,400	0.002 - 0.004	4,070	0.002 - 0.004	1,670	0.002 - 0.004	6,110	0.003 - 0.005	4,330	0.003 - 0.005
6 -	4,280	0.004 - 0.006	3,230	0.004 - 0.006	1,325	0.004 - 0.006	4,850	0.005 - 0.007	3,440	0.005 - 0.007
- 1/4	4,050	0.004 - 0.006	3,060	0.004 - 0.006	1,250	0.004 - 0.006	4,580	0.005 - 0.007	3,250	0.005 - 0.007
8 -	3,210	0.005 - 0.008	2,430	0.005 - 0.008	995	0.005 - 0.008	3,640	0.006 - 0.009	2,580	0.006 - 0.009
- 3/8	2,700	0.005 - 0.008	2,040	0.005 - 0.008	835	0.005 - 0.008	3,060	0.006 - 0.009	2,160	0.006 - 0.009
10 -	2,570	0.006 - 0.010	1,940	0.006 - 0.010	795	0.006 - 0.010	2,910	0.008 - 0.012	2,060	0.008 - 0.012
- 7/16	2,300	0.006 - 0.010	1,750	0.006 - 0.010	715	0.006 - 0.010	2,620	0.008 - 0.012	1,860	0.008 - 0.012
12 -	2,140	0.007 - 0.012	1,620	0.007 - 0.012	660	0.007 - 0.012	2,430	0.009 - 0.014	1,720	0.009 - 0.014
- 1/2	2,020	0.007 - 0.012	1,530	0.007 - 0.012	625	0.007 - 0.012	2,290	0.009 - 0.014	1,620	0.009 - 0.014
14 -	1,840	0.008 - 0.014	1,390	0.008 - 0.014	570	0.008 - 0.014	2,080	0.011 - 0.017	1,470	0.011 - 0.017
- 5/8	1,620	0.009 - 0.016	1,220	0.009 - 0.016	500	0.009 - 0.016	1,830	0.013 - 0.019	1,300	0.013 - 0.019
16 -	1,610	0.009 - 0.016	1,210	0.009 - 0.016	440	0.009 - 0.016	1,820	0.013 - 0.019	1,290	0.013 - 0.019
18 -	1,430	0.011 - 0.018	1,080	0.011 - 0.018	420	0.011 - 0.018	1,620	0.014 - 0.021	1,150	0.014 - 0.021
- 3/4	1,350	0.012 - 0.020	1,020	0.012 - 0.020	400	0.012 - 0.020	1,530	0.016 - 0.024	1,090	0.016 - 0.024
20 -	1,280	0.012 - 0.020	970	0.012 - 0.020	500	0.012 - 0.020	1,450	0.016 - 0.024	1,030	0.016 - 0.024

### General Drilling Operations

Work Material	Aluminum Alloy 5052,7075		Cast Aluminum		Hardened Steel-Pre Hardened Steel		Plastic Mold Steels	
	Hardness				Up to 50 HRC		Up to 40 HRC	
Drilling Speed	100-650 SFM		100-650 SFM		65-100 SFM		65-130 SFM	
Drill Dia. mm    Inch	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR
	0.2 -	25,000	0.00004 - 0.00024	25,000	0.00004 - 0.00024	25,000	0.00004 - 0.00016	25,000
- 1/64	25,000	0.00004 - 0.00024	25,000	0.00004 - 0.00024	20,000	0.00004 - 0.00016	24,400	0.00004 - 0.00016
0.5 -	25,000	0.00012 - 0.0006	25,000	0.00012 - 0.0006	15,900	0.00012 - 0.0004	19,000	0.00012 - 0.0004
- 1/32	25,000	0.00012 - 0.0006	25,000	0.00012 - 0.0006	10,000	0.00012 - 0.0004	12,200	0.00012 - 0.0004
1 -	25,000	0.0002 - 0.0012	25,000	0.0002 - 0.0012	7,950	0.0002 - 0.0008	9,550	0.0002 - 0.0008
- 3/64	25,000	0.0002 - 0.0012	25,000	0.0002 - 0.0012	6,700	0.0002 - 0.0008	8,150	0.0002 - 0.0008
1.5 -	25,000	0.0003 - 0.0018	25,000	0.0003 - 0.0018	5,300	0.0003 - 0.0012	6,350	0.0003 - 0.0012
- 1/16	25,000	0.0003 - 0.0018	25,000	0.0003 - 0.0018	5,000	0.0003 - 0.0012	6,100	0.0003 - 0.0012
2 -	22,200	0.0004 - 0.002	22,200	0.0004 - 0.002	4,000	0.0008 - 0.002	4,720	0.0012 - 0.002
3 -	14,800	0.001 - 0.004	14,800	0.001 - 0.004	2,660	0.001 - 0.002	3,150	0.0018 - 0.002
- 1/8	13,980	0.001 - 0.004	13,980	0.001 - 0.004	2,520	0.001 - 0.002	2,980	0.0018 - 0.002
4 -	11,100	0.001 - 0.005	11,100	0.001 - 0.005	2,000	0.002 - 0.003	2,360	0.002 - 0.003
- 3/16	9,320	0.001 - 0.005	9,320	0.001 - 0.005	1,680	0.002 - 0.003	1,980	0.002 - 0.003
6 -	7,400	0.001 - 0.007	7,400	0.001 - 0.007	1,330	0.002 - 0.005	1,570	0.004 - 0.005
- 1/4	6,990	0.001 - 0.007	6,990	0.001 - 0.007	1,260	0.002 - 0.005	1,490	0.004 - 0.005
8 -	5,550	0.002 - 0.009	5,550	0.002 - 0.009	1,000	0.003 - 0.006	1,180	0.005 - 0.006
- 3/8	4,660	0.002 - 0.009	4,660	0.002 - 0.009	840	0.003 - 0.006	990	0.005 - 0.006
10 -	4,440	0.002 - 0.012	4,440	0.002 - 0.012	800	0.004 - 0.008	950	0.006 - 0.008
- 7/16	3,990	0.002 - 0.012	3,990	0.002 - 0.012	720	0.004 - 0.008	850	0.006 - 0.008
12 -	3,700	0.002 - 0.014	3,700	0.002 - 0.014	670	0.005 - 0.009	790	0.007 - 0.009
- 1/2	3,500	0.002 - 0.014	3,500	0.002 - 0.014	630	0.005 - 0.009	744	0.007 - 0.009
14 -	3,170	0.003 - 0.017	3,170	0.003 - 0.017	570	0.006 - 0.011	670	0.008 - 0.011
- 5/8	2,800	0.003 - 0.019	2,800	0.003 - 0.019	500	0.006 - 0.013	590	0.009 - 0.013
16 -	2,790	0.003 - 0.019	2,790	0.003 - 0.019	500	0.006 - 0.013	590	0.009 - 0.013
18 -	2,470	0.004 - 0.021	2,470	0.004 - 0.021	450	0.007 - 0.014	520	0.011 - 0.014
- 3/4	2,330	0.004 - 0.024	2,330	0.004 - 0.024	420	0.008 - 0.016	500	0.012 - 0.016
20 -	2,250	0.004 - 0.024	2,250	0.004 - 0.024	400	0.008 - 0.016	470	0.012 - 0.016



Note:

- The speeds and feeds in the table above apply when drilling on a flat surface with water-soluble coolant.
- When using non-water soluble oil or water-emulsifiable (over 20 times dilution), reduce cutting speed by 30%.
- Use a rigid and precise machine and holder.
- Please minimize tool overhang as much as possible during machining.
- Adjust the rotational speed and the feed rate in accordance with conditions such as the machining shape, machine rigidity, or work holding.
- Please set up the drill so that the runout of the cutting edge is under 0.0004 in.
- When machining an inclined plane, adjust the rotational speed and the feed rate in accordance with the angle of the incline ( $\beta$ ).
  - When the machining incline angle ( $\beta$ ) is less than 30°, please reduce the feed to 40-60%.
  - When the machining incline angle ( $\beta$ ) is over 30°, please reduce the speed to 60-80%, the feed to 40-60%.
- Please use step drilling in pilot holes to improve cutting chip separation.
- If it is necessary to ensure the locating precision of the hole to be machined, adjust the rotational speed and the feed rate as indicated above (in accordance with the machining precision requirement).

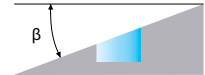
## List 5705 - A Brand ADFLS: 2D

### General Drilling Operations

Work Material	Carbon Steels, Mild Steels 1010, 1050, 12L14		Alloy Steels 4140, 4130		Stainless Steels 300SS, 400SS, 17-4PH		Cast Iron		Ductile Cast Iron		Aluminum Alloy 5052,7075		
	Hardness		28-35 HRC										
Drilling Speed	200-330 SFM		100-300 SFM		65-140 SFM		200-400 SFM		165-260 SFM		265-650 SFM		
Drill Dia.	Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed	
	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR	
mm	Inch												
2	-	12,850	0.0012 - 0.002	9,700	0.0012 - 0.002	4,980	0.0012 - 0.002	14,550	0.0016 - 0.002	10,310	0.0016 - 0.002	22,200	0.0004 - 0.002
3	-	8,570	0.002 - 0.003	6,470	0.002 - 0.003	3,320	0.002 - 0.003	9,700	0.002 - 0.004	6,870	0.002 - 0.004	14,800	0.001 - 0.004
-	1/8	8,100	0.002 - 0.003	6,110	0.002 - 0.003	3,140	0.002 - 0.003	9,170	0.002 - 0.004	6,500	0.002 - 0.004	13,980	0.001 - 0.004
4	-	6,430	0.002 - 0.004	4,850	0.002 - 0.004	2,890	0.002 - 0.004	7,280	0.003 - 0.005	5,150	0.003 - 0.005	11,100	0.001 - 0.005
-	3/16	5,400	0.002 - 0.004	4,070	0.002 - 0.004	2,090	0.002 - 0.004	6,110	0.003 - 0.005	4,330	0.003 - 0.005	9,320	0.001 - 0.005
6	-	4,280	0.004 - 0.006	3,230	0.004 - 0.006	1,660	0.004 - 0.006	4,850	0.005 - 0.007	3,440	0.005 - 0.007	7,400	0.001 - 0.007
-	1/4	4,050	0.004 - 0.006	3,060	0.004 - 0.006	1,570	0.004 - 0.006	4,580	0.005 - 0.007	3,250	0.005 - 0.007	6,990	0.001 - 0.007
8	-	3,210	0.005 - 0.008	2,430	0.005 - 0.008	1,240	0.005 - 0.008	3,640	0.006 - 0.009	2,580	0.006 - 0.009	5,550	0.002 - 0.009
-	3/8	2,700	0.005 - 0.008	2,040	0.005 - 0.008	1,040	0.005 - 0.008	3,060	0.006 - 0.009	2,160	0.006 - 0.009	4,660	0.002 - 0.009
10	-	2,570	0.006 - 0.010	1,940	0.006 - 0.010	1,000	0.006 - 0.010	2,910	0.008 - 0.012	2,060	0.008 - 0.012	4,440	0.002 - 0.012
-	7/16	2,300	0.006 - 0.010	1,750	0.006 - 0.010	900	0.006 - 0.010	2,620	0.008 - 0.012	1,860	0.008 - 0.012	3,990	0.002 - 0.012
12	-	2,140	0.007 - 0.012	1,620	0.007 - 0.012	830	0.007 - 0.012	2,430	0.009 - 0.014	1,720	0.009 - 0.014	3,700	0.002 - 0.014
-	1/2	2,020	0.007 - 0.012	1,530	0.007 - 0.012	780	0.007 - 0.012	2,290	0.009 - 0.014	1,620	0.009 - 0.014	3,500	0.002 - 0.014
14	-	1,840	0.008 - 0.014	1,390	0.008 - 0.014	710	0.008 - 0.014	2,080	0.011 - 0.017	1,470	0.011 - 0.017	3,170	0.003 - 0.017
-	5/8	1,620	0.009 - 0.016	1,220	0.009 - 0.016	630	0.009 - 0.016	1,830	0.013 - 0.019	1,300	0.013 - 0.019	2,800	0.003 - 0.019
16	-	1,610	0.009 - 0.016	1,210	0.009 - 0.016	620	0.009 - 0.016	1,820	0.013 - 0.019	1,290	0.013 - 0.019	2,790	0.003 - 0.019
18	-	1,430	0.011 - 0.018	1,080	0.011 - 0.018	550	0.011 - 0.018	1,620	0.014 - 0.021	1,150	0.014 - 0.021	2,470	0.004 - 0.021
-	3/4	1,350	0.012 - 0.020	1,020	0.012 - 0.020	520	0.012 - 0.020	1,530	0.016 - 0.024	1,090	0.016 - 0.024	2,330	0.004 - 0.024
20	-	1,280	0.012 - 0.020	970	0.012 - 0.020	500	0.012 - 0.020	1,450	0.016 - 0.024	1,030	0.016 - 0.024	2,250	0.004 - 0.024

### General Drilling Operations

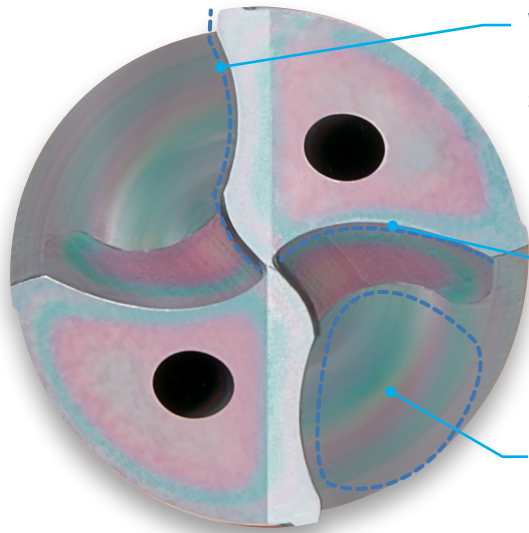
Work Material	Cast Aluminum		Hardened Steel-Pre Hardened Steel		Plastic Mold Steels		
	Hardness		Up to 50 HRC		Up to 40 HRC		
Drilling Speed	265-650 SFM		65-100 SFM		65-130 SFM		
Drill Dia.	Speed	Feed	Speed	Feed	Speed	Feed	
	RPM	IPR	RPM	IPR	RPM	IPR	
mm	Inch						
2	-	22,200	0.0004 - 0.002	4,000	0.0008 - 0.002	4,720	0.0012 - 0.002
3	-	14,800	0.001 - 0.004	2,660	0.001 - 0.002	3,150	0.0018 - 0.002
-	1/8	13,980	0.001 - 0.004	2,520	0.001 - 0.002	2,980	0.0018 - 0.002
4	-	11,100	0.001 - 0.005	2,000	0.002 - 0.003	2,360	0.002 - 0.003
-	3/16	9,320	0.001 - 0.005	1,680	0.002 - 0.003	1,980	0.002 - 0.003
6	-	7,400	0.001 - 0.007	1,330	0.002 - 0.005	1,570	0.004 - 0.005
-	1/4	6,990	0.001 - 0.007	1,260	0.002 - 0.005	1,490	0.004 - 0.005
8	-	5,550	0.002 - 0.009	1,000	0.003 - 0.006	1,180	0.005 - 0.006
-	3/8	4,660	0.002 - 0.009	840	0.003 - 0.006	990	0.005 - 0.006
10	-	4,440	0.002 - 0.012	800	0.004 - 0.008	950	0.006 - 0.008
-	7/16	3,990	0.002 - 0.012	720	0.004 - 0.008	850	0.006 - 0.008
12	-	3,700	0.002 - 0.014	670	0.005 - 0.009	790	0.007 - 0.009
-	1/2	3,500	0.002 - 0.014	630	0.005 - 0.009	744	0.007 - 0.009
14	-	3,170	0.003 - 0.017	570	0.006 - 0.011	670	0.008 - 0.011
-	5/8	2,800	0.003 - 0.019	500	0.006 - 0.013	590	0.009 - 0.013
16	-	2,790	0.003 - 0.019	500	0.006 - 0.013	590	0.009 - 0.013
18	-	2,470	0.004 - 0.021	450	0.007 - 0.014	520	0.011 - 0.014
-	3/4	2,330	0.004 - 0.024	420	0.008 - 0.016	500	0.012 - 0.016
20	-	2,250	0.004 - 0.024	400	0.008 - 0.016	470	0.012 - 0.016



**Note:**

- The speeds and feeds in the table above apply when drilling on a flat surface with water-soluble coolant.
- When using non-water soluble oil or water-emulsifiable (over 20 times dilution), reduce cutting speed by 30%.
- Use a rigid and precise machine and holder.
- Please minimize tool overhang as much as possible during machining.
- Adjust the rotational speed and the feed rate in accordance with conditions such as the machining shape, machine rigidity, or work holding.
- Please set up the drill so that the runout of the cutting edge is under 0.0004 in.
- When machining an inclined plane, adjust the rotational speed and the feed rate in accordance with the angle of the incline (β).
  - When the machining incline angle(β) is less than 30°, please reduce the feed to 40-60%.
  - When the machining incline angle(β) is over 30°, please reduce the speed to 60-80% , the feed to 40-60%.
- Please use step drilling in pilot holes to improve cutting chip separation.
- If it is necessary to ensure the locating precision of the hole to be machined, adjust the rotational speed and the feed rate as indicated above (in accordance with the machining precision requirement).





## Wavy Point Form

provides low thrust resistance and stable torque for long tool life.

## EgiAs Coating

for exceptional wear resistance and toughness.

## R Gash

enables low cutting resistance and exceptional chip control.

## Wide Flute Room

facilitates stable chip evacuation.

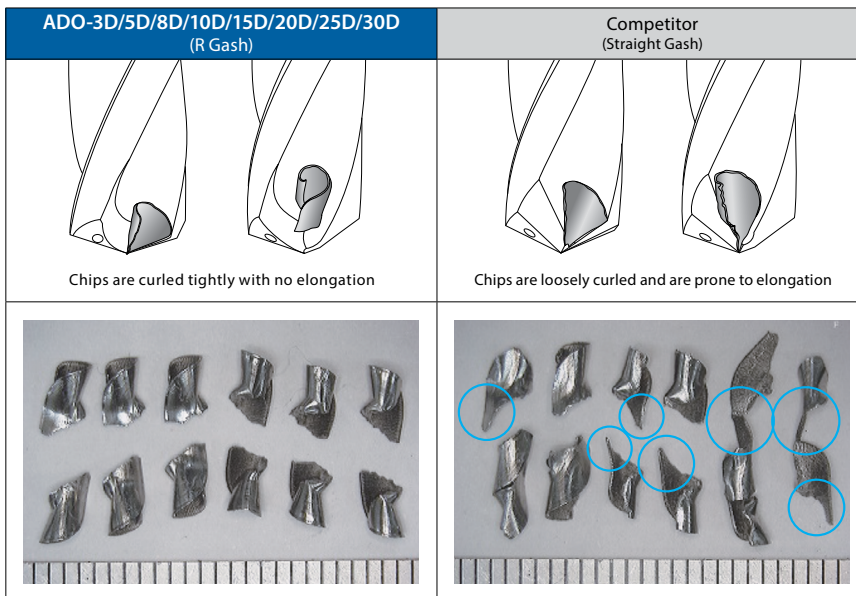
## Double Margin

for improved stability and balance.

## R Gash Geometry

### Superior Chip Evacuation

R Gash design breaks chips into small and manageable pieces for superior chip evacuation capability.



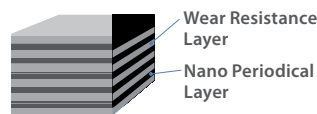
Work Material: SUS304

R Gash is a registered trademark of OSG Corporation.

## EgiAs Coating

### Exceptional Wear Resistance & Toughness

Constructed with extreme toughness, high wear and heat resistance characteristics that ensures stable and consistent tool life. Suppresses friction with the wear resistance layer; prevents breakage with the nano periodical layer.



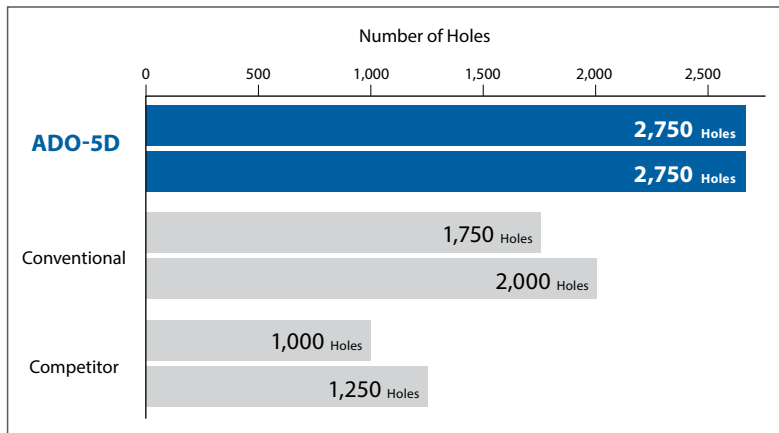
Coating Color	Coating Structure	Hardness (Hv)	Oxidation Temp. (°C)	Heat Resistance	Adhesion Strength	Wear Resistance	Welding Resistance	Toughness
Iridescent Color	Periodic Nano-layer and wear resistance layer	3,200	1,100	⊙	⊙	⊙	⊙	⊙

## Enhanced Durability

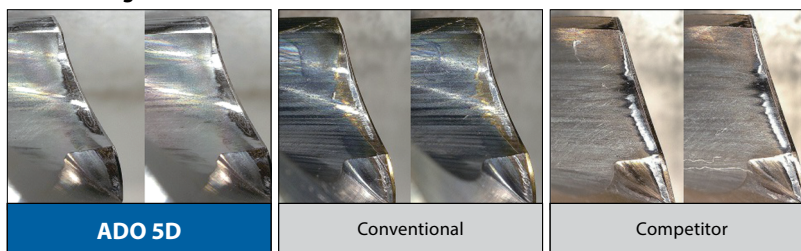
### EgiAs Coating Provides Superior Durability

With the protection of OSG's EgiAs coating, the A Brand ADO outperforms against competitors and conventional drills.

Tool	ADO 5D	Conventional	Competitor
Drill Size	Ø10		
Work Material	1050 Carbon Steel		
Cutting Speed	328 SFM (3,188 RPM)		
Feed Rate	31.2 IPM (0.0098 IPR)		
Depth of Hole	50 mm (Blind)		
Coolant	Water Soluble (Internal)		
Machine	Horizontal Machining Center		



After drilling 500 holes

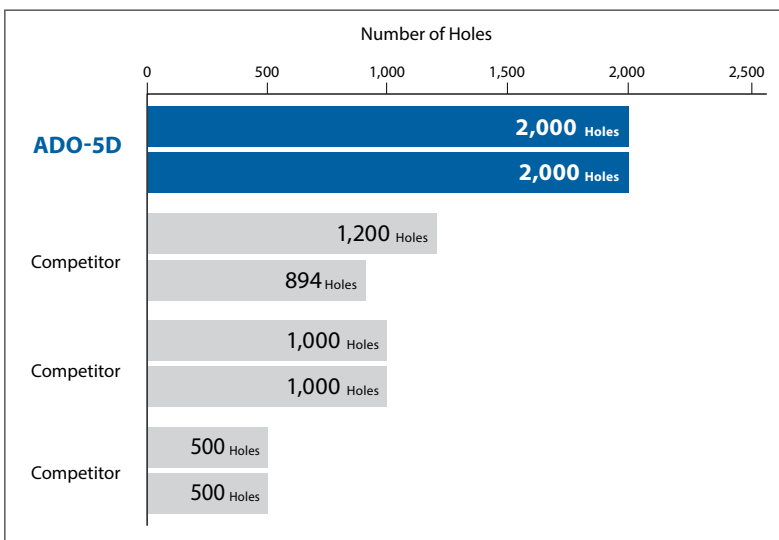


## Longer Tool Life

### Achieve Longer Tool Life at Faster Feeds

Long tool life can be achieved even at high feed rates with OSG's EgiAs coating.

Tool	ADO 5D	Competitors
Drill Size	Ø10	
Work Material	1050 Carbon Steel	
Cutting Speed	524 SFM (4,373 RPM)	328 SFM (2,737 RPM)
Feed Rate	42.8 IPM (0.0098 IPR)	26.8 IPM (0.0098 IPR)
Depth of Hole	50 mm (Blind)	
Coolant	Water Soluble (Internal)	
Machine	Horizontal Machining Center	

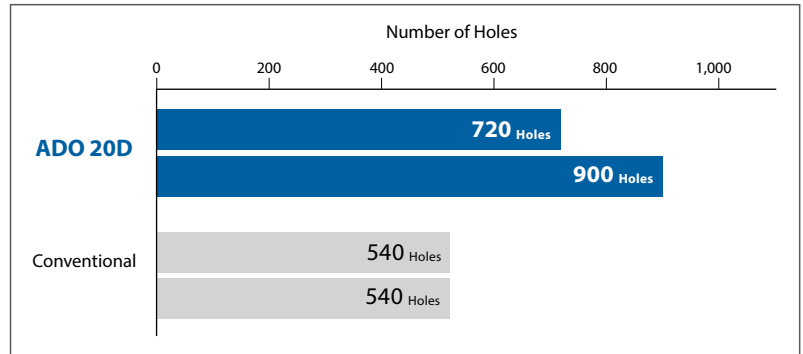


## Efficient Deep-Hole Drilling

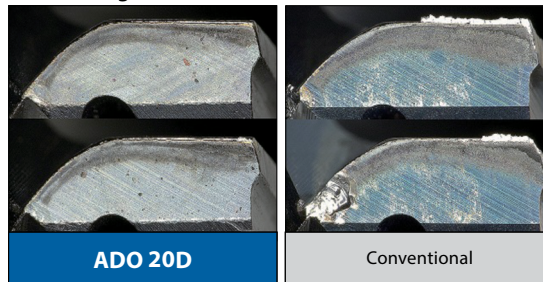
Wide Chip Room and Middle Margin Design Provide Efficient Drilling

With the A Brand ADO's unique design allowing for stable chip evacuation, a middle margin design that provides additional stability when drilling in deep-hole applications, and the EgiAs coating the ADO is able to achieve longer tool life than conventional drills.

Tool	ADO 20D	Conventional
Drill Size	Ø6	
Work Material	4140 Alloy Steel	
Cutting Speed	197 SFM (3,188 RPM)	
Feed Rate	22.3 IPM (0.007 IPR)	
Depth of Hole	120 mm (Blind)	
Coolant	Water Soluble (Internal)	
Machine	Horizontal Machining Center	



After drilling 540 holes

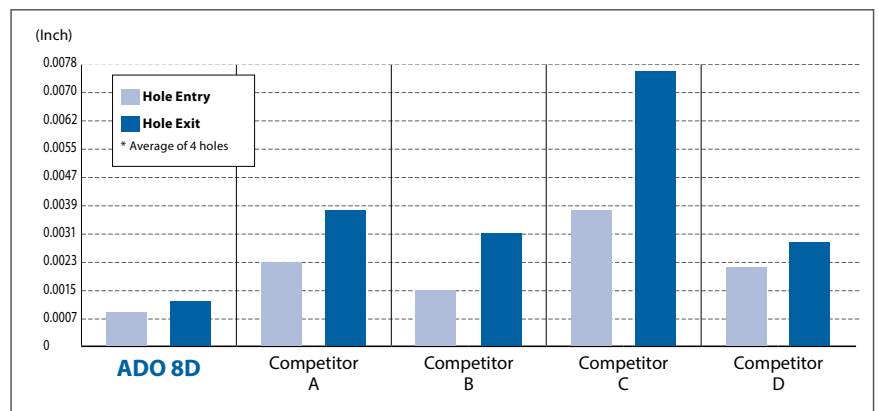


## Designed Based on Depth

Tool Features Designed for Each Drilling Depth

Improved hole accuracy can be achieved with the middle margin and hook tooth geometry.

Tool	ADO 8D	Competitors
Drill Size	Ø10	
Work Material	1050 Carbon Steel	
Cutting Speed	328 SFM (3,188 RPM)	
Feed Rate	37.6 IPM (0.0118 IPR)	
Depth of Hole	80 mm (Through)	
Coolant	Water Soluble (Internal)	
Machine	Vertical Machining Center	



# A Brand ADO

Advanced Performance Coolant-Through Carbide Drill

## List 6500

A BRAND ADO-3D



SPEED FEED  
65

CARBIDE

EgiAs



2 FLUTE

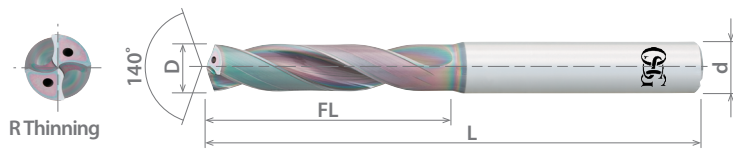
STUB

30°

SHANK  
h6

PACKED  
1 PIECE

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
650007812	●	-	-	-	2.000	0.07874	12.00	66.00	-	3.00
650008212	●	-	-	-	2.100	0.08268	13.00	66.00	-	3.00
650008612	●	-	-	-	2.200	0.08661	14.00	66.00	-	3.00
8690230	●	-	-	-	2.300	0.09055	14.00	66.00	-	3.00
650009312	●	3/32	-	-	2.381	0.09375	15.00	66.00	-	3.00
650009412	●	-	-	-	2.400	0.09449	15.00	66.00	-	3.00
8690250	●	-	-	-	2.500	0.09843	15.00	66.00	-	3.00
8690260	●	-	-	-	2.600	0.10236	16.00	66.00	-	3.00
650010612	●	-	-	-	2.700	0.10630	17.00	66.00	-	3.00
650010912	●	7/64	-	-	2.778	0.10938	17.00	66.00	-	3.00
8690280	●	-	-	-	2.800	0.11024	17.00	66.00	-	3.00
650011161	●	-	-	-	2.830	0.11142	18.00	66.00	-	3.00
8690290	●	-	-	-	2.900	0.11417	18.00	66.00	-	3.00
650011631	●	-	-	-	2.950	0.11614	18.00	66.00	-	3.00
8690300	●	-	-	-	3.000	0.11811	18.00	66.00	-	3.00
8690310	●	-	-	-	3.100	0.12205	19.00	74.00	-	4.00
650012511	●	1/8	-	-	3.175	0.12500	20.00	74.00	0.125	-
8690320	●	-	-	-	3.200	0.12598	20.00	74.00	-	4.00
8690330	●	-	-	-	3.300	0.12992	20.00	74.00	-	4.00
650013231	●	-	-	-	3.360	0.13228	21.00	74.00	-	4.00
8690340	●	-	-	-	3.400	0.13386	21.00	74.00	-	4.00
650013561	●	-	-	-	3.440	0.13543	21.00	74.00	-	4.00
8690350	●	-	-	-	3.500	0.13780	21.00	74.00	-	4.00
650013871	●	-	-	-	3.520	0.13858	22.00	74.00	-	4.00
650014051	●	-	-	-	3.570	0.14055	22.00	74.00	-	4.00
8690360	●	-	-	-	3.600	0.14173	22.00	74.00	-	4.00
8690370	●	-	-	-	3.700	0.14567	23.00	74.00	-	4.00
650014841	●	-	-	-	3.770	0.14843	23.00	74.00	-	4.00
8690380	●	-	-	-	3.800	0.14961	23.00	74.00	-	4.00
650015211	●	-	-	-	3.860	0.15197	24.00	74.00	-	4.00
8690390	●	-	-	-	3.900	0.15354	24.00	74.00	-	4.00
650015511	●	5/32	-	-	3.969	0.15625	24.00	74.00	0.188	-
8690400	●	-	-	-	4.000	0.15748	24.00	74.00	-	4.00
650015911	●	-	-	-	4.050	0.15945	25.00	80.00	-	6.00
650016011	●	-	20	-	4.089	0.16100	25.00	80.00	-	6.00
8690410	●	-	-	-	4.100	0.16142	25.00	80.00	-	5.00
8700410	●	-	-	-	4.100	0.16142	25.00	80.00	-	6.00
650016311	●	-	-	-	4.160	0.16378	26.00	80.00	-	6.00
8690420	●	-	-	-	4.200	0.16535	26.00	80.00	-	5.00
8700420	●	-	-	-	4.200	0.16535	26.00	80.00	-	6.00
650016711	●	-	-	-	4.270	0.16811	26.00	80.00	-	6.00
8690430	●	-	-	-	4.300	0.16929	26.00	80.00	-	5.00
8700430	●	-	-	-	4.300	0.16929	26.00	80.00	-	6.00
650017111	●	11/64	-	-	4.366	0.17188	27.00	80.00	0.188	-
8690440	●	-	-	-	4.400	0.17323	27.00	80.00	-	5.00
8700440	●	-	-	-	4.400	0.17323	27.00	80.00	-	6.00
650017511	●	-	-	-	4.460	0.17559	27.00	80.00	-	6.00
8690450	●	-	-	-	4.500	0.17717	27.00	80.00	-	5.00
8700450	●	-	-	-	4.500	0.17717	27.00	80.00	-	6.00
8690460	●	-	-	-	4.600	0.18110	28.00	80.00	-	5.00
8700460	●	-	-	-	4.600	0.18110	28.00	80.00	-	6.00
650018311	●	-	-	-	4.660	0.18346	29.00	80.00	-	6.00
8690470	●	-	-	-	4.700	0.18504	29.00	80.00	-	5.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked





## List 6500 (Continued)

A BRAND ADO-3D



SPEED FEED  
65

CARBIDE

EgiAs



2 FLUTE

STUB

30°

SHANK  
h6

PACKED  
1 PIECE

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8700470	●	-	-	-	4.700	0.18504	29.00	80.00	-	6.00
650018711	●	3/16	-	-	4.763	0.18750	29.00	80.00	0.188	-
8690480	●	-	-	-	4.800	0.18898	29.00	80.00	-	5.00
8700480	●	-	-	-	4.800	0.18898	29.00	80.00	-	6.00
8690490	●	-	-	-	4.900	0.19291	30.00	80.00	-	5.00
8700490	●	-	-	-	4.900	0.19291	30.00	80.00	-	6.00
8690500	●	-	-	-	5.000	0.19685	25.00	80.00	-	5.00
8700500	●	-	-	-	5.000	0.19685	25.00	80.00	-	6.00
8690510	●	-	-	-	5.100	0.20079	26.00	82.00	-	6.00
650020291	●	-	-	-	5.150	0.20276	26.00	82.00	-	6.00
650020211	●	13/64	-	-	5.159	0.20313	26.00	82.00	0.250	-
8690520	●	-	-	-	5.200	0.20472	26.00	82.00	-	6.00
650020701	●	-	-	-	5.260	0.20709	27.00	82.00	-	6.00
8690530	●	-	-	-	5.300	0.20866	27.00	82.00	-	6.00
8690540	●	-	-	-	5.400	0.21260	27.00	82.00	-	6.00
650021211	●	-	3	-	5.410	0.21300	28.00	82.00	-	6.00
650021521	●	-	-	-	5.470	0.21535	28.00	82.00	-	6.00
8690550	●	-	-	-	5.500	0.21654	28.00	82.00	-	6.00
650021711	●	7/32	-	-	5.556	0.21875	28.00	82.00	0.250	-
8690560	●	-	-	-	5.600	0.22047	28.00	82.00	-	6.00
8690570	●	-	-	-	5.700	0.22441	29.00	82.00	-	6.00
8690580	●	-	-	-	5.800	0.22835	29.00	82.00	-	6.00
8690590	●	-	-	-	5.900	0.23228	30.00	82.00	-	6.00
650023311	●	15/64	-	-	5.953	0.23438	30.00	82.00	0.250	-
8690600	●	-	-	-	6.000	0.23622	30.00	82.00	-	6.00
8690610	●	-	-	-	6.100	0.24016	31.00	88.00	-	7.00
8700610	●	-	-	-	6.100	0.24016	31.00	88.00	-	8.00
650024211	●	-	-	-	6.150	0.24213	31.00	88.00	-	8.00
8690620	●	-	-	-	6.200	0.24409	31.00	88.00	-	7.00
8700620	●	-	-	-	6.200	0.24409	31.00	88.00	-	8.00
8690630	●	-	-	-	6.300	0.24803	32.00	88.00	-	7.00
8700630	●	-	-	-	6.300	0.24803	32.00	88.00	-	8.00
650025011	●	1/4	-	E	6.350	0.25000	32.00	88.00	0.250	-
8690640	●	-	-	-	6.400	0.25197	32.00	88.00	-	7.00
8700640	●	-	-	-	6.400	0.25197	32.00	88.00	-	8.00
8690650	●	-	-	-	6.500	0.25591	33.00	88.00	-	7.00
8700650	●	-	-	-	6.500	0.25591	33.00	88.00	-	8.00
650025611	●	-	-	F	6.528	0.25700	33.00	88.00	-	8.00
8690660	●	-	-	-	6.600	0.25984	33.00	88.00	-	7.00
8700660	●	-	-	-	6.600	0.25984	33.00	88.00	-	8.00
650026211	●	-	-	-	6.650	0.26181	34.00	88.00	-	8.00
8690670	●	-	-	-	6.700	0.26378	34.00	88.00	-	7.00
8700670	●	-	-	-	6.700	0.26378	34.00	88.00	-	8.00
650026411	●	17/64	-	-	6.747	0.26563	34.00	88.00	0.313	-
8690680	●	-	-	-	6.800	0.26772	34.00	88.00	-	7.00
8700680	●	-	-	-	6.800	0.26772	34.00	88.00	-	8.00
650026911	●	-	-	-	6.860	0.27008	35.00	88.00	-	8.00
8690690	●	-	-	-	6.900	0.27165	35.00	88.00	-	7.00
8700690	●	-	-	-	6.900	0.27165	35.00	88.00	-	8.00
8690700	●	-	-	-	7.000	0.27559	35.00	88.00	-	7.00
8700700	●	-	-	-	7.000	0.27559	35.00	88.00	-	8.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H						
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel						
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium							
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
1010	1035	1045	1065	4140	4340														
1018	1045	1065	4140	4340															

○ Good ● Best



# A Brand ADO

Advanced Performance Coolant-Through Carbide Drill

## List 6500 (Continued)



SPEED FEED  
65

CARBIDE

EgiAs



2 FLUTE

STUB

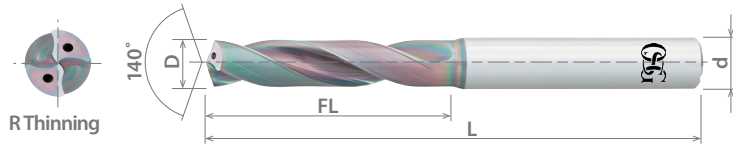
30°

SHANK  
h6

PACKED  
1 PIECE

A BRAND ADO-3D

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
650027701	●	-	-	-	7.040	0.27717	36.00	94.00	-	8.00
8690710	●	-	-	-	7.100	0.27953	36.00	94.00	-	8.00
650028011	●	9/32	-	-	7.144	0.28125	36.00	94.00	0.313	-
8690720	●	-	-	-	7.200	0.28346	36.00	94.00	-	8.00
8690730	●	-	-	-	7.300	0.28740	37.00	94.00	-	8.00
8690740	●	-	-	-	7.400	0.29134	37.00	94.00	-	8.00
8690750	●	-	-	-	7.500	0.29528	38.00	94.00	-	8.00
650029611	●	19/64	-	-	7.541	0.29688	38.00	94.00	0.313	-
8690760	●	-	-	-	7.600	0.29921	38.00	94.00	-	8.00
8690770	●	-	-	-	7.700	0.30315	39.00	94.00	-	8.00
8690780	●	-	-	-	7.800	0.30709	39.00	94.00	-	8.00
8690790	●	-	-	-	7.900	0.31102	40.00	94.00	-	8.00
650031211	●	5/16	-	-	7.938	0.31250	40.00	94.00	0.313	-
8690800	●	-	-	-	8.000	0.31496	40.00	94.00	-	8.00
8690810	●	-	-	-	8.100	0.31890	41.00	101.00	-	9.00
8700810	●	-	-	-	8.100	0.31890	41.00	101.00	-	10.00
650032111	●	-	-	-	8.150	0.32087	41.00	101.00	-	10.00
8690820	●	-	-	-	8.200	0.32283	41.00	101.00	-	9.00
8700820	●	-	-	-	8.200	0.32283	41.00	101.00	-	10.00
8690830	●	-	-	-	8.300	0.32677	42.00	101.00	-	9.00
8700830	●	-	-	-	8.300	0.32677	42.00	101.00	-	10.00
650032711	●	21/64	-	-	8.334	0.32813	42.00	101.00	0.375	-
8690840	●	-	-	-	8.400	0.33071	42.00	101.00	-	9.00
8700840	●	-	-	-	8.400	0.33071	42.00	101.00	-	10.00
650033011	●	-	-	Q	8.433	0.33200	43.00	101.00	-	10.00
8690850	●	-	-	-	8.500	0.33465	43.00	101.00	-	9.00
8700850	●	-	-	-	8.500	0.33465	43.00	101.00	-	10.00
650033611	●	-	-	-	8.560	0.33701	43.00	101.00	-	10.00
8690860	●	-	-	-	8.600	0.33858	43.00	101.00	-	9.00
8700860	●	-	-	-	8.600	0.33858	43.00	101.00	-	10.00
650034011	●	-	-	-	8.640	0.34016	44.00	101.00	-	10.00
650034111	●	-	-	-	8.680	0.34173	44.00	101.00	-	10.00
8690870	●	-	-	-	8.700	0.34252	44.00	101.00	-	9.00
8700870	●	-	-	-	8.700	0.34252	44.00	101.00	-	10.00
650034211	●	11/32	-	-	8.731	0.34375	44.00	101.00	0.375	-
8690880	●	-	-	-	8.800	0.34646	44.00	101.00	-	9.00
8700880	●	-	-	-	8.800	0.34646	44.00	101.00	-	10.00
650034811	●	-	-	-	8.860	0.34882	45.00	101.00	-	10.00
8690890	●	-	-	-	8.900	0.35039	45.00	101.00	-	9.00
8700890	●	-	-	-	8.900	0.35039	45.00	101.00	-	10.00
8690900	●	-	-	-	9.000	0.35433	45.00	101.00	-	9.00
8700900	●	-	-	-	9.000	0.35433	45.00	101.00	-	10.00
8690910	●	-	-	-	9.100	0.35827	46.00	106.00	-	10.00
650035811	●	23/64	-	-	9.128	0.35938	46.00	106.00	0.375	-
8690920	●	-	-	-	9.200	0.36220	46.00	106.00	-	10.00
8690930	●	-	-	-	9.300	0.36614	47.00	106.00	-	10.00
8690940	●	-	-	-	9.400	0.37008	47.00	106.00	-	10.00
8690950	●	-	-	-	9.500	0.37402	48.00	106.00	-	10.00
650037511	●	3/8	-	-	9.525	0.37500	48.00	106.00	0.375	-
650037601	●	-	-	-	9.550	0.37598	48.00	106.00	-	10.00
8690960	●	-	-	-	9.600	0.37795	48.00	106.00	-	10.00
8690970	●	-	-	-	9.700	0.38189	49.00	106.00	-	10.00
8690980	●	-	-	-	9.800	0.38583	49.00	106.00	-	10.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



## List 6500 (Continued)

A BRAND ADO-3D



EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8690990	●	-	-	-	9.900	0.38976	50.00	106.00	-	10.00
650038911	●	25/64	-	-	9.922	0.39063	50.00	106.00	0.438	-
8691000	●	-	-	-	10.000	0.39370	50.00	106.00	-	10.00
8691010	●	-	-	-	10.100	0.39764	51.00	113.00	-	11.00
8701010	●	-	-	-	10.100	0.39764	51.00	113.00	-	12.00
8691020	●	-	-	-	10.200	0.40157	51.00	113.00	-	11.00
8701020	●	-	-	-	10.200	0.40157	51.00	113.00	-	12.00
8691030	●	-	-	-	10.300	0.40551	52.00	113.00	-	11.00
8701030	●	-	-	-	10.300	0.40551	52.00	113.00	-	12.00
650040511	●	13/32	-	-	10.319	0.40625	52.00	113.00	0.438	-
8691040	●	-	-	-	10.400	0.40945	52.00	113.00	-	11.00
8701040	●	-	-	-	10.400	0.40945	52.00	113.00	-	12.00
650041011	●	-	-	-	10.440	0.41102	53.00	113.00	-	12.00
8691050	●	-	-	-	10.500	0.41339	53.00	113.00	-	11.00
8701050	●	-	-	-	10.500	0.41339	53.00	113.00	-	12.00
8691060	●	-	-	-	10.600	0.41732	53.00	113.00	-	11.00
8701060	●	-	-	-	10.600	0.41732	53.00	113.00	-	12.00
8691070	●	-	-	-	10.700	0.42126	54.00	113.00	-	11.00
8701070	●	-	-	-	10.700	0.42126	54.00	113.00	-	12.00
650042111	●	27/64	-	-	10.716	0.42188	54.00	113.00	0.438	-
8691080	●	-	-	-	10.800	0.42520	54.00	113.00	-	11.00
8701080	●	-	-	-	10.800	0.42520	54.00	113.00	-	12.00
650042661	●	-	-	-	10.860	0.42756	55.00	113.00	-	12.00
8691090	●	-	-	-	10.900	0.42913	55.00	113.00	-	11.00
8701090	●	-	-	-	10.900	0.42913	55.00	113.00	-	12.00
8691100	●	-	-	-	11.000	0.43307	55.00	113.00	-	11.00
8701100	●	-	-	-	11.000	0.43307	55.00	113.00	-	12.00
8691110	●	-	-	-	11.100	0.43701	56.00	120.00	-	12.00
650043711	●	7/16	-	-	11.113	0.43750	56.00	120.00	0.438	-
8691120	●	-	-	-	11.200	0.44094	56.00	120.00	-	12.00
8691130	●	-	-	-	11.300	0.44488	57.00	120.00	-	12.00
8691140	●	-	-	-	11.400	0.44882	57.00	120.00	-	12.00
8691150	●	-	-	-	11.500	0.45276	58.00	120.00	-	12.00
650045211	●	29/64	-	-	11.509	0.45313	58.00	120.00	0.500	-
8691160	●	-	-	-	11.600	0.45669	58.00	120.00	-	12.00
8691170	●	-	-	-	11.700	0.46063	59.00	120.00	-	12.00
8691180	●	-	-	-	11.800	0.46457	59.00	120.00	-	12.00
8691190	●	-	-	-	11.900	0.46850	60.00	120.00	-	12.00
650046711	●	15/32	-	-	11.906	0.46875	60.00	120.00	0.500	-
8691200	●	-	-	-	12.000	0.47244	60.00	120.00	-	12.00
8691210	●	-	-	-	12.100	0.47638	61.00	128.00	-	13.00
8701210	●	-	-	-	12.100	0.47638	61.00	128.00	-	14.00
8691220	●	-	-	-	12.200	0.48031	61.00	128.00	-	13.00
8701220	●	-	-	-	12.200	0.48031	61.00	128.00	-	14.00
8691230	●	-	-	-	12.300	0.48425	62.00	128.00	-	13.00
8701230	●	-	-	-	12.300	0.48425	62.00	128.00	-	14.00
650048411	●	31/64	-	-	12.303	0.48438	62.00	128.00	0.500	-
8691240	●	-	-	-	12.400	0.48819	62.00	128.00	-	13.00
8701240	●	-	-	-	12.400	0.48819	62.00	128.00	-	14.00
650049011	●	-	-	-	12.450	0.49016	63.00	128.00	-	14.00
8691250	●	-	-	-	12.500	0.49213	63.00	128.00	-	13.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H				
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel				
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium					
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
1010	1035	1065	4140	4340	○	○	○	○	○	○	○	○	○	○	○	○	○
1018	1045				○	○	○	○	○	○	○	○	○	○	○	○	○

○ Good ○ Best



# A Brand ADO

Advanced Performance Coolant-Through Carbide Drill

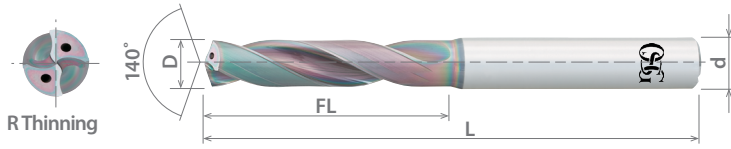
## List 6500 (Continued)



SPEED FEED 65	CARBIDE	EgiAs	2 FLUTE	STUB	30°	SHANK h6	PACKED 1 PIECE
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A BRAND ADO-3D

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8701250	●	-	-	-	12.500	0.49213	63.00	128.00	-	14.00
8691260	●	-	-	-	12.600	0.49606	63.00	128.00	-	13.00
8701260	●	-	-	-	12.600	0.49606	63.00	128.00	-	14.00
650049811	●	-	-	-	12.680	0.49921	64.00	128.00	-	14.00
650050011	●	1/2	-	-	12.700	0.50000	64.00	128.00	0.500	-
8691270	●	-	-	-	12.700	0.50000	64.00	128.00	-	13.00
8701270	●	-	-	-	12.700	0.50000	64.00	128.00	-	14.00
8691280	●	-	-	-	12.800	0.50394	64.00	128.00	-	13.00
8701280	●	-	-	-	12.800	0.50394	64.00	128.00	-	14.00
8691290	●	-	-	-	12.900	0.50787	65.00	128.00	-	13.00
8701290	●	-	-	-	12.900	0.50787	65.00	128.00	-	14.00
8691300	●	-	-	-	13.000	0.51181	65.00	128.00	-	13.00
8701300	●	-	-	-	13.000	0.51181	65.00	128.00	-	14.00
650051501	●	-	-	-	13.080	0.51496	66.00	134.00	-	14.00
8691310	●	-	-	-	13.100	0.51575	66.00	134.00	-	14.00
8691320	●	-	-	-	13.200	0.51969	66.00	134.00	-	14.00
8691330	●	-	-	-	13.300	0.52362	67.00	134.00	-	14.00
8691340	●	-	-	-	13.400	0.52756	67.00	134.00	-	14.00
650053011	●	17/32	-	-	13.494	0.53125	68.00	134.00	0.625	-
8691350	●	-	-	-	13.500	0.53150	68.00	134.00	-	14.00
8691360	●	-	-	-	13.600	0.53543	68.00	134.00	-	14.00
8691370	●	-	-	-	13.700	0.53937	69.00	134.00	-	14.00
8691380	●	-	-	-	13.800	0.54331	69.00	134.00	-	14.00
650054601	●	-	-	-	13.870	0.54606	70.00	134.00	-	14.00
8691390	●	-	-	-	13.900	0.54724	70.00	134.00	-	14.00
8691400	●	-	-	-	14.000	0.55118	70.00	134.00	-	14.00
8691410	●	-	-	-	14.100	0.55512	71.00	140.00	-	15.00
8701410	●	-	-	-	14.100	0.55512	71.00	140.00	-	16.00
8691420	●	-	-	-	14.200	0.55906	71.00	140.00	-	15.00
8701420	●	-	-	-	14.200	0.55906	71.00	140.00	-	16.00
650056111	●	9/16	-	-	14.288	0.56250	72.00	140.00	0.625	-
8691430	●	-	-	-	14.300	0.56299	72.00	140.00	-	15.00
8701430	●	-	-	-	14.300	0.56299	72.00	140.00	-	16.00
8691440	●	-	-	-	14.400	0.56693	72.00	140.00	-	15.00
8701440	●	-	-	-	14.400	0.56693	72.00	140.00	-	16.00
8691450	●	-	-	-	14.500	0.57087	73.00	140.00	-	15.00
8701450	●	-	-	-	14.500	0.57087	73.00	140.00	-	16.00
8691460	●	-	-	-	14.600	0.57480	73.00	140.00	-	15.00
8701460	●	-	-	-	14.600	0.57480	73.00	140.00	-	16.00
650057711	●	37/64	-	-	14.684	0.57813	74.00	140.00	0.625	-
8691470	●	-	-	-	14.700	0.57874	74.00	140.00	-	15.00
8701470	●	-	-	-	14.700	0.57874	74.00	140.00	-	16.00
8691480	●	-	-	-	14.800	0.58268	74.00	140.00	-	15.00
8701480	●	-	-	-	14.800	0.58268	74.00	140.00	-	16.00
8691490	●	-	-	-	14.900	0.58661	75.00	140.00	-	15.00
8701490	●	-	-	-	14.900	0.58661	75.00	140.00	-	16.00
8691500	●	-	-	-	15.000	0.59055	75.00	140.00	-	15.00
8701500	●	-	-	-	15.000	0.59055	75.00	140.00	-	16.00
8691510	●	-	-	-	15.100	0.59449	76.00	145.00	-	16.00
8691520	●	-	-	-	15.200	0.59843	76.00	145.00	-	16.00
8691530	●	-	-	-	15.300	0.60236	77.00	145.00	-	16.00
8691540	●	-	-	-	15.400	0.60630	77.00	145.00	-	16.00
8691550	●	-	-	-	15.500	0.61024	78.00	145.00	-	16.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



## List 6500 (Continued)

A BRAND ADO-3D



<b>SPEED FEED</b> 65	<b>CARBIDE</b>	<b>EgiAs</b>		<b>2 FLUTE</b>	<b>STUB</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8691560	●	-	-	-	15.600	0.61417	78.00	145.00	-	16.00
8691570	●	-	-	-	15.700	0.61811	79.00	145.00	-	16.00
8691580	●	-	-	-	15.800	0.62205	79.00	145.00	-	16.00
650062511	●	5/8	-	-	15.875	0.62500	80.00	145.00	0.625	-
8691590	●	-	-	-	15.900	0.62598	80.00	145.00	-	16.00
8691600	●	-	-	-	16.000	0.62992	80.00	145.00	-	16.00
650063311	●	-	-	-	16.100	0.63386	81.00	150.00	-	18.00
8691650	●	-	-	-	16.500	0.64961	83.00	150.00	-	17.00
8701650	●	-	-	-	16.500	0.64961	83.00	150.00	-	18.00
650065511	●	21/32	-	-	16.669	0.65625	85.00	150.00	0.750	-
650066311	●	-	-	-	16.840	0.66299	85.00	150.00	-	18.00
8691700	●	-	-	-	17.000	0.66929	85.00	150.00	-	17.00
8701700	●	-	-	-	17.000	0.66929	85.00	150.00	-	18.00
8691750	●	-	-	-	17.500	0.68898	88.00	155.00	-	18.00
650069321	●	-	-	-	17.610	0.69331	90.00	155.00	-	18.00
650069601	●	-	-	-	17.680	0.69606	90.00	155.00	-	18.00
650069801	●	-	-	-	17.730	0.69803	90.00	155.00	-	18.00
8691800	●	-	-	-	18.000	0.70866	90.00	155.00	-	18.00
8691850	●	-	-	-	18.500	0.72835	93.00	160.00	-	19.00
8701850	●	-	-	-	18.500	0.72835	93.00	160.00	-	20.00
650073311	●	-	-	-	18.640	0.73386	95.00	160.00	-	20.00
8691900	●	-	-	-	19.000	0.74803	95.00	160.00	-	19.00
8701900	●	-	-	-	19.000	0.74803	95.00	160.00	-	20.00
650075011	●	3/4	-	-	19.050	0.75000	95.00	160.00	0.750	-
650075711	●	-	-	-	19.250	0.75787	97.00	165.00	-	20.00
8691950	●	-	-	-	19.500	0.76772	98.00	165.00	-	20.00
650077401	●	-	-	-	19.660	0.77402	100.00	165.00	-	20.00
650077661	●	-	-	-	19.730	0.77677	100.00	165.00	-	20.00
650077801	●	-	-	-	19.760	0.77795	100.00	165.00	-	20.00
8692000	●	-	-	-	20.000	0.78740	100.00	165.00	-	20.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H						
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel						
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium							
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010	1018	1035	1045	1065	4140	4340													
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○ Good ○ Best



# A Brand ADO

Advanced Performance Coolant-Through Carbide Drill

## List 6510

A BRAND ADO-5D



SPEED FEED  
65

CARBIDE

EgiAs



2 FLUTE

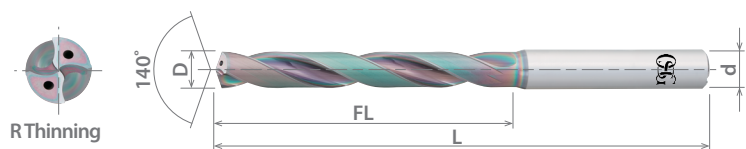
JOBBER

30°

SHANK  
h6

PACKED  
1 PIECE

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
651007812	●	-	-	-	2.000	0.07874	18.00	70.00	-	3.00
651008212	●	-	-	-	2.100	0.08268	19.00	70.00	-	3.00
651008612	●	-	-	-	2.200	0.08661	20.00	70.00	-	3.00
8692230	●	-	-	-	2.300	0.09055	21.00	70.00	-	3.00
651009312	●	3/32	-	-	2.381	0.09375	22.00	70.00	-	3.00
651009412	●	-	-	-	2.400	0.09449	22.00	70.00	-	3.00
8692250	●	-	-	-	2.500	0.09843	23.00	70.00	-	3.00
8692260	●	-	-	-	2.600	0.10236	24.00	78.00	-	3.00
651010612	●	-	-	-	2.700	0.10630	25.00	78.00	-	3.00
8692278	●	7/64	-	-	2.778	0.10938	26.00	78.00	-	3.00
8692280	●	-	-	-	2.800	0.11024	26.00	78.00	-	3.00
8692290	●	-	-	-	2.900	0.11417	27.00	78.00	-	3.00
8692300	●	-	-	-	3.000	0.11811	27.00	78.00	-	3.00
8692310	●	-	-	-	3.100	0.12205	28.00	86.00	-	4.00
651012511	●	1/8	-	-	3.175	0.12500	29.00	86.00	0.125	-
8692320	●	-	-	-	3.200	0.12598	29.00	86.00	-	4.00
8692330	●	-	-	-	3.300	0.12992	30.00	86.00	-	4.00
8692340	●	-	-	-	3.400	0.13386	31.00	86.00	-	4.00
8692350	●	-	-	-	3.500	0.13780	32.00	86.00	-	4.00
8692360	●	-	-	-	3.600	0.14173	33.00	86.00	-	4.00
8692370	●	-	-	-	3.700	0.14567	34.00	86.00	-	4.00
8692380	●	-	-	-	3.800	0.14961	35.00	86.00	-	4.00
8692390	●	-	-	-	3.900	0.15354	36.00	86.00	-	4.00
651015511	●	5/32	-	-	3.969	0.15625	36.00	86.00	0.188	-
8692400	●	-	-	-	4.000	0.15748	36.00	86.00	-	4.00
651016011	●	-	20	-	4.089	0.16100	37.00	95.00	-	6.00
8692410	●	-	-	-	4.100	0.16142	37.00	95.00	-	5.00
8702410	●	-	-	-	4.100	0.16142	37.00	95.00	-	6.00
8692420	●	-	-	-	4.200	0.16535	38.00	95.00	-	5.00
8702420	●	-	-	-	4.200	0.16535	38.00	95.00	-	6.00
8692430	●	-	-	-	4.300	0.16929	39.00	95.00	-	5.00
8702430	●	-	-	-	4.300	0.16929	39.00	95.00	-	6.00
651017111	●	11/64	-	-	4.366	0.17188	40.00	95.00	0.188	-
8692440	●	-	-	-	4.400	0.17323	40.00	95.00	-	5.00
8702440	●	-	-	-	4.400	0.17323	40.00	95.00	-	6.00
8692450	●	-	-	-	4.500	0.17717	41.00	95.00	-	5.00
8702450	●	-	-	-	4.500	0.17717	41.00	95.00	-	6.00
8692460	●	-	-	-	4.600	0.18110	42.00	95.00	-	5.00
8702460	●	-	-	-	4.600	0.18110	42.00	95.00	-	6.00
8692470	●	-	-	-	4.700	0.18504	43.00	95.00	-	5.00
8702470	●	-	-	-	4.700	0.18504	43.00	95.00	-	6.00
651018711	●	3/16	-	-	4.763	0.18750	44.00	95.00	0.188	-
8692480	●	-	-	-	4.800	0.18898	44.00	95.00	-	5.00
8702480	●	-	-	-	4.800	0.18898	44.00	95.00	-	6.00
8692490	●	-	-	-	4.900	0.19291	45.00	95.00	-	5.00
8702490	●	-	-	-	4.900	0.19291	45.00	95.00	-	6.00
8692500	●	-	-	-	5.000	0.19685	45.00	95.00	-	5.00
8702500	●	-	-	-	5.000	0.19685	45.00	95.00	-	6.00
8692510	●	-	-	-	5.100	0.20079	41.00	100.00	-	6.00
651020211	●	13/64	-	-	5.159	0.20313	42.00	100.00	0.250	-
8692520	●	-	-	-	5.200	0.20472	42.00	100.00	-	6.00
8692530	●	-	-	-	5.300	0.20866	43.00	100.00	-	6.00
8692540	●	-	-	-	5.400	0.21260	44.00	100.00	-	6.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



## List 6510 (Continued)

A BRAND ADO-5D



SPEED FEED  
65

CARBIDE

EgiAs



2 FLUTE

JOBBER

30°

SHANK  
h6

PACKED  
1 PIECE

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
651021311	●	-	3	-	5.410	0.21300	44.00	100.00	0.250	-
8692550	●	-	-	-	5.500	0.21654	44.00	100.00	-	6.00
651021711	●	7/32	-	-	5.556	0.21875	45.00	100.00	0.250	-
8692560	●	-	-	-	5.600	0.22047	45.00	100.00	-	6.00
8692570	●	-	-	-	5.700	0.22441	46.00	100.00	-	6.00
8692580	●	-	-	-	5.800	0.22835	47.00	100.00	-	6.00
8692590	●	-	-	-	5.900	0.23228	48.00	100.00	-	6.00
651023311	●	15/64	-	-	5.953	0.23438	48.00	100.00	0.250	-
8692600	●	-	-	-	6.000	0.23622	48.00	100.00	-	6.00
8692610	●	-	-	-	6.100	0.24016	49.00	109.00	-	7.00
8702610	●	-	-	-	6.100	0.24016	49.00	109.00	-	8.00
8692620	●	-	-	-	6.200	0.24409	50.00	109.00	-	7.00
8702620	●	-	-	-	6.200	0.24409	50.00	109.00	-	8.00
8692630	●	-	-	-	6.300	0.24803	51.00	109.00	-	7.00
8702630	●	-	-	-	6.300	0.24803	51.00	109.00	-	8.00
651025011	●	1/4	-	E	6.350	0.25000	52.00	109.00	0.250	-
8692640	●	-	-	-	6.400	0.25197	52.00	109.00	-	7.00
8702640	●	-	-	-	6.400	0.25197	52.00	109.00	-	8.00
8692650	●	-	-	-	6.500	0.25591	52.00	109.00	-	7.00
8702650	●	-	-	-	6.500	0.25591	52.00	109.00	-	8.00
651025611	●	-	-	F	6.528	0.25700	53.00	109.00	-	8.00
8692660	●	-	-	-	6.600	0.25984	53.00	109.00	-	7.00
8702660	●	-	-	-	6.600	0.25984	53.00	109.00	-	8.00
8692670	●	-	-	-	6.700	0.26378	54.00	109.00	-	7.00
8702670	●	-	-	-	6.700	0.26378	54.00	109.00	-	8.00
651026411	●	17/64	-	-	6.747	0.26563	55.00	109.00	0.313	-
8692680	●	-	-	-	6.800	0.26772	55.00	109.00	-	7.00
8702680	●	-	-	-	6.800	0.26772	55.00	109.00	-	8.00
8692690	●	-	-	-	6.900	0.27165	56.00	109.00	-	7.00
8702690	●	-	-	-	6.900	0.27165	56.00	109.00	-	8.00
8692700	●	-	-	-	7.000	0.27559	56.00	109.00	-	7.00
8702700	●	-	-	-	7.000	0.27559	56.00	109.00	-	8.00
8692710	●	-	-	-	7.100	0.27953	57.00	118.00	-	8.00
651028011	●	9/32	-	-	7.144	0.28125	58.00	118.00	0.313	-
8692720	●	-	-	-	7.200	0.28346	58.00	118.00	-	8.00
8692730	●	-	-	-	7.300	0.28740	59.00	118.00	-	8.00
8692740	●	-	-	-	7.400	0.29134	60.00	118.00	-	8.00
8692750	●	-	-	-	7.500	0.29528	60.00	118.00	-	8.00
651029611	●	19/64	-	-	7.541	0.29688	60.00	118.00	0.313	-
8692760	●	-	-	-	7.600	0.29921	61.00	118.00	-	8.00
8692770	●	-	-	-	7.700	0.30315	62.00	118.00	-	8.00
8692780	●	-	-	-	7.800	0.30709	63.00	118.00	-	8.00
8692790	●	-	-	-	7.900	0.31102	64.00	118.00	-	8.00
651031211	●	5/16	-	-	7.938	0.31250	64.00	118.00	0.313	-
8692800	●	-	-	-	8.000	0.31496	64.00	118.00	-	8.00
8692810	●	-	-	-	8.100	0.31890	65.00	128.00	-	9.00
8702810	●	-	-	-	8.100	0.31890	65.00	128.00	-	10.00
8692820	●	-	-	-	8.200	0.32283	66.00	128.00	-	9.00
8702820	●	-	-	-	8.200	0.32283	66.00	128.00	-	10.00
8692830	●	-	-	-	8.300	0.32677	67.00	128.00	-	9.00
8702830	●	-	-	-	8.300	0.32677	67.00	128.00	-	10.00
651032711	●	21/64	-	-	8.334	0.32813	67.00	128.00	0.375	-

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED

P					M			K	N		S		H				
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel				
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium					
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
1010	1035	1065	4140	4340	○	○	○	○	○	○	○	○	○	○	○	○	○
1018	1045	1065	4140	4340	○	○	○	○	○	○	○	○	○	○	○	○	○

○ Good ○ Best



# A Brand ADO

Advanced Performance Coolant-Through Carbide Drill

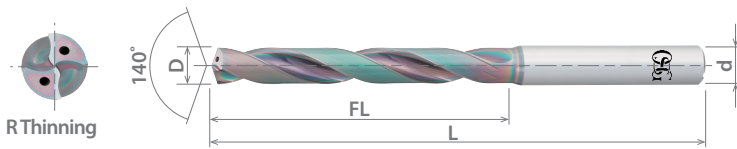
## List 6510 (Continued)



<b>SPEED FEED</b> 65	<b>CARBIDE</b>	<b>EgiAs</b>		<b>2 FLUTE</b>	<b>JOBBER</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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A BRAND ADO-5D

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8692840	●	-	-	-	8.400	0.33071	68.00	128.00	-	9.00
8702840	●	-	-	-	8.400	0.33071	68.00	128.00	-	10.00
651033111	●	-	-	Q	8.433	0.33200	68.00	128.00	0.344	-
8692850	●	-	-	-	8.500	0.33465	68.00	128.00	-	9.00
8702850	●	-	-	-	8.500	0.33465	68.00	128.00	-	10.00
8692860	●	-	-	-	8.600	0.33858	69.00	128.00	-	9.00
8702860	●	-	-	-	8.600	0.33858	69.00	128.00	-	10.00
8692870	●	-	-	-	8.700	0.34252	70.00	128.00	-	9.00
8702870	●	-	-	-	8.700	0.34252	70.00	128.00	-	10.00
651034211	●	11/32	-	-	8.731	0.34375	70.00	128.00	0.375	-
8692880	●	-	-	-	8.800	0.34646	71.00	128.00	-	9.00
8702880	●	-	-	-	8.800	0.34646	71.00	128.00	-	10.00
8692890	●	-	-	-	8.900	0.35039	72.00	128.00	-	9.00
8702890	●	-	-	-	8.900	0.35039	72.00	128.00	-	10.00
8692900	●	-	-	-	9.000	0.35433	72.00	128.00	-	9.00
8702900	●	-	-	-	9.000	0.35433	72.00	128.00	-	10.00
8692910	●	-	-	-	9.100	0.35827	73.00	136.00	-	10.00
651035811	●	23/64	-	-	9.128	0.35938	73.00	136.00	0.375	-
8692920	●	-	-	-	9.200	0.36220	74.00	136.00	-	10.00
8692930	●	-	-	-	9.300	0.36614	75.00	136.00	-	10.00
8692940	●	-	-	-	9.400	0.37008	76.00	136.00	-	10.00
8692950	●	-	-	-	9.500	0.37402	76.00	136.00	-	10.00
651037511	●	3/8	-	-	9.525	0.37500	76.00	136.00	0.375	-
8692960	●	-	-	-	9.600	0.37795	77.00	136.00	-	10.00
8692970	●	-	-	-	9.700	0.38189	78.00	136.00	-	10.00
8692980	●	-	-	-	9.800	0.38583	79.00	136.00	-	10.00
8692990	●	-	-	-	9.900	0.38976	80.00	136.00	-	10.00
651038911	●	25/64	-	-	9.922	0.39063	80.00	136.00	0.438	-
8693000	●	-	-	-	10.000	0.39370	80.00	136.00	-	10.00
8693010	●	-	-	-	10.100	0.39764	81.00	146.00	-	11.00
8703010	●	-	-	-	10.100	0.39764	81.00	146.00	-	12.00
8693020	●	-	-	-	10.200	0.40157	82.00	146.00	-	11.00
8703020	●	-	-	-	10.200	0.40157	82.00	146.00	-	12.00
8693030	●	-	-	-	10.300	0.40551	83.00	146.00	-	11.00
8703030	●	-	-	-	10.300	0.40551	83.00	146.00	-	12.00
651040511	●	13/32	-	-	10.319	0.40625	83.00	146.00	0.438	-
8693040	●	-	-	-	10.400	0.40945	84.00	146.00	-	11.00
8703040	●	-	-	-	10.400	0.40945	84.00	146.00	-	12.00
8693050	●	-	-	-	10.500	0.41339	84.00	146.00	-	11.00
8703050	●	-	-	-	10.500	0.41339	84.00	146.00	-	12.00
8693060	●	-	-	-	10.600	0.41732	85.00	146.00	-	11.00
8703060	●	-	-	-	10.600	0.41732	85.00	146.00	-	12.00
8693070	●	-	-	-	10.700	0.42126	86.00	146.00	-	11.00
8703070	●	-	-	-	10.700	0.42126	86.00	146.00	-	12.00
651042111	●	27/64	-	-	10.716	0.42188	86.00	146.00	0.438	-
8693080	●	-	-	-	10.800	0.42520	87.00	146.00	-	11.00
8703080	●	-	-	-	10.800	0.42520	87.00	146.00	-	12.00
8693090	●	-	-	-	10.900	0.42913	88.00	146.00	-	11.00
8703090	●	-	-	-	10.900	0.42913	88.00	146.00	-	12.00
8693100	●	-	-	-	11.000	0.43307	88.00	146.00	-	11.00
8703100	●	-	-	-	11.000	0.43307	88.00	146.00	-	12.00
8693110	●	-	-	-	11.100	0.43701	89.00	156.00	-	12.00
651043711	●	7/16	-	-	11.113	0.43750	89.00	156.00	0.438	-
8693120	●	-	-	-	11.200	0.44094	90.00	156.00	-	12.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked





## List 6510 (Continued)

A BRAND ADO-5D



SPEED FEED  
65

CARBIDE

EgiAs



2 FLUTE

JOBBER

30°

SHANK  
h6

PACKED  
1 PIECE

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8693130	●	-	-	-	11.300	0.44488	91.00	156.00	-	12.00
8693140	●	-	-	-	11.400	0.44882	92.00	156.00	-	12.00
8693150	●	-	-	-	11.500	0.45276	92.00	156.00	-	12.00
651045211	●	29/64	-	-	11.509	0.45313	92.00	156.00	0.500	-
8693160	●	-	-	-	11.600	0.45669	93.00	156.00	-	12.00
8693170	●	-	-	-	11.700	0.46063	94.00	156.00	-	12.00
8693180	●	-	-	-	11.800	0.46457	95.00	156.00	-	12.00
8693190	●	-	-	-	11.900	0.46850	96.00	156.00	-	12.00
651046711	●	15/32	-	-	11.906	0.46875	96.00	156.00	0.500	-
8693200	●	-	-	-	12.000	0.47244	96.00	156.00	-	12.00
8693210	●	-	-	-	12.100	0.47638	97.00	167.00	-	13.00
8703210	●	-	-	-	12.100	0.47638	97.00	167.00	-	14.00
8693220	●	-	-	-	12.200	0.48031	98.00	167.00	-	13.00
8703220	●	-	-	-	12.200	0.48031	98.00	167.00	-	14.00
8693230	●	-	-	-	12.300	0.48425	99.00	167.00	-	13.00
8703230	●	-	-	-	12.300	0.48425	99.00	167.00	-	14.00
651048411	●	31/64	-	-	12.303	0.48438	99.00	167.00	0.500	-
8693240	●	-	-	-	12.400	0.48819	100.00	167.00	-	13.00
8703240	●	-	-	-	12.400	0.48819	100.00	167.00	-	14.00
8693250	●	-	-	-	12.500	0.49213	100.00	167.00	-	13.00
8703250	●	-	-	-	12.500	0.49213	100.00	167.00	-	14.00
8693260	●	-	-	-	12.600	0.49606	101.00	167.00	-	13.00
8703260	●	-	-	-	12.600	0.49606	101.00	167.00	-	14.00
651050011	●	1/2	-	-	12.700	0.50000	102.00	167.00	0.500	-
8693270	●	-	-	-	12.700	0.50000	102.00	167.00	-	13.00
8703270	●	-	-	-	12.700	0.50000	102.00	167.00	-	14.00
8693280	●	-	-	-	12.800	0.50394	103.00	167.00	-	13.00
8703280	●	-	-	-	12.800	0.50394	103.00	167.00	-	14.00
8693290	●	-	-	-	12.900	0.50787	104.00	167.00	-	13.00
8703290	●	-	-	-	12.900	0.50787	104.00	167.00	-	14.00
8693300	●	-	-	-	13.000	0.51181	104.00	167.00	-	13.00
8703300	●	-	-	-	13.000	0.51181	104.00	167.00	-	14.00
8693310	●	-	-	-	13.100	0.51575	105.00	176.00	-	14.00
8693320	●	-	-	-	13.200	0.51969	106.00	176.00	-	14.00
8693330	●	-	-	-	13.300	0.52362	107.00	176.00	-	14.00
8693340	●	-	-	-	13.400	0.52756	108.00	176.00	-	14.00
651053011	●	17/32	-	-	13.494	0.53125	108.00	176.00	0.625	-
8693350	●	-	-	-	13.500	0.53150	108.00	176.00	-	14.00
8693360	●	-	-	-	13.600	0.53543	109.00	176.00	-	14.00
8693370	●	-	-	-	13.700	0.53937	110.00	176.00	-	14.00
8693380	●	-	-	-	13.800	0.54331	111.00	176.00	-	14.00
8693390	●	-	-	-	13.900	0.54724	112.00	176.00	-	14.00
8693400	●	-	-	-	14.000	0.55118	112.00	176.00	-	14.00
8693410	●	-	-	-	14.100	0.55512	113.00	185.00	-	15.00
8703410	●	-	-	-	14.100	0.55512	113.00	185.00	-	16.00
8693420	●	-	-	-	14.200	0.55906	114.00	185.00	-	15.00
8703420	●	-	-	-	14.200	0.55906	114.00	185.00	-	16.00
651056111	●	9/16	-	-	14.288	0.56250	115.00	185.00	0.625	-
8693430	●	-	-	-	14.300	0.56299	115.00	185.00	-	15.00
8703430	●	-	-	-	14.300	0.56299	115.00	185.00	-	16.00
8693440	●	-	-	-	14.400	0.56693	116.00	185.00	-	15.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED

P					M			K	N		S		H				
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel				
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium					
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
1010	1035	1065	4140	4340	○	○	○	○	○	○	○	○	○	○	○	○	○
1018	1045				○	○	○	○	○	○	○	○	○	○	○	○	○

○ Good ○ Best



# A Brand ADO

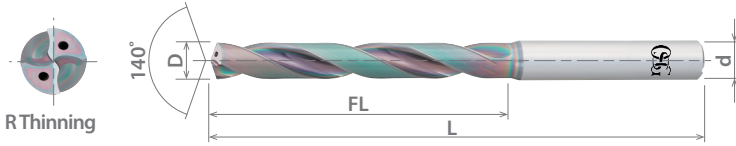
Advanced Performance Coolant-Through Carbide Drill

## List 6510 (Continued)

A BRAND ADO-5D



SPEED FEED 65	CARBIDE	EgiAs	2 FLUTE	JOBBER	30°	SHANK h6	PACKED 1 PIECE
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Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8703440	●	-	-	-	14.400	0.56693	116.00	185.00	-	16.00
8693450	●	-	-	-	14.500	0.57087	116.00	185.00	-	15.00
8703450	●	-	-	-	14.500	0.57087	116.00	185.00	-	16.00
8693460	●	-	-	-	14.600	0.57480	117.00	185.00	-	15.00
8703460	●	-	-	-	14.600	0.57480	117.00	185.00	-	16.00
8693470	●	-	-	-	14.700	0.57874	118.00	185.00	-	15.00
8703470	●	-	-	-	14.700	0.57874	118.00	185.00	-	16.00
8693480	●	-	-	-	14.800	0.58268	119.00	185.00	-	15.00
8703480	●	-	-	-	14.800	0.58268	119.00	185.00	-	16.00
8693490	●	-	-	-	14.900	0.58661	120.00	185.00	-	15.00
8703490	●	-	-	-	14.900	0.58661	120.00	185.00	-	16.00
8693500	●	-	-	-	15.000	0.59055	120.00	185.00	-	15.00
8703500	●	-	-	-	15.000	0.59055	120.00	185.00	-	16.00
8693510	●	-	-	-	15.100	0.59449	121.00	193.00	-	16.00
8693520	●	-	-	-	15.200	0.59843	122.00	193.00	-	16.00
8693530	●	-	-	-	15.300	0.60236	123.00	193.00	-	16.00
8693540	●	-	-	-	15.400	0.60630	124.00	193.00	-	16.00
8693550	●	-	-	-	15.500	0.61024	124.00	193.00	-	16.00
8693560	●	-	-	-	15.600	0.61417	125.00	193.00	-	16.00
8693570	●	-	-	-	15.700	0.61811	126.00	193.00	-	16.00
8693580	●	-	-	-	15.800	0.62205	127.00	193.00	-	16.00
651062511	●	5/8	-	-	15.875	0.62500	128.00	193.00	0.625	-
8693590	●	-	-	-	15.900	0.62598	128.00	193.00	-	16.00
8693600	●	-	-	-	16.000	0.62992	128.00	193.00	-	16.00
651063311	●	-	-	-	16.100	0.63386	129.00	201.00	-	18.00
8693650	●	-	-	-	16.500	0.64961	132.00	201.00	-	17.00
8703650	●	-	-	-	16.500	0.64961	132.00	201.00	-	18.00
651065511	●	21/32	-	-	16.669	0.65625	134.00	201.00	0.750	-
8693700	●	-	-	-	17.000	0.66929	136.00	201.00	-	17.00
8703700	●	-	-	-	17.000	0.66929	136.00	201.00	-	18.00
8693750	●	-	-	-	17.500	0.68898	140.00	209.00	-	18.00
8693800	●	-	-	-	18.000	0.70866	144.00	209.00	-	18.00
8693850	●	-	-	-	18.500	0.72835	148.00	217.00	-	19.00
8703850	●	-	-	-	18.500	0.72835	148.00	217.00	-	20.00
8693900	●	-	-	-	19.000	0.74803	152.00	217.00	-	19.00
8703900	●	-	-	-	19.000	0.74803	152.00	217.00	-	20.00
651075011	●	3/4	-	-	19.050	0.75000	154.00	217.00	0.750	-
651075711	●	-	-	-	19.250	0.75787	154.00	217.00	-	20.00
8693950	●	-	-	-	19.500	0.76772	156.00	225.00	-	20.00
8694000	●	-	-	-	20.000	0.78740	160.00	225.00	-	20.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H				
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel				
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium					
Low	Medium	High							6061	Casting			Inconel	6Al4V	~35 HRC	35-45 HRC	45-50 HRC
1010	1035	1065	4140	4340	300	400	17-4 PH	6061	7075	Casting	Inconel	6Al4V	(30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○ Good ○ Best

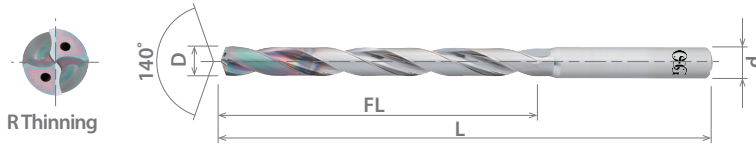


## List 6520

A BRAND ADO-8D



<b>SPEED FEED</b> 65	<b>CARBIDE</b>	<b>EgiAs</b>	<b>2 FLUTE</b>	<b>TAPER</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 15.88	+0 / -0.027	+0 / -0.0011

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8694200	●	-	-	-	2.000	0.07874	22.00	75.00	-	3.00
8694210	●	-	-	-	2.100	0.08268	24.00	75.00	-	3.00
8694220	●	-	-	-	2.200	0.08661	25.00	75.00	-	3.00
8694230	●	-	-	-	2.300	0.09055	26.00	75.00	-	3.00
652009312	●	3/32	-	-	2.381	0.09375	27.00	75.00	-	3.00
8694240	●	-	-	-	2.400	0.09449	27.00	75.00	-	3.00
8694250	●	-	-	-	2.500	0.09843	28.00	75.00	-	3.00
8694260	●	-	-	-	2.600	0.10236	29.00	80.00	-	3.00
8694270	●	-	-	-	2.700	0.10630	30.00	80.00	-	3.00
652010911	●	7/64	-	-	2.778	0.10938	31.00	80.00	-	3.00
8694280	●	-	-	-	2.800	0.11024	31.00	80.00	-	3.00
8694290	●	-	-	-	2.900	0.11417	32.00	80.00	-	3.00
8694300	●	-	-	-	3.000	0.11811	33.00	80.00	-	3.00
8694310	●	-	-	-	3.100	0.12205	34.00	95.00	-	4.00
652012511	●	1/8	-	-	3.175	0.12500	35.00	95.00	0.125	-
8694320	●	-	-	-	3.200	0.12598	36.00	95.00	-	4.00
8694330	●	-	-	-	3.300	0.12992	36.00	95.00	-	4.00
8694340	●	-	-	-	3.400	0.13386	37.00	95.00	-	4.00
8694350	●	-	-	-	3.500	0.13780	39.00	95.00	-	4.00
8694360	●	-	-	-	3.600	0.14173	40.00	95.00	-	4.00
8694370	●	-	-	-	3.700	0.14567	41.00	95.00	-	4.00
8694380	●	-	-	-	3.800	0.14961	42.00	95.00	-	4.00
8694390	●	-	-	-	3.900	0.15354	43.00	95.00	-	4.00
652015511	●	5/32	-	-	3.969	0.15625	44.00	95.00	0.188	-
8694400	●	-	-	-	4.000	0.15748	44.00	95.00	-	4.00
652016011	●	-	20	-	4.089	0.16100	45.00	105.00	-	6.00
8704410	●	-	-	-	4.100	0.16142	45.00	105.00	-	6.00
8704420	●	-	-	-	4.200	0.16535	46.00	105.00	-	6.00
8704430	●	-	-	-	4.300	0.16929	47.00	105.00	-	6.00
652017111	●	11/64	-	-	4.366	0.17188	47.00	105.00	0.188	-
8704440	●	-	-	-	4.400	0.17323	48.00	105.00	-	6.00
8694450	●	-	-	-	4.500	0.17717	50.00	105.00	-	5.00
8704450	●	-	-	-	4.500	0.17717	50.00	105.00	-	6.00
8704460	●	-	-	-	4.600	0.18110	51.00	105.00	-	6.00
8704470	●	-	-	-	4.700	0.18504	52.00	105.00	-	6.00
652018711	●	3/16	-	-	4.763	0.18750	52.00	105.00	0.188	-
8704480	●	-	-	-	4.800	0.18898	53.00	105.00	-	6.00
8704490	●	-	-	-	4.900	0.19291	54.00	105.00	-	6.00
8694500	●	-	-	-	5.000	0.19685	55.00	105.00	-	5.00
8704500	●	-	-	-	5.000	0.19685	55.00	105.00	-	6.00
8704510	●	-	-	-	5.100	0.20079	56.00	115.00	-	6.00
652020211	●	13/64	-	-	5.159	0.20313	57.00	115.00	0.250	-
8704520	●	-	-	-	5.200	0.20472	57.00	115.00	-	6.00
8704530	●	-	-	-	5.300	0.20866	58.00	115.00	-	6.00
8704540	●	-	-	-	5.400	0.21260	59.00	115.00	-	6.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H					
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel					
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium						
Low	Medium	High						6061	Casting	Inconel			6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
1010	1035	1045	1065	4140	4340			6061	7075									
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○ Good ○ Best



# A Brand ADO

Advanced Performance Coolant-Through Carbide Drill

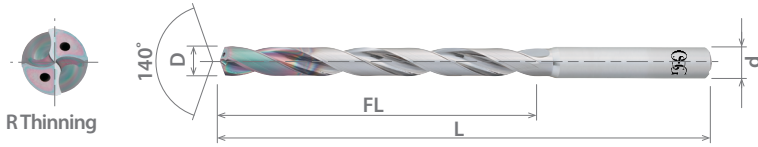
## List 6520 (Continued)



<b>SPEED FEED</b> 65	<b>CARBIDE</b>	<b>EgiAs</b>	<b>2 FLUTE</b>	<b>TAPER</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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A BRAND ADO-8D

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 15.88	+0 / -0.027	+0 / -0.0011



EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
652021311	●	-	3	-	5.410	0.21300	60.00	115.00	0.250	-
8694550	●	-	-	-	5.500	0.21654	61.00	115.00	-	6.00
652021711	●	7/32	-	-	5.556	0.21875	61.00	115.00	0.250	-
8704560	●	-	-	-	5.600	0.22047	62.00	115.00	-	6.00
8704570	●	-	-	-	5.700	0.22441	63.00	115.00	-	6.00
8704580	●	-	-	-	5.800	0.22835	64.00	115.00	-	6.00
8704590	●	-	-	-	5.900	0.23228	65.00	115.00	-	6.00
652023311	●	15/64	-	-	5.953	0.23438	66.00	115.00	0.250	-
8694600	●	-	-	-	6.000	0.23622	66.00	115.00	-	6.00
8704610	●	-	-	-	6.100	0.24016	67.00	125.00	-	8.00
8704620	●	-	-	-	6.200	0.24409	68.00	125.00	-	8.00
8704630	●	-	-	-	6.300	0.24803	69.00	125.00	-	8.00
652025011	●	1/4	-	E	6.350	0.25000	70.00	125.00	0.250	-
8704640	●	-	-	-	6.400	0.25197	70.00	125.00	-	8.00
8694650	●	-	-	-	6.500	0.25591	72.00	125.00	-	7.00
8704650	●	-	-	-	6.500	0.25591	72.00	125.00	-	8.00
652025611	●	-	-	F	6.528	0.25700	72.00	125.00	-	8.00
8704660	●	-	-	-	6.600	0.25984	73.00	125.00	-	8.00
8704670	●	-	-	-	6.700	0.26378	74.00	125.00	-	8.00
652026411	●	17/64	-	-	6.747	0.26563	74.00	125.00	0.313	-
8704680	●	-	-	-	6.800	0.26772	75.00	125.00	-	8.00
8704690	●	-	-	-	6.900	0.27165	76.00	125.00	-	8.00
8694700	●	-	-	-	7.000	0.27559	77.00	125.00	-	7.00
8704700	●	-	-	-	7.000	0.27559	77.00	125.00	-	8.00
8704710	●	-	-	-	7.100	0.27953	78.00	140.00	-	8.00
652028011	●	9/32	-	-	7.144	0.28125	79.00	140.00	0.313	-
8704720	●	-	-	-	7.200	0.28346	79.00	140.00	-	8.00
8704730	●	-	-	-	7.300	0.28740	80.00	140.00	-	8.00
8704740	●	-	-	-	7.400	0.29134	81.00	140.00	-	8.00
8694750	●	-	-	-	7.500	0.29528	83.00	140.00	-	8.00
652029611	●	19/64	-	-	7.541	0.29688	84.00	140.00	0.313	-
8704760	●	-	-	-	7.600	0.29921	84.00	140.00	-	8.00
8704770	●	-	-	-	7.700	0.30315	85.00	140.00	-	8.00
8704780	●	-	-	-	7.800	0.30709	86.00	140.00	-	8.00
8704790	●	-	-	-	7.900	0.31102	87.00	140.00	-	8.00
652031211	●	5/16	-	-	7.938	0.31250	87.00	140.00	0.313	-
8694800	●	-	-	-	8.000	0.31496	88.00	140.00	-	8.00
8704810	●	-	-	-	8.100	0.31890	89.00	150.00	-	10.00
8704820	●	-	-	-	8.200	0.32283	90.00	150.00	-	10.00
8704830	●	-	-	-	8.300	0.32677	91.00	150.00	-	10.00
652032711	●	21/64	-	-	8.334	0.32813	92.00	150.00	0.375	-
8704840	●	-	-	-	8.400	0.33071	92.00	150.00	-	10.00
652033111	●	-	-	Q	8.433	0.33200	93.00	150.00	0.344	-
8694850	●	-	-	-	8.500	0.33465	94.00	150.00	-	9.00
8704850	●	-	-	-	8.500	0.33465	94.00	150.00	-	10.00
8704860	●	-	-	-	8.600	0.33858	95.00	150.00	-	10.00
8704870	●	-	-	-	8.700	0.34252	96.00	150.00	-	10.00
652035211	●	11/32	-	-	8.733	0.34375	96.00	150.00	0.375	-
8704880	●	-	-	-	8.800	0.34646	97.00	150.00	-	10.00
8704890	●	-	-	-	8.900	0.35039	98.00	150.00	-	10.00
8694900	●	-	-	-	9.000	0.35433	99.00	150.00	-	9.00
8704900	●	-	-	-	9.000	0.35433	99.00	150.00	-	10.00
8704910	●	-	-	-	9.100	0.35827	100.00	160.00	-	10.00
652035711	●	23/64	-	-	9.128	0.35938	101.00	160.00	0.375	-
8704920	●	-	-	-	9.200	0.36220	101.00	160.00	-	10.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



## List 6520 (Continued)



<b>SPEED FEED</b> 65	<b>CARBIDE</b>	<b>EgiAs</b>			<b>2 FLUTE</b>	<b>TAPER</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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A BRAND ADO-8D

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8704930	●	-	-	-	9.300	0.36614	102.00	160.00	-	10.00
8704940	●	-	-	-	9.400	0.37008	103.00	160.00	-	10.00
8694950	●	-	-	-	9.500	0.37402	105.00	160.00	-	10.00
652037511	●	3/8	-	-	9.525	0.37500	105.00	160.00	0.375	-
8704960	●	-	-	-	9.600	0.37795	106.00	160.00	-	10.00
8704970	●	-	-	-	9.700	0.38189	107.00	160.00	-	10.00
8704980	●	-	-	-	9.800	0.38583	108.00	160.00	-	10.00
8704990	●	-	-	-	9.900	0.38976	109.00	160.00	-	10.00
652038811	●	25/64	-	-	9.922	0.39063	110.00	160.00	0.438	-
8695000	●	-	-	-	10.000	0.39370	110.00	160.00	-	10.00
8705010	●	-	-	-	10.100	0.39764	111.00	182.00	-	12.00
8705020	●	-	-	-	10.200	0.40157	112.00	182.00	-	12.00
8705030	●	-	-	-	10.300	0.40551	113.00	182.00	-	12.00
652040711	●	13/32	-	-	10.319	0.40625	113.00	182.00	0.438	-
8705040	●	-	-	-	10.400	0.40945	114.00	182.00	-	12.00
8695050	●	-	-	-	10.500	0.41339	116.00	182.00	-	11.00
8705050	●	-	-	-	10.500	0.41339	116.00	182.00	-	12.00
8705060	●	-	-	-	10.600	0.41732	117.00	182.00	-	12.00
8705070	●	-	-	-	10.700	0.42126	118.00	182.00	-	12.00
652042111	●	27/64	-	-	10.716	0.42188	118.00	182.00	0.438	-
8705080	●	-	-	-	10.800	0.42520	119.00	182.00	-	12.00
8705090	●	-	-	-	10.900	0.42913	120.00	182.00	-	12.00
8695100	●	-	-	-	11.000	0.43307	121.00	182.00	-	11.00
8705100	●	-	-	-	11.000	0.43307	121.00	182.00	-	12.00
8705110	●	-	-	-	11.100	0.43701	122.00	194.00	-	12.00
652043811	●	7/16	-	-	11.113	0.43750	122.00	194.00	0.438	-
8705120	●	-	-	-	11.200	0.44094	123.00	194.00	-	12.00
8705130	●	-	-	-	11.300	0.44488	124.00	194.00	-	12.00
8705140	●	-	-	-	11.400	0.44882	125.00	194.00	-	12.00
8695150	●	-	-	-	11.500	0.45276	127.00	194.00	-	12.00
652045211	●	29/64	-	-	11.509	0.45313	127.00	194.00	0.500	-
8705160	●	-	-	-	11.600	0.45669	128.00	194.00	-	12.00
8705170	●	-	-	-	11.700	0.46063	129.00	194.00	-	12.00
8705180	●	-	-	-	11.800	0.46457	130.00	194.00	-	12.00
8705190	●	-	-	-	11.900	0.46850	131.00	194.00	-	12.00
8695200	●	-	-	-	12.000	0.47244	132.00	194.00	-	12.00
8705210	●	-	-	-	12.100	0.47638	133.00	206.00	-	14.00
8705220	●	-	-	-	12.200	0.48031	134.00	206.00	-	14.00
8705230	●	-	-	-	12.300	0.48425	135.00	206.00	-	14.00
8705240	●	-	-	-	12.400	0.48819	136.00	206.00	-	14.00
8695250	●	-	-	-	12.500	0.49213	138.00	206.00	-	13.00
8705250	●	-	-	-	12.500	0.49213	138.00	206.00	-	14.00
8705260	●	-	-	-	12.600	0.49606	139.00	206.00	-	14.00
652050011	●	1/2	-	-	12.700	0.50000	140.00	206.00	0.500	-
652053011	●	17/32	-	-	13.494	0.53125	149.00	218.00	0.625	-
8705350	●	-	-	-	13.500	0.53150	149.00	218.00	-	14.00
8705400	●	-	-	-	14.000	0.55118	154.00	218.00	-	14.00
652056111	●	9/16	-	-	14.288	0.56250	157.00	230.00	0.625	-
8705450	●	-	-	-	14.500	0.57087	160.00	230.00	-	16.00
652062511	●	5/8	-	-	15.875	0.62500	175.00	241.00	0.625	-

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H						
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel						
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium							
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010	1035	1045	1065	4140	4340														
1018	1045																		

○ Good ○ Best



# A Brand ADO

Advanced Performance Coolant-Through Carbide Drill

## List 6530

A BRAND ADO-10D



SPEED FEED  
66

CARBIDE

EgiAs



2 FLUTE

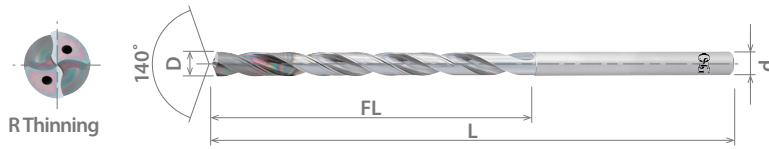
TAPER

30°

SHANK  
h6

PACKED  
1 PIECE

Cutting Diameter Tolerance (e8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	-0.020 / -0.038	-0.0008 / -0.0015
6 < D ≤ 10	-0.025 / -0.047	-0.0010 / -0.0019
10 < D ≤ 14.288	-0.032 / -0.059	-0.0013 / -0.0023



EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
653007812	●	-	-	-	2.000	0.07874	26.00	75.00	-	3.00
653008212	●	-	-	-	2.100	0.08268	33.00	75.00	-	3.00
653008612	●	-	-	-	2.200	0.08661	33.00	75.00	-	3.00
653009012	●	-	-	-	2.300	0.09055	33.00	75.00	-	3.00
653009312	●	3/32	-	-	2.381	0.09375	33.00	75.00	-	3.00
653009412	●	-	-	-	2.400	0.09449	33.00	75.00	-	3.00
653009812	●	-	-	-	2.500	0.09843	33.00	75.00	-	3.00
653010212	●	-	-	-	2.600	0.10236	40.00	90.00	-	3.00
653010612	●	-	-	-	2.700	0.10630	40.00	90.00	-	3.00
653010912	●	7/64	-	-	2.778	0.10938	40.00	90.00	-	3.00
653011012	●	-	-	-	2.800	0.11024	40.00	90.00	-	3.00
653011412	●	-	-	-	2.900	0.11417	40.00	90.00	-	3.00
8696300	●	-	-	-	3.000	0.11811	40.00	90.00	-	3.00
653012212	●	-	-	-	3.100	0.12205	45.00	100.00	-	4.00
653012512	●	1/8	-	-	3.175	0.12500	45.00	100.00	0.125	-
653012612	●	-	-	-	3.200	0.12598	45.00	100.00	-	4.00
653012912	●	-	-	-	3.300	0.12992	45.00	100.00	-	4.00
653013312	●	-	-	-	3.400	0.13386	50.00	100.00	-	4.00
8696350	●	-	-	-	3.500	0.13780	50.00	100.00	-	4.00
653014112	●	-	-	-	3.600	0.14173	50.00	100.00	-	4.00
653014512	●	-	-	-	3.700	0.14567	50.00	100.00	-	4.00
653014912	●	-	-	-	3.800	0.14961	50.00	100.00	-	4.00
653015312	●	-	-	-	3.900	0.15354	50.00	100.00	-	4.00
653015612	●	5/32	-	-	3.969	0.15625	50.00	100.00	0.188	-
8696400	●	-	-	-	4.000	0.15748	50.00	100.00	-	4.00
653016012	●	-	20	-	4.089	0.16100	55.00	115.00	-	6.00
8710410	●	-	-	-	4.100	0.16142	55.00	115.00	-	6.00
8710420	●	-	-	-	4.200	0.16535	55.00	115.00	-	6.00
8710430	●	-	-	-	4.300	0.16929	60.00	115.00	-	6.00
8710440	●	-	-	-	4.400	0.17323	60.00	115.00	-	6.00
8696450	●	-	-	-	4.500	0.17717	60.00	115.00	-	5.00
8710450	●	-	-	-	4.500	0.17717	60.00	115.00	-	6.00
8710460	●	-	-	-	4.600	0.18110	60.00	115.00	-	6.00
8710470	●	-	-	-	4.700	0.18504	65.00	115.00	-	6.00
653018712	●	3/16	-	-	4.763	0.18750	65.00	115.00	0.188	-
8710480	●	-	-	-	4.800	0.18898	65.00	115.00	-	6.00
8710490	●	-	-	-	4.900	0.19291	65.00	115.00	-	6.00
8696500	●	-	-	-	5.000	0.19685	65.00	115.00	-	5.00
8710500	●	-	-	-	5.000	0.19685	65.00	115.00	-	6.00
653020012	●	-	-	-	5.100	0.20079	70.00	128.00	-	6.00
653020212	●	13/64	-	-	5.159	0.20313	70.00	128.00	0.250	-
653020412	●	-	-	-	5.200	0.20472	70.00	128.00	-	6.00
653020812	●	-	-	-	5.300	0.20866	70.00	128.00	-	6.00
653021212	●	-	-	-	5.400	0.21260	78.00	128.00	-	6.00
653021112	●	-	3	-	5.410	0.21300	78.00	128.00	-	6.00
8696550	●	-	-	-	5.500	0.21654	78.00	128.00	-	6.00
653021712	●	7/32	-	-	5.556	0.21875	78.00	128.00	0.250	-
653022012	●	-	-	-	5.600	0.22047	78.00	128.00	-	6.00
653022412	●	-	-	-	5.700	0.22441	78.00	128.00	-	6.00
653022812	●	-	-	-	5.800	0.22835	78.00	128.00	-	6.00
653023212	●	-	-	-	5.900	0.23228	78.00	128.00	-	6.00
8696600	●	-	-	-	6.000	0.23622	78.00	128.00	-	6.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



## List 6530 (Continued)

A BRAND ADO-10D



EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8710610	●	-	-	-	6.100	0.24016	87.00	140.00	-	8.00
8696620	●	-	-	-	6.200	0.24409	87.00	140.00	-	7.00
8710620	●	-	-	-	6.200	0.24409	87.00	140.00	-	8.00
8710630	●	-	-	-	6.300	0.24803	87.00	140.00	-	8.00
653025012	●	1/4	-	E	6.350	0.25000	87.00	140.00	0.250	-
8710640	●	-	-	-	6.400	0.25197	87.00	140.00	-	8.00
8696650	●	-	-	-	6.500	0.25591	87.00	140.00	-	7.00
8710650	●	-	-	-	6.500	0.25591	87.00	140.00	-	8.00
653025612	●	-	-	F	6.528	0.25700	87.00	140.00	-	8.00
8710660	●	-	-	-	6.600	0.25984	87.00	140.00	-	8.00
8710670	●	-	-	-	6.700	0.26378	87.00	140.00	-	8.00
653026412	●	17/64	-	-	6.747	0.26563	90.00	140.00	0.313	-
8710680	●	-	-	-	6.800	0.26772	90.00	140.00	-	8.00
8710690	●	-	-	-	6.900	0.27165	90.00	140.00	-	8.00
8696700	●	-	-	-	7.000	0.27559	90.00	140.00	-	7.00
8710700	●	-	-	-	7.000	0.27559	90.00	140.00	-	8.00
653027912	●	-	-	-	7.100	0.27953	100.00	155.00	-	8.00
653028012	●	9/32	-	-	7.144	0.28125	100.00	155.00	0.313	-
653028312	●	-	-	-	7.200	0.28346	100.00	155.00	-	8.00
653028712	●	-	-	-	7.300	0.28740	100.00	155.00	-	8.00
653029112	●	-	-	-	7.400	0.29134	100.00	155.00	-	8.00
8696750	●	-	-	-	7.500	0.29528	100.00	155.00	-	8.00
653029912	●	-	-	-	7.600	0.29921	105.00	155.00	-	8.00
653030312	●	-	-	-	7.700	0.30315	105.00	155.00	-	8.00
653030712	●	-	-	-	7.800	0.30709	105.00	155.00	-	8.00
653031112	●	-	-	-	7.900	0.31102	105.00	155.00	-	8.00
653031212	●	5/16	-	-	7.938	0.31250	105.00	155.00	0.313	-
8696800	●	-	-	-	8.000	0.31496	105.00	155.00	-	8.00
8710810	●	-	-	-	8.100	0.31890	110.00	165.00	-	10.00
8710820	●	-	-	-	8.200	0.32283	110.00	165.00	-	10.00
8696830	●	-	-	-	8.300	0.32677	110.00	165.00	-	9.00
8710830	●	-	-	-	8.300	0.32677	110.00	165.00	-	10.00
8710840	●	-	-	-	8.400	0.33071	110.00	165.00	-	10.00
653033112	●	-	-	Q	8.433	0.33200	110.00	165.00	-	10.00
8696850	●	-	-	-	8.500	0.33465	110.00	165.00	-	9.00
8710850	●	-	-	-	8.500	0.33465	110.00	165.00	-	10.00
8710860	●	-	-	-	8.600	0.33858	115.00	165.00	-	10.00
8710870	●	-	-	-	8.700	0.34252	115.00	165.00	-	10.00
653034212	●	11/32	-	-	8.731	0.34375	115.00	165.00	0.375	-
8710880	●	-	-	-	8.800	0.34646	115.00	165.00	-	10.00
8710890	●	-	-	-	8.900	0.35039	115.00	165.00	-	10.00
8696900	●	-	-	-	9.000	0.35433	115.00	165.00	-	9.00
8710900	●	-	-	-	9.000	0.35433	115.00	165.00	-	10.00
653035812	●	-	-	-	9.100	0.35827	125.00	190.00	-	10.00
653036212	●	-	-	-	9.200	0.36220	125.00	190.00	-	10.00
653036612	●	-	-	-	9.300	0.36614	125.00	190.00	-	10.00
653037012	●	-	-	-	9.400	0.37008	125.00	190.00	-	10.00
8696950	●	-	-	-	9.500	0.37402	125.00	190.00	-	10.00
653037512	●	3/8	-	-	9.525	0.37500	130.00	190.00	0.375	-
653037812	●	-	-	-	9.600	0.37795	130.00	190.00	-	10.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H						
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel						
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium							
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010	1035	1045	1065	4140	4340														
1018	1045																		

○ Good ● Best



# A Brand ADO

Advanced Performance Coolant-Through Carbide Drill

## List 6530 (Continued)



SPEED FEED  
66

CARBIDE

EgiAs



2 FLUTE

TAPER

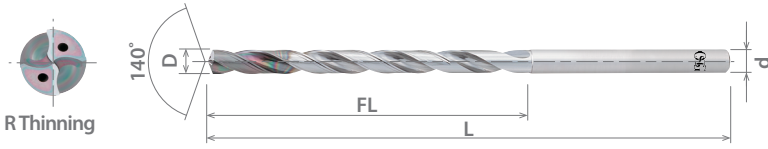
30°

SHANK  
h6

PACKED  
1 PIECE

A BRAND ADO-10D

Cutting Diameter Tolerance (e8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0/-0.014	+0/-0.0006
3 < D ≤ 6	-0.020/-0.038	-0.0008/-0.0015
6 < D ≤ 10	-0.025/-0.047	-0.0010/-0.0019
10 < D ≤ 14.288	-0.032/-0.059	-0.0013/-0.0023



EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
653038112	●	-	-	-	9.700	0.38189	130.00	190.00	-	10.00
653038512	●	-	-	-	9.800	0.38583	130.00	190.00	-	10.00
653038912	●	-	-	-	9.900	0.38976	130.00	190.00	-	10.00
8697000	●	-	-	-	10.000	0.39370	130.00	190.00	-	10.00
8711010	●	-	-	-	10.100	0.39764	140.00	205.00	-	12.00
8711020	●	-	-	-	10.200	0.40157	140.00	205.00	-	12.00
8711030	●	-	-	-	10.300	0.40551	140.00	205.00	-	12.00
8711040	●	-	-	-	10.400	0.40945	140.00	205.00	-	12.00
8711050	●	-	-	-	10.500	0.41339	140.00	205.00	-	12.00
8711060	●	-	-	-	10.600	0.41732	140.00	205.00	-	12.00
8711070	●	-	-	-	10.700	0.42126	140.00	205.00	-	12.00
653042312	●	27/64	-	-	10.716	0.42188	145.00	205.00	0.438	-
8711080	●	-	-	-	10.800	0.42520	145.00	205.00	-	12.00
8711090	●	-	-	-	10.900	0.42913	145.00	205.00	-	12.00
8697100	●	-	-	-	11.000	0.43307	145.00	205.00	-	11.00
8711100	●	-	-	-	11.000	0.43307	145.00	205.00	-	12.00
653043712	●	-	-	-	11.100	0.43701	155.00	215.00	-	12.00
653043812	●	7/16	-	-	11.113	0.43750	155.00	215.00	0.438	-
653044012	●	-	-	-	11.200	0.44094	155.00	215.00	-	12.00
653044412	●	-	-	-	11.300	0.44488	155.00	215.00	-	12.00
653044812	●	-	-	-	11.400	0.44882	155.00	215.00	-	12.00
653045212	●	-	-	-	11.500	0.45276	155.00	215.00	-	12.00
653045412	●	29/64	-	-	11.509	0.45313	155.00	215.00	0.500	-
653045612	●	-	-	-	11.600	0.45669	155.00	215.00	-	12.00
653046012	●	-	-	-	11.700	0.46063	155.00	215.00	-	12.00
653046412	●	-	-	-	11.800	0.46457	155.00	215.00	-	12.00
653046812	●	-	-	-	11.900	0.46850	155.00	215.00	-	12.00
8697200	●	-	-	-	12.000	0.47244	155.00	215.00	-	12.00
8711250	●	-	-	-	12.500	0.49213	155.00	215.00	-	14.00
653050012	●	1/2	-	-	12.700	0.50000	155.00	215.00	0.500	-
653056112	●	9/16	-	-	14.288	0.56250	180.00	230.00	0.625	-

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel					Aluminum		Nickel Alloy	Titanium				
Low	Medium	High			4140 4340	300	400	17-4 PH	6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010	1035	1065														
1018	1045															

○ Good ⊗ Best





## List 6535

A BRAND ADO-15D



SPEED FEED  
66

CARBIDE

EgiAs



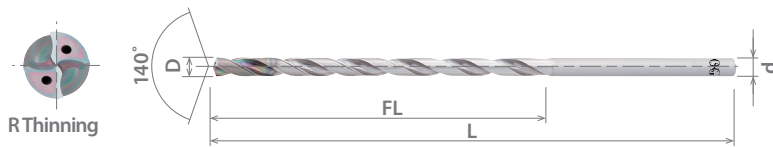
2 FLUTE

TAPER

30°

SHANK  
h6

PACKED  
1 PIECE



Cutting Diameter Tolerance (e8)		
Size (mm)	mm	inch
D=3	-0.014 / -0.028	-0.0006 / -0.0011
3 < D ≤ 6	-0.020 / -0.038	-0.0008 / -0.0015
6 < D ≤ 10	-0.025 / -0.047	-0.0010 / -0.0019
10 < D ≤ 14.288	-0.032 / -0.059	-0.0013 / -0.0023

EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
8698300	●	-	-	-	3.000	0.11811	55.00	105.00	-	3.00
653512512	●	1/8	-	-	3.175	0.12500	60.00	125.00	0.125	-
8698320	●	-	-	-	3.200	0.12598	60.00	125.00	-	4.00
8698350	●	-	-	-	3.500	0.13780	65.00	125.00	-	4.00
653514112	●	9/64	-	-	3.572	0.14063	65.00	125.00	0.156	-
653515612	●	5/32	-	-	3.969	0.15625	75.00	125.00	0.188	-
8698400	●	-	-	-	4.000	0.15748	75.00	125.00	-	4.00
653517212	●	11/64	-	-	4.366	0.17188	85.00	140.00	0.188	-
8712440	●	-	-	-	4.400	0.17323	85.00	140.00	-	6.00
8712450	●	-	-	-	4.500	0.17717	85.00	140.00	-	6.00
653518712	●	3/16	-	-	4.763	0.18750	90.00	140.00	0.188	-
8712480	●	-	-	-	4.800	0.18898	90.00	140.00	-	6.00
8712500	●	-	-	-	5.000	0.19685	90.00	140.00	-	6.00
8712510	●	-	-	-	5.100	0.20079	95.00	160.00	-	6.00
653520312	●	13/64	-	-	5.159	0.20313	95.00	160.00	0.250	-
8712520	●	-	-	-	5.200	0.20472	95.00	160.00	-	6.00
653521312	●	-	-	-	5.410	0.21299	110.00	160.00	-	6.00
8698550	●	-	-	-	5.500	0.21654	110.00	160.00	-	6.00
653521912	●	7/32	-	-	5.556	0.21875	110.00	160.00	0.250	-
653523412	●	15/64	-	-	5.953	0.23438	110.00	160.00	0.250	-
8698600	●	-	-	-	6.000	0.23622	110.00	160.00	-	6.00
8712620	●	-	-	-	6.200	0.24409	120.00	175.00	-	8.00
653525012	●	1/4	-	E	6.350	0.25000	120.00	175.00	0.250	-
8712650	●	-	-	-	6.500	0.25591	120.00	175.00	-	8.00
653526612	●	17/64	-	-	6.747	0.26563	125.00	175.00	0.313	-
8712700	●	-	-	-	7.000	0.27559	125.00	175.00	-	8.00
653528112	●	9/32	-	-	7.144	0.28125	135.00	195.00	0.313	-
8698750	●	-	-	-	7.500	0.29528	145.00	195.00	-	8.00
653529712	●	19/64	-	-	7.541	0.29688	145.00	195.00	0.313	-
653531312	●	5/16	-	-	7.938	0.31250	145.00	195.00	0.313	-
8698800	●	-	-	-	8.000	0.31496	145.00	195.00	-	8.00
8712810	●	-	-	-	8.100	0.31890	155.00	210.00	-	10.00
8712820	●	-	-	-	8.200	0.32283	155.00	210.00	-	10.00
653532812	●	21/64	-	-	8.334	0.32813	155.00	210.00	0.375	-
8712850	●	-	-	-	8.500	0.33465	155.00	210.00	-	10.00
653534412	●	11/32	-	-	8.731	0.34375	160.00	210.00	0.375	-
8712900	●	-	-	-	9.000	0.35433	160.00	210.00	-	10.00
653535912	●	23/64	-	-	9.128	0.35938	170.00	240.00	0.375	-
8712940	●	-	-	-	9.400	0.37008	170.00	240.00	-	10.00
8698950	●	-	-	-	9.500	0.37402	170.00	240.00	-	10.00
653537512	●	3/8	-	-	9.525	0.37500	180.00	240.00	0.375	-
8712980	●	-	-	-	9.800	0.38583	180.00	240.00	-	10.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H						
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel						
Carbon Steel			Alloy Steel	Die Steel					Aluminum	Nickel Alloy	Titanium								
Low	Medium	High			300	400	17-4 PH					6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010	1035	1045	1065	4140	4340														
○	○	○	○	○	○			○						○					

○ Good ○ Best



# A Brand ADO

Advanced Performance Coolant-Through Carbide Drill

## List 6535 (Continued)



SPEED FEED  
66

CARBIDE

EgiAs



2 FLUTE

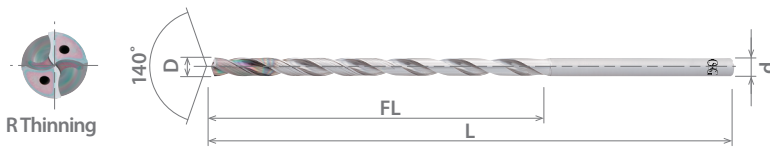
TAPER

30°

SHANK  
h6

PACKED  
1 PIECE

A BRAND ADO-15D



Cutting Diameter Tolerance (e8)		
Size (mm)	mm	inch
D=3	-0.014 / -0.028	-0.0006 / -0.0011
3 < D ≤ 6	-0.020 / -0.038	-0.0008 / -0.0015
6 < D ≤ 10	-0.025 / -0.047	-0.0010 / -0.0019
10 < D ≤ 14.288	-0.032 / -0.059	-0.0013 / -0.0023

EDP Number	Diameter (D)					Flute Length	Overall Length	Shank Diameter		
	Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)	
653539112	●	25/64	-	-	9.922	0.39063	180.00	240.00	0.438	-
8699000	●	-	-	-	10.000	0.39370	180.00	240.00	-	10.00
653540612	●	13/32	-	-	10.319	0.40625	190.00	260.00	0.438	-
8713050	●	-	-	-	10.500	0.41339	190.00	260.00	-	12.00
653542212	●	27/64	-	-	10.716	0.42188	200.00	260.00	0.438	-
8713100	●	-	-	-	11.000	0.43307	200.00	260.00	-	12.00
653543712	●	7/16	-	-	11.113	0.43750	210.00	280.00	0.438	-
8713150	●	-	-	-	11.500	0.45276	210.00	280.00	-	12.00
653545312	●	29/64	-	-	11.509	0.45313	210.00	280.00	0.500	-
653546912	●	15/32	-	-	11.906	0.46875	215.00	280.00	0.500	-
8699200	●	-	-	-	12.000	0.47244	215.00	280.00	-	12.00
8713250	●	-	-	-	12.500	0.49213	225.00	290.00	-	14.00
653550012	●	1/2	-	-	12.700	0.50000	230.00	295.00	0.500	-
653553112	●	17/32	-	-	13.494	0.53125	245.00	315.00	0.625	-
653556312	●	9/16	-	-	14.288	0.56250	260.00	330.00	0.625	-

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel					Aluminum	Nickel Alloy	Titanium					
Low	Medium	High			300	400	17-4 PH					6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC
1010	1035	1065	4140	4340	○	○	○	○				○				
1018	1045				○	○	○	○								

○ Good ○ Best



## List 6540

A BRAND ADO-20D



SPEED FEED  
66

CARBIDE

EgiAs



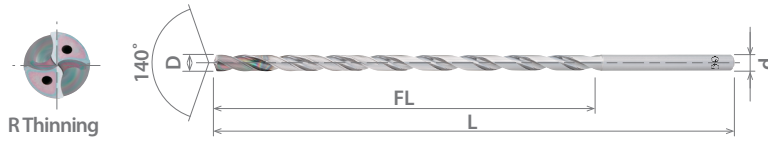
2 FLUTE

TAPER

30°

SHANK  
h6

PACKED  
1 PIECE



Cutting Diameter Tolerance (e8)		
Size (mm)	mm	inch
D=3	-0.014/-0.028	-0.0006/-0.0011
3 < D ≤ 6	-0.020/-0.038	-0.0008/-0.0015
6 < D ≤ 10	-0.025/-0.047	-0.0010/-0.0019
10 < D ≤ 14.288	-0.032/-0.059	-0.0013/-0.0023

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8706300	●	-	-	-	3.000	0.11811	70.00	120.00	-	3.00
654012512	●	1/8	-	-	3.175	0.12500	70.00	120.00	0.125	-
8706320	●	-	-	-	3.200	0.12598	80.00	140.00	-	4.00
8706350	●	-	-	-	3.500	0.13780	85.00	140.00	-	4.00
654014012	●	9/64	-	-	3.572	0.14063	85.00	140.00	0.156	-
654015612	●	5/32	-	-	3.969	0.15625	90.00	140.00	0.188	-
8706400	●	-	-	-	4.000	0.15748	90.00	140.00	-	4.00
654017212	●	11/64	-	-	4.366	0.17188	110.00	165.00	0.188	-
8706450	●	-	-	-	4.500	0.17717	110.00	165.00	-	5.00
8714450	●	-	-	-	4.500	0.17717	110.00	165.00	-	6.00
654018712	●	3/16	-	-	4.763	0.18750	110.00	165.00	0.188	-
8714480	●	-	-	-	4.800	0.18898	115.00	165.00	-	6.00
8706500	●	-	-	-	5.000	0.19685	115.00	165.00	-	5.00
8714500	●	-	-	-	5.000	0.19685	115.00	165.00	-	6.00
8714510	●	-	-	-	5.100	0.20079	120.00	190.00	-	6.00
654020212	●	13/64	-	-	5.159	0.20313	120.00	190.00	0.250	-
8714520	●	-	-	-	5.200	0.20472	120.00	190.00	-	6.00
654021312	●	-	-	-	5.410	0.21299	140.00	190.00	-	6.00
8706550	●	-	-	-	5.500	0.21654	140.00	190.00	-	6.00
654021712	●	7/32	-	-	5.556	0.21875	140.00	190.00	0.250	-
654023412	●	15/64	-	-	5.953	0.23438	140.00	190.00	0.250	-
8706600	●	-	-	-	6.000	0.23622	140.00	190.00	-	6.00
8714620	●	-	-	-	6.200	0.24409	155.00	210.00	-	8.00
654025012	●	1/4	-	E	6.350	0.25000	150.00	200.00	0.250	-
8706650	●	-	-	-	6.500	0.25591	155.00	210.00	-	7.00
8714650	●	-	-	-	6.500	0.25591	155.00	210.00	-	8.00
654026412	●	17/64	-	-	6.747	0.26563	155.00	210.00	0.313	-
8706700	●	-	-	-	7.000	0.27559	160.00	210.00	-	7.00
8714700	●	-	-	-	7.000	0.27559	160.00	210.00	-	8.00
654028012	●	9/32	-	-	7.144	0.28125	170.00	230.00	0.313	-
8706750	●	-	-	-	7.500	0.29528	170.00	230.00	-	8.00
654029612	●	19/64	-	-	7.541	0.29688	180.00	230.00	0.313	-
654031212	●	5/16	-	-	7.938	0.31250	180.00	230.00	0.313	-
8706800	●	-	-	-	8.000	0.31496	180.00	230.00	-	8.00
8714810	●	-	-	-	8.100	0.31890	195.00	260.00	-	10.00
654032812	●	21/64	-	-	8.334	0.32813	195.00	260.00	0.375	-
8706850	●	-	-	-	8.500	0.33465	195.00	260.00	-	9.00
8714850	●	-	-	-	8.500	0.33465	195.00	260.00	-	10.00
654034212	●	11/32	-	-	8.731	0.34375	210.00	260.00	0.375	-
8706900	●	-	-	-	9.000	0.35433	210.00	260.00	-	9.00
8714900	●	-	-	-	9.000	0.35433	210.00	260.00	-	10.00
654035912	●	23/64	-	-	9.128	0.35938	220.00	290.00	0.375	-
8714940	●	-	-	-	9.400	0.37008	220.00	290.00	-	10.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED

P					M			K	N		S		H				
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel				
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium					
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC
1010	1035	1065	4140	4340	○	○	○	○					○				
1018	1045	1065	4140	4340	○	○	○	○					○				

○ Good ○ Best



# A Brand ADO

Advanced Performance Coolant-Through Carbide Drill

## List 6540 (Continued)



SPEED FEED  
66

CARBIDE

EgiAs



2 FLUTE

TAPER

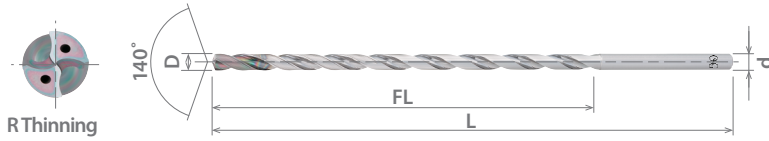
30°

SHANK  
h6

PACKED  
1 PIECE

A BRAND ADO-20D

Cutting Diameter Tolerance (e8)		
Size (mm)	mm	inch
D=3	-0.014/-0.028	-0.0006/-0.0011
3 < D ≤ 6	-0.020/-0.038	-0.0008/-0.0015
6 < D ≤ 10	-0.025/-0.047	-0.0010/-0.0019
10 < D ≤ 14.288	-0.032/-0.059	-0.0013/-0.0023



EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8706950	●	-	-	-	9.500	0.37402	220.00	290.00	-	10.00
654037512	●	3/8	-	-	9.525	0.37500	220.00	290.00	0.375	-
8714980	●	-	-	-	9.800	0.38583	230.00	290.00	-	10.00
654039012	●	25/64	-	-	9.922	0.39063	230.00	290.00	0.438	-
8707000	●	-	-	-	10.000	0.39370	230.00	290.00	-	10.00
654040612	●	13/32	-	-	10.319	0.40625	250.00	310.00	0.438	-
8715050	●	-	-	-	10.500	0.41339	250.00	310.00	-	12.00
654042112	●	27/64	-	-	10.716	0.42188	250.00	310.00	0.438	-
8707100	●	-	-	-	11.000	0.43307	250.00	310.00	-	11.00
8715100	●	-	-	-	11.000	0.43307	250.00	310.00	-	12.00
654043712	●	7/16	-	-	11.113	0.43750	270.00	330.00	0.438	-
654045212	●	-	-	-	11.500	0.45276	270.00	330.00	-	12.00
654045412	●	29/64	-	-	11.509	0.45313	270.00	330.00	0.500	-
654046812	●	15/32	-	-	11.906	0.46875	270.00	330.00	0.500	-
8707200	●	-	-	-	12.000	0.47244	270.00	330.00	-	12.00
8715250	●	-	-	-	12.500	0.49213	280.00	330.00	-	14.00
654050012	●	1/2	-	-	12.700	0.50000	280.00	330.00	0.500	-
654053112	●	17/32	-	-	13.494	0.53125	310.00	380.00	0.625	-
654056112	●	9/16	-	-	14.288	0.56250	315.00	365.00	0.625	-

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H						
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel						
Carbon Steel			Alloy Steel	Die Steel					Aluminum	Nickel Alloy	Titanium								
Low	Medium	High			300	400	17-4 PH					6061 7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010	1018	1035	1045	1065	4140	4340	○	○	○	○	○	○	○	○	○	○	○	○	○

○ Good ○ Best

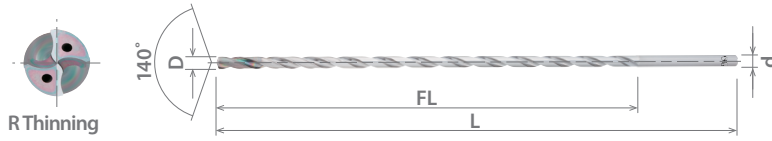


## List 6550

A BRAND ADO-30D



<b>SPEED FEED</b> 66	<b>CARBIDE</b>	<b>EgiAs</b>		<b>2 FLUTE</b>	<b>TAPER</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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Cutting Diameter Tolerance (e8)		
Size (mm)	mm	inch
D=3	-0.014/-0.028	-0.0006/-0.0011
3 < D ≤ 6	-0.020/-0.038	-0.0008/-0.0015
6 < D ≤ 10	-0.025/-0.047	-0.0010/-0.0019
10 < D ≤ 14.288	-0.032/-0.059	-0.0013/-0.0023

EDP Number		Diameter (D)				Flute Length	Overall Length	Shank Diameter		
		Fractional Size	Wire Gage	Letter Size	mm			Inch	FL (mm)	L (mm)
655011812	●	-	-	-	3.000	0.11811	85.00	135.00	-	3.00
655012512	●	1/8	-	-	3.175	0.12500	95.00	165.00	0.125	-
8708320	●	-	-	-	3.200	0.12598	105.00	185.00	-	4.00
8708350	●	-	-	-	3.500	0.13780	116.00	185.00	-	4.00
655014012	●	9/64	-	-	3.572	0.14063	116.00	185.00	0.156	-
655015612	●	5/32	-	-	3.969	0.15625	132.00	185.00	0.188	-
8708400	●	-	-	-	4.000	0.15748	132.00	185.00	-	4.00
655017212	●	11/64	-	-	4.366	0.17188	150.00	215.00	0.188	-
8708450	●	-	-	-	4.500	0.17717	150.00	215.00	-	5.00
8716450	●	-	-	-	4.500	0.17717	150.00	215.00	-	6.00
655018712	●	3/16	-	-	4.763	0.18750	155.00	210.00	0.188	-
8716480	●	-	-	-	4.800	0.18898	165.00	215.00	-	6.00
8708500	●	-	-	-	5.000	0.19685	165.00	215.00	-	5.00
8716500	●	-	-	-	5.000	0.19685	165.00	215.00	-	6.00
8716510	●	-	-	-	5.100	0.20079	180.00	250.00	-	6.00
655020212	●	13/64	-	-	5.159	0.20313	180.00	250.00	0.250	-
8716520	●	-	-	-	5.200	0.20472	180.00	250.00	-	6.00
655021312	●	-	-	-	5.410	0.21299	200.00	250.00	-	6.00
8708550	●	-	-	-	5.500	0.21654	200.00	250.00	-	6.00
655021712	●	7/32	-	-	5.556	0.21875	200.00	250.00	0.250	-
655023412	●	15/64	-	-	5.953	0.23438	200.00	250.00	0.250	-
8708600	●	-	-	-	6.000	0.23622	200.00	250.00	-	6.00
8716620	●	-	-	-	6.200	0.24409	215.00	280.00	-	8.00
655025012	●	1/4	-	E	6.350	0.25000	215.00	280.00	0.250	-
8708650	●	-	-	-	6.500	0.25591	215.00	280.00	-	7.00
8716650	●	-	-	-	6.500	0.25591	215.00	280.00	-	8.00
655026412	●	17/64	-	-	6.747	0.26563	230.00	280.00	0.313	-
8708700	●	-	-	-	7.000	0.27559	230.00	280.00	-	7.00
8716700	●	-	-	-	7.000	0.27559	230.00	280.00	-	8.00
655028012	●	9/32	-	-	7.144	0.28125	250.00	315.00	0.313	-
8708750	●	-	-	-	7.500	0.29528	250.00	315.00	-	8.00
655029612	●	19/64	-	-	7.541	0.29688	265.00	315.00	0.313	-
655031212	●	5/16	-	-	7.938	0.31250	265.00	315.00	0.375	-
8708800	●	-	-	-	8.000	0.31496	265.00	315.00	-	8.00
8716810	●	-	-	-	8.100	0.31890	280.00	350.00	-	10.00
655032812	●	21/64	-	-	8.334	0.32813	280.00	350.00	0.375	-
8708850	●	-	-	-	8.500	0.33465	280.00	350.00	-	9.00
8716850	●	-	-	-	8.500	0.33465	280.00	350.00	-	10.00
655034212	●	11/32	-	-	8.733	0.34375	300.00	350.00	0.375	-
8708900	●	-	-	-	9.000	0.35433	300.00	350.00	-	9.00
8716900	●	-	-	-	9.000	0.35433	300.00	350.00	-	10.00
655035912	●	23/64	-	-	9.128	0.35938	315.00	390.00	0.375	-
8716940	●	-	-	-	9.400	0.37008	315.00	390.00	-	10.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED

P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium				
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC
1010	1035	1065	4140	4340	○	○	○	○					○			
1018	1045															

○ Good ○ Best



# A Brand ADO

Advanced Performance Coolant-Through Carbide Drill

## List 6550 (Continued)



SPEED FEED  
66

CARBIDE

EgiAs



2 FLUTE

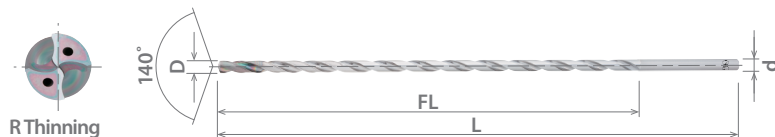
TAPER

30°

SHANK  
h6

PACKED  
1 PIECE

A BRAND ADO-30D



Cutting Diameter Tolerance (e8)		
Size (mm)	mm	inch
D=3	-0.014 / -0.028	-0.0006 / -0.0011
3 < D ≤ 6	-0.020 / -0.038	-0.0008 / -0.0015
6 < D ≤ 10	-0.025 / -0.047	-0.0010 / -0.0019
10 < D ≤ 14.288	-0.032 / -0.059	-0.0013 / -0.0023

EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
8708950	●	-	-	-	9.500	0.37402	315.00	390.00	-	10.00
655037512	●	3/8	-	-	9.525	0.37500	315.00	390.00	0.313	-
8716980	●	-	-	-	9.800	0.38583	330.00	390.00	-	10.00
655039012	●	25/64	-	-	9.922	0.39063	330.00	390.00	0.438	-
8709000	●	-	-	-	10.000	0.39370	330.00	390.00	-	10.00
655040612	●	13/32	-	-	10.319	0.40625	340.00	400.00	0.438	-
655041212	●	-	-	-	10.500	0.41339	350.00	400.00	-	12.00
655042112	●	27/64	-	-	10.716	0.42188	350.00	400.00	0.438	-
655043212	●	-	-	-	11.000	0.43307	350.00	400.00	-	12.00
655043712	●	7/16	-	-	11.113	0.43750	350.00	400.00	0.438	-
655045212	●	-	-	-	11.500	0.45276	350.00	400.00	-	12.00
655045412	●	29/64	-	-	11.509	0.45313	350.00	400.00	0.500	-
655046812	●	15/32	-	-	11.906	0.46875	340.00	400.00	0.500	-
655047212	●	-	-	-	12.000	0.47244	350.00	400.00	-	12.00
655049112	●	-	-	-	12.500	0.49213	350.00	400.00	-	14.00
655050012	●	1/2	-	-	12.700	0.50000	350.00	400.00	0.500	-
655053112	●	17/32	-	-	13.494	0.53125	340.00	400.00	0.625	-
655056112	●	9/16	-	-	14.288	0.56250	350.00	400.00	0.625	-

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P Steel					M Stainless Steel			K Cast Iron	N Non-Ferrous		S HRSA		H Hardened Steel				
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH	Cast Iron	Aluminum		Nickel Alloy	Titanium	Hardened Steel				
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
1010	1035	1065	4140	Die Steel	○	○	○	○	6061	7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
○	○	○	○	○	○	○	○	○						○			

○ Good ○ Best



## List 6560

A BRAND ADO-40D



SPEED FEED  
67

CARBIDE

EgiAs



2 FLUTE

TAPER

25°

SHANK  
h6

PACKED  
1 PIECE



Cutting Diameter Tolerance (e8)		
Size (mm)	mm	inch
D=3	-0.014 / -0.028	-0.0006 / -0.0011
3 < D ≤ 6	-0.020 / -0.038	-0.0008 / -0.0015
6 < D ≤ 10	-0.025 / -0.047	-0.0010 / -0.0019

EDP Number		Diameter					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8717300	●	-	-	-	3.000	0.11811	129.00	179.00	-	3.00
656012512	●	1/8	-	-	3.175	0.12500	136.74	186.74	0.125	-
656014012	○	9/64	-	-	3.572	0.14063	154.00	204.00	0.156	-
656015612	●	5/32	-	-	3.969	0.15625	170.71	220.71	0.188	-
8717400	●	-	-	-	4.000	0.15748	172.00	222.00	-	4.00
656017212	○	11/64	-	-	4.366	0.17188	188.00	238.00	0.188	-
656018712	●	3/16	-	-	4.763	0.18750	204.68	254.68	0.188	-
8717500	●	-	-	-	5.000	0.19685	215.00	265.00	-	5.00
656020212	○	13/64	-	-	5.159	0.20313	221.88	271.88	0.250	-
656021712	○	7/32	-	-	5.556	0.21875	239.08	289.08	0.250	-
656023412	○	15/64	-	-	5.953	0.23438	255.85	305.85	0.250	-
8717600	●	-	-	-	6.000	0.23622	258.00	308.00	-	6.00
656025012	●	1/4	-	-	6.350	0.25000	273.05	323.05	0.250	-
656026412	○	17/64	-	-	6.747	0.26563	290.00	340.00	0.313	-
656028012	○	9/32	-	-	7.144	0.28125	307.00	357.00	0.313	-
656029612	○	19/64	-	-	7.541	0.29688	324.00	374.00	0.313	-
656031212	●	5/16	-	-	7.938	0.31250	341.42	391.42	0.313	-
8717800	●	-	-	-	8.000	0.31496	344.00	394.00	-	8.00
656032812	○	21/64	-	-	8.334	0.32813	358.00	408.00	0.375	-
656034212	○	11/32	-	-	8.731	0.34375	375.00	425.00	0.375	-
656035912	○	23/64	-	-	9.128	0.35938	393.00	443.00	0.375	-
656037512	●	3/8	-	-	9.525	0.37500	409.79	459.79	0.375	-
656039012	○	25/64	-	-	9.922	0.39063	427.00	477.00	0.438	-
8718000	●	-	-	-	10.000	0.39370	430.00	490.00	-	10.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
Low	Medium	High							6061	7075						
1010	1035	1065	4140	4340	○	○	○	○				○				
1018	1045															

○ Good ○ Best



# A Brand ADO

Advanced Performance Coolant-Through Carbide Drill

## List 6570

A BRAND ADO-50D



SPEED FEED  
67

CARBIDE

EgiAs



2 FLUTE

TAPER

25°

SHANK  
h6

PACKED  
1 PIECE



Cutting Diameter Tolerance (e8)		
Size (mm)	mm	inch
D=3	-0.014 / -0.028	-0.0006 / -0.0011
3 < D ≤ 6	-0.020 / -0.038	-0.0008 / -0.0015
6 < D ≤ 8	-0.025 / -0.047	-0.0010 / -0.0019

EDP Number	Stocking	Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8718300	●	-	-	-	3.000	0.11811	159.00	209.00	-	3.00
657012512	●	1/8	-	-	3.175	0.12500	168.54	218.54	0.125	-
657014012	○	9/64	-	-	3.572	0.14063	189.00	239.00	0.156	-
657015612	●	5/32	-	-	3.969	0.15625	210.41	260.41	0.188	-
8718400	●	-	-	-	4.000	0.15748	212.00	262.00	-	4.00
657017212	○	11/64	-	-	4.366	0.17188	232.00	282.00	0.188	-
657018712	●	3/16	-	-	4.763	0.18750	252.28	302.28	0.188	-
8718500	●	-	-	-	5.000	0.19685	265.00	315.00	-	5.00
657020212	○	13/64	-	-	5.159	0.20313	273.00	323.00	0.250	-
657021712	○	7/32	-	-	5.556	0.21875	295.00	345.00	0.250	-
657023412	○	15/64	-	-	5.953	0.23438	315.00	365.00	0.250	-
8718600	●	-	-	-	6.000	0.23622	318.00	368.00	-	6.00
657025012	●	1/4	-	-	6.350	0.25000	336.55	386.55	0.250	-
657026412	○	17/64	-	-	6.747	0.26563	358.00	408.00	0.313	-
657028012	○	9/32	-	-	7.144	0.28125	378.00	428.00	0.313	-
657029612	○	19/64	-	-	7.541	0.29688	400.00	450.00	0.313	-
657031212	●	5/16	-	-	7.938	0.31250	420.82	470.82	0.313	-
8718800	●	-	-	-	8.000	0.31496	424.00	474.00	-	8.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P Steel					M Stainless Steel			K Cast Iron	N Non-Ferrous		S HRSA		H Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium	Hardened Steel			
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC
1010	1035	1065	4140	4340	○	○	○	○				○				
1018	1045															

○ Good ○ Best





## List 6500 - A Brand ADO: 3D

## List 6510 - A Brand ADO: 5D

## List 6520 - A Brand ADO: 8D

### General Drilling Operations

Work Material	Carbon Steels, Mild Steels 1010, 1050, 12L14		Alloy Steels 4140, 4130		Stainless Steels 300SS, 400SS, 17-4PH		High Heat Material						
							Ti-Alloy, Ti-6Al-4V		Fe-Base Material, A286		Ni-Base Material, Inconel		
Drilling Speed	260-395 SFM		260-395 SFM		130-230 SFM		100 - 180 SFM		80 - 130 SFM		65 - 110 SFM		
Drill Dia.	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	
													mm
2	-	15,870	0.002-0.004	15,870	0.002-0.004	8,740	0.002-0.004	6,790	0.002-0.003	5,080	0.001-0.002	4,250	0.001-0.002
3	-	10,580	0.002-0.005	10,580	0.002-0.005	5,820	0.002-0.005	4,530	0.002-0.003	3,390	0.002-0.002	2,840	0.001-0.002
-	1/8	10,000	0.003-0.005	10,000	0.003-0.005	5,500	0.003-0.005	4,280	0.002-0.004	3,200	0.002-0.003	2,680	0.002-0.002
4	-	7,940	0.003-0.006	7,940	0.003-0.006	4,370	0.003-0.006	3,400	0.002-0.004	2,540	0.002-0.003	2,130	0.002-0.002
-	3/16	6,670	0.004-0.007	6,670	0.004-0.007	3,670	0.004-0.007	2,850	0.003-0.005	2,130	0.003-0.004	1,790	0.002-0.003
6	-	5,290	0.005-0.009	5,290	0.005-0.009	2,910	0.005-0.009	2,269	0.004-0.005	1,690	0.004-0.005	1,420	0.002-0.004
-	1/4	5,000	0.006-0.009	5,000	0.006-0.009	2,750	0.006-0.009	2,140	0.004-0.006	1,600	0.004-0.006	1,340	0.002-0.004
8	-	3,970	0.006-0.011	3,970	0.006-0.011	2,180	0.006-0.011	1,700	0.005-0.007	1,270	0.005-0.006	1,060	0.003-0.005
-	3/8	3,330	0.008-0.012	3,330	0.008-0.012	1,830	0.008-0.012	1,430	0.005-0.008	1,070	0.005-0.007	890	0.004-0.005
10	-	3,170	0.008-0.012	3,170	0.008-0.012	1,750	0.008-0.012	1,360	0.006-0.009	1,020	0.006-0.008	850	0.004-0.006
-	7/16	2,860	0.008-0.012	2,860	0.008-0.012	1,570	0.008-0.012	1,220	0.007-0.010	910	0.007-0.009	770	0.004-0.007
12	-	2,650	0.008-0.012	2,650	0.008-0.012	1,460	0.008-0.012	1,130	0.007-0.011	850	0.007-0.009	710	0.005-0.007
-	1/2	2,500	0.008-0.012	2,500	0.008-0.012	1,380	0.008-0.012	1,070	0.008-0.012	800	0.008-0.010	670	0.005-0.008
14	-	2,270	0.009-0.014	2,270	0.009-0.014	1,250	0.009-0.014	970	0.008-0.013	730	0.008-0.011	610	0.005-0.008
-	5/8	2,000	0.010-0.014	2,000	0.010-0.014	1,100	0.010-0.014	860	0.009-0.013	640	0.006-0.009	540	0.005-0.008
16	-	2,000	0.010-0.014	2,000	0.010-0.014	1,100	0.010-0.014	860	0.009-0.013	640	0.006-0.009	540	0.005-0.008
18	-	1,760	0.011-0.015	1,760	0.011-0.015	1,090	0.011-0.015	750	0.010-0.014	560	0.008-0.011	470	0.005-0.008
-	3/4	1,670	0.012-0.015	1,670	0.012-0.015	920	0.012-0.015	710	0.011-0.015	530	0.008-0.011	450	0.005-0.008
20	-	1,590	0.012-0.016	1,590	0.012-0.016	870	0.012-0.016	680	0.012-0.016	510	0.008-0.012	420	0.005-0.008

### General Drilling Operations

Work Material	Cast Iron		Ductile Cast Iron		Special Alloy Steels, Hardened Steels								
					26-30 HRC		30-34 HRC		34-43 HRC		43-48 HRC		
Drilling Speed	260-395 SFM		195-330 SFM		195-295 SFM		130-200 SFM		130-160 SFM		82-115 HRC		
Drill Dia.	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	
													mm
2	-	15,870	0.002-0.004	12,700	0.002-0.004	11,890	0.002-0.004	8,000	0.002-0.003	7,040	0.002-0.003	4,770	0.001-0.002
3	-	10,580	0.002-0.005	8,470	0.002-0.005	7,920	0.002-0.005	5,330	0.002-0.003	4,690	0.002-0.003	3,180	0.002-0.002
-	1/8	10,000	0.003-0.005	8,000	0.003-0.005	7,490	0.003-0.005	5,040	0.002-0.004	4,430	0.002-0.004	3,010	0.002-0.003
4	-	7,940	0.003-0.006	6,350	0.003-0.006	5,940	0.003-0.006	4,000	0.003-0.004	3,520	0.003-0.004	2,390	0.002-0.003
-	3/16	6,670	0.004-0.007	5,330	0.004-0.007	4,990	0.004-0.007	3,360	0.003-0.005	2,950	0.003-0.005	2,000	0.003-0.004
6	-	5,290	0.005-0.009	4,230	0.005-0.009	3,960	0.005-0.009	2,700	0.005-0.006	2,340	0.005-0.006	1,590	0.004-0.005
-	1/4	5,000	0.006-0.009	4,000	0.006-0.009	3,740	0.006-0.010	2,520	0.005-0.007	2,220	0.005-0.007	1,500	0.004-0.006
8	-	3,970	0.006-0.011	3,170	0.006-0.011	2,970	0.006-0.011	2,000	0.006-0.008	1,760	0.006-0.008	1,190	0.005-0.007
-	3/8	3,330	0.008-0.012	2,670	0.008-0.012	2,500	0.007-0.012	1,680	0.008-0.009	1,480	0.008-0.009	1,000	0.006-0.008
10	-	3,170	0.008-0.012	2,540	0.008-0.012	2,380	0.008-0.012	1,600	0.008-0.010	1,410	0.008-0.010	950	0.007-0.009
-	7/16	2,860	0.008-0.012	2,290	0.008-0.012	2,140	0.008-0.012	1,440	0.009-0.011	1,270	0.009-0.011	860	0.007-0.009
12	-	2,650	0.008-0.012	2,120	0.008-0.012	1,980	0.008-0.012	1,330	0.009-0.012	1,170	0.009-0.012	800	0.007-0.009
-	1/2	2,500	0.008-0.012	2,000	0.008-0.012	1,870	0.008-0.012	1,260	0.010-0.013	1,110	0.010-0.013	750	0.008-0.010
14	-	2,270	0.009-0.014	1,810	0.009-0.014	1,700	0.009-0.014	1,140	0.011-0.014	1,000	0.011-0.014	680	0.008-0.011
-	5/8	2,000	0.010-0.014	1,600	0.010-0.014	1,500	0.010-0.014	1,010	0.012-0.015	890	0.012-0.015	600	0.009-0.013
16	-	2,000	0.010-0.014	1,600	0.010-0.014	1,500	0.010-0.014	1,010	0.012-0.015	890	0.012-0.015	600	0.009-0.013
18	-	1,760	0.011-0.015	1,410	0.011-0.015	1,320	0.011-0.015	890	0.014-0.018	780	0.014-0.018	530	0.010-0.014
-	3/4	1,670	0.012-0.015	1,330	0.012-0.015	1,250	0.012-0.015	840	0.015-0.019	740	0.015-0.019	500	0.011-0.015
20	-	1,590	0.012-0.016	1,270	0.012-0.016	1,190	0.012-0.016	800	0.016-0.020	700	0.016-0.020	480	0.012-0.016

**Note:**

- The indicated speeds and feeds are for drilling with [water-soluble oil](#) or [MQL](#).
- Suitable cutting fluid is water-soluble high density oil (less than 20 times dilution).
- When using non-water-soluble oil or water-soluble oil (over 20 times dilution), reduce cutting speed by 30%.
- These conditions are for drilling depth under 8 times the drill diameter.
- 1D-2D step feeding may be required for drilling high hardened steels and mid-range (8D) work.



List 6530 - A Brand ADO: **10D**

List 6535 - A Brand ADO: **15D**

List 6540 - A Brand ADO: **20D**

List 6550 - A Brand ADO: **30D**

## General Drilling Operations

Work Material	Carbon Steels, Mild Steels 1010, 1050, 12L14		Alloy Steels 4140, 4130		Stainless Steels 300SS, 400SS, 17-4PH		High Heat Material						
	Ti-Alloy, Ti-6Al-4V		Fe-Base Material, A286		Ni-Base Material, Inconel								
Drilling Speed	260-395 SFM		260-395 SFM		130-230 SFM		100 - 180 SFM		80 - 130 SFM		65 - 110 SFM		
Drill Dia.	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	
													mm
2	-	15,870	0.002-0.004	15,870	0.002-0.004	8,740	0.002-0.004	6,790	0.001-0.003	5,080	0.001-0.002	4,250	0.001-0.002
3	-	10,580	0.002-0.005	10,580	0.002-0.005	5,820	0.002-0.005	4,530	0.002-0.003	3,390	0.002-0.002	2,840	0.001-0.002
4	1/8	10,000	0.003-0.005	10,000	0.003-0.005	5,500	0.003-0.005	4,280	0.002-0.003	3,200	0.002-0.003	2,680	0.002-0.002
4	-	7,940	0.003-0.006	7,940	0.003-0.006	4,370	0.003-0.006	3,400	0.002-0.004	2,540	0.002-0.003	2,130	0.002-0.002
6	3/16	6,670	0.004-0.007	6,670	0.004-0.007	3,670	0.004-0.007	2,850	0.003-0.004	2,130	0.002-0.004	1,790	0.002-0.003
6	-	5,290	0.005-0.009	5,290	0.005-0.009	2,910	0.005-0.009	2,269	0.004-0.005	1,690	0.004-0.005	1,420	0.002-0.004
8	1/4	5,000	0.005-0.010	5,000	0.005-0.010	2,750	0.005-0.010	2,140	0.004-0.006	1,600	0.004-0.006	1,340	0.002-0.005
8	-	3,970	0.006-0.011	3,970	0.006-0.011	2,180	0.006-0.011	1,700	0.005-0.007	1,270	0.005-0.006	1,060	0.003-0.005
10	3/8	3,330	0.007-0.012	3,330	0.007-0.012	1,830	0.007-0.012	1,430	0.005-0.008	1,070	0.005-0.007	890	0.003-0.005
10	-	3,170	0.008-0.012	3,170	0.008-0.012	1,750	0.008-0.012	1,360	0.006-0.009	1,020	0.006-0.008	850	0.004-0.006
12	7/16	2,860	0.008-0.012	2,860	0.008-0.012	1,570	0.008-0.012	1,220	0.007-0.010	910	0.007-0.009	770	0.004-0.007
12	-	2,650	0.008-0.012	2,650	0.008-0.012	1,460	0.008-0.012	1,130	0.007-0.011	850	0.007-0.009	710	0.005-0.007
12	1/2	2,500	0.008-0.012	2,500	0.008-0.012	1,380	0.008-0.012	1,070	0.008-0.012	800	0.008-0.010	670	0.005-0.008
12	9/16	2,220	0.009-0.014	2,220	0.009-0.014	1,220	0.009-0.014	950	0.008-0.013	710	0.008-0.011	600	0.005-0.008

## General Drilling Operations

Work Material	Cast Iron		Ductile Cast Iron		Special Alloy Steels, Hardened Steels								
	26-30 HRC		30-34 HRC		34-43 HRC		43-48 HRC						
Drilling Speed	260-395 SFM		195-330 SFM		195-295 SFM		130-200 SFM		130-160 SFM		82-115 HRC		
Drill Dia.	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	
													mm
2	-	15,870	0.002-0.004	12,700	0.002-0.004	11,890	0.002-0.004	8,000	0.002-0.003	7,040	0.002-0.003	4,770	0.001-0.002
3	-	10,580	0.002-0.005	8,470	0.002-0.005	7,920	0.002-0.005	5,330	0.002-0.003	4,690	0.002-0.003	3,180	0.002-0.002
4	1/8	10,000	0.003-0.005	8,000	0.003-0.005	7,490	0.003-0.005	5,040	0.003-0.004	4,430	0.003-0.004	3,010	0.002-0.003
4	-	7,940	0.003-0.006	6,350	0.003-0.006	5,940	0.003-0.006	4,000	0.003-0.004	3,520	0.003-0.004	2,390	0.002-0.003
6	3/16	6,670	0.004-0.007	5,330	0.004-0.007	4,990	0.004-0.007	3,360	0.003-0.005	2,950	0.003-0.005	2,000	0.003-0.004
6	-	5,290	0.005-0.009	4,230	0.005-0.009	3,960	0.005-0.009	2,700	0.005-0.006	2,340	0.005-0.006	1,590	0.004-0.005
8	1/4	5,000	0.005-0.010	4,000	0.005-0.010	3,740	0.005-0.010	2,520	0.005-0.007	2,220	0.005-0.007	1,500	0.004-0.006
8	-	3,970	0.006-0.011	3,170	0.006-0.011	2,970	0.006-0.011	2,000	0.006-0.008	1,760	0.006-0.008	1,190	0.005-0.007
10	3/8	3,330	0.007-0.012	2,670	0.007-0.012	2,500	0.007-0.012	1,680	0.007-0.009	1,480	0.007-0.009	1,000	0.006-0.008
10	-	3,170	0.008-0.012	2,540	0.008-0.012	2,380	0.008-0.012	1,600	0.008-0.010	1,410	0.008-0.010	950	0.007-0.009
12	7/16	2,860	0.008-0.012	2,290	0.008-0.012	2,140	0.008-0.012	1,440	0.009-0.011	1,270	0.009-0.011	860	0.007-0.009
12	-	2,650	0.008-0.012	2,120	0.008-0.012	1,980	0.008-0.012	1,330	0.009-0.012	1,170	0.009-0.012	800	0.007-0.009
12	1/2	2,500	0.008-0.012	2,000	0.008-0.012	1,870	0.008-0.012	1,260	0.010-0.013	1,110	0.010-0.013	750	0.008-0.010
12	9/16	2,220	0.009-0.014	1,780	0.009-0.014	1,660	0.009-0.014	1,120	0.011-0.014	980	0.011-0.014	670	0.008-0.011

**Note:**

- The indicated speeds and feeds are for drilling with **water-soluble oil** or **MQL**. (We do not recommend mist drilling with stainless steels.)
- Water-soluble oil (20-30 times dilution) is recommended.
- When using non-water-soluble oil, set the cutting speed between 70-100% of the lowest limit.
- Make a pilot hole before deep drilling; recommended operation is on pages 310-311.
- A clogged oil hole can lead to breakage. Make sure that a filter is attached to the oil feeder.
- Peck drilling of 1D-2D is strongly recommended in high hardness materials.



## List 6560 - A Brand ADO: 40D

## List 6570 - A Brand ADO: 50D

### General Drilling Operations

Work Material		Carbon Steels, Mild Steels 1010, 1050, 12L14		Alloy Steels 4140, 4130		Stainless Steels 300SS, 400SS, 17-4PH		Cast Iron	
Drilling Speed		195-295 SFM		195-295 SFM		130-195 SFM		195-295 SFM	
Drill Dia.		Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR
mm	Inch								
3	-	7,500	0.002-0.005	7,500	0.002-0.005	5,300	0.002-0.005	7,500	0.002-0.005
-	1/8	7,100	0.003-0.005	7,100	0.003-0.005	5,000	0.003-0.005	7,100	0.003-0.005
4	-	5,600	0.003-0.006	5,600	0.003-0.006	4,000	0.003-0.006	5,600	0.003-0.006
-	3/16	4,700	0.004-0.008	4,700	0.004-0.008	3,300	0.004-0.008	4,700	0.004-0.008
6	-	3,700	0.005-0.009	3,700	0.005-0.009	2,700	0.005-0.009	3,700	0.005-0.009
-	1/4	3,500	0.005-0.010	3,500	0.005-0.010	2,500	0.005-0.010	3,500	0.005-0.010
8	-	2,800	0.006-0.011	2,800	0.006-0.011	2,000	0.006-0.011	2,800	0.006-0.011
-	3/8	2,400	0.008-0.013	2,400	0.008-0.013	1,700	0.008-0.013	2,400	0.008-0.013
10	-	2,300	0.008-0.014	2,300	0.008-0.014	1,600	0.008-0.014	2,300	0.008-0.014

### General Drilling Operations

Work Material		Ductile Cast Iron		Special Alloy Steels, Hardened Steels			
Hardness				26-30 HRC		30-34 HRC	
Drilling Speed		165-260 SFM		165-260 SFM		130-230 SFM	
Drill Dia.		Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR
mm	Inch						
3	-	6,400	0.002-0.005	6,400	0.002-0.005	5,300	0.002-0.004
-	1/8	6,000	0.003-0.005	6,000	0.003-0.005	5,000	0.003-0.005
4	-	4,800	0.003-0.006	4,800	0.003-0.006	4,000	0.003-0.006
-	3/16	4,000	0.004-0.008	4,000	0.004-0.008	3,300	0.004-0.007
6	-	3,200	0.005-0.009	3,200	0.005-0.009	2,700	0.005-0.008
-	1/4	3,000	0.005-0.010	3,000	0.005-0.010	2,500	0.005-0.009
8	-	2,400	0.006-0.011	2,400	0.006-0.011	2,000	0.006-0.009
-	3/8	2,000	0.008-0.013	2,000	0.008-0.013	1,700	0.008-0.011
10	-	1,900	0.008-0.014	1,900	0.008-0.014	1,600	0.008-0.012

#### Note:

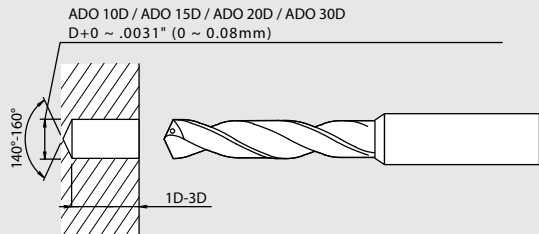
- The indicated speeds and feeds are for drilling with **water-soluble oil** or **MQL**. (We do not recommend mist drilling with stainless steels.)
- Water-soluble oil (20-30 times dilution) is recommended.
- When using non-water-soluble oil, set the cutting speed between 70-100% of the lowest limit.
- Make a pilot hole before deep drilling; recommended operation is on pages 310-311.
- A clogged oil hole can lead to breakage. Make sure that a filter is attached to the oil feeder.
- Peck drilling of 1D-2D is strongly recommended in high hardness materials.
- If, after piloting with ADO-5D and drilling with ADO-40D/50D, hole condition or accuracy is poor or machining is difficult, ADO-20D/30D may be used as an intermediate drilling step. This three-step process may improve accuracy and condition as well as permit more aggressive parameters than stated above.



## Deep Hole Operational Guidelines

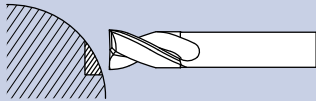
### 1. Make a pilot hole.

For a pilot hole, select a pilot drill  $0 \sim .0031''$  ( $0 \sim 0.08\text{mm}$ ) larger than ADO-10D, ADO-15D, ADO-20D and ADO-30D. If the needed pilot drill size is not available, we recommend using the same diameter drill from ADO-3D.

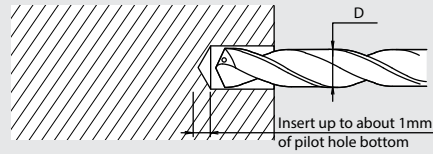


### Drilling a Curved Surface

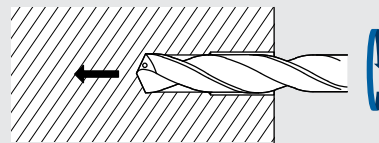
When working on a curved surface, we recommend using A Brand ADF flat drill.



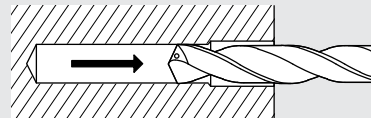
### 2. Insert the extra long drill into a pilot hole with zero or low revolution (below 500RPM feed 10-20IPM) optional insert ADO-40D/50D in reverse.



### 3. Increase the revolution to the designated speed and start drilling.



### 4. After drilling, move the drill off the bottom of the hole, reduce the speed <500rpm and pull the drill from the hole at a feed rate <100 IPM

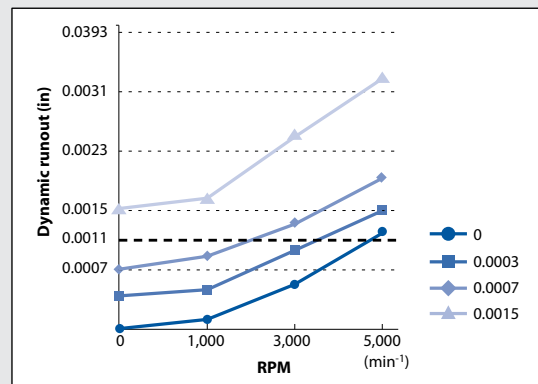


Make sure to use an internal coolant supply when deep drilling.

## Stable Drilling with Long Drills

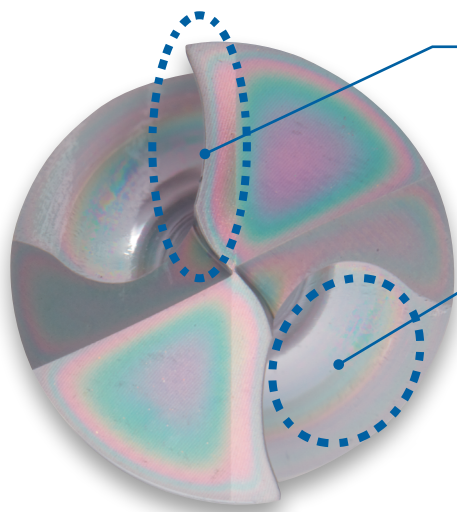
The runout of a gripped cutting tool increases with the speed, as shown in the graph on the right. To ensure a higher level of work stability, OSG recommends "making  $+0.0008''-0.0031''$  ( $+0.02-0.08\text{mm}$ ) pilot holes" and "inserting long drills stopped or at low speeds."

The reason for this is made evident in the graph on the right. Increasing the speed increases the dynamic runout, posing a higher risk of the drill not fitting properly in the pilot hole. Therefore, this is effective not only for inhibiting static runout, but is also the recommended drilling method for long drills.



Static runout RPM (min <sup>-1</sup> )	0"	0.0003"	0.0007"	0.0015"
1,000	0.0001	0.0005	0.0009	0.0018
3,000	0.0005	0.0010	0.0014	0.0025
5,000	0.0012	0.0015	0.0019	0.0034

Tool:  $\varnothing 6 \times 30\text{D}$



### Wavy Point Form

breaks chip into small manageable pieces.

### Wide Flute Room

facilitates stable chip evacuation.

### EgiAs Coating

for exceptional wear resistance and toughness.



## Wide Range of Carbide Applications

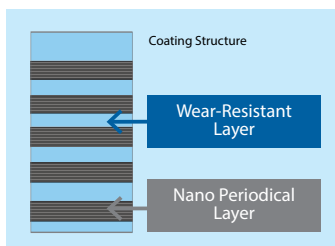
### High Performance Carbide Drills for Ferrous and Non-Ferrous Materials

Superior point strength with low cutting force are achieved to accommodate a wide range of carbide drilling applications. EgiAs coating constructed with extreme toughness, high wear and heat resistance characteristics to ensure stable and consistent tool life.

## EgiAs Coating

### Exceptional Wear Resistance & Toughness

Constructed with extreme toughness, high wear and heat resistance characteristics to ensure stable and consistent tool life. Suppresses friction with the wear resistance layer; prevents breakage with the nano periodical layer.



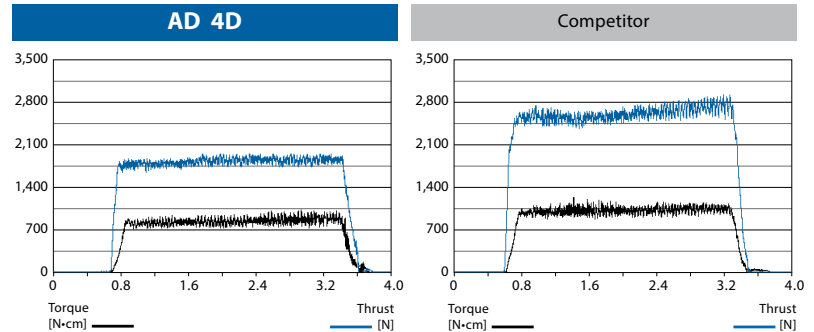
Coating Color	Coating Structure	Hardness (Hv)	Oxidation Temperature (°C)	Heat Resistance	Adhesion Strength	Wear Resistance	Welding Resistance	Toughness
Iridescent Color	Periodic Nano-layer and wear resistance layer	3,200	1,100	☉	☉	☉	☉	☉

## Wavy Point Form

### Low Thrust and Stable Torque in 4140

Low thrust resistance and stable torque are possible by the new wavy point form and low web thickness.

Tool	AD 4D	Competitor
Drill Size	Ø10	
Work Material	4140 Alloy Steel	
Cutting Speed	230 SFM (2,235 RPM)	
Feed Rate	26.3 IPM (0.0118 IPR)	
Depth of Hole	34 mm (Blind)	
Coolant	Water Soluble (External)	
Machine	Vertical Machining Center	

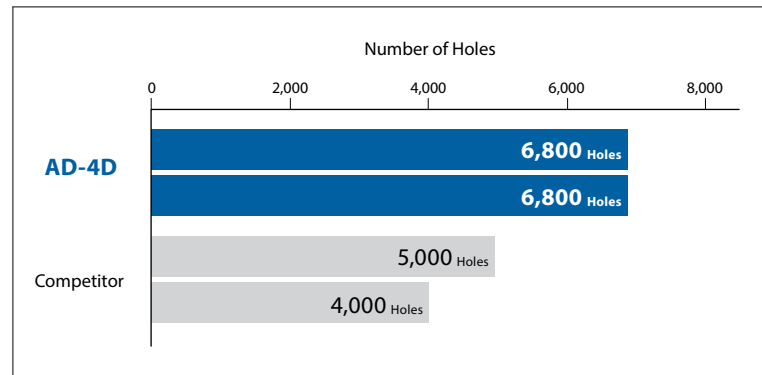


## High Hardness Coating

### Minimized wear at cutting edge

3,200HV high hardness coating prevents margin area friction wear and minimizes damage at the cutting edge.

Tool	AD 4D	Competitor
Drill Size	Ø3	
Work Material	4140 Alloy Steel	
Cutting Speed	230 SFM (7,445 RPM)	
Feed Rate	29 IPM (0.0039 IPR)	
Depth of Hole	12 mm (Blind)	
Coolant	Water Soluble (External)	
Machine	Vertical Machining Center	

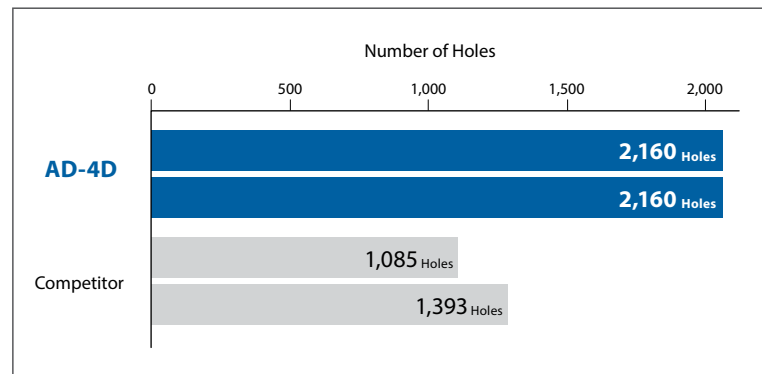


## Margin Protection

### EgiAs Coating Provides Protection at the Margin

In carbon steel, EgiAs coating protects against chipping and friction at the margin.

Tool	AD 4D	Competitor
Drill Size	Ø12	
Work Material	1050 Carbon Steel	
Cutting Speed	328 SFM (2,654 RPM)	
Feed Rate	25 IPM (0.0094 IPR)	
Depth of Hole	47 mm (Blind)	
Coolant	Water Soluble (External)	
Machine	Vertical Machining Center	

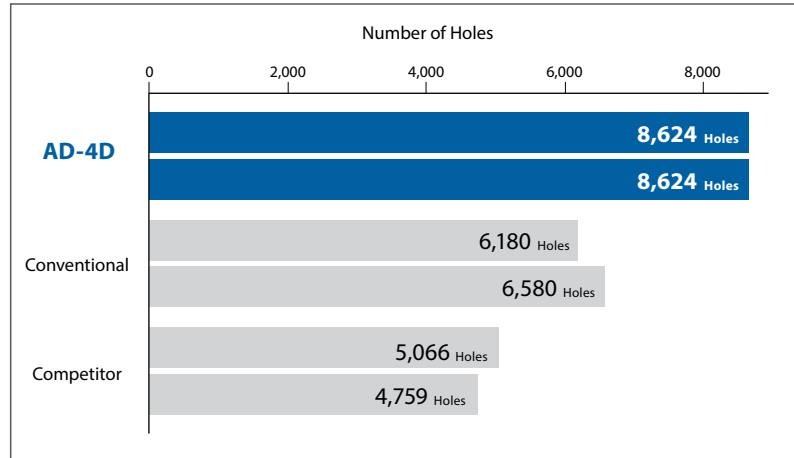


## Extreme Toughness

An All-Purpose Tool Upgraded with Even Greater Capabilities

EgiAs coating is constructed with extreme toughness, high wear and heat resistance characteristics to ensure stable and consistent tool life.

Tool	AD 4D	Conventional	Competitor
Drill Size	Ø6		
Work Material	4140 Alloy Steel		
Cutting Speed	230 SFM (3,723 RPM)		
Feed Rate	26 IPM (0.007 IPR)		
Depth of Hole	18 mm (Blind)		
Coolant	Water Soluble (External)		
Machine	Vertical Machining Center		

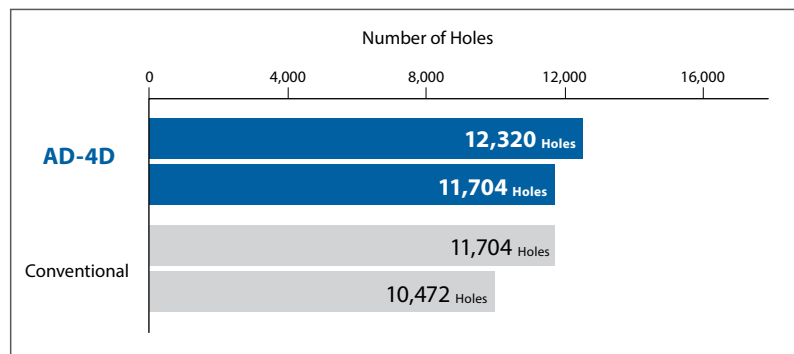


## Durability

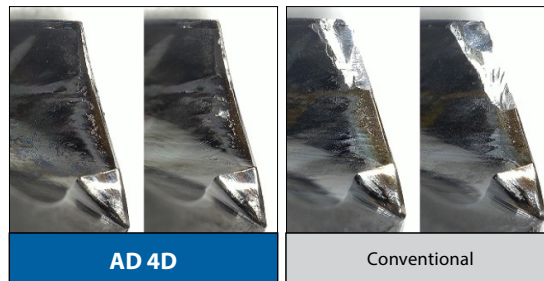
Durability and Tool Life in 1050 Steel

EgiAs coating provides superior protection against friction, resulting in longer tool life and more holes per tool.

Tool	AD 4D	Conventional
Drill Size	Ø6	
Work Material	1050 Carbon Steel	
Cutting Speed	328 SFM (5,285 RPM)	
Feed Rate	37 IPM (0.007 IPR)	
Depth of Hole	18 mm (Blind)	
Coolant	Water Soluble (External)	
Machine	Vertical Machining Center	



### Tool Wear



# A Brand AD

Advanced Performance Carbide Drills

## List 6300

A BRAND AD-2D



SPEED FEED  
80

CARBIDE

EgiAs

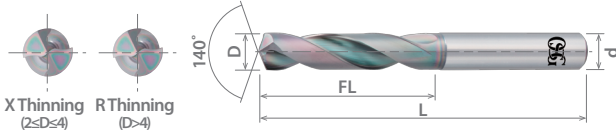
2 FLUTE

STUB

30°

SHANK  
h6

PACKED  
1 PIECE



Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8670200	●	-	-	-	2.000	0.07874	14.00	62.00	-	4.00
8670210	●	-	-	-	2.100	0.08268	14.00	62.00	-	4.00
8670220	●	-	-	-	2.200	0.08661	14.00	62.00	-	4.00
8670230	●	-	-	-	2.300	0.09055	14.00	62.00	-	4.00
8670240	●	-	-	-	2.400	0.09449	14.00	62.00	-	4.00
8670250	●	-	-	-	2.500	0.09843	14.00	62.00	-	4.00
8670260	●	-	-	-	2.600	0.10236	14.00	62.00	-	4.00
8670270	●	-	-	-	2.700	0.10630	14.00	62.00	-	4.00
8670280	●	-	-	-	2.800	0.11024	14.00	62.00	-	4.00
8670290	●	-	-	-	2.900	0.11417	14.00	62.00	-	4.00
8670300	●	-	-	-	3.000	0.11811	20.00	66.00	-	4.00
8670310	●	-	-	-	3.100	0.12205	20.00	66.00	-	4.00
630012311	●	1/8	-	-	3.175	0.12500	20.00	66.00	0.125	-
8670320	●	-	-	-	3.200	0.12598	20.00	66.00	-	4.00
8670330	●	-	-	-	3.300	0.12992	20.00	66.00	-	4.00
8670340	●	-	-	-	3.400	0.13386	20.00	66.00	-	4.00
8670350	●	-	-	-	3.500	0.13780	20.00	66.00	-	4.00
8670360	●	-	-	-	3.600	0.14173	20.00	66.00	-	4.00
8670370	●	-	-	-	3.700	0.14567	20.00	66.00	-	4.00
8670380	●	-	-	-	3.800	0.14961	24.00	66.00	-	4.00
8670390	●	-	-	-	3.900	0.15354	24.00	66.00	-	4.00
630015511	●	5/32	-	-	3.969	0.15625	24.00	66.00	0.188	-
8670400	●	-	-	-	4.000	0.15748	24.00	66.00	-	4.00
630016111	●	-	20	-	4.089	0.16100	24.00	66.00	-	6.00
8670410	●	-	-	-	4.100	0.16142	24.00	66.00	-	6.00
8670420	●	-	-	-	4.200	0.16535	24.00	66.00	-	6.00
8670430	●	-	-	-	4.300	0.16929	24.00	66.00	-	6.00
630017111	●	11/64	-	-	4.366	0.17188	24.00	66.00	0.188	-
8670440	●	-	-	-	4.400	0.17323	24.00	66.00	-	6.00
8670450	●	-	-	-	4.500	0.17717	24.00	66.00	-	6.00
8670460	●	-	-	-	4.600	0.18110	24.00	66.00	-	6.00
8670470	●	-	-	-	4.700	0.18504	24.00	66.00	-	6.00
630018611	●	3/16	-	-	4.763	0.18750	28.00	66.00	0.188	-
8670480	●	-	-	-	4.800	0.18898	28.00	66.00	-	6.00
8670490	●	-	-	-	4.900	0.19291	28.00	66.00	-	6.00
8670500	●	-	-	-	5.000	0.19685	28.00	66.00	-	6.00
8670510	●	-	-	-	5.100	0.20079	28.00	66.00	-	6.00
630020211	●	13/64	-	-	5.159	0.20313	28.00	66.00	0.250	-
8670520	●	-	-	-	5.200	0.20472	28.00	66.00	-	6.00
8670530	●	-	-	-	5.300	0.20866	28.00	66.00	-	6.00
8670540	●	-	-	-	5.400	0.21260	28.00	66.00	-	6.00
630021311	●	-	3	-	5.410	0.21300	28.00	66.00	-	6.00
8670550	●	-	-	-	5.500	0.21654	28.00	66.00	-	6.00
630021711	●	7/32	-	-	5.556	0.21875	28.00	66.00	0.250	-
8670560	●	-	-	-	5.600	0.22047	28.00	66.00	-	6.00
8670570	●	-	-	-	5.700	0.22441	28.00	66.00	-	6.00
8670580	●	-	-	-	5.800	0.22835	28.00	66.00	-	6.00
8670590	●	-	-	-	5.900	0.23228	28.00	66.00	-	6.00
630023311	●	15/64	-	-	5.953	0.23438	28.00	66.00	0.250	-
8670600	●	-	-	-	6.000	0.23622	28.00	66.00	-	6.00
8670610	●	-	-	-	6.100	0.24016	34.00	79.00	-	8.00
8670620	●	-	-	-	6.200	0.24409	34.00	79.00	-	8.00
8670630	●	-	-	-	6.300	0.24803	34.00	79.00	-	8.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked





## List 6300 (Continued)

A BRAND AD-2D



SPEED FEED  
80

CARBIDE

EgiAs

2 FLUTE

STUB

30°

SHANK  
h6

PACKED  
1 PIECE

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
630024911	●	1/4	-	E	6.350	0.25000	34.00	79.00	0.250	-
8670640	●	-	-	-	6.400	0.25197	34.00	79.00	-	8.00
8670650	●	-	-	-	6.500	0.25591	34.00	79.00	-	8.00
630025711	●	-	-	F	6.528	0.25700	34.00	79.00	-	8.00
8670660	●	-	-	-	6.600	0.25984	34.00	79.00	-	8.00
8670670	●	-	-	-	6.700	0.26378	34.00	79.00	-	8.00
630026411	●	17/64	-	-	6.747	0.26563	34.00	79.00	0.313	-
8670680	●	-	-	-	6.800	0.26772	34.00	79.00	-	8.00
8670690	●	-	-	-	6.900	0.27165	34.00	79.00	-	8.00
8670700	●	-	-	-	7.000	0.27559	34.00	79.00	-	8.00
8670710	●	-	-	-	7.100	0.27953	41.00	79.00	-	8.00
630028011	●	9/32	-	-	7.144	0.28125	41.00	79.00	0.313	-
8670720	●	-	-	-	7.200	0.28346	41.00	79.00	-	8.00
8670730	●	-	-	-	7.300	0.28740	41.00	79.00	-	8.00
8670740	●	-	-	-	7.400	0.29134	41.00	79.00	-	8.00
8670750	●	-	-	-	7.500	0.29528	41.00	79.00	-	8.00
630029511	●	19/64	-	-	7.541	0.29688	41.00	79.00	0.313	-
8670760	●	-	-	-	7.600	0.29921	41.00	79.00	-	8.00
8670770	●	-	-	-	7.700	0.30315	41.00	79.00	-	8.00
8670780	●	-	-	-	7.800	0.30709	41.00	79.00	-	8.00
8670790	●	-	-	-	7.900	0.31102	41.00	79.00	-	8.00
630031111	●	5/16	-	-	7.938	0.31250	41.00	79.00	0.313	-
8670800	●	-	-	-	8.000	0.31496	41.00	79.00	-	8.00
8670810	●	-	-	-	8.100	0.31890	47.00	89.00	-	10.00
8670820	●	-	-	-	8.200	0.32283	47.00	89.00	-	10.00
8670830	●	-	-	-	8.300	0.32677	47.00	89.00	-	10.00
630032711	●	21/64	-	-	8.334	0.32813	47.00	89.00	0.375	-
8670840	●	-	-	-	8.400	0.33071	47.00	89.00	-	10.00
630033111	●	-	-	Q	8.433	0.33200	47.00	89.00	-	10.00
8670850	●	-	-	-	8.500	0.33465	47.00	89.00	-	10.00
8670860	●	-	-	-	8.600	0.33858	47.00	89.00	-	10.00
8670870	●	-	-	-	8.700	0.34252	47.00	89.00	-	10.00
630034211	●	11/32	-	-	8.731	0.34375	47.00	89.00	0.375	-
8670880	●	-	-	-	8.800	0.34646	47.00	89.00	-	10.00
8670890	●	-	-	-	8.900	0.35039	47.00	89.00	-	10.00
8670900	●	-	-	-	9.000	0.35433	47.00	89.00	-	10.00
8670910	●	-	-	-	9.100	0.35827	47.00	89.00	-	10.00
630035811	●	23/64	-	-	9.128	0.35938	47.00	89.00	0.375	-
8670920	●	-	-	-	9.200	0.36220	47.00	89.00	-	10.00
8670930	●	-	-	-	9.300	0.36614	47.00	89.00	-	10.00
8670940	●	-	-	-	9.400	0.37008	47.00	89.00	-	10.00
8670950	●	-	-	-	9.500	0.37402	47.00	89.00	-	10.00
630037411	●	3/8	-	-	9.525	0.37500	47.00	89.00	0.375	-
8670960	●	-	-	-	9.600	0.37795	47.00	89.00	-	10.00
8670970	●	-	-	-	9.700	0.38189	47.00	89.00	-	10.00
8670980	●	-	-	-	9.800	0.38583	47.00	89.00	-	10.00
8670990	●	-	-	-	9.900	0.38976	47.00	89.00	-	10.00
630038911	●	25/64	-	-	9.922	0.39063	47.00	89.00	0.438	-
8671000	●	-	-	-	10.000	0.39370	47.00	89.00	-	10.00
8671010	●	-	-	-	10.100	0.39764	55.00	102.00	-	12.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
Low	Medium	High							6061	Casting						
1010	1035	1065	4140	4340				7075								
1018	1045															

○ Good ● Best



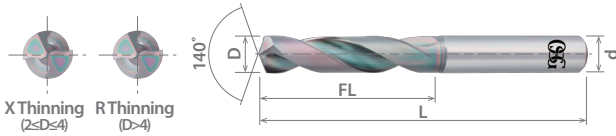
# A Brand AD

Advanced Performance Carbide Drill

## List 6300 (Continued)

A BRAND AD-2D

**A**  **SPEED FEED** 80 **CARBIDE** **EgiAs** **2 FLUTE** **STUB** **30°** **SHANK** h6 **PACKED** 1 PIECE



Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8671020	●	-	-	-	10.200	0.40157	55.00	102.00	-	12.00
8671030	●	-	-	-	10.300	0.40551	55.00	102.00	-	12.00
630040511	●	13/32	-	-	10.319	0.40625	55.00	102.00	0.438	-
8671040	●	-	-	-	10.400	0.40945	55.00	102.00	-	12.00
8671050	●	-	-	-	10.500	0.41339	55.00	102.00	-	12.00
8671060	●	-	-	-	10.600	0.41732	55.00	102.00	-	12.00
8671070	●	-	-	-	10.700	0.42126	55.00	102.00	-	12.00
630042111	●	27/64	-	-	10.716	0.42188	55.00	102.00	0.438	-
8671080	●	-	-	-	10.800	0.42520	55.00	102.00	-	12.00
8671090	●	-	-	-	10.900	0.42913	55.00	102.00	-	12.00
8671100	●	-	-	-	11.000	0.43307	55.00	102.00	-	12.00
8671110	●	-	-	-	11.100	0.43701	55.00	102.00	-	12.00
630043711	●	7/16	-	-	11.113	0.43750	55.00	102.00	0.438	-
8671120	●	-	-	-	11.200	0.44094	55.00	102.00	-	12.00
8671130	●	-	-	-	11.300	0.44488	55.00	102.00	-	12.00
8671140	●	-	-	-	11.400	0.44882	55.00	102.00	-	12.00
8671150	●	-	-	-	11.500	0.45276	55.00	102.00	-	12.00
630045211	●	29/64	-	-	11.509	0.45313	55.00	102.00	0.500	-
8671160	●	-	-	-	11.600	0.45669	55.00	102.00	-	12.00
8671170	●	-	-	-	11.700	0.46063	55.00	102.00	-	12.00
8671180	●	-	-	-	11.800	0.46457	55.00	102.00	-	12.00
8671190	●	-	-	-	11.900	0.46850	55.00	102.00	-	12.00
630046811	●	15/32	-	-	11.906	0.46875	55.00	102.00	0.500	-
8671200	●	-	-	-	12.000	0.47244	55.00	102.00	-	12.00
630047611	●	-	-	-	12.100	0.47638	60.00	107.00	-	14.00
630048011	●	-	-	-	12.200	0.48031	60.00	107.00	-	14.00
630048311	●	31/64	-	-	12.303	0.48438	60.00	107.00	0.500	-
630048811	●	-	-	-	12.400	0.48819	60.00	107.00	-	14.00
630049211	●	-	-	-	12.500	0.49213	60.00	107.00	-	14.00
630049611	●	-	-	-	12.600	0.49606	60.00	107.00	-	14.00
630049911	●	1/2	-	-	12.700	0.50000	60.00	107.00	0.500	-
630050311	●	-	-	-	12.800	0.50394	60.00	107.00	-	14.00
630050711	●	-	-	-	12.900	0.50787	60.00	107.00	-	14.00
630051111	●	-	-	-	13.000	0.51181	60.00	107.00	-	14.00
630051411	●	33/64	-	-	13.097	0.51563	60.00	107.00	0.625	-
630051911	●	-	-	-	13.200	0.51969	60.00	107.00	-	14.00
630052311	●	-	-	-	13.300	0.52362	60.00	107.00	-	14.00
630052711	●	-	-	-	13.400	0.52756	60.00	107.00	-	14.00
630053211	●	-	-	-	13.500	0.53150	60.00	107.00	-	14.00
630055111	●	-	-	-	14.000	0.55118	60.00	107.00	-	14.00
630056111	●	9/16	-	-	14.288	0.56250	65.00	115.00	0.625	-
630057011	●	-	-	-	14.500	0.57087	65.00	115.00	-	16.00
630059011	●	-	-	-	15.000	0.59055	65.00	115.00	-	16.00
630061011	●	-	-	-	15.500	0.61024	65.00	115.00	-	16.00
630062311	●	5/8	-	-	15.875	0.62500	65.00	115.00	0.625	-
630062911	●	-	-	-	16.000	0.62992	65.00	115.00	-	16.00
630064911	●	-	-	-	16.500	0.64961	73.00	123.00	-	18.00
630066911	●	-	-	-	17.000	0.66929	73.00	123.00	-	18.00
630068911	●	-	-	-	17.500	0.68898	73.00	123.00	-	18.00
630070811	●	-	-	-	18.000	0.70866	73.00	123.00	-	18.00
630072811	●	-	-	-	18.500	0.72835	79.00	131.00	-	20.00
630074811	●	-	-	-	19.000	0.74803	79.00	131.00	-	20.00
630074911	●	3/4	-	-	19.050	0.75000	79.00	131.00	0.750	-

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



## List 6300 (Continued)

A BRAND AD-2D




SPEED FEED 80	CARBIDE	EgiAs	2 FLUTE	STUB	30°	SHANK h6	PACKED 1 PIECE
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EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
630076711	●	-	-	-	19.500	0.76772	79.00	131.00	-	20.00
630078711	●	-	-	-	20.000	0.78740	79.00	131.00	-	20.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H					
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel					
Carbon Steel			Alloy Steel	Die Steel	Aluminum		Nickel Alloy		Titanium									
Low	Medium	High			6061	7075				Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC		
1010	1035	1065	4140	4340	300	400	17-4 PH											
1018	1045							○					○					

○ Good ○ Best



# A Brand AD

Advanced Performance Carbide Drill

## List 6310

A BRAND AD-4D



SPEED FEED  
80

CARBIDE

EgiAs

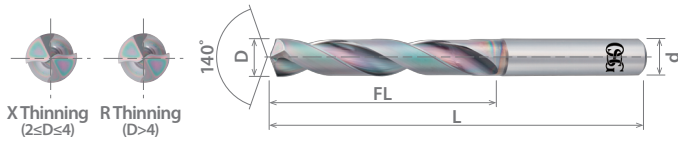
2 FLUTE

JOBBER

30°

SHANK  
h6

PACKED  
1 PIECE



Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			FL (mm)	L (mm)
8672200	●	-	-	-	2.000	0.07874	20.00	66.00	-	4.00
8672210	●	-	-	-	2.100	0.08268	20.00	66.00	-	4.00
8672220	●	-	-	-	2.200	0.08661	20.00	66.00	-	4.00
8672230	●	-	-	-	2.300	0.09055	20.00	66.00	-	4.00
8672240	●	-	-	-	2.400	0.09449	20.00	66.00	-	4.00
8672250	●	-	-	-	2.500	0.09843	20.00	66.00	-	4.00
8672260	●	-	-	-	2.600	0.10236	20.00	66.00	-	4.00
8672270	●	-	-	-	2.700	0.10630	20.00	66.00	-	4.00
8672280	●	-	-	-	2.800	0.11024	20.00	66.00	-	4.00
8672290	●	-	-	-	2.900	0.11417	20.00	66.00	-	4.00
8672300	●	-	-	-	3.000	0.11811	28.00	74.00	-	4.00
8672310	●	-	-	-	3.100	0.12205	28.00	74.00	-	4.00
631012311	●	1/8	-	-	3.175	0.12500	28.00	74.00	0.125	-
8672320	●	-	-	-	3.200	0.12598	28.00	74.00	-	4.00
8672330	●	-	-	-	3.300	0.12992	28.00	74.00	-	4.00
8672340	●	-	-	-	3.400	0.13386	28.00	74.00	-	4.00
8672350	●	-	-	-	3.500	0.13780	28.00	74.00	-	4.00
8672360	●	-	-	-	3.600	0.14173	28.00	74.00	-	4.00
8672370	●	-	-	-	3.700	0.14567	28.00	74.00	-	4.00
8672380	●	-	-	-	3.800	0.14961	36.00	74.00	-	4.00
8672390	●	-	-	-	3.900	0.15354	36.00	74.00	-	4.00
631015511	●	5/32	-	-	3.969	0.15625	36.00	74.00	0.188	-
8672400	●	-	-	-	4.000	0.15748	36.00	74.00	-	4.00
631016111	●	-	20	-	4.089	0.16100	36.00	74.00	-	6.00
8672410	●	-	-	-	4.100	0.16142	36.00	74.00	-	6.00
8672420	●	-	-	-	4.200	0.16535	36.00	74.00	-	6.00
8672430	●	-	-	-	4.300	0.16929	36.00	74.00	-	6.00
631017111	●	11/64	-	-	4.366	0.17188	36.00	74.00	0.188	-
8672440	●	-	-	-	4.400	0.17323	36.00	74.00	-	6.00
8672450	●	-	-	-	4.500	0.17717	36.00	74.00	-	6.00
8672460	●	-	-	-	4.600	0.18110	36.00	74.00	-	6.00
8672470	●	-	-	-	4.700	0.18504	36.00	74.00	-	6.00
631018611	●	3/16	-	-	4.763	0.18750	44.00	82.00	0.188	-
8672480	●	-	-	-	4.800	0.18898	44.00	82.00	-	6.00
8672490	●	-	-	-	4.900	0.19291	44.00	82.00	-	6.00
8672500	●	-	-	-	5.000	0.19685	44.00	82.00	-	6.00
8672510	●	-	-	-	5.100	0.20079	44.00	82.00	-	6.00
631020211	●	13/64	-	-	5.159	0.20313	44.00	82.00	0.250	-
8672520	●	-	-	-	5.200	0.20472	44.00	82.00	-	6.00
8672530	●	-	-	-	5.300	0.20866	44.00	82.00	-	6.00
8672540	●	-	-	-	5.400	0.21260	44.00	82.00	-	6.00
631021311	●	-	3	-	5.410	0.21300	44.00	82.00	-	6.00
8672550	●	-	-	-	5.500	0.21654	44.00	82.00	-	6.00
631021711	●	7/32	-	-	5.556	0.21875	44.00	82.00	0.250	-
8672560	●	-	-	-	5.600	0.22047	44.00	82.00	-	6.00
8672570	●	-	-	-	5.700	0.22441	44.00	82.00	-	6.00
8672580	●	-	-	-	5.800	0.22835	44.00	82.00	-	6.00
8672590	●	-	-	-	5.900	0.23228	44.00	82.00	-	6.00
631023311	●	15/64	-	-	5.953	0.23438	44.00	82.00	0.250	-
8672600	●	-	-	-	6.000	0.23622	44.00	82.00	-	6.00
8672610	●	-	-	-	6.100	0.24016	53.00	91.00	-	8.00
8672620	●	-	-	-	6.200	0.24409	53.00	91.00	-	8.00
8672630	●	-	-	-	6.300	0.24803	53.00	91.00	-	8.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



## List 6310 (Continued)

A BRAND AD-4D



<b>SPEED FEED</b> 80	<b>CARBIDE</b>	<b>EgiAs</b>	<b>2 FLUTE</b>	<b>JOBBER</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
631024911	●	1/4	-	E	6.350	0.25000	53.00	91.00	0.250	-
8672640	●	-	-	-	6.400	0.25197	53.00	91.00	-	8.00
8672650	●	-	-	-	6.500	0.25591	53.00	91.00	-	8.00
631025711	●	-	-	F	6.258	0.25700	53.00	91.00	-	8.00
8672660	●	-	-	-	6.600	0.25984	53.00	91.00	-	8.00
8672670	●	-	-	-	6.700	0.26378	53.00	91.00	-	8.00
631026411	●	17/64	-	-	6.747	0.26563	53.00	91.00	0.313	-
8672680	●	-	-	-	6.800	0.26772	53.00	91.00	-	8.00
8672690	●	-	-	-	6.900	0.27165	53.00	91.00	-	8.00
8672700	●	-	-	-	7.000	0.27559	53.00	91.00	-	8.00
8672710	●	-	-	-	7.100	0.27953	53.00	91.00	-	8.00
631028011	●	9/32	-	-	7.144	0.28125	53.00	91.00	0.313	-
8672720	●	-	-	-	7.200	0.28346	53.00	91.00	-	8.00
8672730	●	-	-	-	7.300	0.28740	53.00	91.00	-	8.00
8672740	●	-	-	-	7.400	0.29134	53.00	91.00	-	8.00
8672750	●	-	-	-	7.500	0.29528	53.00	91.00	-	8.00
631029511	●	19/64	-	-	7.541	0.29688	53.00	91.00	0.313	-
8672760	●	-	-	-	7.600	0.29921	53.00	91.00	-	8.00
8672770	●	-	-	-	7.700	0.30315	53.00	91.00	-	8.00
8672780	●	-	-	-	7.800	0.30709	53.00	91.00	-	8.00
8672790	●	-	-	-	7.900	0.31102	53.00	91.00	-	8.00
631031111	●	5/16	-	-	7.938	0.31250	53.00	91.00	0.313	-
8672800	●	-	-	-	8.000	0.31496	53.00	91.00	-	8.00
8672810	●	-	-	-	8.100	0.31890	61.00	103.00	-	10.00
8672820	●	-	-	-	8.200	0.32283	61.00	103.00	-	10.00
8672830	●	-	-	-	8.300	0.32677	61.00	103.00	-	10.00
631032711	●	21/64	-	-	8.334	0.32813	61.00	103.00	0.375	-
8672840	●	-	-	-	8.400	0.33071	61.00	103.00	-	10.00
631033111	●	-	-	Q	8.433	0.33200	61.00	103.00	-	10.00
8672850	●	-	-	-	8.500	0.33465	61.00	103.00	-	10.00
8672860	●	-	-	-	8.600	0.33858	61.00	103.00	-	10.00
8672870	●	-	-	-	8.700	0.34252	61.00	103.00	-	10.00
631034211	●	11/32	-	-	8.731	0.34375	61.00	103.00	0.375	-
8672880	●	-	-	-	8.800	0.34646	61.00	103.00	-	10.00
8672890	●	-	-	-	8.900	0.35039	61.00	103.00	-	10.00
8672900	●	-	-	-	9.000	0.35433	61.00	103.00	-	10.00
8672910	●	-	-	-	9.100	0.35827	61.00	103.00	-	10.00
631035811	●	23/64	-	-	9.128	0.35938	61.00	103.00	0.375	-
8672920	●	-	-	-	9.200	0.36220	61.00	103.00	-	10.00
8672930	●	-	-	-	9.300	0.36614	61.00	103.00	-	10.00
8672940	●	-	-	-	9.400	0.37008	61.00	103.00	-	10.00
8672950	●	-	-	-	9.500	0.37402	61.00	103.00	-	10.00
631037411	●	3/8	-	-	9.525	0.37500	61.00	103.00	0.375	-
8672960	●	-	-	-	9.600	0.37795	61.00	103.00	-	10.00
8672970	●	-	-	-	9.700	0.38189	61.00	103.00	-	10.00
8672980	●	-	-	-	9.800	0.38583	61.00	103.00	-	10.00
8672990	●	-	-	-	9.900	0.38976	61.00	103.00	-	10.00
631038911	●	25/64	-	-	9.922	0.39063	61.00	103.00	0.438	-
8673000	●	-	-	-	10.000	0.39370	61.00	103.00	-	10.00
8673010	●	-	-	-	10.100	0.39764	71.00	118.00	-	12.00
8673020	●	-	-	-	10.200	0.40157	71.00	118.00	-	12.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H					
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel					
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium						
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010	1035	1065	4140	4340				7075										
1018	1045																	

○ Good ● Best



# A Brand AD

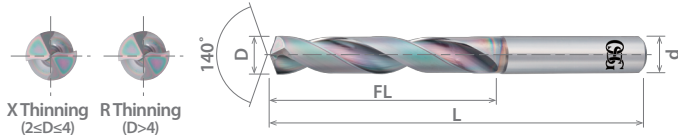
Advanced Performance Carbide Drill

## List 6310 (Continued)

A BRAND AD-4D



SPEED FEED 80	CARBIDE	EgiAs	2 FLUTE	JOBBER	30°	SHANK h6	PACKED 1 PIECE
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Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8673030	●	-	-	-	10.300	0.40551	71.00	118.00	-	12.00
631040511	●	13/32	-	-	10.319	0.40625	71.00	118.00	0.438	-
8673040	●	-	-	-	10.400	0.40945	71.00	118.00	-	12.00
8673050	●	-	-	-	10.500	0.41339	71.00	118.00	-	12.00
8673060	●	-	-	-	10.600	0.41732	71.00	118.00	-	12.00
8673070	●	-	-	-	10.700	0.42126	71.00	118.00	-	12.00
631042111	●	27/64	-	-	10.716	0.42188	71.00	118.00	0.438	-
8673080	●	-	-	-	10.800	0.42520	71.00	118.00	-	12.00
8673090	●	-	-	-	10.900	0.42913	71.00	118.00	-	12.00
8673100	●	-	-	-	11.000	0.43307	71.00	118.00	-	12.00
8673110	●	-	-	-	11.100	0.43701	71.00	118.00	-	12.00
631043711	●	7/16	-	-	11.113	0.43750	71.00	118.00	0.438	-
8673120	●	-	-	-	11.200	0.44094	71.00	118.00	-	12.00
8673130	●	-	-	-	11.300	0.44488	71.00	118.00	-	12.00
8673140	●	-	-	-	11.400	0.44882	71.00	118.00	-	12.00
8673150	●	-	-	-	11.500	0.45276	71.00	118.00	-	12.00
631045211	●	29/64	-	-	11.509	0.45313	71.00	118.00	0.500	-
8673160	●	-	-	-	11.600	0.45669	71.00	118.00	-	12.00
8673170	●	-	-	-	11.700	0.46063	71.00	118.00	-	12.00
8673180	●	-	-	-	11.800	0.46457	71.00	118.00	-	12.00
8673190	●	-	-	-	11.900	0.46850	71.00	118.00	-	12.00
631046811	●	15/32	-	-	11.906	0.46875	71.00	118.00	0.500	-
8673200	●	-	-	-	12.000	0.47244	71.00	118.00	-	12.00
8673210	●	-	-	-	12.100	0.47638	77.00	124.00	-	14.00
8673220	●	-	-	-	12.200	0.48031	77.00	124.00	-	14.00
8673230	●	-	-	-	12.300	0.48425	77.00	124.00	-	14.00
631048411	●	31/64	-	-	12.303	0.48438	77.00	124.00	0.500	-
8673240	●	-	-	-	12.400	0.48819	77.00	124.00	-	14.00
8673250	●	-	-	-	12.500	0.49213	77.00	124.00	-	14.00
8673260	●	-	-	-	12.600	0.49606	77.00	124.00	-	14.00
8673270	●	1/2	-	-	12.700	0.50000	77.00	124.00	-	14.00
631050011	●	1/2	-	-	12.700	0.50000	77.00	124.00	0.500	-
8673280	●	-	-	-	12.800	0.50394	77.00	124.00	-	14.00
8673290	●	-	-	-	12.900	0.50787	77.00	124.00	-	14.00
8673300	●	-	-	-	13.000	0.51181	77.00	124.00	-	14.00
631051511	●	33/64	-	-	13.097	0.51563	77.00	124.00	0.625	-
8673310	●	-	-	-	13.100	0.51575	77.00	124.00	-	14.00
8673320	●	-	-	-	13.200	0.51969	77.00	124.00	-	14.00
8673330	●	-	-	-	13.300	0.52362	77.00	124.00	-	14.00
8673340	●	-	-	-	13.400	0.52756	77.00	124.00	-	14.00
8673350	●	-	-	-	13.500	0.53150	77.00	124.00	-	14.00
8673400	●	-	-	-	14.000	0.55118	77.00	124.00	-	14.00
631056111	●	9/16	-	-	14.288	0.56250	83.00	133.00	0.625	-
8673450	●	-	-	-	14.500	0.57087	83.00	133.00	-	16.00
8673500	●	-	-	-	15.000	0.59055	83.00	133.00	-	16.00
8673550	●	-	-	-	15.500	0.61024	83.00	133.00	-	16.00
631062311	●	5/8	-	-	15.875	0.62500	83.00	133.00	0.625	-
8673600	●	-	-	-	16.000	0.62992	83.00	133.00	-	16.00
8673650	●	-	-	-	16.500	0.64961	93.00	143.00	-	18.00
8673700	●	-	-	-	17.000	0.66929	93.00	143.00	-	18.00
8673750	●	-	-	-	17.500	0.68898	93.00	143.00	-	18.00
8673800	●	-	-	-	18.000	0.70866	93.00	143.00	-	18.00
8673850	●	-	-	-	18.500	0.72835	101.00	153.00	-	20.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked





## List 6300 - A Brand AD: 2D List 6310 - A Brand AD: 4D

### General Drilling Operations

Work Material	Carbon Steels, Mild Steels 1010, 1050, 12L14		Alloy Steels 4140, 4130		Stainless Steels 300SS, 400SS, 17-4PH		High Heat Material							
	210-315 SFM		210-315 SFM		100-185 SFM		80-145 SFM		65-100 SFM		50-90 SFM			
Drilling Speed	Drill Dia.		Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR
	mm	Inch												
2	-	12,700	0.002-0.004	12,700	0.002-0.004	6,900	0.002-0.004	5,460	0.002-0.003	4,000	0.001-0.002	3,390	0.001-0.002	
3	-	8,470	0.002-0.005	8,470	0.002-0.005	4,610	0.002-0.005	3,640	0.002-0.003	2,670	0.002-0.002	2,260	0.001-0.002	
-	1/8	8,000	0.002-0.005	8,000	0.002-0.005	4,350	0.003-0.005	3,440	0.002-0.003	2,520	0.002-0.003	2,140	0.001-0.002	
4	-	6,350	0.003-0.006	6,350	0.003-0.006	3,450	0.003-0.006	2,730	0.002-0.004	2,000	0.002-0.003	1,700	0.002-0.002	
-	3/16	5,330	0.003-0.006	5,330	0.003-0.006	2,900	0.004-0.007	2,290	0.003-0.005	1,680	0.002-0.004	1,420	0.002-0.003	
6	-	4,230	0.005-0.009	4,230	0.005-0.009	2,300	0.005-0.009	1,820	0.004-0.005	1,330	0.004-0.005	1,130	0.002-0.004	
-	1/4	4,000	0.005-0.009	4,000	0.005-0.009	2,180	0.005-0.010	1,720	0.004-0.006	1,260	0.004-0.005	1,070	0.002-0.004	
8	-	3,170	0.006-0.011	3,170	0.006-0.011	1,730	0.006-0.011	1,360	0.005-0.007	1,000	0.005-0.006	850	0.003-0.005	
-	3/8	2,670	0.007-0.012	2,670	0.007-0.012	1,450	0.008-0.012	1,150	0.005-0.008	840	0.006-0.008	710	0.004-0.006	
10	-	2,540	0.008-0.012	2,540	0.008-0.012	1,380	0.008-0.012	1,090	0.006-0.009	800	0.006-0.008	680	0.004-0.006	
-	7/16	2,290	0.008-0.012	2,290	0.008-0.012	1,240	0.008-0.012	980	0.007-0.010	720	0.007-0.009	610	0.004-0.007	
12	-	2,120	0.008-0.012	2,120	0.008-0.012	1,150	0.008-0.012	910	0.007-0.011	670	0.007-0.009	560	0.005-0.007	
-	1/2	2,000	0.008-0.012	2,000	0.008-0.012	1,090	0.008-0.012	860	0.008-0.011	630	0.008-0.009	530	0.005-0.008	
14	-	1,810	0.009-0.014	1,810	0.009-0.014	990	0.009-0.014	780	0.008-0.013	570	0.008-0.011	480	0.005-0.008	
-	5/8	1,600	0.010-0.014	1,600	0.010-0.014	870	0.009-0.014	690	0.009-0.013	500	0.008-0.011	430	0.005-0.008	
16	-	1,600	0.010-0.014	1,600	0.010-0.014	870	0.009-0.014	690	0.009-0.013	500	0.008-0.011	430	0.005-0.008	
18	-	1,410	0.011-0.015	1,410	0.011-0.015	770	0.011-0.015	610	0.010-0.014	440	0.008-0.011	380	0.005-0.008	
-	3/4	1,330	0.012-0.016	1,330	0.012-0.016	720	0.011-0.015	570	0.011-0.015	420	0.008-0.012	360	0.005-0.008	
20	-	1,270	0.012-0.016	1,270	0.012-0.016	690	0.012-0.016	550	0.012-0.016	400	0.008-0.012	340	0.005-0.008	

### General Drilling Operations

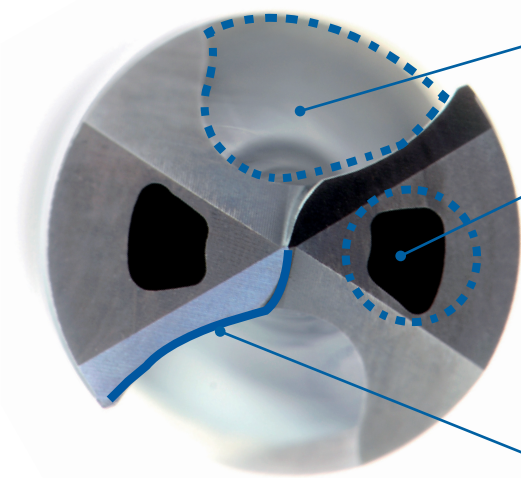
Work Material	Cast Iron		Ductile Cast Iron		Special Alloy Steels, Hardened Steels									
	210-315 SFM		156-265 SFM		155-235 SFM		100-160 SFM		100-130 SFM		65-95 SFM			
Drilling Speed	Drill Dia.		Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR
	mm	Inch												
2	-	12,700	0.002-0.004	10,190	0.002-0.004	9,460	0.002-0.004	6,310	0.002-0.003	5,570	0.002-0.003	3,890	0.001-0.002	
3	-	8,470	0.002-0.005	6,790	0.002-0.005	6,310	0.002-0.005	4,210	0.002-0.003	3,720	0.002-0.003	2,590	0.002-0.002	
-	1/8	8,000	0.002-0.005	6,420	0.003-0.005	5,960	0.002-0.005	3,980	0.002-0.003	3,510	0.002-0.003	2,450	0.002-0.003	
4	-	6,350	0.003-0.006	5,100	0.003-0.006	4,730	0.003-0.006	3,160	0.003-0.004	2,780	0.003-0.004	1,940	0.002-0.003	
-	3/16	5,330	0.003-0.006	4,280	0.004-0.007	3,980	0.003-0.006	2,650	0.003-0.005	2,340	0.003-0.005	1,630	0.003-0.004	
6	-	4,230	0.005-0.009	3,400	0.005-0.009	3,150	0.005-0.009	2,100	0.005-0.006	1,860	0.005-0.006	1,290	0.004-0.005	
-	1/4	4,000	0.005-0.009	3,210	0.006-0.009	2,980	0.005-0.009	1,990	0.005-0.007	1,760	0.005-0.007	1,220	0.004-0.006	
8	-	3,170	0.006-0.011	2,550	0.006-0.011	2,360	0.006-0.011	1,580	0.006-0.008	1,390	0.006-0.008	970	0.005-0.007	
-	3/8	2,670	0.007-0.012	2,140	0.008-0.012	1,990	0.007-0.012	1,320	0.008-0.009	1,170	0.008-0.009	820	0.006-0.008	
10	-	2,540	0.008-0.012	2,040	0.008-0.012	1,890	0.008-0.012	1,260	0.008-0.010	1,110	0.008-0.010	780	0.007-0.009	
-	7/16	2,290	0.008-0.012	1,830	0.008-0.012	1,700	0.008-0.012	1,140	0.009-0.011	1,000	0.009-0.011	700	0.007-0.009	
12	-	2,120	0.008-0.012	1,700	0.008-0.012	1,580	0.008-0.012	1,050	0.009-0.012	930	0.009-0.012	650	0.007-0.009	
-	1/2	2,000	0.008-0.012	1,600	0.008-0.012	1,490	0.008-0.012	990	0.010-0.012	880	0.010-0.012	610	0.008-0.010	
14	-	1,810	0.009-0.014	1,460	0.009-0.014	1,350	0.009-0.014	900	0.011-0.014	800	0.011-0.014	550	0.008-0.011	
-	5/8	1,600	0.010-0.014	1,280	0.010-0.014	1,190	0.010-0.014	790	0.012-0.015	700	0.012-0.015	490	0.009-0.012	
16	-	1,600	0.010-0.014	1,280	0.010-0.014	1,190	0.010-0.014	790	0.012-0.015	700	0.012-0.015	490	0.009-0.012	
18	-	1,410	0.011-0.015	1,130	0.011-0.015	1,050	0.011-0.015	700	0.014-0.018	620	0.014-0.018	430	0.010-0.014	
-	3/4	1,330	0.012-0.016	1,070	0.012-0.016	990	0.012-0.016	660	0.015-0.019	680	0.015-0.019	410	0.011-0.015	
20	-	1,270	0.012-0.016	1,020	0.012-0.016	940	0.012-0.016	630	0.016-0.020	560	0.016-0.020	390	0.012-0.016	

**Note:**

- The indicated speeds and feeds are for drilling with **water-soluble oil**.
- Suitable cutting fluid is water-soluble high density oil (less than 20 times dilution).
- When using non-water-soluble oil or water-soluble oil (over 20 times dilution), reduce cutting speed by 30%.
- These conditions are for drilling depth under 3 times the drill diameter.
- For machines that cannot achieve the speeds indicated in the table please set rotation as high as possible. Tool life may be reduced.







## New Flute Geometry

enables the creation of compact cutting chips.

## Mega Cooler™ Coolant Hole

improves coolant flow, chip evacuation and cutting heat generation.

## WXL® Coating

for high adhesion strength to minimize chipping.

## Sharp Cutting Edge

reduces work hardening, leading to longer tool life.



## A Brand ADO-SUS

### Why Use A Brand ADO-SUS?

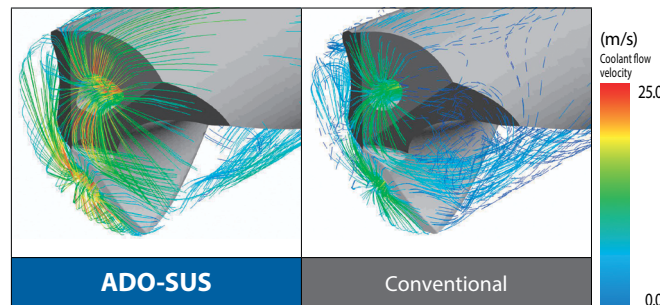
OSG's A Brand ADO-SUS has specifically addressed many common issues that occur when machining stainless steels and titanium alloys such as work hardening, elongated chips, low thermal conductivity and welding on the tool.

With a patent pending cutting edge, new flute geometry, WXL® coating and the newly designed MEGA COOLER™ coolant hole, the ADO-SUS has a solution for all of your stainless steel and titanium troubles.

## Mega Cooler™ Coolant Hole

### Exceptional Coolant Delivery

Improved coolant delivery at the cutting edge suppresses heat buildup and improves chip evacuation, thereby increasing tool life and enabling faster drilling speeds. The Mega Cooler™ coolant hole is only available on sizes 6mm and over.

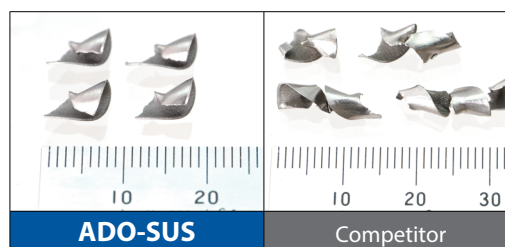


Analysis of coolant flow with spindle speed of 2,200 RPM

## New Flute Geometry (PAT.P)

### Producing Manageable Chips

The A Brand ADO-SUS features a cutting geometry specifically designed for producing compact cutting chips.

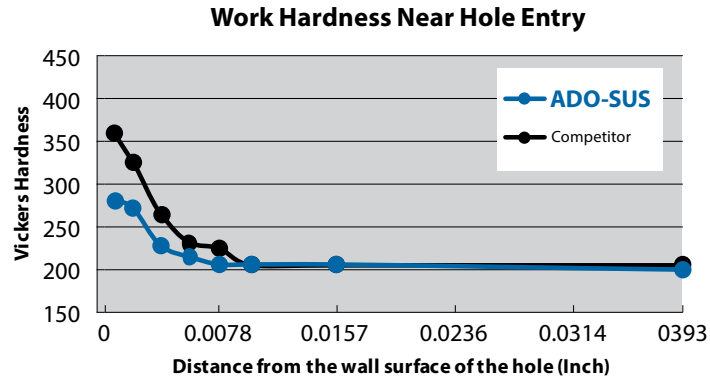


## Reduced Work Hardening

### Sharp Cutting Edge Reduces Work Hardening Near Hole Entry

With a specially designed cutting edge, the ADO-SUS reduces work hardening around the hole entry; resulting in longer tool life and easier secondary processing.

Tool	ADO-SUS 5D	Competitor
Drill Size	Ø10	
Work Material	304 Stainless Steel	
Cutting Speed	230 SFM (2,229 RPM)	
Feed Rate	15.6 IPM (0.007 IPR)	
Coolant	217 PSI - Water Soluble (Internal)	
Machine	Horizontal Machining Center	

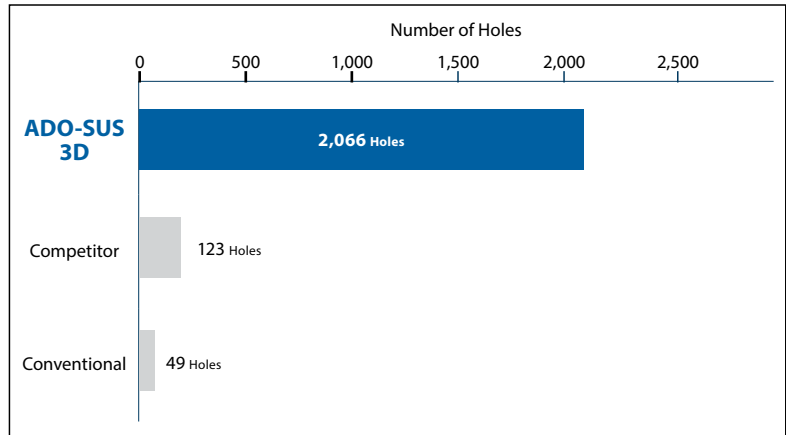


## Exceptional Tool Life in Titanium Alloy

### More than 16 Times the Tool Life Compared to Competitor

The A Brand ADO-SUS outperformed both the competitor and conventional tools when machining titanium alloy that had been age treated to a hardness of 34-36 HRC. The ADO-SUS machined over 2,000 holes before chipping, more than 16 times the number of holes made by the competitor.

Tool	ADO-SUS 3D	Conventional	Competitor
Drill Size	Ø5.1		
Work Material	Ti-6Al-4V (34-36 HRC)*		
Cutting Speed	131 SFM (2,502 RPM)		
Feed Rate	10 IPM (0.004 IPR)		
Depth of Hole	17mm (Through)		
Coolant	Water Soluble (Internal)		
Machine	Vertical Machining Center		



\*After aging treatment

### Cutting chips



## List 5200

A BRAND ADO-SUS-3D



SPEED FEED  
99

CARBIDE

WXL

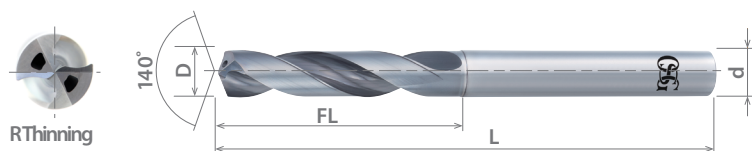
2 FLUTE

STUB

30°

SHANK  
h6

PACKED  
1 PIECE



Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
8665200	●	-	-	-	2.000	0.07874	12.00	66.00	-	3.00
8665210	●	-	-	-	2.100	0.08268	13.00	66.00	-	3.00
8665220	●	-	-	-	2.200	0.08661	14.00	66.00	-	3.00
8665230	●	-	-	-	2.300	0.09055	14.00	66.00	-	3.00
520009312	●	3/32	-	-	2.381	0.09375	15.00	66.00	-	3.00
8665240	●	-	-	-	2.400	0.09449	15.00	66.00	-	3.00
8665250	●	-	-	-	2.500	0.09843	15.00	66.00	-	3.00
8665260	●	-	-	-	2.600	0.10236	16.00	66.00	-	3.00
8665270	●	-	-	-	2.700	0.10630	17.00	66.00	-	3.00
520010912	●	7/64	-	-	2.778	0.10938	17.00	66.00	-	3.00
8665280	●	-	-	-	2.800	0.11024	17.00	66.00	-	3.00
8665290	●	-	-	-	2.900	0.11417	18.00	66.00	-	3.00
520011612	●	-	-	-	2.950	0.11614	18.00	66.00	-	3.00
8665300	●	-	-	-	3.000	0.11811	18.00	66.00	-	3.00
8665310	●	-	-	-	3.100	0.12205	19.00	74.00	-	4.00
8665315	●	-	-	-	3.150	0.12402	19.00	74.00	-	4.00
520012512	●	1/8	-	-	3.175	0.12500	20.00	74.00	0.125	-
8665320	●	-	-	-	3.200	0.12598	20.00	74.00	-	4.00
8665326	●	-	-	-	3.260	0.12835	20.00	74.00	-	4.00
8665330	●	-	-	-	3.300	0.12992	20.00	74.00	-	4.00
520013212	●	-	-	-	3.360	0.13228	21.00	74.00	-	4.00
8665340	●	-	-	-	3.400	0.13386	21.00	74.00	-	4.00
520013512	●	-	-	-	3.440	0.13543	21.00	74.00	-	4.00
8665350	●	-	-	-	3.500	0.13780	21.00	74.00	-	4.00
520013812	●	-	-	-	3.520	0.13858	22.00	74.00	-	4.00
520014012	●	-	-	-	3.572	0.14063	22.00	74.00	-	4.00
8665360	●	-	-	-	3.600	0.14173	22.00	74.00	-	4.00
8665370	●	-	-	-	3.700	0.14567	23.00	74.00	-	4.00
8665375	●	-	-	-	3.750	0.14764	23.00	74.00	-	4.00
520014812	●	-	-	-	3.770	0.14843	23.00	74.00	-	4.00
8665380	●	-	-	-	3.800	0.14961	23.00	74.00	-	4.00
520015212	●	-	-	-	3.860	0.15197	24.00	74.00	-	4.00
8665390	●	-	-	-	3.900	0.15354	24.00	74.00	-	4.00
520015612	●	5/32	-	-	3.969	0.15625	24.00	74.00	-	4.00
8665400	●	-	-	-	4.000	0.15748	24.00	74.00	-	4.00
520015912	●	-	-	-	4.050	0.15945	25.00	80.00	-	6.00
520016112	●	-	20	-	4.089	0.16100	25.00	80.00	-	6.00
8665410	●	-	-	-	4.100	0.16142	25.00	80.00	-	5.00
8680410	●	-	-	-	4.100	0.16142	25.00	80.00	-	6.00
520016312	●	-	-	-	4.160	0.16378	26.00	80.00	-	6.00
8665420	●	-	-	-	4.200	0.16535	26.00	80.00	-	5.00
8680420	●	-	-	-	4.200	0.16535	26.00	80.00	-	6.00
520016812	●	-	-	-	4.270	0.16811	26.00	80.00	-	6.00
8665430	●	-	-	-	4.300	0.16929	26.00	80.00	-	5.00
8680430	●	-	-	-	4.300	0.16929	26.00	80.00	-	6.00
520017112	●	11/64	-	-	4.366	0.17188	27.00	80.00	0.188	-

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked  
Note: MEGA COOLER applies only to diameter sizes over 6mm.



CONTINUED ➔

P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium				
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
1010	1035	1065	4140					4340	7075							
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○ Good ○ Best



# A Brand ADO-SUS

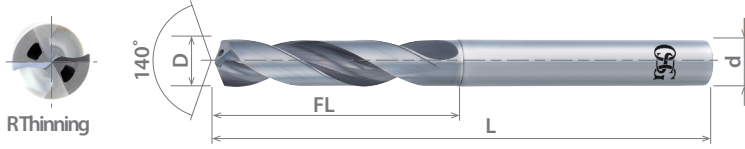
Advanced Performance Carbide Drills for Stainless Steels & Titanium Alloys

## List 5200 (Continued)



<b>SPEED FEED</b> 99	<b>CARBIDE</b>	<b>WXL</b>		<b>2 FLUTE</b>	<b>STUB</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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A BRAND ADO-SUS-3D



Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
8665440	●	-	-	-	4.400	0.17323	27.00	80.00	-	5.00
8680440	●	-	-	-	4.400	0.17323	27.00	80.00	-	6.00
520017512	●	-	-	-	4.460	0.17559	27.00	80.00	-	6.00
8665450	●	-	-	-	4.500	0.17717	27.00	80.00	-	5.00
8680450	●	-	-	-	4.500	0.17717	27.00	80.00	-	6.00
8665460	●	-	-	-	4.600	0.18110	28.00	80.00	-	5.00
8680460	●	-	-	-	4.600	0.18110	28.00	80.00	-	6.00
520018312	●	-	-	-	4.660	0.18346	29.00	80.00	-	6.00
8665470	●	-	-	-	4.700	0.18504	29.00	80.00	-	5.00
8680470	●	-	-	-	4.700	0.18504	29.00	80.00	-	6.00
520018712	●	3/16	-	-	4.763	0.18750	29.00	80.00	0.188	-
8665480	●	-	-	-	4.800	0.18898	29.00	80.00	-	5.00
8680480	●	-	-	-	4.800	0.18898	29.00	80.00	-	6.00
8665485	●	-	-	-	4.850	0.19094	29.00	80.00	-	6.00
8665490	●	-	-	-	4.900	0.19291	30.00	80.00	-	5.00
8680490	●	-	-	-	4.900	0.19291	30.00	80.00	-	6.00
8665500	●	-	-	-	5.000	0.19685	25.00	80.00	-	5.00
8680500	●	-	-	-	5.000	0.19685	25.00	80.00	-	6.00
8665510	●	-	-	-	5.100	0.20079	26.00	82.00	-	6.00
520020212	●	-	-	-	5.150	0.20276	26.00	82.00	-	6.00
520020312	●	13/64	-	-	5.159	0.20313	26.00	82.00	0.250	-
8665520	●	-	-	-	5.200	0.20472	26.00	82.00	-	6.00
8665525	●	-	-	-	5.250	0.20669	27.00	82.00	-	6.00
520020712	●	-	-	-	5.260	0.20709	27.00	82.00	-	6.00
8665530	●	-	-	-	5.300	0.20866	27.00	82.00	-	6.00
8665540	●	-	-	-	5.400	0.21260	27.00	82.00	-	6.00
520021312	●	-	3	-	5.410	0.21300	28.00	82.00	-	6.00
520021512	●	-	-	-	5.470	0.21535	28.00	82.00	-	6.00
8665550	●	-	-	-	5.500	0.21654	28.00	82.00	-	6.00
520021812	●	7/32	-	-	5.556	0.21875	28.00	82.00	0.250	-
8665560	●	-	-	-	5.600	0.22047	28.00	82.00	-	6.00
8665570	●	-	-	-	5.700	0.22441	29.00	82.00	-	6.00
8665580	●	-	-	-	5.800	0.22835	29.00	82.00	-	6.00
8665590	●	-	-	-	5.900	0.23228	30.00	82.00	-	6.00
520023412	●	15/64	-	-	5.953	0.23438	30.00	82.00	0.250	-
8665600	●	-	-	-	6.000	0.23622	30.00	82.00	-	6.00
8665610	●	-	-	-	6.100	0.24016	31.00	88.00	-	7.00
8680610	●	-	-	-	6.100	0.24016	31.00	88.00	-	8.00
520024212	●	-	-	-	6.150	0.24213	31.00	88.00	-	8.00
8665620	●	-	-	-	6.200	0.24409	31.00	88.00	-	7.00
8680620	●	-	-	-	6.200	0.24409	31.00	88.00	-	8.00
8665625	●	-	-	-	6.250	0.24606	32.00	88.00	-	7.00
8665630	●	-	-	-	6.300	0.24803	32.00	88.00	-	7.00
8680630	●	-	-	-	6.300	0.24803	32.00	88.00	-	8.00
8665635	●	1/4	-	E	6.350	0.25000	32.00	88.00	0.250	-
8665640	●	-	-	-	6.400	0.25197	32.00	88.00	-	7.00
8680640	●	-	-	-	6.400	0.25197	32.00	88.00	-	8.00
8665650	●	-	-	-	6.500	0.25591	33.00	88.00	-	7.00
8680650	●	-	-	-	6.500	0.25591	33.00	88.00	-	8.00
520025712	●	-	-	F	6.528	0.25700	33.00	88.00	-	8.00
8665660	●	-	-	-	6.600	0.25984	33.00	88.00	-	7.00
8680660	●	-	-	-	6.600	0.25984	33.00	88.00	-	8.00
520026112	●	-	-	-	6.650	0.26181	34.00	88.00	-	8.00
8665670	●	-	-	-	6.700	0.26378	34.00	88.00	-	7.00
8680670	●	-	-	-	6.700	0.26378	34.00	88.00	-	8.00
520026512	●	17/64	-	-	6.747	0.26563	34.00	88.00	0.313	-
8665675	●	-	-	-	6.750	0.26575	34.00	88.00	-	7.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked  
Note: MEGA COOLER applies only to diameter sizes over 6mm.



## List 5200 (Continued)



SPEED FEED  
99

CARBIDE

WXL



2 FLUTE

STUB

30°

SHANK  
h6

PACKED  
1 PIECE

A BRAND ADO-SUS-3D

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8665680	●	-	-	-	6.800	0.26772	34.00	88.00	-	7.00
8680680	●	-	-	-	6.800	0.26772	34.00	88.00	-	8.00
520027012	●	-	-	-	6.860	0.27008	35.00	88.00	-	8.00
8665690	●	-	-	-	6.900	0.27165	35.00	88.00	-	7.00
8680690	●	-	-	-	6.900	0.27165	35.00	88.00	-	8.00
8665700	●	-	-	-	7.000	0.27559	35.00	88.00	-	7.00
8680700	●	-	-	-	7.000	0.27559	35.00	88.00	-	8.00
520027712	●	-	-	-	7.040	0.27717	36.00	94.00	-	8.00
8665710	●	-	-	-	7.100	0.27953	36.00	94.00	-	8.00
520028112	●	9/32	-	-	7.144	0.28125	36.00	94.00	0.313	-
8665720	●	-	-	-	7.200	0.28346	36.00	94.00	-	8.00
8665725	●	-	-	-	7.250	0.28543	37.00	94.00	-	8.00
8665730	●	-	-	-	7.300	0.28740	37.00	94.00	-	8.00
8665740	●	-	-	-	7.400	0.29134	37.00	94.00	-	8.00
8665750	●	-	-	-	7.500	0.29528	38.00	94.00	-	8.00
520029612	●	19/64	-	-	7.541	0.29688	38.00	94.00	0.313	-
8665760	●	-	-	-	7.600	0.29921	38.00	94.00	-	8.00
8665770	●	-	-	-	7.700	0.30315	39.00	94.00	-	8.00
8665775	●	-	-	-	7.750	0.30512	39.00	94.00	-	8.00
8665780	●	-	-	-	7.800	0.30709	39.00	94.00	-	8.00
8665790	●	-	-	-	7.900	0.31102	40.00	94.00	-	8.00
520031212	●	5/16	-	-	7.938	0.31250	40.00	94.00	0.313	-
8665800	●	-	-	-	8.000	0.31496	40.00	94.00	-	8.00
8665810	●	-	-	-	8.100	0.31890	41.00	101.00	-	9.00
8680810	●	-	-	-	8.100	0.31890	41.00	101.00	-	10.00
520032012	●	-	-	-	8.150	0.32087	41.00	101.00	-	10.00
8665820	●	-	-	-	8.200	0.32283	41.00	101.00	-	9.00
8680820	●	-	-	-	8.200	0.32283	41.00	101.00	-	10.00
8665825	●	-	-	-	8.250	0.32480	42.00	101.00	-	9.00
8665830	●	-	-	-	8.300	0.32677	42.00	101.00	-	9.00
8680830	●	-	-	-	8.300	0.32677	42.00	101.00	-	10.00
520032812	●	21/64	-	-	8.334	0.32813	42.00	101.00	0.375	-
8665840	●	-	-	-	8.400	0.33071	42.00	101.00	-	9.00
8680840	●	-	-	-	8.400	0.33071	42.00	101.00	-	10.00
520033212	●	-	-	Q	8.433	0.33200	43.00	101.00	-	10.00
8665850	●	-	-	-	8.500	0.33465	43.00	101.00	-	9.00
8680850	●	-	-	-	8.500	0.33465	43.00	101.00	-	10.00
520033712	●	-	-	-	8.560	0.33701	43.00	101.00	-	10.00
8665860	●	-	-	-	8.600	0.33858	43.00	101.00	-	9.00
8680860	●	-	-	-	8.600	0.33858	43.00	101.00	-	10.00
520034012	●	-	-	-	8.640	0.34016	44.00	101.00	-	10.00
520034112	●	-	-	-	8.680	0.34173	44.00	101.00	-	10.00
8665870	●	-	-	-	8.700	0.34252	44.00	101.00	-	9.00
8680870	●	-	-	-	8.700	0.34252	44.00	101.00	-	10.00
520034312	●	11/32	-	-	8.731	0.34375	44.00	101.00	0.375	-
8665875	●	-	-	-	8.750	0.34449	44.00	101.00	-	9.00
8665880	●	-	-	-	8.800	0.34646	44.00	101.00	-	9.00
8680880	●	-	-	-	8.800	0.34646	44.00	101.00	-	10.00
520034812	●	-	-	-	8.860	0.34882	45.00	101.00	-	10.00
8665890	●	-	-	-	8.900	0.35039	45.00	101.00	-	9.00
8680890	●	-	-	-	8.900	0.35039	45.00	101.00	-	10.00
8665900	●	-	-	-	9.000	0.35433	45.00	101.00	-	9.00
8680900	●	-	-	-	9.000	0.35433	45.00	101.00	-	10.00
8665910	●	-	-	-	9.100	0.35827	46.00	106.00	-	10.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked

Note: MEGA COOLER applies only to diameter sizes over 6mm.



CONTINUED ➔

P					M			K	N		S		H						
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel						
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium							
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
1010	1035	1045	1065	4140	4340	○	○	○	○	○	○	○	○	○	○	○	○	○	○
1018	1045	1065	4140	4340	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

○ Good ○ Best



# A Brand ADO-SUS

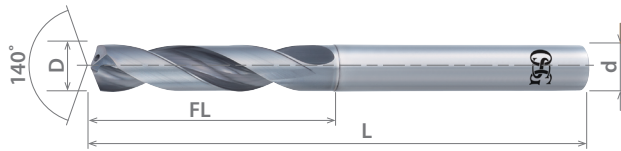
Advanced Performance Carbide Drills for Stainless Steels & Titanium Alloys

## List 5200 (Continued)



<b>SPEED FEED</b> 99	<b>CARBIDE</b>	<b>WXL</b>		<b>2 FLUTE</b>	<b>STUB</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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A BRAND ADO-SUS-3D



Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
520035912	●	23/64	-	-	9.128	0.35938	46.00	106.00	0.375	-
8665920	●	-	-	-	9.200	0.36220	46.00	106.00	-	10.00
8665925	●	-	-	-	9.250	0.36417	47.00	106.00	-	10.00
8665930	●	-	-	-	9.300	0.36614	47.00	106.00	-	10.00
8665940	●	-	-	-	9.400	0.37008	47.00	106.00	-	10.00
8665950	●	-	-	-	9.500	0.37402	48.00	106.00	-	10.00
520037512	●	3/8	-	-	9.525	0.37500	48.00	106.00	0.375	-
520037612	●	-	-	-	9.550	0.37598	48.00	106.00	-	10.00
8665960	●	-	-	-	9.600	0.37795	48.00	106.00	-	10.00
8665970	●	-	-	-	9.700	0.38189	49.00	106.00	-	10.00
8665975	●	-	-	-	9.750	0.38386	49.00	106.00	-	10.00
8665980	●	-	-	-	9.800	0.38583	49.00	106.00	-	10.00
8665990	●	-	-	-	9.900	0.38976	50.00	106.00	-	10.00
520039012	●	25/64	-	-	9.922	0.39063	50.00	106.00	0.438	-
8666000	●	-	-	-	10.000	0.39370	50.00	106.00	-	10.00
8666010	●	-	-	-	10.100	0.39764	51.00	113.00	-	11.00
8681010	●	-	-	-	10.100	0.39764	51.00	113.00	-	12.00
8666020	●	-	-	-	10.200	0.40157	51.00	113.00	-	11.00
8681020	●	-	-	-	10.200	0.40157	51.00	113.00	-	12.00
8666025	●	-	-	-	10.250	0.40354	52.00	113.00	-	11.00
8666030	●	-	-	-	10.300	0.40551	52.00	113.00	-	11.00
8681030	●	-	-	-	10.300	0.40551	52.00	113.00	-	12.00
520040612	●	13/32	-	-	10.319	0.40625	52.00	113.00	0.438	-
8666040	●	-	-	-	10.400	0.40945	52.00	113.00	-	11.00
8681040	●	-	-	-	10.400	0.40945	52.00	113.00	-	12.00
520041112	●	-	-	-	10.440	0.41102	53.00	113.00	-	12.00
8666050	●	-	-	-	10.500	0.41339	53.00	113.00	-	11.00
8681050	●	-	-	-	10.500	0.41339	53.00	113.00	-	12.00
8666060	●	-	-	-	10.600	0.41732	53.00	113.00	-	11.00
8681060	●	-	-	-	10.600	0.41732	53.00	113.00	-	12.00
8666070	●	-	-	-	10.700	0.42126	54.00	113.00	-	11.00
8681070	●	-	-	-	10.700	0.42126	54.00	113.00	-	12.00
520042212	●	27/64	-	-	10.716	0.42188	54.00	113.00	0.438	-
8666075	●	-	-	-	10.750	0.42323	54.00	113.00	-	11.00
8666080	●	-	-	-	10.800	0.42520	54.00	113.00	-	11.00
8681080	●	-	-	-	10.800	0.42520	54.00	113.00	-	12.00
520042712	●	-	-	-	10.860	0.42756	55.00	113.00	-	12.00
8666090	●	-	-	-	10.900	0.42913	55.00	113.00	-	11.00
8681090	●	-	-	-	10.900	0.42913	55.00	113.00	-	12.00
8666100	●	-	-	-	11.000	0.43307	55.00	113.00	-	11.00
8681100	●	-	-	-	11.000	0.43307	55.00	113.00	-	12.00
8666110	●	-	-	-	11.100	0.43701	56.00	120.00	-	12.00
520043712	●	7/16	-	-	11.113	0.43750	56.00	120.00	0.438	-
8666120	●	-	-	-	11.200	0.44094	56.00	120.00	-	12.00
8666130	●	-	-	-	11.300	0.44488	57.00	120.00	-	12.00
8666140	●	-	-	-	11.400	0.44882	57.00	120.00	-	12.00
8666150	●	-	-	-	11.500	0.45276	58.00	120.00	-	12.00
520045312	●	29/64	-	-	11.509	0.45313	58.00	120.00	0.500	-
8666160	●	-	-	-	11.600	0.45669	58.00	120.00	-	12.00
8666170	●	-	-	-	11.700	0.46063	59.00	120.00	-	12.00
8666180	●	-	-	-	11.800	0.46457	59.00	120.00	-	12.00
8666190	●	-	-	-	11.900	0.46850	60.00	120.00	-	12.00
520046912	●	15/32	-	-	11.906	0.46875	60.00	120.00	0.500	-
8666200	●	-	-	-	12.000	0.47244	60.00	120.00	-	12.00
8666210	●	-	-	-	12.100	0.47638	61.00	128.00	-	13.00
8681210	●	-	-	-	12.100	0.47638	61.00	128.00	-	14.00
8666220	●	-	-	-	12.200	0.48031	61.00	128.00	-	13.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked  
 Note: MEGA COOLER applies only to diameter sizes over 6mm.



## List 5200 (Continued)



A BRAND ADO-SUS-3D

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8681220	●	-	-	-	12.200	0.48031	61.00	128.00	-	14.00
8666230	●	-	-	-	12.300	0.48425	62.00	128.00	-	13.00
8681230	●	-	-	-	12.300	0.48425	62.00	128.00	-	14.00
520048512	●	31/64	-	-	12.303	0.48438	62.00	128.00	0.500	-
8666240	●	-	-	-	12.400	0.48819	62.00	128.00	-	13.00
8681240	●	-	-	-	12.400	0.48819	62.00	128.00	-	14.00
520049012	●	-	-	-	12.450	0.49016	63.00	128.00	-	14.00
8666250	●	-	-	-	12.500	0.49213	63.00	128.00	-	13.00
8681250	●	-	-	-	12.500	0.49213	63.00	128.00	-	14.00
8666260	●	-	-	-	12.600	0.49606	63.00	128.00	-	13.00
8681260	●	-	-	-	12.600	0.49606	63.00	128.00	-	14.00
520049912	●	-	-	-	12.680	0.49921	64.00	128.00	-	14.00
520050012	●	1/2	-	-	12.700	0.50000	64.00	128.00	0.500	-
8666270	●	-	-	-	12.700	0.50000	64.00	128.00	-	13.00
8666275	●	-	-	-	12.750	0.50197	64.00	128.00	-	13.00
8666280	●	-	-	-	12.800	0.50394	64.00	128.00	-	13.00
8681280	●	-	-	-	12.800	0.50394	64.00	128.00	-	14.00
8666290	●	-	-	-	12.900	0.50787	65.00	128.00	-	13.00
8681290	●	-	-	-	12.900	0.50787	65.00	128.00	-	14.00
8666300	●	-	-	-	13.000	0.51181	65.00	128.00	-	13.00
8681300	●	-	-	-	13.000	0.51181	65.00	128.00	-	14.00
520051512	●	-	-	-	13.080	0.51496	66.00	134.00	-	14.00
8666310	●	-	-	-	13.100	0.51575	66.00	134.00	-	14.00
8666320	●	-	-	-	13.200	0.51969	66.00	134.00	-	14.00
8666330	●	-	-	-	13.300	0.52362	67.00	134.00	-	14.00
8666340	●	-	-	-	13.400	0.52756	67.00	134.00	-	14.00
520053112	●	17/32	-	-	13.494	0.53125	68.00	134.00	0.625	-
8666350	●	-	-	-	13.500	0.53150	68.00	134.00	-	14.00
8666360	●	-	-	-	13.600	0.53543	68.00	134.00	-	14.00
8666370	●	-	-	-	13.700	0.53937	69.00	134.00	-	14.00
8666380	●	-	-	-	13.800	0.54331	69.00	134.00	-	14.00
520054612	●	-	-	-	13.870	0.54606	70.00	134.00	-	14.00
8666390	●	-	-	-	13.900	0.54724	70.00	134.00	-	14.00
8666400	●	-	-	-	14.000	0.55118	70.00	134.00	-	14.00
8666410	●	-	-	-	14.100	0.55512	71.00	140.00	-	15.00
520055512	●	-	-	-	14.100	0.55512	71.00	140.00	-	16.00
8666420	●	-	-	-	14.200	0.55906	71.00	140.00	-	15.00
520055912	●	-	-	-	14.200	0.55906	71.00	140.00	-	16.00
520056212	●	9/16	-	-	14.288	0.56250	72.00	140.00	0.625	-
8666430	●	-	-	-	14.300	0.56299	72.00	140.00	-	15.00
520056312	●	-	-	-	14.300	0.56299	72.00	140.00	-	16.00
8666440	●	-	-	-	14.400	0.56693	72.00	140.00	-	15.00
520056612	●	-	-	-	14.400	0.56693	72.00	140.00	-	16.00
8666450	●	-	-	-	14.500	0.57087	73.00	140.00	-	15.00
8681450	●	-	-	-	14.500	0.57087	73.00	140.00	-	16.00
8666460	●	-	-	-	14.600	0.57480	73.00	140.00	-	15.00
520057412	●	-	-	-	14.600	0.57480	73.00	140.00	-	16.00
520057812	●	-	-	-	14.684	0.57813	74.00	140.00	0.625	-
8666470	●	-	-	-	14.700	0.57874	74.00	140.00	-	15.00
520057912	●	-	-	-	14.700	0.57874	74.00	140.00	-	16.00
8666480	●	-	-	-	14.800	0.58268	74.00	140.00	-	15.00
520058212	●	-	-	-	14.800	0.58268	74.00	140.00	-	16.00
8666490	●	-	-	-	14.900	0.58661	75.00	140.00	-	15.00
520058612	●	-	-	-	14.900	0.58661	75.00	140.00	-	16.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked  
 Note: MEGA COOLER applies only to diameter sizes over 6mm.



CONTINUED ➔

P					M			K	N		S		H					
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel					
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium						
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
1010	1035	1045	1065	4140	4340													
1018	1045	1065	4140	4340														

○ Good ● Best



# A Brand ADO-SUS

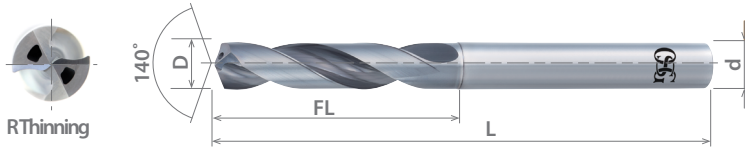
Advanced Performance Carbide Drills for Stainless Steels & Titanium Alloys

## List 5200 (Continued)



<b>SPEED FEED</b> 99	<b>CARBIDE</b>	<b>WXL</b>	<b>2 FLUTE</b>	<b>STUB</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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A BRAND ADO-SUS-3D



Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
8666500	●	-	-	-	15.000	0.59055	75.00	140.00	-	15.00
8681500	●	-	-	-	15.000	0.59055	75.00	140.00	-	16.00
8666510	●	-	-	-	15.100	0.59449	76.00	145.00	-	16.00
8666520	●	-	-	-	15.200	0.59843	76.00	145.00	-	16.00
8666530	●	-	-	-	15.300	0.60236	77.00	145.00	-	16.00
8666540	●	-	-	-	15.400	0.60630	77.00	145.00	-	16.00
8666550	●	-	-	-	15.500	0.61024	78.00	145.00	-	16.00
8666560	●	-	-	-	15.600	0.61417	78.00	145.00	-	16.00
8666570	●	-	-	-	15.700	0.61811	79.00	145.00	-	16.00
8666580	●	-	-	-	15.800	0.62205	79.00	145.00	-	16.00
520062512	●	5/8	-	-	15.875	0.62500	80.00	145.00	0.625	-
8666590	●	-	-	-	15.900	0.62598	80.00	145.00	-	16.00
8666600	●	-	-	-	16.000	0.62992	80.00	145.00	-	16.00
520063312	●	-	-	-	16.100	0.63386	81.00	150.00	-	18.00
8666650	●	-	-	-	16.500	0.64961	83.00	150.00	-	17.00
8681650	●	-	-	-	16.500	0.64961	83.00	150.00	-	18.00
520065612	●	21/32	-	-	16.669	0.65625	85.00	150.00	0.750	-
520066312	●	-	-	-	16.840	0.66299	85.00	150.00	-	18.00
8666700	●	-	-	-	17.000	0.66929	85.00	150.00	-	17.00
8681700	●	-	-	-	17.000	0.66929	85.00	150.00	-	18.00
8666750	●	-	-	-	17.500	0.68898	88.00	155.00	-	18.00
520069312	●	-	-	-	17.610	0.69331	90.00	155.00	-	18.00
520069612	●	-	-	-	17.680	0.69606	90.00	155.00	-	18.00
520069812	●	-	-	-	17.730	0.69803	90.00	155.00	-	18.00
8666800	●	-	-	-	18.000	0.70866	90.00	155.00	-	18.00
8666850	●	-	-	-	18.500	0.72835	93.00	160.00	-	19.00
8681850	●	-	-	-	18.500	0.72835	93.00	160.00	-	20.00
520073312	●	-	-	-	18.640	0.73386	95.00	160.00	-	20.00
8666900	●	-	-	-	19.000	0.74803	95.00	160.00	-	19.00
8681900	●	-	-	-	19.000	0.74803	95.00	160.00	-	20.00
520075012	●	3/4	-	-	19.050	0.75000	95.00	160.00	0.750	-
520075712	●	-	-	-	19.250	0.75787	97.00	165.00	-	20.00
8666950	●	-	-	-	19.500	0.76772	98.00	165.00	-	20.00
520077412	●	-	-	-	19.660	0.77402	100.00	165.00	-	20.00
520077612	●	-	-	-	19.730	0.77677	100.00	165.00	-	20.00
520077812	●	-	-	-	19.760	0.77795	100.00	165.00	-	20.00
8667000	●	-	-	-	20.000	0.78740	100.00	165.00	-	20.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked  
 Note: MEGA COOLER applies only to diameter sizes over 6mm.



P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
Low	Medium	High							6061 7075	Casting						
1010	1035	1065	4140	4340	○	○	○	○	○	○	○	○	○	○	○	○
1018	1045	1065	4140	4340	○	○	○	○	○	○	○	○	○	○	○	○

○ Good ○ Best





# A Brand ADO-SUS

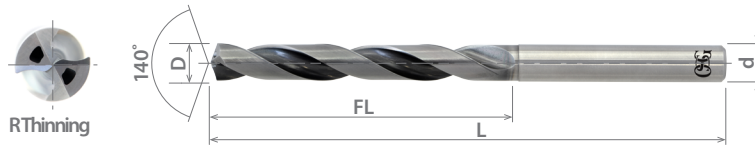
Advanced Performance Carbide Drills for Stainless Steels & Titanium Alloys

## List 5210

A BRAND ADO-SUS-5D



SPEED FEED 99	CARBIDE	WXL	2 FLUTE	JOBBER	30°	SHANK h6	PACKED 1 PIECE
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Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8667200	●	-	-	-	2.000	0.07874	18.00	70.00	-	3.00
8667210	●	-	-	-	2.100	0.08268	19.00	70.00	-	3.00
8667220	●	-	-	-	2.200	0.08661	20.00	70.00	-	3.00
8667230	●	-	-	-	2.300	0.09055	21.00	70.00	-	3.00
521009312	●	3/32	-	-	2.381	0.09375	22.00	70.00	-	3.00
8667240	●	-	-	-	2.400	0.09449	22.00	70.00	-	3.00
8667250	●	-	-	-	2.500	0.09843	23.00	70.00	-	3.00
8667260	●	-	-	-	2.600	0.10236	24.00	78.00	-	3.00
8667270	●	-	-	-	2.700	0.10630	25.00	78.00	-	3.00
8667276	●	-	-	-	2.760	0.10866	25.00	78.00	-	3.00
8667278	●	-	-	-	2.780	0.10945	26.00	78.00	-	3.00
8667280	●	-	-	-	2.800	0.11024	26.00	78.00	-	3.00
8667290	●	-	-	-	2.900	0.11417	27.00	78.00	-	3.00
8667300	●	-	-	-	3.000	0.11811	27.00	78.00	-	3.00
8667310	●	-	-	-	3.100	0.12205	28.00	86.00	-	4.00
8667315	●	-	-	-	3.150	0.12402	29.00	86.00	-	4.00
521012512	●	1/8	-	-	3.175	0.12500	29.00	86.00	0.125	-
8667320	●	-	-	-	3.200	0.12598	29.00	86.00	-	4.00
8667326	●	-	-	-	3.260	0.12835	29.00	86.00	-	4.00
8667330	●	-	-	-	3.300	0.12992	30.00	86.00	-	4.00
8667340	●	-	-	-	3.400	0.13386	31.00	86.00	-	4.00
8667350	●	-	-	-	3.500	0.13780	32.00	86.00	-	4.00
8667360	●	-	-	-	3.600	0.14173	33.00	86.00	-	4.00
8667366	●	-	-	-	3.660	0.14409	33.00	86.00	-	4.00
8667368	●	-	-	-	3.680	0.14488	34.00	86.00	-	4.00
8667370	●	-	-	-	3.700	0.14567	34.00	86.00	-	4.00
8667375	●	-	-	-	3.750	0.14764	34.00	86.00	-	4.00
8667380	●	-	-	-	3.800	0.14961	35.00	86.00	-	4.00
8667390	●	-	-	-	3.900	0.15354	36.00	86.00	-	4.00
521015612	●	5/32	-	-	3.969	0.15625	36.00	86.00	-	4.00
8667400	●	-	-	-	4.000	0.15748	36.00	86.00	-	4.00
521016112	●	-	20	-	4.089	0.16100	37.00	95.00	-	6.00
8667410	●	-	-	-	4.100	0.16142	37.00	95.00	-	5.00
8682410	●	-	-	-	4.100	0.16142	37.00	95.00	-	6.00
8667420	●	-	-	-	4.200	0.16535	38.00	95.00	-	5.00
8682420	●	-	-	-	4.200	0.16535	38.00	95.00	-	6.00
8667430	●	-	-	-	4.300	0.16929	39.00	95.00	-	5.00
8682430	●	-	-	-	4.300	0.16929	39.00	95.00	-	6.00
521017112	●	11/64	-	-	4.366	0.17188	40.00	95.00	0.188	-
8667440	●	-	-	-	4.400	0.17323	40.00	95.00	-	5.00
8682440	●	-	-	-	4.400	0.17323	40.00	95.00	-	6.00
8667450	●	-	-	-	4.500	0.17717	41.00	95.00	-	5.00
8682450	●	-	-	-	4.500	0.17717	41.00	95.00	-	6.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked  
 Note: MEGA COOLER applies only to diameter sizes over 6mm.



CONTINUED ➔

P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium				
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC
1010	1035	1065	4140	4340	○	○	○	○			○	○				
1018	1045				○	○	○	○			○	○				

○ Good ○ Best



# A Brand ADO-SUS

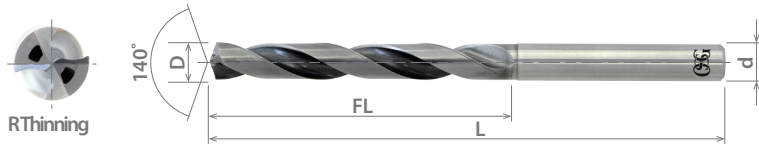
Advanced Performance Carbide Drills for Stainless Steels & Titanium Alloys

## List 5210 (Continued)



A BRAND ADO-SUS-5D

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
8667460	●	-	-	-	4.600	0.18110	42.00	95.00	-	5.00
8682460	●	-	-	-	4.600	0.18110	42.00	95.00	-	6.00
8667462	●	-	-	-	4.620	0.18189	42.00	95.00	-	5.00
8667464	●	-	-	-	4.640	0.18268	42.00	95.00	-	5.00
8667470	●	-	-	-	4.700	0.18504	43.00	95.00	-	5.00
8682470	●	-	-	-	4.700	0.18504	43.00	95.00	-	6.00
521018712	●	3/16	-	-	4.763	0.18750	44.00	95.00	0.188	-
8667480	●	-	-	-	4.800	0.18898	44.00	95.00	-	5.00
8682480	●	-	-	-	4.800	0.18898	44.00	95.00	-	6.00
8667485	●	-	-	-	4.850	0.19094	44.00	95.00	-	6.00
8667490	●	-	-	-	4.900	0.19291	45.00	95.00	-	5.00
8682490	●	-	-	-	4.900	0.19291	45.00	95.00	-	6.00
8667500	●	-	-	-	5.000	0.19685	45.00	95.00	-	5.00
8682500	●	-	-	-	5.000	0.19685	45.00	95.00	-	6.00
8667510	●	-	-	-	5.100	0.20079	41.00	100.00	-	6.00
521020312	●	13/64	-	-	5.159	0.20313	42.00	100.00	0.250	-
8667520	●	-	-	-	5.200	0.20472	42.00	100.00	-	6.00
8667525	●	-	-	-	5.250	0.20669	42.00	100.00	-	6.00
8667530	●	-	-	-	5.300	0.20866	43.00	100.00	-	6.00
8667540	●	-	-	-	5.400	0.21260	44.00	100.00	-	6.00
521021312	●	-	3	-	5.410	0.21300	44.00	100.00	-	6.00
8667550	●	-	-	-	5.500	0.21654	44.00	100.00	-	6.00
8667552	●	-	-	-	5.520	0.21732	45.00	100.00	-	6.00
8667554	●	-	-	-	5.540	0.21811	45.00	100.00	-	6.00
521021812	●	7/32	-	-	5.556	0.21875	45.00	100.00	0.250	-
8667560	●	-	-	-	5.600	0.22047	45.00	100.00	-	6.00
8667570	●	-	-	-	5.700	0.22441	46.00	100.00	-	6.00
8667580	●	-	-	-	5.800	0.22835	47.00	100.00	-	6.00
8667590	●	-	-	-	5.900	0.23228	48.00	100.00	-	6.00
521023412	●	15/64	-	-	5.953	0.23438	48.00	100.00	0.250	-
8667600	●	-	-	-	6.000	0.23622	48.00	100.00	-	6.00
8667610	●	-	-	-	6.100	0.24016	49.00	109.00	-	7.00
8682610	●	-	-	-	6.100	0.24016	49.00	109.00	-	8.00
8667620	●	-	-	-	6.200	0.24409	50.00	109.00	-	7.00
8682620	●	-	-	-	6.200	0.24409	50.00	109.00	-	8.00
8667625	●	-	-	-	6.250	0.24606	50.00	109.00	-	7.00
8667630	●	-	-	-	6.300	0.24803	51.00	109.00	-	7.00
8682630	●	-	-	-	6.300	0.24803	51.00	109.00	-	8.00
8667635	●	1/4	-	E	6.350	0.25000	52.00	109.00	0.250	-
8667640	●	-	-	-	6.400	0.25197	52.00	109.00	-	7.00
8682640	●	-	-	-	6.400	0.25197	52.00	109.00	-	8.00
8667650	●	-	-	-	6.500	0.25591	52.00	109.00	-	7.00
8682650	●	-	-	-	6.500	0.25591	52.00	109.00	-	8.00
521025712	●	-	-	F	6.528	0.25700	53.00	109.00	-	8.00
8667660	●	-	-	-	6.600	0.25984	53.00	109.00	-	7.00
8682660	●	-	-	-	6.600	0.25984	53.00	109.00	-	8.00
8667670	●	-	-	-	6.700	0.26378	54.00	109.00	-	7.00
8682670	●	-	-	-	6.700	0.26378	54.00	109.00	-	8.00
521026512	●	17/64	-	-	6.747	0.26563	55.00	109.00	0.313	-
8667675	●	-	-	-	6.750	0.26575	54.00	109.00	-	7.00
8667680	●	-	-	-	6.800	0.26772	55.00	109.00	-	7.00
8682680	●	-	-	-	6.800	0.26772	55.00	109.00	-	8.00
8667690	●	-	-	-	6.900	0.27165	56.00	109.00	-	7.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked  
Note: MEGA COOLER applies only to diameter sizes over 6mm.



## List 5210 (Continued)



A BRAND ADO-SUS-5D

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8682690	●	-	-	-	6.900	0.27165	56.00	109.00	-	8.00
8667700	●	-	-	-	7.000	0.27559	56.00	109.00	-	7.00
8682700	●	-	-	-	7.000	0.27559	56.00	109.00	-	8.00
8667710	●	-	-	-	7.100	0.27953	57.00	118.00	-	8.00
521028112	●	9/32	-	-	7.144	0.28125	58.00	118.00	0.313	-
8667720	●	-	-	-	7.200	0.28346	58.00	118.00	-	8.00
8667725	●	-	-	-	7.250	0.28543	58.00	118.00	-	8.00
8667730	●	-	-	-	7.300	0.28740	59.00	118.00	-	8.00
8667736	●	-	-	-	7.360	0.28976	59.00	118.00	-	8.00
8667738	●	-	-	-	7.380	0.29055	60.00	118.00	-	8.00
8667740	●	-	-	-	7.400	0.29134	60.00	118.00	-	8.00
8667750	●	-	-	-	7.500	0.29528	60.00	118.00	-	8.00
8667752	●	-	-	-	7.520	0.29606	61.00	118.00	-	8.00
8667754	●	-	-	-	7.540	0.29685	61.00	118.00	-	8.00
521029612	●	19/64	-	-	7.541	0.29690	60.00	118.00	0.313	-
8667760	●	-	-	-	7.600	0.29921	61.00	118.00	-	8.00
8667770	●	-	-	-	7.700	0.30315	62.00	118.00	-	8.00
8667775	●	-	-	-	7.750	0.30512	62.00	118.00	-	8.00
8667780	●	-	-	-	7.800	0.30709	63.00	118.00	-	8.00
8667790	●	-	-	-	7.900	0.31102	64.00	118.00	-	8.00
521031212	●	5/16	-	-	7.938	0.31250	64.00	118.00	0.313	-
8667800	●	-	-	-	8.000	0.31496	64.00	118.00	-	8.00
8667810	●	-	-	-	8.100	0.31890	65.00	128.00	-	9.00
8682810	●	-	-	-	8.100	0.31890	65.00	128.00	-	10.00
8667820	●	-	-	-	8.200	0.32283	66.00	128.00	-	9.00
8682820	●	-	-	-	8.200	0.32283	66.00	128.00	-	10.00
8667825	●	-	-	-	8.250	0.32480	66.00	128.00	-	9.00
8667830	●	-	-	-	8.300	0.32677	67.00	128.00	-	9.00
8682830	●	-	-	-	8.300	0.32677	67.00	128.00	-	10.00
521032812	●	21/64	-	-	8.334	0.32813	67.00	128.00	0.375	-
8667840	●	-	-	-	8.400	0.33071	68.00	128.00	-	9.00
8682840	●	-	-	-	8.400	0.33071	68.00	128.00	-	10.00
521033212	●	-	-	Q	8.433	0.33200	68.00	128.00	-	10.00
8667850	●	-	-	-	8.500	0.33465	68.00	128.00	-	9.00
8682850	●	-	-	-	8.500	0.33465	68.00	128.00	-	10.00
8667860	●	-	-	-	8.600	0.33858	69.00	128.00	-	9.00
8682860	●	-	-	-	8.600	0.33858	69.00	128.00	-	10.00
8667870	●	-	-	-	8.700	0.34252	70.00	128.00	-	9.00
8682870	●	-	-	-	8.700	0.34252	70.00	128.00	-	10.00
521034312	●	11/32	-	-	8.731	0.34375	70.00	128.00	0.375	-
8667875	●	-	-	-	8.750	0.34449	70.00	128.00	-	9.00
8667880	●	-	-	-	8.800	0.34646	71.00	128.00	-	9.00
8682880	●	-	-	-	8.800	0.34646	71.00	128.00	-	10.00
8667890	●	-	-	-	8.900	0.35039	72.00	128.00	-	9.00
8682890	●	-	-	-	8.900	0.35039	72.00	128.00	-	10.00
8667900	●	-	-	-	9.000	0.35433	72.00	128.00	-	9.00
8682900	●	-	-	-	9.000	0.35433	72.00	128.00	-	10.00
8667910	●	-	-	-	9.100	0.35827	73.00	136.00	-	10.00
521035912	●	23/64	-	-	9.128	0.35938	73.00	136.00	0.375	-
8667920	●	-	-	-	9.200	0.36220	74.00	136.00	-	10.00
8667924	●	-	-	-	9.240	0.36378	74.00	136.00	-	10.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked  
 Note: MEGA COOLER applies only to diameter sizes over 6mm.



CONTINUED ➔

P					M			K	N		S		H				
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel				
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium					
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
1010	1035	1065	4140	4340	○	○	○	○	○	○	○	○	○	○	○	○	○
1018	1045				○	○	○	○	○	○	○	○	○	○	○	○	○

○ Good ○ Best



# A Brand ADO-SUS

Advanced Performance Carbide Drills for Stainless Steels & Titanium Alloys

## List 5210 (Continued)



A BRAND ADO-SUS-5D

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
8667925	●	-	-	-	9.250	0.36417	74.00	136.00	-	10.00
8667926	●	-	-	-	9.260	0.36457	75.00	136.00	-	10.00
8667930	●	-	-	-	9.300	0.36614	75.00	136.00	-	10.00
8667936	●	-	-	-	9.360	0.36850	75.00	136.00	-	10.00
8667938	●	-	-	-	9.380	0.36929	76.00	136.00	-	10.00
8667940	●	-	-	-	9.400	0.37008	76.00	136.00	-	10.00
8667950	●	-	-	-	9.500	0.37402	76.00	136.00	-	10.00
8667952	●	-	-	-	9.520	0.37480	77.00	136.00	-	10.00
521037512	●	3/8	-	-	9.525	0.37500	76.00	136.00	0.375	-
8667954	●	-	-	-	9.540	0.37559	77.00	136.00	-	10.00
8667960	●	-	-	-	9.600	0.37795	77.00	136.00	-	10.00
8667970	●	-	-	-	9.700	0.38189	78.00	136.00	-	10.00
8667975	●	-	-	-	9.750	0.38386	78.00	136.00	-	10.00
8667980	●	-	-	-	9.800	0.38583	79.00	136.00	-	10.00
8667990	●	-	-	-	9.900	0.38976	80.00	136.00	-	10.00
521039012	●	25/64	-	-	9.922	0.39063	80.00	136.00	0.438	-
8668000	●	-	-	-	10.000	0.39370	80.00	136.00	-	10.00
8668010	●	-	-	-	10.100	0.39764	81.00	146.00	-	11.00
8683010	●	-	-	-	10.100	0.39764	81.00	146.00	-	12.00
8668020	●	-	-	-	10.200	0.40157	82.00	146.00	-	11.00
8683020	●	-	-	-	10.200	0.40157	82.00	146.00	-	12.00
8668025	●	-	-	-	10.250	0.40354	82.00	146.00	-	11.00
8668030	●	-	-	-	10.300	0.40551	83.00	146.00	-	11.00
8683030	●	-	-	-	10.300	0.40551	83.00	146.00	-	12.00
521040612	●	13/32	-	-	10.319	0.40625	83.00	146.00	0.438	-
8668040	●	-	-	-	10.400	0.40945	84.00	146.00	-	11.00
8683040	●	-	-	-	10.400	0.40945	84.00	146.00	-	12.00
8668050	●	-	-	-	10.500	0.41339	84.00	146.00	-	11.00
8683050	●	-	-	-	10.500	0.41339	84.00	146.00	-	12.00
8668060	●	-	-	-	10.600	0.41732	85.00	146.00	-	11.00
8683060	●	-	-	-	10.600	0.41732	85.00	146.00	-	12.00
8668070	●	-	-	-	10.700	0.42126	86.00	146.00	-	11.00
8683070	●	-	-	-	10.700	0.42126	86.00	146.00	-	12.00
521042212	●	27/64	-	-	10.716	0.42188	86.00	146.00	0.438	-
8668075	●	-	-	-	10.750	0.42323	86.00	146.00	-	11.00
8668080	●	-	-	-	10.800	0.42520	87.00	146.00	-	11.00
8683080	●	-	-	-	10.800	0.42520	87.00	146.00	-	12.00
8668090	●	-	-	-	10.900	0.42913	88.00	146.00	-	11.00
8683090	●	-	-	-	10.900	0.42913	88.00	146.00	-	12.00
8668100	●	-	-	-	11.000	0.43307	88.00	146.00	-	11.00
8683100	●	-	-	-	11.000	0.43307	88.00	146.00	-	12.00
8668110	●	-	-	-	11.100	0.43701	89.00	156.00	-	12.00
521043812	●	7/16	-	-	11.113	0.43750	89.00	156.00	0.438	-
8668120	●	-	-	-	11.200	0.44094	90.00	156.00	-	12.00
8668122	●	-	-	-	11.220	0.44173	90.00	156.00	-	12.00
8668124	●	-	-	-	11.240	0.44252	90.00	156.00	-	12.00
8668130	●	-	-	-	11.300	0.44488	91.00	156.00	-	12.00
8668136	●	-	-	-	11.360	0.44724	91.00	156.00	-	12.00
8668138	●	-	-	-	11.380	0.44803	92.00	156.00	-	12.00
8668140	●	-	-	-	11.400	0.44882	92.00	156.00	-	12.00
8668150	●	-	-	-	11.500	0.45276	92.00	156.00	-	12.00
521045312	●	29/64	-	-	11.509	0.45313	92.00	156.00	0.500	-
8668160	●	-	-	-	11.600	0.45669	93.00	156.00	-	12.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked  
 Note: MEGA COOLER applies only to diameter sizes over 6mm.



## List 5210 (Continued)



A BRAND ADO-SUS-5D

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8668170	●	-	-	-	11.700	0.46063	94.00	156.00	-	12.00
8668180	●	-	-	-	11.800	0.46457	95.00	156.00	-	12.00
8668190	●	-	-	-	11.900	0.46850	96.00	156.00	-	12.00
521046912	●	15/32	-	-	11.906	0.46875	96.00	156.00	0.500	-
8668200	●	-	-	-	12.000	0.47244	96.00	156.00	-	12.00
8668210	●	-	-	-	12.100	0.47638	97.00	167.00	-	13.00
8683210	●	-	-	-	12.100	0.47638	97.00	167.00	-	14.00
8668220	●	-	-	-	12.200	0.48031	98.00	167.00	-	13.00
8683220	●	-	-	-	12.200	0.48031	98.00	167.00	-	14.00
8668230	●	-	-	-	12.300	0.48425	99.00	167.00	-	13.00
8683230	●	-	-	-	12.300	0.48425	99.00	167.00	-	14.00
521048512	●	31/64	-	-	12.303	0.48438	99.00	167.00	0.500	-
8668240	●	-	-	-	12.400	0.48819	100.00	167.00	-	13.00
8683240	●	-	-	-	12.400	0.48819	100.00	167.00	-	14.00
8668250	●	-	-	-	12.500	0.49213	100.00	167.00	-	13.00
8683250	●	-	-	-	12.500	0.49213	100.00	167.00	-	14.00
8668260	●	-	-	-	12.600	0.49606	101.00	167.00	-	13.00
8683260	●	-	-	-	12.600	0.49606	101.00	167.00	-	14.00
521050012	●	1/2	-	-	12.700	0.50000	102.00	167.00	0.500	-
8668270	●	-	-	-	12.700	0.50000	102.00	167.00	-	13.00
8668275	●	-	-	-	12.750	0.50197	103.00	167.00	-	13.00
8668280	●	-	-	-	12.800	0.50394	103.00	167.00	-	13.00
8683280	●	-	-	-	12.800	0.50394	103.00	167.00	-	14.00
8668290	●	-	-	-	12.900	0.50787	104.00	167.00	-	13.00
8683290	●	-	-	-	12.900	0.50787	104.00	167.00	-	14.00
8668300	●	-	-	-	13.000	0.51181	104.00	167.00	-	13.00
8683300	●	-	-	-	13.000	0.51181	104.00	167.00	-	14.00
8668310	●	-	-	-	13.100	0.51575	105.00	176.00	-	14.00
8668320	●	-	-	-	13.200	0.51969	106.00	176.00	-	14.00
8668325	●	-	-	-	13.250	0.52165	106.00	176.00	-	14.00
8668330	●	-	-	-	13.300	0.52362	107.00	176.00	-	14.00
8668340	●	-	-	-	13.400	0.52756	108.00	176.00	-	14.00
521053112	●	17/32	-	-	13.494	0.53125	108.00	176.00	0.625	-
8668350	●	-	-	-	13.500	0.53150	108.00	176.00	-	14.00
8668360	●	-	-	-	13.600	0.53543	109.00	176.00	-	14.00
8668370	●	-	-	-	13.700	0.53937	110.00	176.00	-	14.00
8668380	●	-	-	-	13.800	0.54331	111.00	176.00	-	14.00
8668390	●	-	-	-	13.900	0.54724	112.00	176.00	-	14.00
8668400	●	-	-	-	14.000	0.55118	112.00	176.00	-	14.00
8668410	●	-	-	-	14.100	0.55512	113.00	185.00	-	15.00
521055512	●	-	-	-	14.100	0.55512	113.00	185.00	-	16.00
8668420	●	-	-	-	14.200	0.55906	114.00	185.00	-	15.00
521055912	●	-	-	-	14.200	0.55906	114.00	185.00	-	16.00
521056212	●	9/16	-	-	14.288	0.56250	115.00	185.00	0.625	-
8668430	●	-	-	-	14.300	0.56299	115.00	185.00	-	15.00
521056312	●	-	-	-	14.300	0.56299	115.00	185.00	-	16.00
8668440	●	-	-	-	14.400	0.56693	116.00	185.00	-	15.00
521056612	●	-	-	-	14.400	0.56693	116.00	185.00	-	16.00
8668450	●	-	-	-	14.500	0.57087	116.00	185.00	-	15.00
8683450	●	-	-	-	14.500	0.57087	116.00	185.00	-	16.00
8668460	●	-	-	-	14.600	0.57480	117.00	185.00	-	15.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked  
 Note: MEGA COOLER applies only to diameter sizes over 6mm.



CONTINUED ➔

P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium				
Low	Medium	High							6061	7075			Casting	Inconel	6Al4V (30 HRC)	~35 HRC
1010	1035	1065	4140	4340	○	○	○	○			○	○				
1018	1045				○	○	○	○		○		○				

○ Good ○ Best



# A Brand ADO-SUS

Advanced Performance Carbide Drills for Stainless Steels & Titanium Alloys

## List 5210 (Continued)

A BRAND ADO-SUS-5D



SPEED FEED  
99

CARBIDE

WXL



2 FLUTE

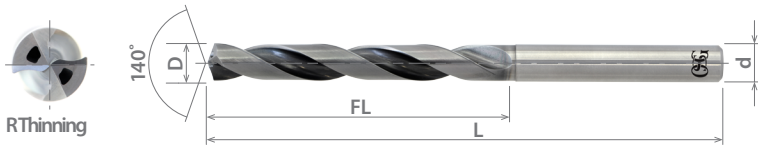
JOBBER

30°

SHANK  
h6

PACKED  
1 PIECE

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 18	+0 / -0.027	+0 / -0.0011
18 < D ≤ 20	+0 / -0.033	+0 / -0.0013



EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
521057412	●	-	-	-	14.600	0.57480	117.00	185.00	-	16.00
8668470	●	-	-	-	14.700	0.57874	118.00	185.00	-	15.00
521057812	●	-	-	-	14.700	0.57874	118.00	185.00	-	16.00
8668480	●	-	-	-	14.800	0.58268	119.00	185.00	-	15.00
521058212	●	-	-	-	14.800	0.58268	119.00	185.00	-	16.00
8668490	●	-	-	-	14.900	0.58661	120.00	185.00	-	15.00
521058612	●	-	-	-	14.900	0.58661	120.00	185.00	-	16.00
8668500	●	-	-	-	15.000	0.59055	120.00	185.00	-	15.00
8683500	●	-	-	-	15.000	0.59055	120.00	185.00	-	16.00
8668510	●	-	-	-	15.100	0.59449	121.00	193.00	-	16.00
8668520	●	-	-	-	15.200	0.59843	122.00	193.00	-	16.00
8668525	●	-	-	-	15.250	0.60039	122.00	193.00	-	16.00
8668530	●	-	-	-	15.300	0.60236	123.00	193.00	-	16.00
8668540	●	-	-	-	15.400	0.60630	124.00	193.00	-	16.00
8668550	●	-	-	-	15.500	0.61024	124.00	193.00	-	16.00
8668560	●	-	-	-	15.600	0.61417	125.00	193.00	-	16.00
8668570	●	-	-	-	15.700	0.61811	126.00	193.00	-	16.00
8668580	●	-	-	-	15.800	0.62205	127.00	193.00	-	16.00
521062512	●	5/8	-	-	15.875	0.62500	128.00	193.00	0.625	-
8668590	●	-	-	-	15.900	0.62598	128.00	193.00	-	16.00
8668600	●	-	-	-	16.000	0.62992	128.00	193.00	-	16.00
521063312	●	-	-	-	16.100	0.63386	113.00	184.00	-	18.00
8668650	●	-	-	-	16.500	0.64961	116.00	184.00	-	17.00
8683650	●	-	-	-	16.500	0.64961	116.00	184.00	-	18.00
521065612	●	21/32	-	-	16.669	0.65625	117.00	184.00	0.750	-
8668700	●	-	-	-	17.000	0.66929	119.00	184.00	-	17.00
8683700	●	-	-	-	17.000	0.66929	119.00	184.00	-	18.00
8668750	●	-	-	-	17.500	0.68898	123.00	191.00	-	18.00
8668800	●	-	-	-	18.000	0.70866	126.00	191.00	-	18.00
8668850	●	-	-	-	18.500	0.72835	130.00	198.00	-	19.00
8683850	●	-	-	-	18.500	0.72835	130.00	198.00	-	20.00
8668900	●	-	-	-	19.000	0.74803	133.00	198.00	-	19.00
8683900	●	-	-	-	19.000	0.74803	133.00	198.00	-	20.00
521075012	●	3/4	-	-	19.050	0.75000	134.00	205.00	0.750	-
521075712	●	-	-	-	19.250	0.75787	135.00	205.00	-	20.00
8668950	●	-	-	-	19.500	0.76772	137.00	205.00	-	20.00
8669000	●	-	-	-	20.000	0.78740	140.00	205.00	-	20.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked  
Note: MEGA COOLER applies only to diameter sizes over 6mm.



P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
Low	Medium	High							6061	Casting						
1010	1035	1065	4140									7075				
1018	1045		4340													

○ Good ⊗ Best



# A Brand ADO-SUS

Advanced Performance Carbide Drills for Stainless Steels & Titanium Alloys

## List 5220

A BRAND ADO-SUS-8D



SPEED FEED  
99

CARBIDE

WXL

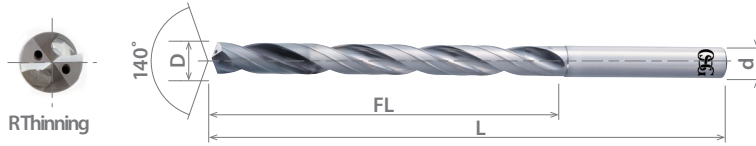
2 FLUTE

TAPER

30°

SHANK  
h6

PACKED  
1 PIECE



Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 12.7	+0 / -0.027	+0 / -0.0011

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8686200	●	-	-	-	2.000	0.07874	22.00	75.00	-	3.00
8686210	●	-	-	-	2.100	0.08268	24.00	75.00	-	3.00
8686220	●	-	-	-	2.200	0.08661	25.00	75.00	-	3.00
8686230	●	-	-	-	2.300	0.09055	26.00	75.00	-	3.00
522009312	●	3/32	-	-	2.381	0.09375	27.00	75.00	-	3.00
8686240	●	-	-	-	2.400	0.09449	27.00	75.00	-	3.00
8686250	●	-	-	-	2.500	0.09843	28.00	75.00	-	3.00
8686260	●	-	-	-	2.600	0.10236	29.00	80.00	-	3.00
8686270	●	-	-	-	2.700	0.10630	30.00	80.00	-	3.00
522010912	●	7/64	-	-	2.778	0.10938	31.00	80.00	-	3.00
8686280	●	-	-	-	2.800	0.11024	31.00	80.00	-	3.00
8686290	●	-	-	-	2.900	0.11417	32.00	80.00	-	3.00
8686300	●	-	-	-	3.000	0.11811	33.00	80.00	-	3.00
8684310	●	-	-	-	3.100	0.12205	34.00	95.00	-	4.00
522012512	●	1/8	-	-	3.175	0.12500	35.00	95.00	0.125	-
8684320	●	-	-	-	3.200	0.12598	36.00	95.00	-	4.00
8684330	●	-	-	-	3.300	0.12992	36.00	95.00	-	4.00
8684340	●	-	-	-	3.400	0.13386	37.00	95.00	-	4.00
8684350	●	-	-	-	3.500	0.13780	39.00	95.00	-	4.00
8684360	●	-	-	-	3.600	0.14173	40.00	95.00	-	4.00
8684370	●	-	-	-	3.700	0.14567	41.00	95.00	-	4.00
8684380	●	-	-	-	3.800	0.14961	42.00	95.00	-	4.00
8684390	●	-	-	-	3.900	0.15354	43.00	95.00	-	4.00
522015612	●	5/32	-	-	3.970	0.15625	44.00	95.00	0.188	-
8684400	●	-	-	-	4.000	0.15748	44.00	95.00	-	4.00
522016112	●	-	20	-	4.089	0.16100	45.00	105.00	-	6.00
8684410	●	-	-	-	4.100	0.16142	45.00	105.00	-	6.00
8686410	●	-	-	-	4.100	0.16142	45.00	105.00	-	5.00
8684420	●	-	-	-	4.200	0.16535	46.00	105.00	-	6.00
8686420	●	-	-	-	4.200	0.16535	46.00	105.00	-	5.00
8684430	●	-	-	-	4.300	0.16929	47.00	105.00	-	6.00
8686430	●	-	-	-	4.300	0.16929	47.00	105.00	-	5.00
522017212	●	11/64	-	-	4.366	0.17188	47.00	105.00	0.188	-
8684440	●	-	-	-	4.400	0.17323	48.00	105.00	-	6.00
8686440	●	-	-	-	4.400	0.17323	48.00	105.00	-	5.00
8684450	●	-	-	-	4.500	0.17717	50.00	105.00	-	6.00
8686450	●	-	-	-	4.500	0.17717	50.00	105.00	-	5.00
8684460	●	-	-	-	4.600	0.18110	51.00	105.00	-	6.00
8686460	●	-	-	-	4.600	0.18110	51.00	105.00	-	5.00
8684470	●	-	-	-	4.700	0.18504	52.00	105.00	-	6.00
8686470	●	-	-	-	4.700	0.18504	52.00	105.00	-	5.00
522018712	●	3/16	-	-	4.763	0.18750	52.00	105.00	0.188	-
8684480	●	-	-	-	4.800	0.18898	53.00	105.00	-	6.00
8686480	●	-	-	-	4.800	0.18898	53.00	105.00	-	5.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H						
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel						
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium							
Low	Medium	High						6061	7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC	
1010	1035	1065	4140																
1018	1045	1065	4340																

○ Good ● Best



# A Brand ADO-SUS

Advanced Performance Carbide Drills for Stainless Steels & Titanium Alloys

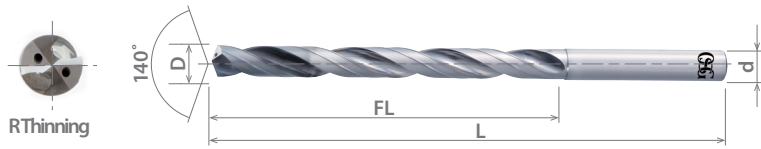
## List 5220 (Continued)



<b>SPEED FEED</b> 99	<b>CARBIDE</b>	<b>WXL</b>	<b>2 FLUTE</b>	<b>TAPER</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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A BRAND ADO-SUS-8D

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 12.7	+0 / -0.027	+0 / -0.0011



EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8684490	●	-	-	-	4.900	0.19291	54.00	105.00	-	6.00
8686490	●	-	-	-	4.900	0.19291	54.00	105.00	-	5.00
8684500	●	-	-	-	5.000	0.19685	55.00	105.00	-	6.00
8686500	●	-	-	-	5.000	0.19685	55.00	105.00	-	5.00
8684510	●	-	-	-	5.100	0.20079	56.00	115.00	-	6.00
522020312	●	13/64	-	-	5.159	0.20313	57.00	115.00	0.250	-
8684520	●	-	-	-	5.200	0.20472	57.00	115.00	-	6.00
8684530	●	-	-	-	5.300	0.20866	58.00	115.00	-	6.00
8684540	●	-	-	-	5.400	0.21260	59.00	115.00	-	6.00
522021312	●	-	3	-	5.410	0.21300	60.00	115.00	0.250	-
8684550	●	-	-	-	5.500	0.21654	61.00	115.00	-	6.00
522021812	●	7/32	-	-	5.556	0.21875	61.00	115.00	0.250	-
8684560	●	-	-	-	5.600	0.22047	62.00	115.00	-	6.00
8684570	●	-	-	-	5.700	0.22441	63.00	115.00	-	6.00
8684580	●	-	-	-	5.800	0.22835	64.00	115.00	-	6.00
8684590	●	-	-	-	5.900	0.23228	65.00	115.00	-	6.00
522023412	●	15/64	-	-	5.953	0.23438	66.00	115.00	0.250	-
8684600	●	-	-	-	6.000	0.23622	66.00	115.00	-	6.00
8684610	●	-	-	-	6.100	0.24016	67.00	125.00	-	8.00
8686610	●	-	-	-	6.100	0.24016	67.00	125.00	-	7.00
8684620	●	-	-	-	6.200	0.24409	68.00	125.00	-	8.00
8686620	●	-	-	-	6.200	0.24409	68.00	125.00	-	7.00
8684630	●	-	-	-	6.300	0.24803	69.00	125.00	-	8.00
8686630	●	-	-	-	6.300	0.24803	69.00	125.00	-	7.00
522025012	●	1/4	-	E	6.350	0.25000	70.00	125.00	0.250	-
8684640	●	-	-	-	6.400	0.25197	70.00	125.00	-	8.00
8686640	●	-	-	-	6.400	0.25197	70.00	125.00	-	7.00
8684650	●	-	-	-	6.500	0.25591	72.00	125.00	-	8.00
8686650	●	-	-	-	6.500	0.25591	72.00	125.00	-	7.00
522025712	●	-	-	F	6.528	0.25700	72.00	125.00	-	8.00
8684660	●	-	-	-	6.600	0.25984	73.00	125.00	-	8.00
8686660	●	-	-	-	6.600	0.25984	73.00	125.00	-	7.00
8684670	●	-	-	-	6.700	0.26378	74.00	125.00	-	8.00
8686670	●	-	-	-	6.700	0.26378	74.00	125.00	-	7.00
522026512	●	17/64	-	-	6.747	0.26563	74.00	125.00	0.313	-
8684680	●	-	-	-	6.800	0.26772	75.00	125.00	-	8.00
8686680	●	-	-	-	6.800	0.26772	75.00	125.00	-	7.00
8684690	●	-	-	-	6.900	0.27165	76.00	125.00	-	8.00
8686690	●	-	-	-	6.900	0.27165	76.00	125.00	-	7.00
8684700	●	-	-	-	7.000	0.27559	77.00	125.00	-	8.00
8686700	●	-	-	-	7.000	0.27559	77.00	125.00	-	7.00
8684710	●	-	-	-	7.100	0.27953	78.00	140.00	-	8.00
522028112	●	9/32	-	-	7.144	0.28125	79.00	140.00	0.313	-
8684720	●	-	-	-	7.200	0.28346	79.00	140.00	-	8.00
8684730	●	-	-	-	7.300	0.28740	80.00	140.00	-	8.00
8684740	●	-	-	-	7.400	0.29134	81.00	140.00	-	8.00
8684750	●	-	-	-	7.500	0.29528	83.00	140.00	-	8.00
522029612	●	19/64	-	-	7.541	0.29688	84.00	140.00	0.313	-
8684760	●	-	-	-	7.600	0.29921	84.00	140.00	-	8.00
8684770	●	-	-	-	7.700	0.30315	85.00	140.00	-	8.00
8684780	●	-	-	-	7.800	0.30709	86.00	140.00	-	8.00
8684790	●	-	-	-	7.900	0.31102	87.00	140.00	-	8.00
522031212	●	5/16	-	-	7.938	0.31250	87.00	140.00	0.313	-

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked





## List 5220 (Continued)

A BRAND ADO-SUS-8D



SPEED FEED  
99

CARBIDE

WXL



2 FLUTE

TAPER

30°

SHANK  
h6

PACKED  
1 PIECE

EDP Number		Diameter (D)					Flute Length	Overall Length	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch	FL (mm)	L (mm)	d (in)	d (mm)
8684800	●	-	-	-	8.000	0.31496	88.00	140.00	-	8.00
8684810	●	-	-	-	8.100	0.31890	89.00	150.00	-	10.00
8686810	●	-	-	-	8.100	0.31890	89.00	150.00	-	9.00
8684820	●	-	-	-	8.200	0.32283	90.00	150.00	-	10.00
8686820	●	-	-	-	8.200	0.32283	90.00	150.00	-	9.00
8684830	●	-	-	-	8.300	0.32677	91.00	150.00	-	10.00
8686830	●	-	-	-	8.300	0.32677	91.00	150.00	-	9.00
522032812	●	21/64	-	-	8.334	0.32813	92.00	150.00	0.375	-
8684840	●	-	-	-	8.400	0.33071	92.00	150.00	-	10.00
8686840	●	-	-	-	8.400	0.33071	92.00	150.00	-	9.00
522033112	●	-	-	Q	8.433	0.33200	93.00	150.00	0.344	-
8684850	●	-	-	-	8.500	0.33465	94.00	150.00	-	10.00
8686850	●	-	-	-	8.500	0.33465	94.00	150.00	-	9.00
8684860	●	-	-	-	8.600	0.33858	95.00	150.00	-	10.00
8686860	●	-	-	-	8.600	0.33858	95.00	150.00	-	9.00
8684870	●	-	-	-	8.700	0.34252	96.00	150.00	-	10.00
8686870	●	-	-	-	8.700	0.34252	96.00	150.00	-	9.00
522034312	●	11/32	-	-	8.731	0.34375	96.00	150.00	0.375	-
8684880	●	-	-	-	8.800	0.34646	97.00	150.00	-	10.00
8686880	●	-	-	-	8.800	0.34646	97.00	150.00	-	9.00
8684890	●	-	-	-	8.900	0.35039	98.00	150.00	-	10.00
8686890	●	-	-	-	8.900	0.35039	98.00	150.00	-	9.00
8684900	●	-	-	-	9.000	0.35433	99.00	150.00	-	10.00
8686900	●	-	-	-	9.000	0.35433	99.00	150.00	-	9.00
8684910	●	-	-	-	9.100	0.35827	100.00	160.00	-	10.00
522035912	●	23/64	-	-	9.128	0.35938	101.00	160.00	0.375	-
8684920	●	-	-	-	9.200	0.36220	101.00	160.00	-	10.00
8684930	●	-	-	-	9.300	0.36614	102.00	160.00	-	10.00
8684940	●	-	-	-	9.400	0.37008	103.00	160.00	-	10.00
8684950	●	-	-	-	9.500	0.37402	105.00	160.00	-	10.00
522037512	●	3/8	-	-	9.525	0.37500	105.00	160.00	0.375	-
8684960	●	-	-	-	9.600	0.37795	106.00	160.00	-	10.00
8684970	●	-	-	-	9.700	0.38189	107.00	160.00	-	10.00
8684980	●	-	-	-	9.800	0.38583	108.00	160.00	-	10.00
8684990	●	-	-	-	9.900	0.38976	109.00	160.00	-	10.00
522039012	●	25/64	-	-	9.922	0.39063	110.00	160.00	0.438	-
8685000	●	-	-	-	10.000	0.39370	110.00	160.00	-	10.00
8685010	●	-	-	-	10.100	0.39764	111.00	182.00	-	12.00
8687010	●	-	-	-	10.100	0.39764	111.00	182.00	-	11.00
8685020	●	-	-	-	10.200	0.40157	112.00	182.00	-	12.00
8687020	●	-	-	-	10.200	0.40157	112.00	182.00	-	11.00
8685030	●	-	-	-	10.300	0.40551	113.00	182.00	-	12.00
8687030	●	-	-	-	10.300	0.40551	113.00	182.00	-	11.00
522040612	●	13/32	-	-	10.319	0.40625	113.00	182.00	0.438	-
8685040	●	-	-	-	10.400	0.40945	114.00	182.00	-	12.00
8687040	●	-	-	-	10.400	0.40945	114.00	182.00	-	11.00
8685050	●	-	-	-	10.500	0.41339	116.00	182.00	-	12.00
8687050	●	-	-	-	10.500	0.41339	116.00	182.00	-	11.00
8685060	●	-	-	-	10.600	0.41732	117.00	182.00	-	12.00
8687060	●	-	-	-	10.600	0.41732	117.00	182.00	-	11.00
8685070	●	-	-	-	10.700	0.42126	118.00	182.00	-	12.00

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED

P				M			K	N		S		H			
Steel				Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400		17-4 PH	Aluminum		Nickel Alloy	Titanium	~35 HRC	35-45 HRC	45-50 HRC
Low	Medium	High					6061		7075	Casting					
1010	1035	1065	4140	4340											
1018	1045														
○	○	○	○		○	○	○	○	○		○	○			

○ Good ○ Best



# A Brand ADO-SUS

Advanced Performance Carbide Drills for Stainless Steels & Titanium Alloys

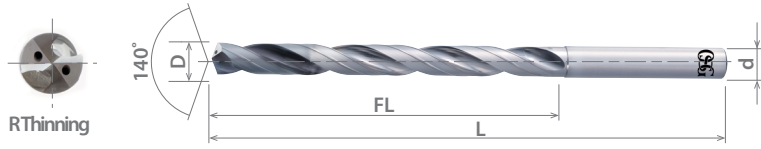
## List 5220 (Continued)



<b>SPEED FEED</b> 99	<b>CARBIDE</b>	<b>WXL</b>	<b>2 FLUTE</b>	<b>TAPER</b>	<b>30°</b>	<b>SHANK</b> h6	<b>PACKED</b> 1 PIECE
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A BRAND ADO-SUS-8D

Cutting Diameter Tolerance (h8)		
Size (mm)	mm	inch
2 ≤ D ≤ 3	+0 / -0.014	+0 / -0.0006
3 < D ≤ 6	+0 / -0.018	+0 / -0.0007
6 < D ≤ 10	+0 / -0.022	+0 / -0.0009
10 < D ≤ 12.7	+0 / -0.027	+0 / -0.0011



EDP Number		Diameter (D)					Flute Length FL (mm)	Overall Length L (mm)	Shank Diameter	
		Fractional Size	Wire Gage	Letter Size	mm	Inch			d (in)	d (mm)
8687070	●	-	-	-	10.700	0.42126	118.00	182.00	-	11.00
522042212	●	27/64	-	-	10.716	0.42188	118.00	182.00	0.438	-
8685080	●	-	-	-	10.800	0.42520	119.00	182.00	-	12.00
8687080	●	-	-	-	10.800	0.42520	119.00	182.00	-	11.00
8685090	●	-	-	-	10.900	0.42913	120.00	182.00	-	12.00
8687090	●	-	-	-	10.900	0.42913	120.00	182.00	-	11.00
8685100	●	-	-	-	11.000	0.43307	121.00	182.00	-	12.00
8687100	●	-	-	-	11.000	0.43307	121.00	182.00	-	11.00
8685110	●	-	-	-	11.100	0.43701	122.00	194.00	-	12.00
522043712	●	7/16	-	-	11.113	0.43750	122.00	194.00	0.438	-
8685120	●	-	-	-	11.200	0.44094	123.00	194.00	-	12.00
8685130	●	-	-	-	11.300	0.44488	124.00	194.00	-	12.00
8685140	●	-	-	-	11.400	0.44882	125.00	194.00	-	12.00
8685150	●	-	-	-	11.500	0.45276	127.00	194.00	-	12.00
522045312	●	29/64	-	-	11.509	0.45313	127.00	194.00	0.500	-
8685160	●	-	-	-	11.600	0.45669	128.00	194.00	-	12.00
8685170	●	-	-	-	11.700	0.46063	129.00	194.00	-	12.00
8685180	●	-	-	-	11.800	0.46457	130.00	194.00	-	12.00
8685190	●	-	-	-	11.900	0.46850	131.00	194.00	-	12.00
8685200	●	-	-	-	12.000	0.47244	132.00	194.00	-	12.00
522047612	●	-	-	-	12.100	0.47638	133.00	206.00	-	14.00
522048012	●	-	-	-	12.200	0.48031	134.00	206.00	-	14.00
522048412	●	-	-	-	12.300	0.48425	135.00	206.00	-	14.00
522048812	●	-	-	-	12.400	0.48819	136.00	206.00	-	14.00
522049212	●	-	-	-	12.500	0.49213	138.00	206.00	-	13.00
522049312	●	-	-	-	12.500	0.49213	138.00	206.00	-	14.00
522049612	●	-	-	-	12.600	0.49606	139.00	206.00	-	14.00
522050012	●	1/2	-	-	12.700	0.50000	140.00	206.00	0.500	-

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium				
Low	Medium	High							6061 7075	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
1010	1035	1065	4140	4340	○	○	○	○		○	○	○				
1018	1045				○	○	○	○			○					

○ Good ○ Best



## List 5200 - A Brand ADO-SUS: 3D

## List 5210 - A Brand ADO-SUS: 5D

## List 5220 - A Brand ADO-SUS: 8D

### General Drilling Operations

Work Material	Carbon Steels, Mild Steels 1010, 1050, 12L14		Alloy Steels 4140, 4130		300 Series Austenitic Stainless Steels				400 Series Ferritic Stainless Steels Martensitic Stainless Steels				
					≤15HRC		> 15 HRC		≤15HRC		> 15 HRC		
Hardness	260-325 SFM		260-325 SFM		200-330 SFM		130-260 SFM		200-330 SFM		130-260 SFM		
Drilling Speed	260-325 SFM		260-325 SFM		200-330 SFM		130-260 SFM		200-330 SFM		130-260 SFM		
	Drill Dia.		Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	
mm	Inch												
2	-	14,190	0.0013 - 0.003	14,190	0.0013 - 0.003	12,850	0.0013 - 0.003	9,460	0.0013 - 0.003	12,850	0.0013 - 0.003	9,460	0.0013 - 0.003
3	-	9,450	0.002 - 0.005	9,450	0.002 - 0.005	8,570	0.002 - 0.005	6,310	0.002 - 0.005	8,570	0.002 - 0.005	6,310	0.002 - 0.005
-	1/8	8,940	0.002 - 0.005	8,940	0.002 - 0.005	8,100	0.002 - 0.005	5,960	0.002 - 0.005	8,100	0.002 - 0.005	5,960	0.002 - 0.005
4	-	7,090	0.003 - 0.006	7,090	0.003 - 0.006	6,430	0.003 - 0.006	4,730	0.003 - 0.006	6,430	0.003 - 0.006	4,730	0.003 - 0.006
-	3/16	5,960	0.004 - 0.007	5,960	0.004 - 0.007	5,400	0.004 - 0.007	3,970	0.004 - 0.007	5,400	0.004 - 0.007	3,970	0.004 - 0.007
6	-	4,730	0.005 - 0.009	4,730	0.005 - 0.009	4,280	0.005 - 0.008	3,150	0.005 - 0.008	4,280	0.005 - 0.008	3,150	0.005 - 0.008
-	1/4	4,470	0.005 - 0.009	4,470	0.005 - 0.009	4,050	0.005 - 0.008	2,980	0.005 - 0.008	4,050	0.005 - 0.008	2,980	0.005 - 0.008
8	-	3,550	0.006 - 0.011	3,550	0.006 - 0.011	3,210	0.006 - 0.009	2,360	0.006 - 0.009	3,210	0.006 - 0.009	2,360	0.006 - 0.009
-	3/8	2,980	0.007 - 0.012	2,980	0.007 - 0.012	2,700	0.007 - 0.011	1,990	0.007 - 0.011	2,700	0.007 - 0.011	1,990	0.007 - 0.011
10	-	2,840	0.008 - 0.012	2,840	0.008 - 0.012	2,570	0.008 - 0.012	1,890	0.007 - 0.011	2,570	0.007 - 0.011	1,890	0.007 - 0.011
-	7/16	2,550	0.008 - 0.012	2,550	0.008 - 0.012	2,310	0.008 - 0.012	1,700	0.007 - 0.011	2,310	0.007 - 0.011	1,700	0.007 - 0.011
12	-	2,360	0.008 - 0.012	2,360	0.008 - 0.012	2,140	0.008 - 0.012	1,580	0.007 - 0.012	2,140	0.007 - 0.012	1,580	0.007 - 0.012
-	1/2	2,230	0.008 - 0.013	2,230	0.008 - 0.013	2,020	0.008 - 0.012	1,490	0.008 - 0.012	2,020	0.008 - 0.012	1,490	0.008 - 0.012
14	-	2,030	0.009 - 0.014	2,030	0.009 - 0.014	1,840	0.008 - 0.013	1,350	0.008 - 0.013	1,840	0.008 - 0.013	1,350	0.008 - 0.013
-	5/8	1,790	0.010 - 0.015	1,790	0.010 - 0.015	1,620	0.009 - 0.015	1,190	0.009 - 0.015	1,620	0.009 - 0.015	1,190	0.009 - 0.015
16	-	1,770	0.010 - 0.015	1,770	0.010 - 0.015	1,610	0.009 - 0.015	1,180	0.009 - 0.015	1,610	0.009 - 0.015	1,180	0.009 - 0.015
18	-	1,580	0.011 - 0.015	1,580	0.011 - 0.015	1,430	0.010 - 0.016	1,050	0.010 - 0.016	1,430	0.010 - 0.016	1,050	0.010 - 0.016
-	3/4	1,490	0.012 - 0.016	1,490	0.012 - 0.016	1,350	0.011 - 0.016	990	0.011 - 0.016	1,350	0.011 - 0.016	990	0.011 - 0.016
20	-	1,420	0.012 - 0.016	1,420	0.012 - 0.016	1,280	0.011 - 0.016	950	0.011 - 0.016	1,280	0.011 - 0.016	950	0.011 - 0.016

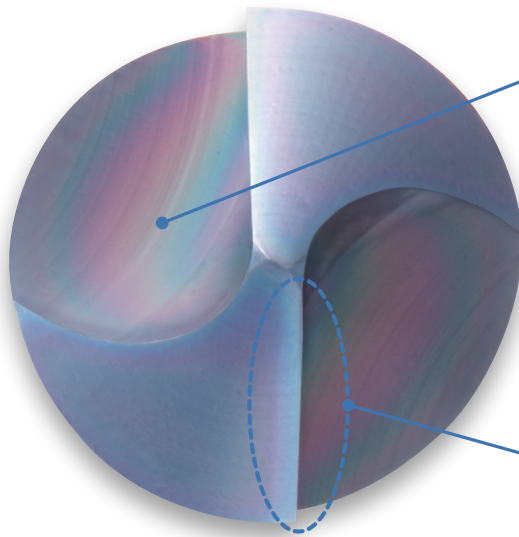
### General Drilling Operations

Work Material	Duplex Stainless Steels				Precipitation Hardened Stainless Steels 15-5, 17-4		Ductile Cast Iron/ Cast Iron	Cast Aluminum	Titanium Alloy				
	≤ 30 HRC		> 30 HRC		≤ 45 HRC				30-35 HRC				
Drilling Speed	130-260 SFM		100-165 SFM		130-200 SFM		195-330 SFM		325-700 SFM		100-165 SFM		
Drill Dia.	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	
													mm
2	-	9,460	0.0013 - 0.003	6,430	0.0013 - 0.003	8,000	0.0013 - 0.003	12,700	0.0013 - 0.003	24,900	0.002 - 0.004	6,430	0.0013 - 0.003
3	-	6,310	0.002 - 0.005	4,280	0.002 - 0.005	5,330	0.002 - 0.005	8,470	0.002 - 0.005	16,600	0.004 - 0.006	4,280	0.002 - 0.005
-	1/8	5,960	0.002 - 0.005	4,050	0.002 - 0.005	5,040	0.002 - 0.005	8,000	0.002 - 0.005	15,680	0.004 - 0.006	4,050	0.002 - 0.005
4	-	4,730	0.003 - 0.006	3,210	0.003 - 0.006	4,000	0.003 - 0.006	6,350	0.003 - 0.006	12,450	0.005 - 0.007	3,210	0.003 - 0.006
-	3/16	3,970	0.004 - 0.007	2,700	0.004 - 0.007	3,360	0.004 - 0.007	5,330	0.004 - 0.007	10,450	0.006 - 0.008	2,700	0.004 - 0.007
6	-	3,150	0.005 - 0.008	2,140	0.005 - 0.008	2,670	0.005 - 0.008	4,230	0.005 - 0.009	8,300	0.008 - 0.010	2,140	0.005 - 0.008
-	1/4	2,980	0.005 - 0.008	2,020	0.005 - 0.008	2,520	0.005 - 0.008	4,000	0.005 - 0.009	7,840	0.009 - 0.011	2,020	0.005 - 0.008
8	-	2,360	0.006 - 0.009	1,600	0.006 - 0.009	2,000	0.006 - 0.009	3,170	0.006 - 0.011	6,220	0.012 - 0.014	1,600	0.006 - 0.009
-	3/8	1,990	0.007 - 0.011	1,350	0.007 - 0.011	1,680	0.007 - 0.011	2,670	0.007 - 0.012	5,230	0.014 - 0.016	1,350	0.007 - 0.011
10	-	1,890	0.008 - 0.012	1,280	0.007 - 0.011	1,600	0.008 - 0.012	2,540	0.008 - 0.012	4,980	0.015 - 0.017	1,280	0.007 - 0.011
-	7/16	1,700	0.008 - 0.012	1,160	0.007 - 0.011	1,440	0.008 - 0.012	2,290	0.008 - 0.012	4,480	0.017 - 0.019	1,160	0.007 - 0.011
12	-	1,580	0.008 - 0.012	1,070	0.007 - 0.012	1,330	0.008 - 0.012	2,120	0.008 - 0.012	4,150	0.018 - 0.020	1,070	0.007 - 0.012
-	1/2	1,490	0.008 - 0.012	1,010	0.008 - 0.012	1,260	0.008 - 0.012	2,000	0.008 - 0.013	3,920	0.019 - 0.021	1,010	0.008 - 0.012
14	-	1,350	0.008 - 0.013	920	0.008 - 0.013	1,140	0.008 - 0.013	1,810	0.009 - 0.014	3,560	0.021 - 0.023	920	0.008 - 0.013
-	5/8	1,190	0.009 - 0.015	810	0.009 - 0.015	1,010	0.009 - 0.015	1,600	0.010 - 0.015	3,140	0.023 - 0.026	810	0.009 - 0.015
16	-	1,180	0.009 - 0.015	800	0.009 - 0.015	1,000	0.009 - 0.015	1,590	0.010 - 0.015	3,110	0.023 - 0.026	800	0.009 - 0.015
18	-	1,050	0.010 - 0.016	710	0.010 - 0.016	890	0.010 - 0.016	1,410	0.011 - 0.015	2,770	0.026 - 0.030	710	0.010 - 0.016
-	3/4	990	0.011 - 0.016	670	0.011 - 0.016	840	0.011 - 0.016	1,330	0.012 - 0.016	2,610	0.027 - 0.031	670	0.011 - 0.016
20	-	950	0.011 - 0.016	640	0.011 - 0.016	800	0.011 - 0.016	1,270	0.012 - 0.016	2,490	0.028 - 0.032	640	0.011 - 0.016



# A Brand AD-LDS

Features & Benefits



## EgiAs Coating\*

for improved wear resistance and toughness.

\*EgiAs coating only applies to diameters above 2mm.

## Unique Cutting Geometry

for superior sharpness and high chipping resistance.

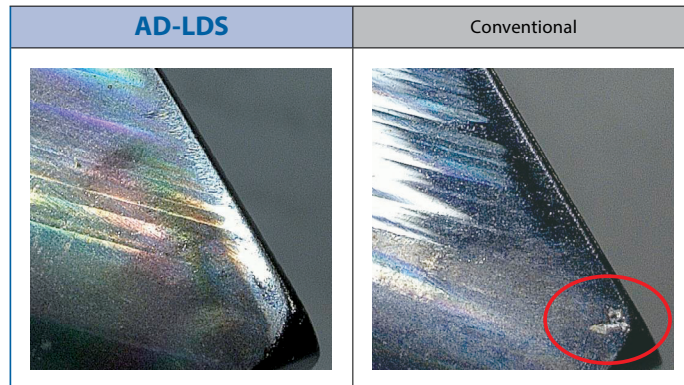
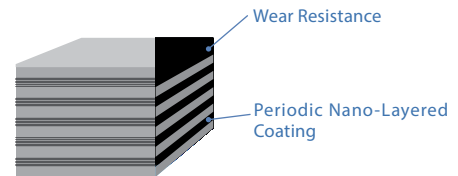
## EgiAs Coating

Provides Exceptional Wear Resistance and Toughness

Constructed with extreme toughness, high wear resistance characteristics to ensure stable and consistent tool life.

Tool	AD-LDS	Conventional
Drill Size		Ø12x90°
Work Material		Carbon Steel
Cutting Speed		164 SFM (1,326 RPM)
Feed Rate		9.4 IPM (0.007 IPR)
Coolant		Water-Soluble
Machine		Horizontal Machining Center

### Coating Structure



## Selection Chart for Spot Drills

### Classifying Spot Drills by Point Angle

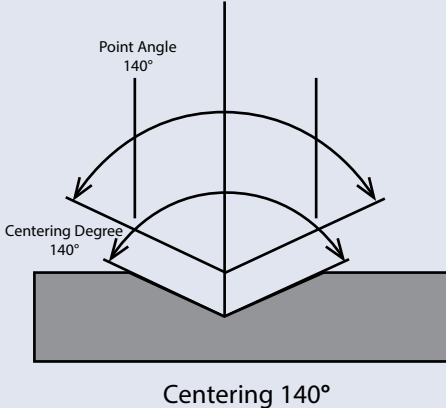
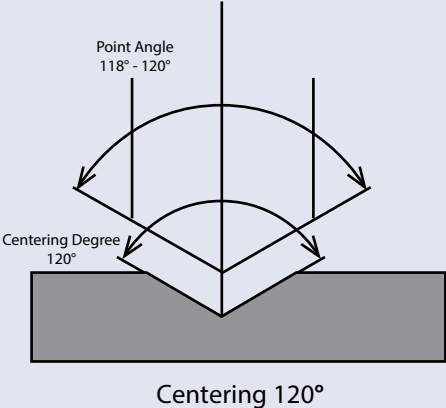
Spot drills can perform both centering and chamfering. Centering improves drilling precision. Chamfering prevents burrs on the end face during tapping and removes burrs that may occur during drilling.

#### Point Angle 90°

for 45° chamfering, for both centering and chamfering.

#### Point Angle 120° & 140°

for centering before drilling.



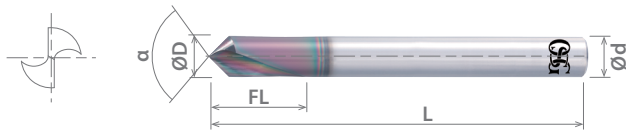
# A Brand AD-LDS

Advanced Performance Spot Drills

## List 5190

A BRAND AD-LDS

**A** SPEED FEED 103 CARBIDE EgiAs 2 FLUTE SHANK h7 PACKED 1 PIECE



EDP Number		Diameter (D)					Min. Drill Hole Size	Flute Length	Overall Length	Shank Diameter		Point Angle	Helix
		Fractional Size	Wire Gage	Letter Size	mm	Inch				d (in)	d (mm)		
8688933	●	-	-	-	3.000	0.11811	1.20	9.00	48.00	-	3.00	90	12
8688957	●	-	-	-	3.000	0.11811	1.20	9.00	48.00	-	3.00	120	25
8688966	●	-	-	-	3.000	0.11811	1.20	9.00	48.00	-	3.00	140	25
8688934	●	-	-	-	4.000	0.15748	1.50	12.00	54.00	-	4.00	90	12
8688958	●	-	-	-	4.000	0.15748	1.50	12.00	54.00	-	4.00	120	25
8688967	●	-	-	-	4.000	0.15748	1.50	12.00	54.00	-	4.00	140	25
519012017	●	-	-	-	5.000	0.19685	1.70	14.00	70.00	-	5.00	90	12
519022017	●	-	-	-	5.000	0.19685	1.70	14.00	70.00	-	5.00	120	25
519032017	●	-	-	-	5.000	0.19685	1.70	14.00	70.00	-	5.00	140	25
8688935	●	-	-	-	6.000	0.23622	1.90	15.00	72.00	-	6.00	90	12
8688959	●	-	-	-	6.000	0.23622	1.90	15.00	72.00	-	6.00	120	25
8688968	●	-	-	-	6.000	0.23622	1.90	15.00	72.00	-	6.00	140	25
519012517	●	1/4	-	E	6.350	0.25000	1.90	17.00	75.00	0.250	-	90	12
519022517	●	1/4	-	E	6.350	0.25000	1.90	17.00	75.00	0.250	-	120	25
519032517	●	1/4	-	E	6.350	0.25000	1.90	17.00	75.00	0.250	-	140	25
8688936	●	-	-	-	8.000	0.31496	2.10	20.00	81.00	-	8.00	90	12
8688960	●	-	-	-	8.000	0.31496	2.10	20.00	81.00	-	8.00	120	25
8688969	●	-	-	-	8.000	0.31496	2.10	20.00	81.00	-	8.00	140	25
519013817	●	3/8	-	-	9.525	0.37500	2.30	24.00	93.00	0.375	-	90	12
519023817	●	3/8	-	-	9.525	0.37500	2.30	24.00	93.00	0.375	-	120	25
519033817	●	3/8	-	-	9.525	0.37500	2.30	24.00	93.00	0.375	-	140	25
8688937	●	-	-	-	10.000	0.39370	2.50	24.00	93.00	-	10.00	90	12
8688961	●	-	-	-	10.000	0.39370	2.50	24.00	93.00	-	10.00	120	25
8688970	●	-	-	-	10.000	0.39370	2.50	24.00	93.00	-	10.00	140	25
8688938	●	-	-	-	12.000	0.47244	2.50	28.00	108.00	-	12.00	90	12
8688962	●	-	-	-	12.000	0.47244	2.50	28.00	108.00	-	12.00	120	25
8688971	●	-	-	-	12.000	0.47244	2.50	28.00	108.00	-	12.00	140	25
519015017	●	1/2	-	-	12.700	0.50000	3.00	36.00	111.00	0.500	-	90	12
519025017	●	1/2	-	-	12.700	0.50000	3.00	36.00	111.00	0.500	-	120	25
519035017	●	1/2	-	-	12.700	0.50000	3.00	36.00	111.00	0.500	-	140	25
519016217	●	5/8	-	-	15.875	0.62500	5.00	41.00	118.00	0.625	-	90	12
519026217	●	5/8	-	-	15.875	0.62500	5.00	41.00	118.00	0.625	-	120	25
519036217	●	5/8	-	-	15.875	0.62500	5.00	41.00	118.00	0.625	-	140	25
519016317	●	-	-	-	16.000	0.62992	5.00	41.00	118.00	-	16.00	90	12
519026317	●	-	-	-	16.000	0.62992	5.00	41.00	118.00	-	16.00	120	25
519036317	●	-	-	-	16.000	0.62992	5.00	41.00	118.00	-	16.00	140	25
519017517	●	3/4	-	-	19.050	0.75000	5.00	46.00	132.00	0.750	-	90	12
519027517	●	3/4	-	-	19.050	0.75000	5.00	46.00	132.00	0.750	-	120	25
519037517	●	3/4	-	-	19.050	0.75000	5.00	46.00	132.00	0.750	-	140	25
519017917	●	-	-	-	20.000	0.78740	5.00	46.00	132.00	-	20.00	90	12
519027917	●	-	-	-	20.000	0.78740	5.00	46.00	132.00	-	20.00	120	25
519037917	●	-	-	-	20.000	0.78740	5.00	46.00	132.00	-	20.00	140	25
519019817	●	-	-	-	25.000	0.98425	5.00	53.00	151.00	-	25.00	90	12
519029817	●	-	-	-	25.000	0.98425	5.00	53.00	151.00	-	25.00	120	25
519039817	●	-	-	-	25.000	0.98425	5.00	53.00	151.00	-	25.00	140	25

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
Low	Medium	High							6061	Casting						
1010	1035	1045	1065	4140	4340				6061	7075						
○	○	○	○	○			○		○		○	○	○	○	○	

○ Good ○ Best



## List 5190 - A Brand AD-LDS

### General Drilling Operations

Work Material	Carbon Steels, Mild Steels 1010, 1050, 12L14		Alloy Steels 4140, 4130		Cast Iron		Cast Aluminum Alloy		Special Alloy Steels, Hardened Steels				
	26-30 HRC		30-34 HRC						26-30 HRC		30-34 HRC		
Drilling Speed	200-260 SFM		100-165 SFM		200-325 SFM		260-525 SFM		65-90 SFM		50-75 SFM		
Drill Dia.	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	
													mm
0.5	-	25,000	0.0002-0.0008	25,000	0.0002-0.0008	25,000	0.0002-0.0006	25,000	0.0008-0.0020	15,000	0.0002-0.0008	12,000	0.0002-0.0008
1.0	-	22,300	0.0004-0.0012	12,600	0.0004-0.0012	25,000	0.0004-0.0012	25,000	0.001-0.004	7,500	0.0004-0.0012	6,000	0.0004-0.0012
2.0	-	11,000	0.001-0.002	6,300	0.001-0.002	12,500	0.001-0.002	19,150	0.002-0.008	3,800	0.001-0.002	3,000	0.001-0.002
3.0	-	7,500	0.001-0.003	4,200	0.001-0.003	8,400	0.002-0.003	12,600	0.004-0.009	2,500	0.001-0.003	2,000	0.001-0.003
4.0	-	5,700	0.002-0.004	3,150	0.002-0.004	6,300	0.003-0.005	9,500	0.005-0.010	1,900	0.002-0.004	1,500	0.002-0.004
6.0	-	3,800	0.002-0.005	2,100	0.002-0.005	4,200	0.005-0.007	6,300	0.005-0.011	1,250	0.002-0.005	1,000	0.002-0.005
-	1/4	3,500	0.002-0.005	2,030	0.002-0.005	4,000	0.005-0.007	6,000	0.005-0.011	1,180	0.002-0.005	950	0.002-0.005
8.0	-	2,800	0.003-0.006	1,575	0.003-0.006	3,200	0.005-0.008	4,730	0.007-0.012	940	0.003-0.006	750	0.003-0.006
-	3/8	2,340	0.004-0.007	1,350	0.004-0.007	2,670	0.007-0.010	4,000	0.009-0.014	785	0.004-0.007	630	0.004-0.007
10.0	-	2,300	0.004-0.007	1,250	0.004-0.007	2,500	0.007-0.010	3,800	0.009-0.014	750	0.004-0.007	600	0.004-0.007
12.0	-	1,900	0.005-0.008	1,050	0.005-0.008	2,100	0.008-0.012	3,150	0.010-0.016	625	0.005-0.008	500	0.005-0.008
-	1/2	1,760	0.005-0.008	1,000	0.005-0.008	2,000	0.008-0.012	3,000	0.010-0.016	590	0.005-0.008	470	0.005-0.008
-	5/8	1,400	0.006-0.011	800	0.006-0.011	1,600	0.009-0.013	3,400	0.012-0.019	470	0.006-0.011	380	0.006-0.011
16.0	-	1,400	0.006-0.011	800	0.006-0.011	1,600	0.009-0.013	2,400	0.012-0.019	470	0.006-0.011	380	0.006-0.011
-	3/4	1,170	0.008-0.013	680	0.008-0.013	1,330	0.010-0.016	2,000	0.016-0.024	390	0.008-0.013	315	0.008-0.013
20.0	-	1,150	0.008-0.013	630	0.008-0.013	1,300	0.010-0.016	1,900	0.016-0.024	375	0.008-0.013	300	0.008-0.013
25.0	-	900	0.010-0.018	500	0.010-0.018	1,000	0.012-0.019	1,500	0.020-0.030	300	0.010-0.018	240	0.010-0.018

1. The indicated speeds and feeds are for drilling with water soluble oil.
2. When using non-water soluble oil, reduce the drilling speed by 20%.
3. When centering on a curved or inclined surface, reduce the feed rate accordingly.
4. For machines that cannot achieve the speeds indicated in the table, please set rotation as high as possible.





*shaping your dreams*

 **Safe use of cutting tools**

- Use safety cover, safety glasses and safety shoes during operation.
- Do not touch cutting edges with bare hands.
- Do not touch cutting chips with bare hands. Chips will be hot after cutting.
- Stop cutting when the tool becomes dull.
- Stop cutting operation immediately if you hear any abnormal cutting sounds.
- Do not modify tools.
- Please use appropriate tools for the operation. Check dimensions to ensure proper selection.

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