



**FIXED GAGE STANDARDS**

# GAGE SETS

## S4000 PRECISION STEEL PIN GAGE SETS

.011-1.000"

Precision gage pins are used to determine small hole sizes, for gaging slots, and finding hole distances.

S4000 Pin Gages - Plus Sets			
Cat. No.	EDP	Range	No. of Gages
S4000-060	67480	.011-.060" (+)	50
S4002-250	67482	.061-.250" (+)	190
S4004-500	67484	.251-.500" (+)	250
S4006-625	67486	.501-.625" (+)	125
S4008-750	67488	.626-.750" (+)	125
S4010-832	67490	.751-.832" (+)	82
S4012-916	67492	.833-.916" (+)	84
S4014-1	67494	.917-1.000" (+)	84

S4000 Pin Gages - Minus Sets			
Cat. No.	EDP	Range	No. of Gages
S4001-060	67481	.011-.060" (-)	50
S4003-250	67483	.061-.250" (-)	190
S4005-500	67485	.251-.500" (-)	250
S4007-625	67487	.501-.625" (-)	125
S4009-750	67489	.626-.750" (-)	125
S4011-832	67491	.751-.832" (-)	82
S4013-916	67493	.833-.916" (-)	84
S4015-1	67495	.917-1.000" (-)	84

## FEATURES

- Color coded, fully adjustable Go/No-Go gage handle furnished with each set
- Sets are supplied in rugged, high impact protective cases with each space marked for the appropriate gage
- Inspection certificate with every set
- All Starrett pin gages are manufactured to a 0.0002" tolerance
- Plus and minus tolerance sets
  - A plus tolerance gage would be e.g.; gage pin size as labelled + 0.0002" - 0.0"
  - A minus tolerance gage would be the gage pin size as labelled -0.0002" + 0.0
- Offered in 0.001" increments
- Each pin is centerless lapped and is clearly etched with the stated size
- All gages are 2 inches long and hardened to RC 60/64
- All sharp corners are broken

Handles for 4000 Pin Gages		
Cat. No.	EDP	Description
PT45065	45060	Handle for .011-.060" Pin Gages
PT45250	45250	Handle for .061-.250" Pin Gages
PT45500	45500	Handle for .251-.500" Pin Gages
PT45625	45625	Handle for .501-.625" Pin Gages
PT45750	45750	Handle for .626-.750" Pin Gages
PT45832	45832	Handle for .751-.832" Pin Gages
PT45916	45916	Handle for .833-.916" Pin Gages
PT45066	45001	Handle for .917-1.000" Pin Gages



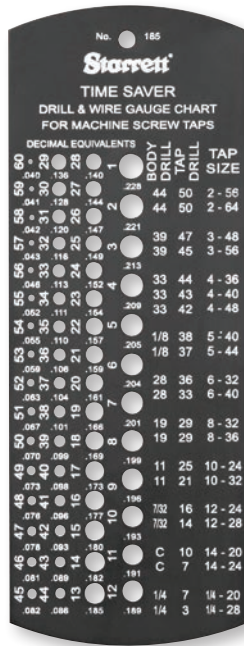
S4002-250 190, piece set

# HARDENED DRILL AND WIRE GAUGES

## 185 TIME SAVER® TAP AND DRILL GAGE

NOS. 1-60/.228-.040"

- Correct sizing of tap drill for any common size machine screw tap in "NF" National Fine or "NC" National Coarse Thread
- Leaves the right amount of stock for approximately 65% full thread
- Shows correct drill body size
- 60 holes with number sizes and decimal equivalents
- Black matte finish with information steel stamped on one side and white marked on the reverse side for quick, clear reading
- Carefully tested for accuracy after hardening

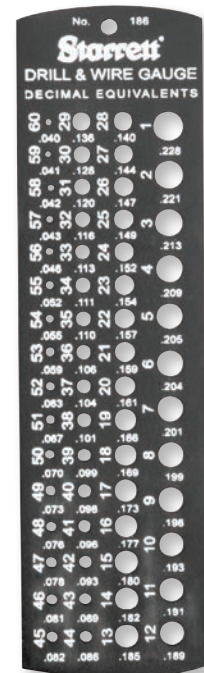


185

## 186 DRILL AND STEEL WIRE GAGE

NOS. 1-60/.228-.040"

- Widely used by mechanics for twist drills and steel drill rod
- Similar to 185, without the tap and drill information
- 60 holes from 1 to 60
- Marked with number sizes and decimal equivalents
- Black matte finish with gage information steel stamped on one side and white marked on reverse for quick, clear reading
- Carefully tested for accuracy after hardening



186

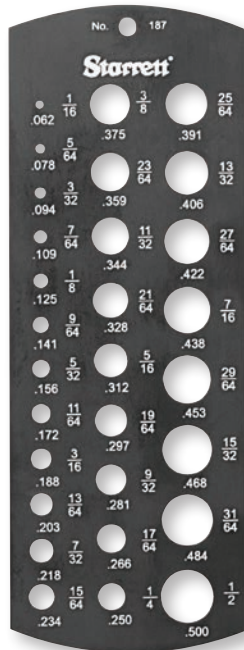
185 Time Saver Tap and Drill Gage					
Cat. No.	EDP	Range		Dimensions	
		Tap Size	Tap Drill	Body Drill	Thickness x Width x Length
185	50675	2-56 to 1/4-28	50 to 3	44 to 1/4	5/64" x 2-5/16" x 6-1/4"

Fixed Gages			
Cat. No.	EDP	Dimensions	
		Thickness x Width x Length	Description
186	50676	5/64" x 1-1/2" x 5-1/2"	Drill and Steel Wire Gage

## 187 JOBBERS' DRILL GAGE

1/16-1/2"

- Quick sizing of any twist drill from 1/16-1/2" by 64ths
- 29 holes marked with drill size in inches and decimal equivalents
- Black matte finish with gage information steel stamped on one side and white marked on reverse for quick, clear reading
- Carefully tested for accuracy after hardening



187

## 198 STANDARD LETTER SIZE DRILL GAGE

A-Z  
.234-.413" DIA.

- Quick, convenient checking of letter size drills
- Twenty-six holes provided, giving corresponding drill sizes from "A" through "Z" with decimal equivalents from .234" diameter through .413" diameter
- Satin finish
- Carefully tested for accuracy after hardening



198

Fixed Gages			
Cat. No.	EDP	Dimensions	
		Thickness x Width x Length	Description
187	50677	5/64" x 2-5/16" x 6-1/4"	Jobbers' Drill Gage

Fixed Gages			
Cat. No.	EDP	Dimensions	
		Thickness x Width x Length	Description
198	50718	5/64" x 2-5/16" x 6-1/4"	Standard Letter Size Drill Gage

FIXED GAGE STANDARDS

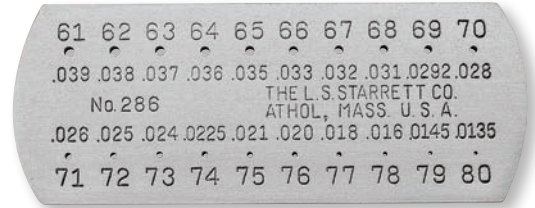


## WIRE AND STANDARD GAGES

### 286 DRILL AND STEEL WIRE GAGE

**HARDENED**  
61-80/.039-.0135"

This gage is for selecting the correct size of twist drills and steel drill rod in smaller sizes ranging from 61 to 80. For convenience, each hole is marked with the size number and the corresponding decimal equivalent. Attractive satin finish. Small compact size, approximately 1/16" thick, 3/4" wide and 2" long.



286

Fixed Gages		
Cat. No.	EDP	Description
286	51320	Drill and Steel Wire Gage

### 188 ENGLISH STANDARD WIRE GAGE

**(BIRMINGHAM OR STUBS' IRON WIRE GAGE)**  
**HARDENED**  
1-36/.300-.004"

This gage is popular for gaging iron wire, hot and cold rolled sheet steel, and in some cases, sheet iron by the English Standard Wire system also known as Birmingham or Stubs.

Gage has convenient decimal equivalents of each number on the reverse side. Satin finish.



188

Fixed Gages		
Cat. No.	EDP	Description
188	50678	English Standard Wire Gage

### 281 AMERICAN STANDARD WIRE GAGE

**(OR B.&S.) FOR NON-FERROUS METALS**  
**HARDENED**  
0-36/.325-.005"

This gage is the generally accepted standard for non-ferrous metals as adopted by brass manufacturers. It is especially useful for electricians and others to gage sheet, plate and wire made of non-ferrous metals like copper, brass, aluminum, etc. Screw slotting cutters are also made to this gage.

Gage has decimal equivalents on the reverse side. Satin finish.



281

Fixed Gages		
Cat. No.	EDP	Description
281	51316	American Standard Wire Gage

### 287 AMERICAN STEEL AND WIRE CO. GAGE

**(WASHBURN & MOEN) STANDARD**  
0-36/.3065-.009"

This gage is designed for gaging steel wire and drill rod to the American Steel & Wire Co. (Washburn & Moen) Standard and checks sizes from 0-36. (Also known as United States Steel Wire Gage.) Decimal equivalents are given on the back. Satin finish.



287

Fixed Gages		
Cat. No.	EDP	Description
287	51321	American Steel and Wire Co. Steel Wire Gage

### 280 PIANO TUNERS' GAGE

**AMERICAN STEEL AND WIRE CO. STANDARD**  
**HARDENED**  
12-28/.029-.071"

The 280 Gage is designed for gaging steel music wire and has a range from 12 to 28. Convenient decimal equivalents on reverse side. Diameter of the gage is 1-9/16" and it has a satin finish.



280

Fixed Gages		
Cat. No.	EDP	Description
280	51315	Piano Tuners' Gage

### 283 U.S. STANDARD GAGE

**SHEET, PLATE IRON AND STEEL GAGE**  
**HARDENED**  
0-36/.3125-.007"

This gage is made to the United States Standard for uncoated sheet, plate iron and steel, and is based on weights in ounces per square foot. The gage has a satin finish and decimal equivalents on the reverse side.



283

Fixed Gages		
Cat. No.	EDP	Description
283	51318	U.S. Standard Gage

**NOTE:** Like other Starrett gages, these tools are carefully tested for accuracy after hardening.

## 284 ACME STANDARD SCREW THREAD GAGE

### HARDENED

29°

This gage is a standard for grinding and setting tools when cutting Acme threads. Acme threads have the same depth as square threads but the sides of the threads are at an inclination of  $14\text{-}1/2^\circ$  ( $29^\circ$  included angle). This form of thread is used extensively and has in many instances replaced the square thread in machine construction. The advantages of the Acme thread are its strength and the ease by which it can be cut compared with square threads. The angles and edges of this gage are hardened, ground and carefully tested.



284

In use, the angle on the thread cutting tool is checked on the large precision-ground V at the end of the gage. The tool is then ground on the end to the width of the slot of whatever pitch is being turned. It is then set in the lathe using the half angle.

Fixed Gages		
Cat. No.	EDP	Description
284	51319	Acme Standard Screw Thread Gage

## STANDARDS FOR SHEET AND WIRE GAGES WITH CORRESPONDING STARRETT GAGES

### Dimensions of Sizes in Decimal Parts of an Inch

No. of Wire Gage	281 American or Brown & Sharpe	188 and 245 Birmingham or Stubs' Iron Wire	287 Washburn & Moen, Worcester, MA*	280 American S. & W. Co's. Music Wire Gage	Stubs' Steel Wire	283 U.S. Standard Gage for Sheet and Plate Iron and Steel
00000000	0.7314					
0000000	0.6514					
000000	0.5800			0.004		0.4688
00000	0.5165			0.005		0.4375
0000	0.46	0.454	0.3938	0.006		0.4063
000	0.4096	0.425	0.3625	0.007		0.375
00	0.3648	0.38	0.331	0.008		0.3438
0	0.3249	0.34	0.3065	0.009		0.3125
1	0.2893	0.3	0.283	0.01	0.227	0.2813
2	0.2576	0.284	0.2625	0.011	0.219	0.2656
3	0.2294	0.259	0.2437	0.012	0.212	0.25
4	0.2043	0.238	0.2253	0.013	0.207	0.2344
5	0.1819	0.22	0.207	0.014	0.204	0.2188
6	0.1620	0.203	0.192	0.016	0.201	0.2031
7	0.1443	0.18	0.177	0.018	0.199	0.1875
8	0.1285	0.165	0.162	0.02	0.197	0.1719
9	0.1144	0.148	0.1483	0.022	0.194	0.1563
10	0.1019	0.134	0.135	0.024	0.191	0.1406
11	0.0907	0.12	0.1205	0.026	0.188	0.125
12	0.0808	0.109	0.1055	0.029	0.185	0.1094
13	0.0720	0.095	0.0915	0.031	0.182	0.0938
14	0.0641	0.083	0.08	0.033	0.18	0.0781
15	0.0571	0.072	0.072	0.035	0.178	0.0703
16	0.0508	0.065	0.0625	0.037	0.175	0.0625
17	0.0453	0.058	0.054	0.039	0.172	0.0563
18	0.0403	0.049	0.0475	0.041	0.168	0.05
19	0.0359	0.042	0.041	0.043	0.164	0.0438
20	0.0320	0.035	0.0348	0.045	0.161	0.0375
21	0.0285	0.032	0.0318	0.047	0.157	0.0344
22	0.0253	0.028	0.0286	0.049	0.155	0.0313
23	0.0226	0.025	0.0258	0.051	0.153	0.0281
24	0.0201	0.022	0.023	0.055	0.151	0.025
25	0.0179	0.02	0.0204	0.059	0.148	0.0219
26	0.0159	0.018	0.0181	0.063	0.146	0.0188
27	0.0142	0.016	0.0173	0.067	0.143	0.0172
28	0.0126	0.014	0.0162	0.071	0.139	0.0156
29	0.0113	0.013	0.015	0.075	0.134	0.0141
30	0.0100	0.012	0.014	0.08	0.127	0.0125
31	0.0089	0.01	0.0132	0.085	0.12	0.0109
32	0.0080	0.009	0.0128	0.09	0.115	0.0102
33	0.0071	0.008	0.0118	0.095	0.112	0.0094
34	0.0063	0.007	0.0104		0.11	0.0086
35	0.0056	0.005	0.0095		0.108	0.0078
36	0.005	0.004	0.009		0.106	0.0070
37	0.0045				0.103	0.0066
38	0.0040				0.101	0.0063
39	0.0035				0.099	
40	0.0031				0.097	

\* Also called the U.S. Steel Wire Gage



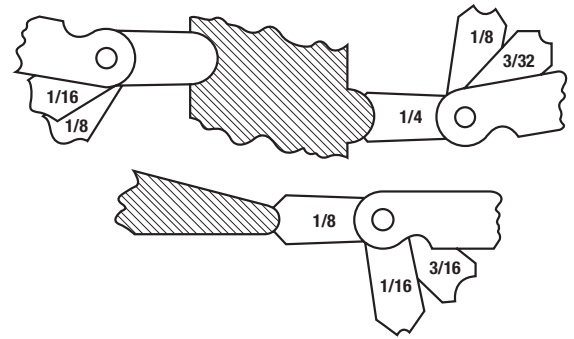
## WIRE AND STANDARD GAGES

### 178, 178M FILLET OR RADIUS GAGES WITH LOCKING DEVICE

1/32-1/2"/1-15MM

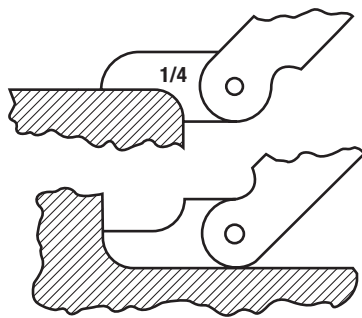
These gages are very useful for tool and diemakers, machinists, screw machine operators, patternmakers and other mechanics to lay out and check radii of tools, dies, patterns, etc.

Made in two English and metric sizes as listed below, each gage has leaves for measuring both concave and convex radii, with each leaf stamped with the radius size. Any one of the leaves can be securely locked in position by a locking device. Made of nicely finished, high quality steel.



178B

Inch Reading				
Cat. No.	EDP	Range (Concave and Convex)	Increments	Leaves
178A	50664	1/32-1/4"	64ths	30
178B	50666	17/64-1/2"		32
Millimeter Reading				
Cat. No.	EDP	Range (Concave and Convex)	Increments	Leaves
178MA	50665	1-3mm	0.25mm	34
178MB	50667	3-7mm	0.5mm	
178MB	50667	7.5-15mm	0.5mm	32



### 272, 272M FILLET OR RADIUS GAGES

1/32-33/64"/0.75-13MM

An external and internal radius on each leaf permits both concave and convex surfaces to be measured. The leaves are specially shaped for use in any position at any angle to measure fillets and radii in corners or against shoulders. Each leaf is stamped with the radius size and has an eccentric mounting for clearance between the leaf and the case when the gage is opened.



272A

Inch Reading				
Cat. No.	EDP	Range (Concave and Convex)	Increments	Leaves
272A	51296	1/32-17/64"	64ths	16
272B	51298	9/32-33/64"		
Millimeter Reading				
Cat. No.	EDP	Range (Concave and Convex)	Increments	Leaves
272MA	51297	0.75-5mm	0.25mm	18
272MB	51299	5.5-13mm	0.5mm	16

### 279 FILLET OR RADIUS GAGES

.020-.4000

This gage is similar to our 272, except that it has twenty leaves with radii from .020-.400" inclusive. Nine leaves have concave and convex radii from .020-.10" in increments of .010", four leaves with concave and convex radii from .125-.20" in increments of .025", one leaf with concave and convex radii of .250", three leaves with concave radii only from .300-.400" in increments of .050" and three leaves with convex radii from .300-.400" by an increment of .050".



279

Inch Reading			
Cat. No.	EDP	Range (Concave and Convex)	Leaves
279	51314	.020-.400"	20



# ANGLE AND CENTER GAGES

## 466 ANGLE GAGE

1-45°

A convenient, timesaving tool for inspectors, toolmakers, and diesinkers when checking angles. Tool also replaces a protractor in many instances. The gage has 18 leaves, each with a different angle including 14-1/2° (1/2 the Acme Standard of 29°). Leaves are made of the finest spring-tempered steel and both the angle edge and two sides are ground. Approximately 9/32" thick, 1-1/16" wide and 4-3/16" long.

466 Angle Gage				
Cat. No.	EDP	Range	Leaves	Angles Available
466	52463	1-45°	18	1°, 2°, 3°, 4°, 5°, 7°, 8°, 9°, 10°, 12°, 14°, 14-1/2°, 15°, 20°, 25°, 30°, 35°, 45°



466

## C391 CENTER GAGE

60° AMERICAN NATIONAL

## C396 CENTER GAGE

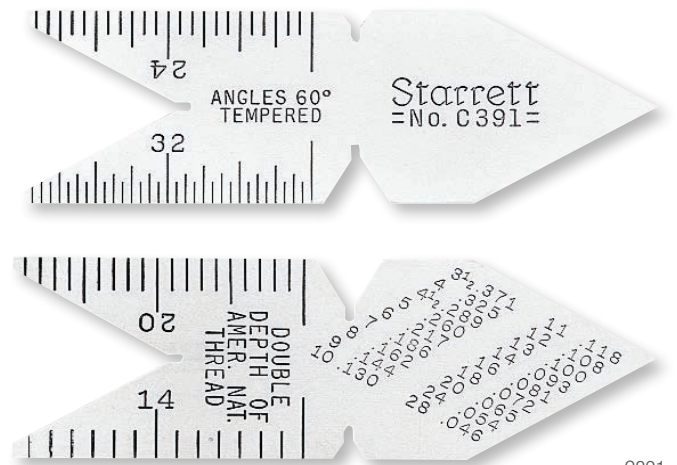
55° WHITWORTH OR ENGLISH

## C398M CENTER GAGE

60° METRIC

- Extremely handy for use in grinding and setting screw cutting tools
- Meets American National or U.S. 60°, Whitworth or English 55°, and Metric 60° standards
- Very useful for finding number of threads per inch through graduations in 14ths, 20ths, 24ths and 32nds of an inch on C391 and C396
- Graduations on C398M are in mm and 1/2mm
- C391 Gage also has a table of double depths of threads for determining size of tap drills
- Made of spring-tempered steel with satin chrome finish
- Ground gaging surfaces

Center Gages with Inch Graduations		
Cat. No.	EDP	Description
C391	51475	American National Standard, 60°
C396	51477	Whitworth or English Standard, 55°
Center Gages with Millimeter Graduations		
Cat. No.	EDP	Description
C398M	51478	Metric Standard, 60°



C391



# SCREW PITCH GAGES

## ENGLISH AND METRIC SCREW PITCH GAGES

### 2-1/4-84 PITCHES (INCH)

### 0.25-11.5 PITCHES (MILLIMETER)

Screw pitch gages are among the most useful tools in any mechanics' tool box. They quickly determine the pitch of various threads. These gages consist of a substantial steel case with a number of folding leaves at both ends, each leaf having teeth corresponding to a specific pitch, marked on each leaf.

Starrett screw pitch gages are available in a wide range of sizes with different numbers of leaves in various pitch ranges.

V, Unified, American National 60° threads

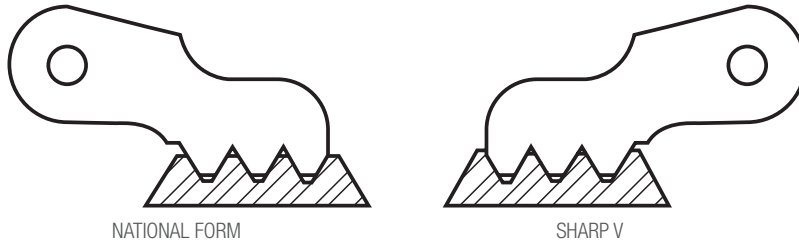
Whitworth Standard 55° threads

International Metric Standard 60° threads

English and metric threads are similar in form, but English threads are described in threads per inch and metric threads by the distance from one crest to the next.

All screw pitch gages (except 473 and 476, which have a positive stop design) feature a locking device at both ends of the case, so leaves can be securely locked in position for use. Leaves on most gages have a special narrow design, permitting checking internal threads in nuts, etc., as well as external threads.

Various types of Starrett screw pitch gages are illustrated on the following pages, with complete specifications.



NATIONAL FORM

SHARP V

Starrett Screw Pitch Gages have the tops of the teeth flattened, permitting use of a single gage for either National Form threads or Sharp V threads



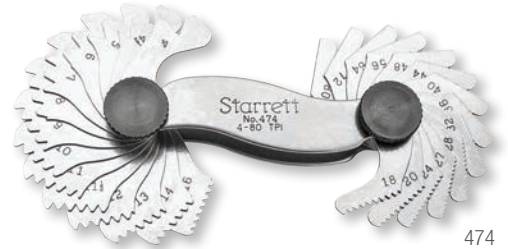
155



484



6



474

#### Screw Pitch Gages

Cat. No.	EDP	No. of Leaves	TPI Range	Threads per Inch (TPI)	Description
155	50588	27	2-1/4-28	2-1/4, 2-3/8, 2-1/2, 2-5/8, 2-3/4, 2-7/8, 3, 3-1/4, 3-1/2, 4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 20, 24, 28	With locking device and 60° center gage
484	67447	28	3-1/2-36	3-1/2, 4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36	With locking device
6	50035	30	4-42	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42	With locking device and 11-1/2 and 27 pipe thread pitches
474	52486	28	4-80	4, 4-1/2, 5, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 16, 18, 20, 24, 27, 28, 32, 36, 40, 44, 48, 56, 64, 72, 80	With locking device and 11-1/2 and 27 pipe thread pitches

#### FORMULAS

American National V Thread

$$d = D - \frac{1.299}{N} \quad d = D - \frac{1.732}{N}$$

D = Outside diameter of tap

d = Bottom diameter of tap

N = Number of threads per inch





# SCREW PITCH GAGES

## 476 WHITWORTH STANDARD SCREW PITCH GAGES

55° THREADS

3-1/2 - 60 TPI (INCH)

## 156M, 159M INTERNATIONAL METRIC STANDARD SCREW PITCH GAGES

60° THREADS

Screw Pitch Gages					
Cat. No.	EDP	No. of Leaves	TPI Range	Threads per Inch (TPI)	Description
472	52484	51	4-84	<b>First Corner 17 Leaves:</b> 4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18 <b>Second Corner 17 Leaves:</b> 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50 <b>Third Corner 17 Leaves:</b> 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84	With Locking Device and 11-1/2 and 27 Pipe Thread Pitches
473	52485	30	6-60	6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42, 48, 50, 56, 60	With Positive Stop and 11-1/2 and 27 Pipe Thread Pitches
476	52488	30	3-1/2-60	3-1/2, 4, 4-1/2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 36, 40, 44, 48, 50, 60	With Positive Stop
156M	50589	28	0.25-2.50mm	0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 1, 1.10, 1.20, 1.25, 1.30, 1.40, 1.50, 1.60, 1.70, 1.75, 1.80, 1.90, 2, 2.50	With Locking Device
159M	50591	28	0.5-11.5mm	0.5, 0.75, 1, 1.10, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5	With Locking Device and 60° Center Gage



476



473



156M



159M



472



## RADIUS GAGES

### 167, 167M

1/64-1/2"/0.5-15MM

### 167

.010-.500

### 110 GAGE HOLDER

### S167, S167M SETS

1/64-1/2"/0.5-15MM

### SD167 SETS

.010-.500

Radii or fillets can be checked or laid out easier, faster, and more accurately with Starrett 167 Radius Gages. Available individually and in sets, fractional sizes 1/64-1/2", decimal sizes .010-.500" and in millimeters from 0.5-15mm.

Many different sets for maximum convenience. Each set is furnished in an attractive case, providing complete protection and easy, instant selection of the right gage size for the job.

#### GAGE FEATURES

- Made of satin finish stainless steel – rust and stain resistant
- Each gage is clearly marked with its radius
- Each gage has five different gaging surfaces for both convex and concave radii
- All gages have precision finished radii with extra smooth, accurate edges

#### GAGE HOLDER FEATURES

- Any gage can be used with the Starrett 110 holder which is especially useful for checking radii in confined or hard-to-reach locations
- Two slots are provided in the holder permitting gages to be held at 30° or 45°, either square in the slot or tipped to one side
- The holder is 4" (100mm) long, providing good reach and balance



Holder 110 with  
167-3/16 attached



S167CHZ Radius Gage Set with 25  
gages and holder in case

Gaging radii using  
gage with holder



## FIVE DIFFERENT GAGING SURFACES –

Ideal for Checking Convex and Concave Radii of All Types

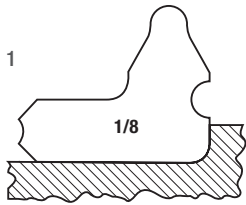


Fig 1. Checking concave (internal) radius with 90° arc. Also checks if sides are tangent to radius and 90° to each other.

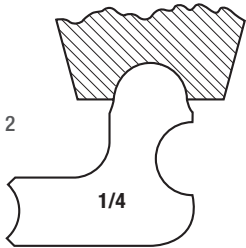


Fig 2. Checking concave (internal) radius with arc up to 180°. Also will check radius shown in Fig. 1 but not relationship of sides.

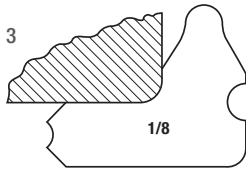


Fig 3. Checking convex (external) radius with 90° arc. Also checks if sides are tangent to radius and 90° to each other.

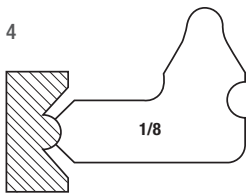


Fig 4. Checking convex (external) radius with arc of 90° or greater, or radii with sides as shown which would interfere with gage used as in Fig. 3.

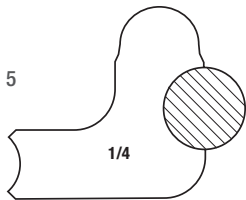


Fig 5. Checking convex (external) radius with arc of 180°; also less than 180° if sides of radius offer no interference.

### S167 Radius Gage Sets – Inch

Cat. No.	EDP	Radii Range	Increments	Gages	Description
S167AZ	50615	1/32-17/64"	64ths	16	Without holder
S167AHZ	50616	1/64-17/64"	64ths	17	With holder
S167BZ	50617	9/32-1/2"	32nds	8	Without holder
S167CZ	50618	1/32-17/64" 9/32-1/2"	64ths 32nds	24	Sets 167A and S167B Combined, without holder
S167CHZ	50619	1/64-17/64"	64ths	25	Sets 167AH and S167B Combined, with holder
S167CHZ W/SLC	66876	9/32-1/2"	32nds		Sets 167AH and S167B combined, with holder, Standard Letter of Certification*
S167DZ	50620	1/32-1/2"	32nds	16	Without holder

### S167M Radius Gage Sets – Millimeter

Cat. No.	EDP	Radii Range	Increments	Gages	Description
S167MAZ	55817	1-7mm	0.5mm	13	Without holder
S167MAHZ	55818	0.5-7mm	0.5mm	14	With holder
S167MBZ	55819	8-15mm	1mm	8	Without holder
S167MCZ	55820	1-7mm 8-15mm	0.5mm 1mm	21	Sets S167MA and S167MB combined, without holder
S167MCHZ	55821	0.5-7mm 8-15mm	0.5mm 1mm	22	Sets 167MB and S167MAH combined, with holder
S167MDZ	55822	1-15mm	1mm	15	Without holder

### SD167 Radius Gage Sets – Decimal-Inch

Cat. No.	EDP	Radii Range	Increments	Gages	Description
SD167FZ	63464	.020-.300	0.02	19	Without holder
SD167FHZ	63460	.350-.500	0.05		With holder
SD167GZ	63433	.010-.025	0.005	26	Without holder
		.030-.100	0.01		
		.120-.300	0.02		
SD167GHZ	63463	.350-.500	0.05	26	With holder
		.010-.025	0.005		
		.030-.100	0.01		
		.120-.300	0.02		
		.350-.500	0.05		

### 167 Radius Gage - Accessories

Cat. No.	EDP	Description
110	50475	Holder only

\* Includes redemption card for Standard Letter of Certification (SLC).

### Individual Radius Gage Specifications

167 – Inch		
Cat. No.	EDP	Radius
167-1/64	50646	1/64"
167-1/32	50622	1/32"
167-3/64	50623	3/64"
167-1/16	50624	1/16"
167-5/64	50625	5/64"
167-3/32	50626	3/32"
167-7/64	50627	7/64"
167-1/8	50628	1/8"
167-9/64	50629	9/64"
167-5/32	50630	5/32"
167-11/64	50631	11/64"
167-3/16	50632	3/16"
167-13/64	50633	13/64"
167-7/32	50634	7/32"
167-15/64	50635	15/64"
167-1/4	50636	1/4"
167-17/64	50637	17/64"
167-9/32	50638	9/32"
167-5/16	50639	5/16"
167-11/32	50640	11/32"
167-3/8	50641	3/8"
167-13/32	50642	13/32"
167-7/16	50643	7/16"
167-15/32	50644	15/32"
167-1/2	50645	1/2"

### Individual Radius Gage Specifications

167M – mm		
Cat. No.	EDP	Radius
167M-1/2	55795	0.5mm
167M-1	55796	1mm
167M-1 1/2	55797	1.5mm
167M-2	55798	2mm
167M-2 1/2	55799	2.5mm
167M-3	55800	3mm
167M-3 1/2	55801	3.5mm
167M-4	55802	4mm
167M-4 1/2	55803	4.5mm
167M-5	55804	5mm
167M-5 1/2	55805	5.5mm
167M-6	55806	6mm
167M-6 1/2	55807	6.5mm
167M-7	55808	7mm
167M-8	55809	8mm
167M-9	55810	9mm
167M-10	55811	10mm
167M-11	55812	11mm
167M-12	55813	12mm
167M-13	55814	13mm
167M-14	55815	14mm
167M-15	55816	15mm

### Individual Radius Gage Specifications

167 - Decimal-Inch		
Cat. No.	EDP	Radius
167-010	63434	0.01
167-015	63435	0.015
167-020	63436	0.02
167-025	63437	0.025
167-030	63438	0.03
167-040	63439	0.04
167-050	63440	0.05
167-060	63441	0.06
167-070	63442	0.07
167-080	63443	0.08
167-090	63444	0.09
167-100	63445	0.1
167-120	63446	0.12
167-140	63447	0.14
167-160	63448	0.16
167-180	63449	0.18
167-200	63450	0.2
167-220	63451	0.22
167-240	63452	0.24
167-260	63453	0.26
167-280	63454	0.28
167-300	63455	0.3
167-350	63456	0.35
167-400	63457	0.4
167-450	63458	0.45
167-500	63459	0.5



# THICKNESS GAGES

## ENGLISH AND METRIC THICKNESS GAGES

### .0015-.200"/0.03-5MM

These gages are used in automotive, aviation, diesel, food and agricultural industries. They're also used in jig, fixture, gage and experimental work. In automotive, they are especially useful when adjusting tappets, spark plugs, distributor points, checking bearing clearances and gear play, fitting pistons, rings and pins and gaging narrow slots. Made in a wide range of types and sizes, each having from 6 up to 26 leaves ranging in thickness from .0015-.200" and 0.03-5mm thick, straight or tapered.

- Now available in stainless and tempered steel
- Leaves carefully finished to correct thickness, individually tested and marked with thickness
- Locking device on most gages permits securely locking of one or more leaves in position
- Leaves are easily removed or replaced
- Rugged, substantial steel case protect leaves
- All include locking device

#### Inch Reading Thickness Gages with Straight Leaves

Tempered Steel		Stainless Steel		No. of Leaves	Size Leaves	Range Leaf Thickness (in)
Cat. No.	EDP	Cat. No.	EDP			
172A	50649	172AS	50649	9	1/2 x 3-1/32"	.0015, .002, .003, .004, .006, .008, .010, .012, .015
66	50314	66S	73466	26	1/2 x 3-1/32"	.0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, .025
66B	57097	66BS	73439	31	1/2 x 3-1/32"	.0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, .025, .026, .028, .030, .032, .035
467	52464	467S	73340	13	1/2 x 4-1/2"	.0015, .002, .003, .004, .006, .008, .010, .020, .030, .040, .075, .100, .200
172E	50654	172ES	73343	8	1/2 x 12"	.002, .003, .004, .005, .006, .008, .010, .015
572A	57098			22	1/2 x 3-1/32"	.0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .012, .013, .014, .015, .016, .018, .020, .022, .025, .030, .035 6 Spark Plug Wire Gages: .025, .030, .034, .035, .040, .045
572B	57099			22	1/2 x 3-1/32"	.0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .012, .013, .014, .015, .016, .018, .020, .022, .025, .030, .035

#### Inch Reading Thickness Gages with Tapered Leaves

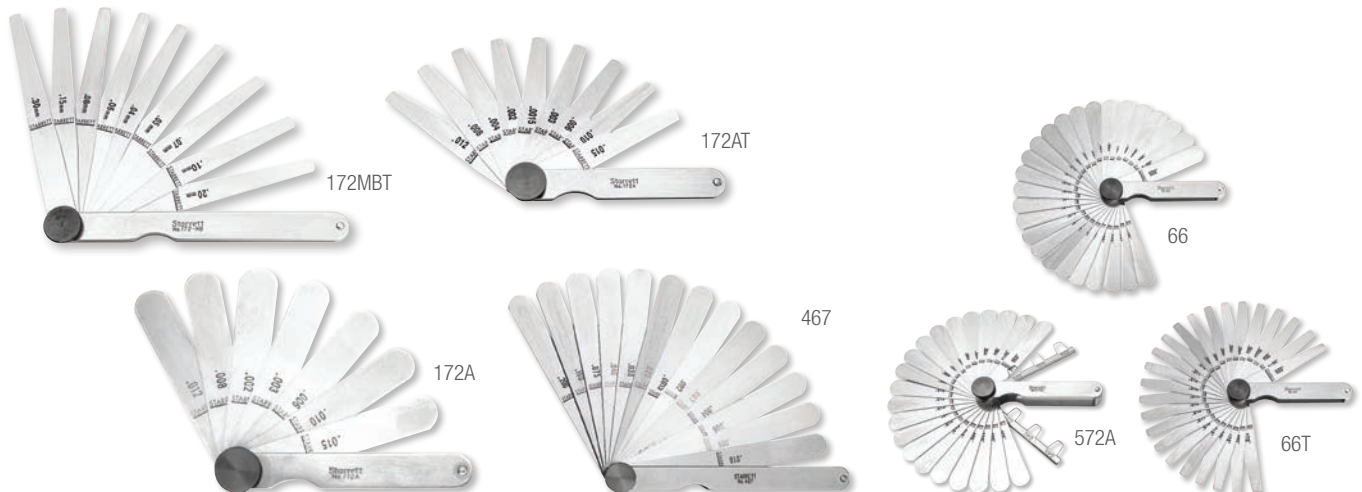
Tempered Steel		Stainless Steel		No. of Leaves	Size Leaves	Range Leaf Thickness (in)
Cat. No.	EDP	Cat. No.	EDP			
66T	50315	66TS	73442	26	1/2-1/4 x 3-1/32"	.0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, .025
172AT	50650	172ATS	73342	9	1/2-1/4 x 3-1/32"	.0015, .002, .003, .004, .006, .008, .010, .012, .015
172CT	50652			8	1/2-1/4 x 6"	.002, .003, .004, .006, .008, .010, .012, .015

#### Millimeter Reading Thickness Gages with Straight Leaves

Tempered Steel		No. of Leaves	Size Leaves	Range Leaf Thickness (in)
Cat. No.	EDP			
66MA	55974	20	12.7 x 77mm	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.0
173MA	57086	13	12.7 x 77mm	0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.30, 0.40, 0.50
467M	52465	13	12.7 x 114mm	0.04, 0.05, 0.06, 0.07, 0.08, 0.10, 0.15, 0.20, 0.30, 1.0, 2.0, 3.0, 5.0

#### Millimeter Reading Thickness Gages with Tapered Leaves

Tempered Steel		No. of Leaves	Size Leaves	Range Leaf Thickness (in)
Cat. No.	EDP			
172MBT	50656	9	12.7-7 x 114mm	0.04, 0.05, 0.06, 0.07, 0.08, 0.10, 0.15, 0.20, 0.30
173MAT	57087	13	12.7-7 x 77mm	0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.30, 0.40, 0.50
173MCT	57088	13	12.7-7 x 152mm	0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.30, 0.40, 0.50



# "FEELER" STOCK

## 666 THICKNESS GAGE OR "FEELER" STOCK IN ROLLS

25' DISPENSER CASES .001-.015"

20', 25' CARDBOARD BOXES .0005-.025"

## 666M THICKNESS GAGE OR "FEELER" STOCK IN ROLLS

7.6M DISPENSER CASES 0.03-0.35MM

6.1M CARDBOARD BOXES 0.40-0.50MM

This handy product includes thickness stock, housed in convenient rewindable dispenser rolls. Having the thickness stock in a case makes it very useful for cutting off the required length for adjusting tappets, spark plugs, distributor points, checking bearing clearances and gear play, fitting pistons, rings and pins, gaging narrow slots, etc. This stock is also useful for shimming in fixturing and die work.

- Now available in stainless and tempered steel
- Handy 25' and 7.6m rolls 1/2" and 12.7mm wide, in a compact, sturdy plastic rewindable dispenser case. This case handles stock up to .015" and 0.35mm only.
- Rewind feature permits retracting thinner feeler stock into the case, preventing damage
- Roll stock in thicknesses of .016" or 0.40mm and over are furnished in 20' or 6m (nondispensable) rolls in a cardboard box. Also, the .0005", 25' size is furnished in a cardboard box.
- Marked every 6" or 150mm with a line, thickness in thousandths of an inch or in hundredths of a mm (exception 666-1/2)
- Case provides the ability to snip off the desired length without any waste



### Inch Reading Rolls – Dispenser Case

Tempered Steel		Stainless Steel		Thickness	Length
Cat. No.	EDP	Cat. No.	EDP		
666-1	52796	666S-1	73350	.001"	25'
666-1 1/2	52797	666S-1 1/2	73351	.0015"	
666-2	52798	666S-2	73363	.002"	
666-2 1/2	52799	666S-2 1/2	73364	.0025"	
666-3	52800	666S-3	73371	.003"	
666-4	52801	666S-4	73372	.004"	
666-5	52802	666S-5	73373	.005"	
666-6	52803	666S-6	73374	.006"	
666-7	52804	666S-7	73375	.007"	
666-8	52805	666S-8	73376	.008"	
666-9	52806	666S-9	73377	.009"	
666-10	52807	666S-10	73353	.010"	
666-11	52808	666S-11	73354	.011"	
666-12	52809	666S-12	73355	.012"	
666-13	52810	666S-13	73356	.013"	
666-14	52811	666S-14	73357	.014"	
666-15	52812	666S-15	73358	.015"	

### Inch Reading Rolls – Cardboard Box

Tempered Steel		Stainless Steel		Thickness	Length
Cat. No.	EDP	Cat. No.	EDP		
666-1/2	64210	666S-1/2	73352	.0005"	25'
666-16	52813	666S-16	73359	.016"	20'
666-17	52814	666S-17	63370	.017"	
666-18	52815	666S-18	73361	.018"	
666-19	52816	666S-19	73362	.019"	
666-20	52817	666S-20	73365	.020"	
666-21	52818	666S-21	73366	.021"	
666-22	52819	666S-22	73367	.022"	
666-23	52820	666S-23	73368	.023"	
666-24	52821	666S-24	73369	.024"	
666-25	52822	666S-25	73370	.025"	

### Millimeter Reading Rolls – Dispenser Case

Tempered Steel		Thickness	Length
Cat. No.	EDP		
666M-3	52823	0.03mm	7.6m
666M-4	52824	0.04 mm	
666M-5	52825	0.05mm	
666M-6	52826	0.06mm	
666M-8	52827	0.08mm	
666M-10	52828	0.10mm	
666M-15	52829	0.15mm	
666M-20	52830	0.20mm	
666M-25	52831	0.25mm	
666M-30	52832	0.30mm	
666M-35	52833	0.35mm	

### Millimeter Reading Rolls – Cardboard Box

Tempered Steel		Thickness	Length
Cat. No.	EDP		
666M-40	52834	0.40mm	6.1m
666M-45	52835	0.45mm	
666M-50	52836	0.50mm	

NEW!

FIXED GAGE STANDARDS



**NEW!**

FIXED GAGE STANDARDS

## "FEELER" STOCK

### 667 THICKNESS GAGES OR "FEELER" STOCK

.0005-.030"

### 667M THICKNESS GAGES OR "FEELER" STOCK

0.03-0.50MM

These gages are widely used in automotive, aviation, diesel and farm equipment manufacture and service and also in jig, fixture, gage and experimental work.

- Now available in stainless and tempered steel
- Inch sizes are 12" long, 1/2" wide and furnished in 33 different thicknesses ranging from .0005-.030"
- Millimeter sizes are furnished in 300mm lengths, 12.7mm wide in 14 different thicknesses ranging from 0.03-0.50mm
- Rounded ends make stock easier to work with
- Made of the finest tempered steel and stainless steel
- Each piece marked every 6" with thickness (exception 667-1/2) and in individual envelope
- With convenient 3/16" (5mm) hole punched in the end for hanging

Millimeter Gages – 300mm		
Cat. No.	EDP	Thickness
667M-3	52869	0.03mm
667M-4	52870	0.04mm
667M-5	52871	0.05mm
667M-6	52872	0.06mm
667M-8	52873	0.08mm
667M-10	52874	0.10mm
667M-15	52875	0.15mm
667M-20	52876	0.20mm
667M-25	52877	0.25mm
667M-30	52878	0.30mm
667M-35	52879	0.35mm
667M-40	52880	0.40mm
667M-45	52881	0.45mm
667M-50	52882	0.50mm

Inch Gages – 12"				
Tempered Steel		Stainless Steel		
Cat. No.	EDP	Cat. No.	EDP	Thickness
667-1/2	64209	667S-1/2	73394	.0005"
667-1	52837	667S-1	73392	.001"
667-1 1/2	52838	667S-1 1/2	73393	.0015"
667-2	52839	667S-2	73405	.002"
667-2 1/2	52840	667S-2 1/2	43706	.0025"
667-3	52841	667S-3	73417	.003"
667-4	52842	667S-4	73419	.004"
667-5	52843	667S-5	73420	.005"
667-6	52844	667S-6	73421	.006"
667-7	52845	667S-7	73422	.007"
667-8	52846	667S-8	73423	.008"
667-9	52847	667-9	73424	.009"
667-10	52848	667S-10	73395	.010"
667-11	52849	667S-11	73396	.011"
667-12	52850	667S-12	73397	.012"
667-13	52851	667S-13	73398	.013"
667-14	52852	667S-14	73399	.014"
667-15	52853	667S-15	73400	.015"
667-16	52854	667S-16	73401	.016"
667-17	52855	667S-17	73402	.017"
667-18	52856	667S-18	73403	.018"
667-19	52857	667S-19	73404	.019"
667-20	52858	667S-20	73407	.020"
667-21	52859	667S-21	73408	.021"
667-22	52860	667S-22	73409	.022"
667-23	52861	667S-23	73410	.023"
667-24	52862	667S-24	73411	.024"
667-25	52863	667S-25	73412	.025"
667-26	52864	667S-26	73413	.026"
667-27	52865	667S-27	73414	.027"
667-28	52866	667S-28	73415	.028"
667-29	52867	667S-29	73416	.029"
667-30	52868	667S-30	73418	.030"



667

S667A and S667D

### THICKNESS GAGE OR "FEELER" STOCK ASSORTMENTS

Two complete, handy thickness gage assortments:

S667A (Inch) set consists of one each of 32 different pieces, 1/2" x 12" long from .001" through .030" thick (the entire individual range, with exception of the .0005" thickness, as listed on previous page).

S667MA (Millimeter) set consists of one each of 14 different pieces, 12.5mm x 300mm long from 0.03mm through 0.50mm thick (complete range, as on previous page).

S667D Bulk inch-reading assortment consists of 108 pieces, 1/2" x 12", in nine different thicknesses from .0015" to .015" thick. Twelve pieces of a size are packed in a box and each piece in an individual envelope. The nine boxes, together with an extra box for holding odd pieces, are packed in a convenient storage carton.



Individual Assortments				
Tempered Steel		Stainless Steel		Description
Cat. No.	EDP	Cat. No.	EDP	
S667A	63274	S667AS	73443	Complete Starrett inch thickness gage assortment – One each, 32 different sizes
S667MA	64949			Complete Starrett millimeter thickness gage assortment – One each, 14 different sizes
Bulk Assortment				
Tempered Steel		Stainless Steel		Description
Cat. No.	EDP	Cat. No.	EDP	
S667D	52883	S667DS	73444	Bulk quantity assortment: 108 pieces in nine thickness sizes; 12 pieces of a size per box; .0015, .002, .003, .004, .006, .008, .010, .012, .015"

Packed 12 pieces of a size in a box; each piece in individual envelope; 9 boxes in a carton.



# THICKNESS GAGES

## 806 THICKNESS GAGE OR "FEELER" STOCK HOLDERS

### CLAMP AT ONE END

## 806D THICKNESS GAGE OR "FEELER" STOCK HOLDERS

### CLAMP AT BOTH ENDS

These 806 Thickness Gage Holders provide a handy, convenient means of rigidly holding single leaves or strips of thickness gage stock of any thickness from .001-.025" (0.03-0.5mm).

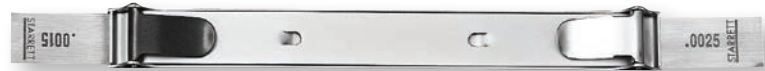
Stock up to 6" (150mm) long is easily inserted in the holder and firmly gripped in the desired position by a cam lock. This permits all of the stock to be used, because as it wears from use, the defective end can be snipped off and new stock pulled out until entirely used up.

Available in two types as listed in the chart on the right, either to clamp stock at one end or both ends. Dull nickel finish. Size approximately 3/32" thick x 9/16" wide x 5-1/4" long (2.4 x 14 x 130mm). 806D holders have contrasting finish to eliminate the possible confusion on which end holds the thicker or thinner stock.

Thickness Gage or "Feeler" Stock Holders		
Cat. No.	EDP	Description
806	53039	Holder only - Clamps stock at one end
806D	53040	Holder only - Clamps stock at both ends



806 with stock clamped on one end



806D with stock clamped on both ends

## 245, 245M ENGINEERS' COMBINATION TAPER, WIRE AND THICKNESS GAGE

### INCH/MILLIMETER

Consists of a wire gage, a taper gage for measuring slot widths, and an assortment of thickness gage leaves, all folding within a compact steel case. The gage measures 1/2" wide x 4-3/4" long (12.7 x 120mm) and has a locking device to lock any leaf or leaves in position.

Both 245 and 245M have an English Standard wire gage leaf similar to our 188, but with shorter range, sizes numbered from 19-36 (.042-.004"), plus two additional sizes, 1/16" and 1/8". The reverse side has decimal equivalents in thousandths.

245 has a taper gage leaf for measuring slot widths from 1/64-3/16" in 64ths of an inch, the reverse side having a 3" scale graduated in 8ths and 16ths. It has nine thickness or feeler leaves as follows: .002, .003, .004, .006, .008, .010, .012, .015 and 1/16".

245M has a taper gage leaf for measuring slot widths from 0.5-5mm in 0.5mm, the reverse side having an 80mm scale graduated in mm and 1/2mm. It has eleven thickness or feeler leaves as follows: 0.04, 0.05, 0.06, 0.07, 0.08, 0.10, 0.15, 0.20, 0.30, 1 and 2mm.



245M

Inch Reading		
Cat. No.	EDP	Description
245	51170	With taper gage, English standard wire gage and 9 Inch reading thickness gage leaves
Millimeter Reading		
Cat. No.	EDP	Description
245M	51171	With taper gage, English standard wire gage and 11 mm reading thickness gage leaves

