

# Starrett®

Precision, **Quality**, Innovation

## PRECISION SHOP TOOLS

**Band Saw** Blades

Force **Measurement**

Jobsite & **Workshop Tools**

**Laser** Measurement

**Metrology** Equipment

Precision **Granite**

**Precision Ground** Solutions

**Precision Measuring** Tools

PTA & **Hand Tools**

Service

**Webber Gage** Blocks



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**Highlighted items** are fast moving items



**SQUARES**

## SQUARES

Starrett squares are offered in a practical variety of styles to suit the needs of the individual, whether it be a toolmaker, mechanic, carpenter, or a "do-it-yourself" homeowner.

The Starrett name has always been associated with squares because our founder, Laroy Starrett, invented the combination square in 1877. The success of this tool led to the beginning of The L.S. Starrett Company in 1880. The combination square is one of the world's most practical and versatile tool inventions – the basic tool for every builder and craftsman.

### SQUARES

In this section you will see combination squares, solid test or try squares, and special squares for tool and diemakers and carpenters.

To check squareness at the highest level of accuracy, we recommend our TS True Squares. These are available in three styles down to the amazing accuracy of 1/4 second. These are listed in the Gage Block Section of this catalog.

We also offer granite squares which are listed in the Granite Surface Plate Section of this catalog. The main purpose of these squares is for checking the X, Y, and Z axes on CNC machine tools and coordinate measuring machines.



### COMBINATION SQUARES FEATURE:

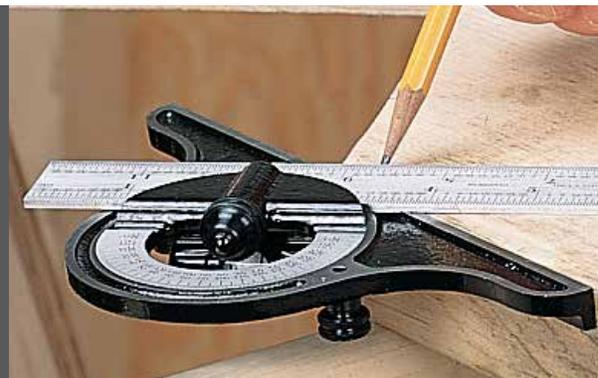
- A choice of smooth-finished forged and hardened (longer wearing) steel square head and center head, or a cast iron square head and center head. All bearing surfaces are accurately ground.
- A choice of stable cast iron protractors – reversible or non-reversible style – all nicely finished with a black, durable finish
- Protractors are furnished as reversible, with shoulders on both sides of the blade, or non-reversible, with a single shoulder on one side of the blade only. All protractors also have a spirit level.
- Protractor heads have revolving turrets with direct-reading double graduations, 0-180° in opposite directions. This permits the direct reading of angles and supplementary angles.
- Most square heads have a handy spirit level and a hardened scriber
- Square blades and protractor heads come in a choice of regular or Starrett no-glare satin chrome finish
- A reversible lock bolt allows the blade to be turned over or end-for-end without removing the lock bolt or nut. This ensures true alignment of the blade and heads.
- Square blades feature easy-to-read, sharp graduations and are available in many convenient styles
- Separate parts and attachments available

### TIPS FOR USING SQUARES AND CENTER HEADS

First, make sure your square is clean and that it is located against a flat surface – burrs on metal or knots and bumps on wood will throw squareness off.

Second, to scribe a line, the steel scriber can be used on any material, but usually on metal. A carpenter's pencil is normally used on wood, but if finer lines are needed, a light cut with a utility knife may be used. This is also handy when scribing cross grain.

Third, when using a center head on a piece that may not be completely round, it is good practice to scribe more than two intersecting lines.



# COMBINATION SQUARES

Starrett combination squares consist of a photo-engraved, hardened and tempered steel rule (or blade) on which is mounted on an adjustable square head.

Starrett Combination Square Heads are made of cast iron or forged and hardened steel and are not to be confused with the cheap imitation plastic or die cast heads on the market. The value of Starrett tools is that they are accurate and will last.

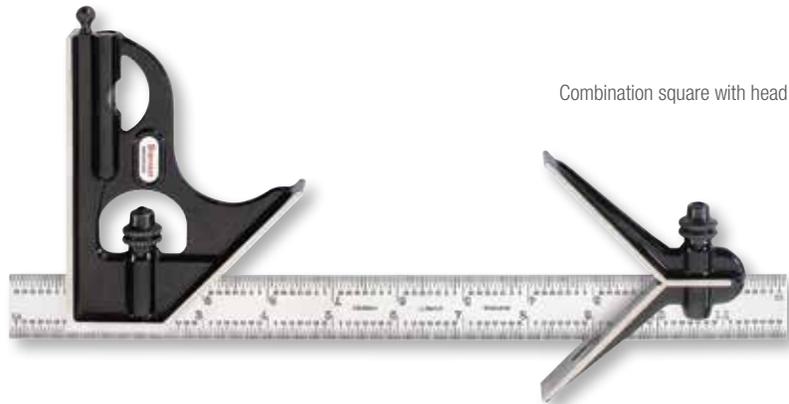
As the name indicates, these tools can be used for many different purposes – a complete substitute for a whole set of common solid try squares, a 45 degree miter, a depth gage, a height gage, a marking or scribing gage, a level, a plumb and, by withdrawing the blade, it can also be used as a precision rule. This saves littering the workbench with too many tools, each being necessary but may be used less. This results in the goal of all good craftsmen – better accuracy and greater efficiency.

The combination square with center head is a basic combination set. The center head is a convenient and accurate way to find the center of round work.

Complete combination sets feature the combination square with a center head and with either a reversible or non-reversible protractor. Details of the protractors are also included in the Protractor and Angle Measurements Section of this catalog.



Combination square



Combination square with head



Combination set



# COMBINATION SETS

## COMBINATION SQUARE WITH CENTER AND REVERSIBLE PROTRACTOR HEADS

### 435 SQUARE, CENTER AND PROTRACTOR HEAD



#### CAST IRON

With reversible lock bolts, scriber, spirit level in both square head and protractor head, direct reading double 180° protractor scale, hardened steel, photo-engraved blade. Cast iron heads with black wrinkle finish. Also available with satin chrome blade and protractor head.



C435-12-4R

### 434 FORGED AND HARDENED STEEL SQUARE AND CENTER HEADS, CAST IRON PROTRACTOR HEAD



#### THE VERY BEST SETS AVAILABLE

These squares have the same features as the 435 except that the square heads and center heads are forged, hardened steel with smooth, black enamel finish.



C434-12-4R

Supplied in protective case

12-24" Combination Sets with Square, Center and Reversible Protractor Head and Blade			435 Sets		434 Sets	
Size	Graduation	Blade	Cast Iron Heads with Black Wrinkle Finish Cat. No.	EDP	Forged and Hardened Square and Center Heads, Cast Iron Protractor Head with Smooth Black Finish Cat. No.	EDP
12"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular	435-12-4R	51556	434-12-4R	51542
		Satin Chrome	C435-12-4R	66682	C434-12-4R C434-12-4R W/SLC*	51548 66898
12"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular	435-12-16R	51557	434-12-16R	51543
		Satin Chrome			C434-12-16R	51549
18"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular	435-18-4R**	51558	434-18-4R**	51544
		Satin Chrome			C434-18-4R**	51550
18"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular			434-18-16R**	51545
		Satin Chrome			C434-18-16R**	51551
24"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular	435-24-4R**	51559	434-24-4R**	51546
		Satin Chrome			C434-24-4R**	51552
24"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular			434-24-16R**	51547
		Satin Chrome			C434-24-16R**	51553
300-600mm Combination Sets with Square, Center and Reversible Protractor Head and Blade			435M Sets		434M Sets	
300mm	mm and 1/2mm Both Sides	Regular	435M-300	66177	434M-300	56255
		Satin Chrome	C435M-300	61918	C434M-300	56420
600mm	mm and 1/2mm Both Sides	Regular	435M-600**	66681	434M-600**	56256
		Satin Chrome			C434M-600**	56421
300-600mm and 11-3/4 – 23-1/2" Combination Sets with Square, Center and Reversible Protractor Head and Blade			435ME Sets		434ME Sets	
300mm and 11-3/4"	1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular	435ME-300	51560	434ME-300	51554
		Satin Chrome			C434ME-300	56422
600mm and 23-1/2"	1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular	435ME-600**	51561	434ME-600**	51555
		Satin Chrome			C434ME-600**	56423

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

\*\* Does not include case.

# COMBINATION SETS

## COMBINATION SQUARE WITH CENTER AND NON-REVERSIBLE PROTRACTOR HEAD

9 COMBINATION SETS WITH SQUARE, CENTER AND NON-REVERSIBLE PROTRACTOR HEAD



### CAST IRON

With reversible lock bolts, scribe, spirit level in both square head and protractor head, direct reading double 180° protractor scale, and hardened steel, photo-engraved blade. Cast iron heads with black wrinkle finish. Also available with satin chrome blade and protractor head.



Supplied in protective case



9-12-4R

### 12-24" Combination Sets with Square, Center and Non-reversible Protractor Head and Blade

Size	Graduation	Blade	Cast Iron Heads with Black Wrinkle Finish	
			Cat. No.	EDP
12"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular	9-12-4R	50042
		Satin Chrome	C9-12-4R	50046
12"	16R – Quick Reading 32nds, 64ths, Air Craft Quick Reading 50ths, 100ths	Regular	9-12-16R	50043
18"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular	9-18-4R	50044
24"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular	9-24-4R	50045

### 300-600mm Combination Sets with Square, Center and Non-reversible Protractor Head and Blade

300mm	mm and 1/2mm Both Sides	Regular	9M-300	56253
600mm	mm and 1/2mm Both Sides	Regular	9M-600	56254

### 300-600mm and 11-3/4 – 23-1/2" Combination Sets with Square, Center and Non-Reversible Protractor Head and Blade

300mm and 11-3/4"	1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular	9ME-300	50047
600mm and 23-1/2"	1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular	9ME-600	50048

# SQUARES

## 3020 TOOLMAKERS' GRADE STAINLESS STEEL SQUARES

2-31/32 - 12-1/32"/50-175MM

This high quality toolmakers' square is not graduated and offers squareness accuracy to .0002" (0.005mm) for every 6" (150mm).

They feature hardened, ground and lapped stainless steel construction on both the blade and the beam. The beam is machined at the inner corner for clearance of burr or dirt.

Packed one in a plastic case. 12" square and set of 4 squares shipped in box with fitted foam insert. Wood cases as listed may be purchased separately.

3020 Toolmakers' Grade Stainless Steel Squares							
Size – Length of Blade*		Length of Beam		Squares Only		Case Only	
Inch	mm	Inch	mm	Cat. No.	EDP	Cat. No.	EDP
2-31/32"	75	1-31/32"	50	3020-3	12225	951	55153
3-31/32"	100	2-31/32"	75	3020-4	12226	918	55154
5-29/32"	150	3-29/32"	100	3020-6	12227	919	55155
12-1/32"	300	6-7/8"	175	3020-12	12228	20ZZ-12	55156
Complete Set of all 4 Squares				S3020Z	12229		

\* Length of blade from the inner edge of the beam to the end of the blade.

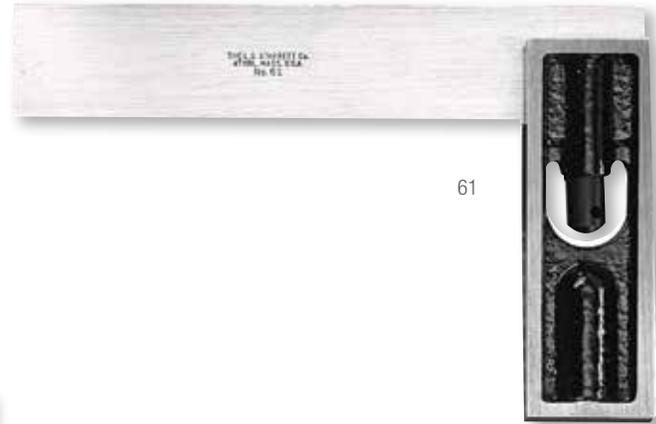


## 61 "RELIABLE" TRY SQUARE

6"/150MM

A very useful try square – attractively designed, light and convenient. The blade is hardened, not graduated, and is firmly held by a special bolt and nut permitting the tool to be readily taken apart, if desired, for regrinding the blade and stock.

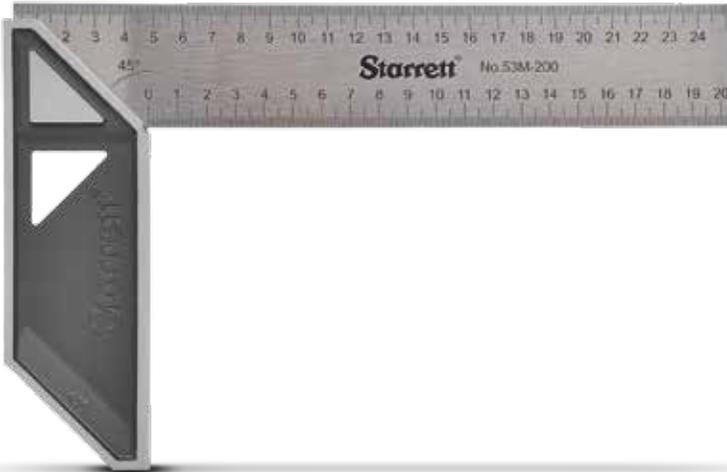
61 "Reliable" Try Square			
Cat. No.	EDP	Size – Length of Blade	Length of Beam
61	50303	6" (150mm)	3-1/2" (90mm)



# SQUARES

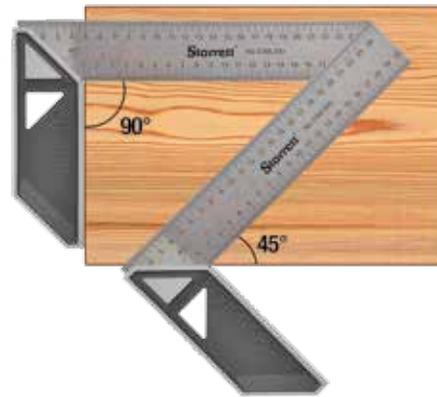
NEW!

## 53 CARPENTER'S TRY SQUARE



*Cat. No.	Dimension
K53-8-N	8"
K53-10-N	10"
K53-12-N	12"
K53-14-N	14"
K53M-200-N	200MM
K53M-250-N	250MM
K53M-300-N	300MM
K53M-350-N	350MM

\* Also can be supplied metric graduation



### FEATURES

- Stainless steel blade
- Graduations etched on both sides of the blade
- 2" cast aluminum handle



# SQUARES

## DRYWALL SQUARE

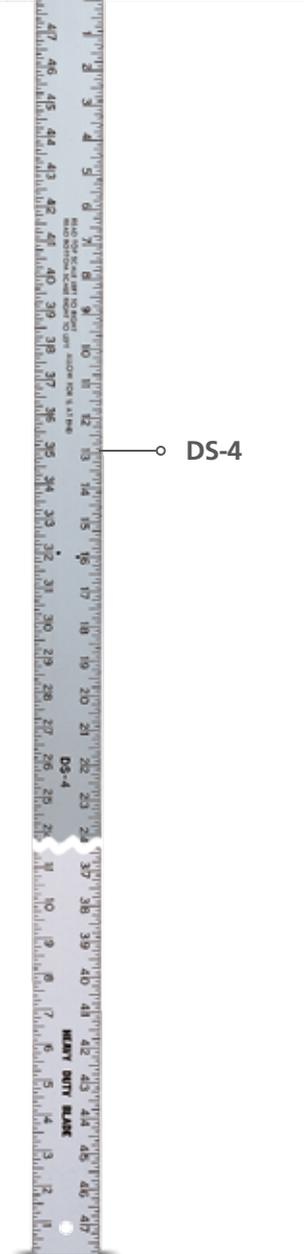


### FEATURES

- Used for layout work on drywall, plywood and sheet metal
- The offset head is 22" x 1-1/2"
- The blade is the same width as a standard electrical outlet box

Cat. No.	Description	Size	EDP
DS-4	Assembled	48"L x 2"W	36119
DS-6	Heavy Duty, Assembled	48"L x 2"W	36121
DS-7	Heavy Duty, Assembled	54"L x 2"W	36381

Cat. No.	Description	Size
DS-1200	Heavy Duty, Assembled	1200M X 50MM
DS-1500	Heavy Duty, Assembled	1500MM X 50M



DS-4



T-24

## T-SQUARE

### FEATURES

- 2" wide x .081" thick anodized aluminum blade lies flat and resists bending
- Large, easy-to-read numbers
- Graduations are 1/8" on one edge and 1/16" on the other

Cat. No.	Length	EDP
T-24	24"	36134
T-36	36"	36136
T-48	48"	36138

Cat. No.	Length
T-600	600MM
T-1000	1000MM
T-1200	1200MM





# UNIVERSAL BEVEL

## 15 UNIVERSAL BEVEL

8" stainless steel blade and plastic handle with one spirit level vial.



### FEATURES

- Blade lock for transferring angles
- Handle is ABS plastic for a comfortable grip

Cat. No.	Dimension	EDP
K15-N	8"	00151





**PRECISION RULES,  
STRAIGHT EDGES, PARALLELS**

# PRECISION RULES

## PRECISION STEEL RULES

Starrett rules are made from fine quality steel and produced to the highest precision standards, making them the most accurate and readable precision steel rules available. Through over 130 years of experience, we have developed the following versatile features, designs and styles:

### OUR PRODUCT LINE CONSISTS OF:

- Full-flexible 1/64"-1/50" (0.4-0.5mm) thick
- Semi-flexible 1/50-1/40" (0.5-0.6mm) thick
- Spring-tempered 3/64" (1.2mm) thick
- Heavy spring-tempered 1/10" (2.5mm) thick
- Stainless steel 1/64" or 3/64" (0.4 or 1.2mm) thick
- Graduation styles are inch, millimeter, inch and millimeter, shrink, and special graduations
- All rules are photo-engraved and tempered for long life and flexibility



Rule with Aircraft Quick-Reading Graduations on lower edge



Rule with Quick-Reading Graduations on both edges



## ACCURACY

- All of our precision steel rules are photo-engraved
- We inspect to Starrett Master Standards, which are traceable to the National Institute of Standards and Technology
- Measuring Tip: When using a precision rule for very close accuracy, the eye can read better by measuring between two lines rather than from the end of the rule to a line

## READABILITY FEATURES

- The numbering size and style is distinctive and more readable than ordinary rules
- Advanced, staggered graduations- When reading lines, it is much easier to count lines of differing lengths than those that resemble a comb. All Starrett graduations are staggered in a height pattern that makes reading easy. For reading very fine graduations such as 50ths (.020") or 100ths (.010") of an inch, Starrett designed an improved pattern of lines called "Aircraft Quick-Reading Graduations" (see photo). The name stems from its extreme popularity in aircraft plants and other shops using decimals. This pattern is also used on some of our millimeter rules.
- Quick-reading figures are furnished with finer graduations for easier counting. Most all inch graduations of 1/32" and finer have subdivisions numbered (see photo).
- All rules are available in Starrett no-glare satin chrome finish for easier reading and rust resistance
- There are still some old "D" style rules on the market. These have one square and one rounded end. All Starrett rules are ground square on both ends. This provides better efficiency through the ability to read from either end on all edges.



# STEEL RULES

## STEEL RULES WITH MILLIMETER GRADUATIONS

### 150-1800MM

All rules furnished with Starrett satin chrome finish, except where noted. Additional sizes and variations available by special order.

### RULES INCLUDE:

- Full-Flexible
- Semi-Flexible
- Spring-Tempered
- Heavy Spring-Tempered

150mm Full-Flexible Steel Rules with Millimeter Graduations					
Length	Width x Thickness	Graduations	Feature Remarks	Cat. No.	EDP
150mm	12.7 x 0.4mm	30 – 1/2mm One Side; mm and 1/2mm on Reverse	With Standard Letter of Certification**	*C330-150 *C330-150 W/SLC	51329 66882
150mm Spring-Tempered Steel Rules with Millimeter Graduations					
150mm	19 x 1.2mm	35 – mm and 1/2mm Both Sides	With Standard Letter of Certification**	<b>C635-150</b> C635-150 W/SLC	52630 66893
150mm	19 x 1.2mm	35E – mm and 1/2mm Both Sides; mm on Both Ends One Side	End Graduations	C635E-150	55968
150mm	4.8 x 1.2mm	35 – mm One Edge and 1/2mm One Edge on Reverse	Narrow Rule, Regular Steel Finish	635N-150	70164
150mm	19 x 1.2mm	37 – mm and 1/2mm Both Sides		C637-150	56049
150mm	19 x 1.2mm	37E – mm and 1/2mm Both Sides; mm on Both Ends One Side	End Graduations	C637E-150	55969
300mm Full-Flexible Steel Rules with Millimeter Graduations					
300mm	12.7 x 0.4mm	30 – 1/2mm One Side; mm and 1/2mm on Reverse	With Standard Letter of Certification**	<b>*C330-300</b> *C330-300 W/SLC	51330 66883
300mm Semi-Flexible Steel Rules with Millimeter Graduations					
300mm	25.4 x 0.5mm	35 – mm and 1/2mm Both Sides		C335S-300	56048
300mm Spring-Tempered Steel Rules with Millimeter Graduations					
300mm	25.4 x 1.2mm	35 – mm and 1/2mm Both Sides	With Standard Letter of Certification**	<b>C635-300</b> C635-300 W/SLC	52631 66894
500mm Spring-Tempered Steel Rules with Millimeter Graduations					
500mm	29 x 1.2mm	35 – mm and 1/2mm Both Sides		C635-500	52632
1000mm Spring-Tempered Steel Rules with Millimeter Graduations					
1000mm	32 x 1.2mm	35 – mm and 1/2mm Both Sides		C635-1000	52633
1800mm Heavy Spring-Tempered Steel Rules with Millimeter Graduations					
1800mm	38 x 2.5mm	35 – mm and 1/2mm Both Sides		C635-1800MM	64299

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

\* Indicates rules with single row of millimeter figures (all rules under 25mm width). Rules without asterisk have double row of millimeter figures, and each edge represents the bottom edge reading left to right (rules 25mm and wider).

### Catalog Number Legend:

#### Prefixes:

C Satin Chrome Finish

#### Suffixes:

E End Graduations

N Narrow-Type Rule

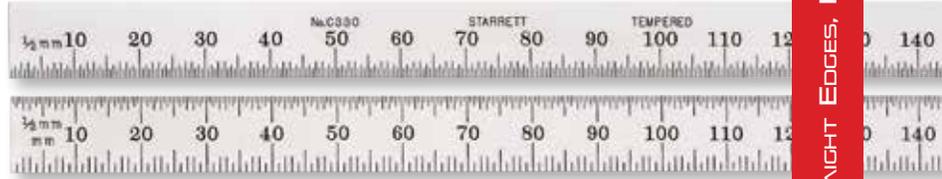
S Semi-Flexible

# PRECISION RULES

## MILLIMETER GRADUATION STYLES

30

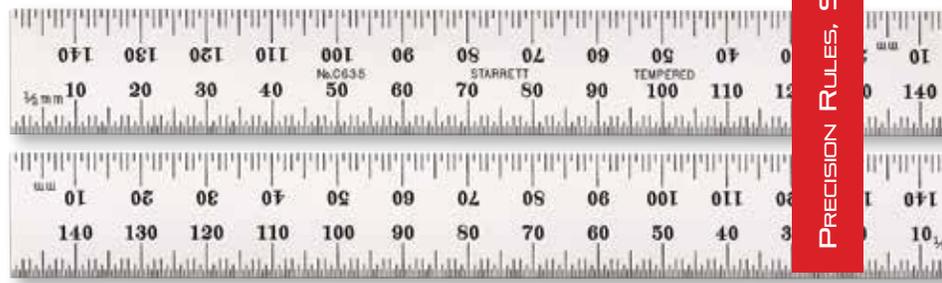
- First Edge: None
- Second Edge: 1/2mm
- Fourth Edge: 1/2mm
- Third Edge: mm



35

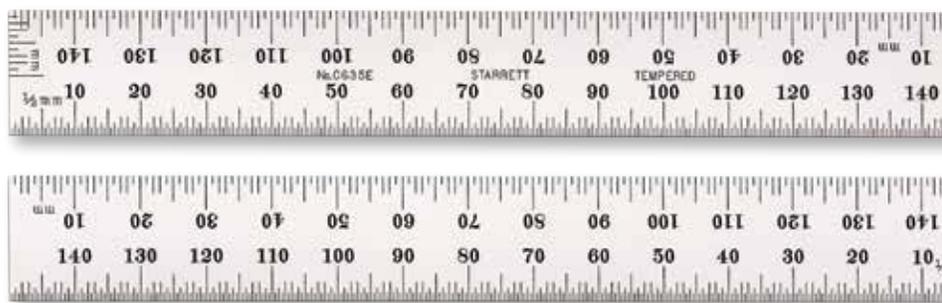
Reads both left-to-right and right-to-left. A Starrett original feature.

- First Edge: mm
- Second Edge: 1/2mm
- Fourth Edge: mm
- Third Edge: 1/2mm



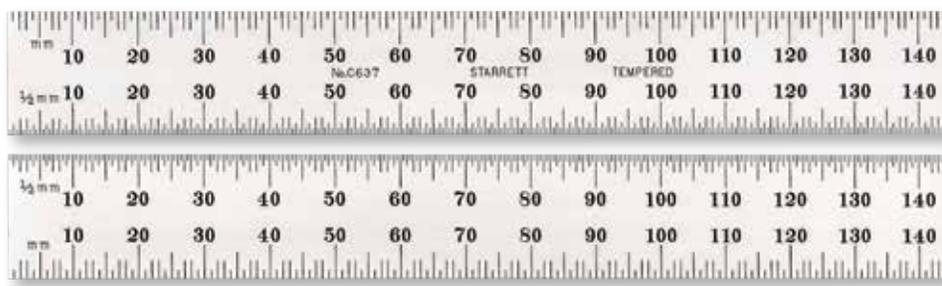
35E

- First Edge: mm
- End Graduations: mm
- Second Edge: 1/2mm
- Fourth Edge: mm
- Third Edge: 1/2mm



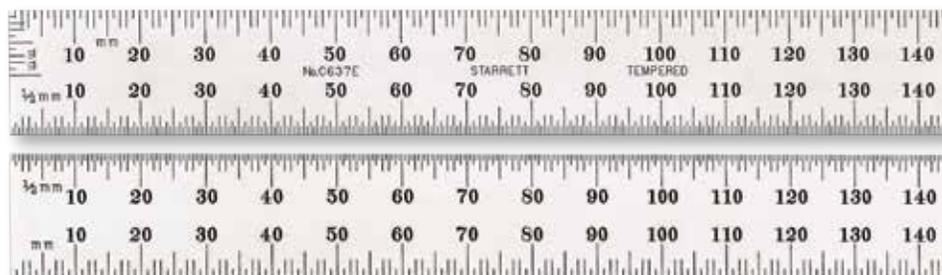
37

- First Edge: mm
- Second Edge: 1/2mm
- Fourth Edge: 1/2mm
- Third Edge: mm



37E

- First Edge: mm
- End Graduations: mm
- Second Edge: 1/2mm
- Fourth Edge: 1/2mm
- Third Edge: mm



**NOTE:** All rules under 25mm in width have single row of millimeter figures. Rules 25mm and wider have double row of millimeter figures, and each edge represents the bottom edge reading left to right.

PRECISION RULES, STRAIGHT EDGES, PARALLELS

# STEEL RULES

## STEEL RULES WITH MILLIMETER AND INCH GRADUATIONS

**RULES INCLUDE:**

### 150MM-1000MM

All rules are full millimeter lengths, except where noted. Additional sizes and variations available by special order.

- Full-Flexible
- Spring-Tempered

150mm - 5-3/4" Full-Flexible Steel Rules with Millimeter and Inch Graduations					
Length	Width x Thickness	Graduations	Feature Remarks	Cat. No.	EDP
150mm	12 x 0.4mm	31 – 32nds and 64ths on One Side; mm and 1/2mm on Reverse. All Four Edges Graduated from Same End		C331-150	51331
5-3/4"	12 x 0.4mm	34 – mm and 1/2mm on One Side; Quick-Reading 10ths (.10) and Aircraft Quick-Reading 50ths (.02) on Reverse		C334-150	56262
150mm - 6" Spring-Tempered Steel Rules with Millimeter and Inch Graduations					
150mm 5-3/4"	19 x 1.2mm	36 – 32nds and 1/2mm on One Side; 64ths and mm on Reverse	With Standard Letter of Certification*	C636ME-150 C636ME-150 W/SLC	52634 66890
150mm 6"	19 x 1.2mm	36 – 32nds and 1/2mm on One Side; 64ths and mm on Reverse	Full 6" with Millimeter Reading to 150mm; plus a Blank End	C636EM-6	57064
300mm - 11-3/4" Full-Flexible Steel Rules with Millimeter and Inch Graduations					
300mm	12.7 x 0.4mm	31 – 32nds and 64ths on One Side; mm and 1/2mm on Reverse. All Four Edges Graduated from Same End		C331-300	51332
11-3/4"	12.7 x 0.4mm	34 – mm and 1/2mm One Side; Quick-Reading 10ths (.10) and Aircraft Quick-Reading 50ths (.02) on Reverse		C334-300	56696
300mm - 11-3/4" Spring-Tempered Steel Rules with Millimeter and Inch Graduations					
300mm 11-3/4"	25.4 x 1.2mm	36 – 32nds and 1/2mm on One Side; 64ths and mm on Reverse	With Standard Letter of Certification*	C636-300 C636-300 W/SLC	52635 66891
500mm - 19-1/2" Full-Flexible Steel Rules with Millimeter and Inch Graduations					
500mm 19-1/2"	19 x 0.5mm	34 – mm and 1/2mm on One Side; Quick-Reading 10ths (.10) and Aircraft Quick-Reading 50ths (.02) on Reverse		C334-500	56697
500mm - 19-1/2" Spring-Tempered Steel Rules with Millimeter and Inch Graduations					
500mm 19-1/2"	29 x 1.2mm	36 – 32nds and 1/2mm on One Side; 64ths and mm on Reverse		C636-500	52636
1000mm - 39-1/4" Spring-Tempered Steel Rules with Millimeter and Inch Graduations					
1000mm 39-1/4"	32 x 1.2mm	36 – 32nds and 1/2mm on One Side; 64ths and mm on Reverse	With Standard Letter of Certification*	C636-1000 C636-1000 W/SLC	52637 66892

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



### Key to Starrett Rule Numbering System:

#### Prefixes:

C      Satin Chrome Finish

#### Suffixes:

EM      English/ Metric

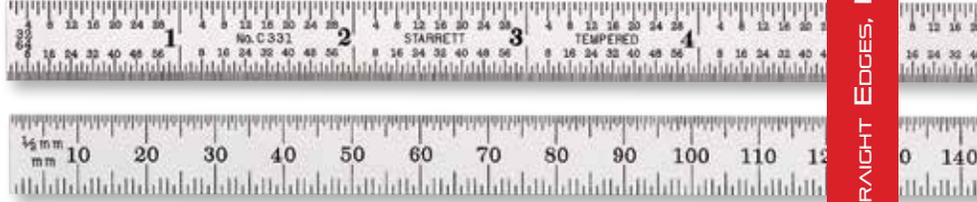
ME      Metric/English

# PRECISION RULES

## MILLIMETER AND INCH GRADUATION STYLES

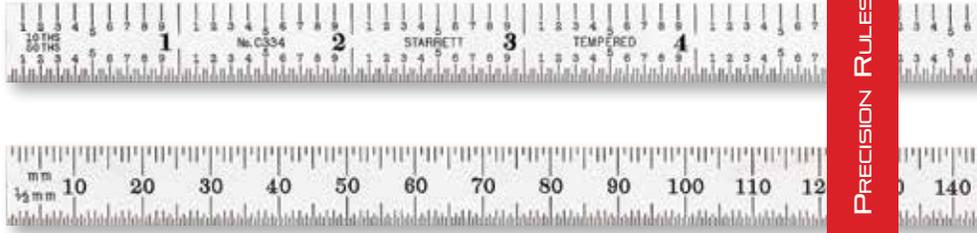
31\*

- First Edge: 32nds
- Second Edge: 64ths
- Fourth Edge: 1/2mm
- Third Edge: mm



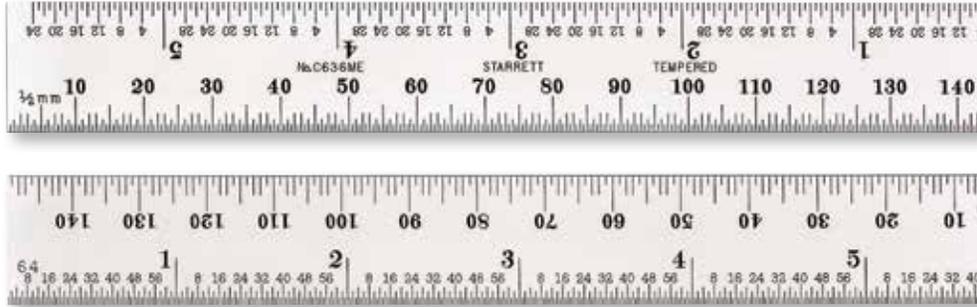
34

- First Edge: 10ths
- Second Edge: 50ths
- Fourth Edge: mm
- Third Edge: 1/2mm

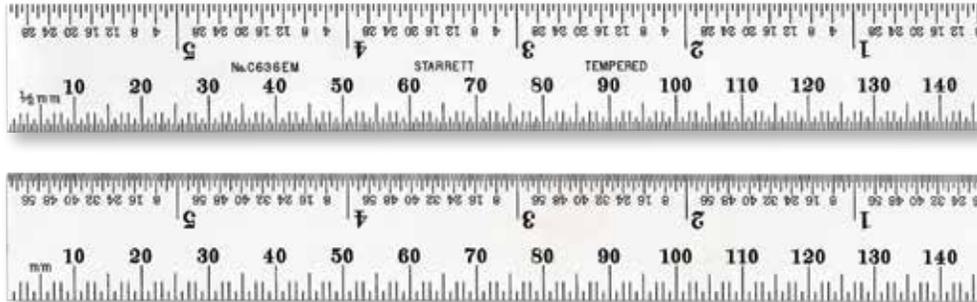


36\*

- First Edge: 32nds
- Second Edge: 1/2mm
- Fourth Edge: mm
- Third Edge: 64ths



### CATALOG C636EM-6



NOTE: \* Millimeter/Inch scale with emphasis on millimeter. Overall length is 150mm (5.905").  
Inch graduations stop at 5-3/4" to avoid confusion.

### 31, 34, AND 36\* STYLES ARE GRADUATED AS FOLLOWS:

- 150mm end-to-end on mm edges and to 5-3/4" with a blank end on the inch edges
- 300mm end-to-end on mm edges and to 11-3/4" with a blank end on the inch edges
- 500mm end-to-end on mm edges and to 19-1/2" with a blank end on the inch edges
- 1000mm end-to-end on mm edges and to 39-1/4" with a blank end on the inch edges

### CATALOG C636EM-6 IS GRADUATED AS FOLLOWS:

- 6" end-to-end on the inch edges and to 150mm with a blank end on the mm edges

# RULES

## STRAIGHT EDGE ALUMINUM RULE ASE AND AMSE SERIES

Straight edge aluminum rules are parallel, made of anodized aluminum with smooth, square and straight edges. Inch or centimeter and millimeter graduation readings on either edge.

### FEATURES

- Ideal for schools and shops, wood-workers, tinsmiths, metal workers, and bench applications
- They lie flat, resist bending and feature large, easy to read graduations and numbers that are heavier than conventional machine graduated scales
- Rules are 2" (50mm) wide with centimeter and millimeter graduations reading on either edge.
- Accurate and flexible



Cat. No.	Length	Thickness	EDP
ASE-24	24"	.081"	36090
ASE-36	36"		36091
ASE-48	48"		36092
ASE-60	60"	.125"	36093
ASE-72	72"		36094
ASE-96	96"		36095



Cat. No.	Length	Thickness	EDP
AMSE-500	500mm	2mm	36097
AMSE-1000	1000mm	3mm	36098
AMSE-1500	1500mm		36099
AMSE-2000	2000mm		36100



# RULES

## CARPENTERS' ALUMINUM RULES

AR

Aluminum yardstick is parallel, accurate and flexible.



### FEATURES

- Anodized aluminum

Cat. No.	Length	Thickness	Description	Graduation	EDP
AR-12	12"				36101
AR-18	18"				36102
AR-24	24"	.075"	Ruled 2 Sides	English	36103
AR2-36	36"				36104
AR-300	300MM				
AR-500	500MM				
AR-600	600MM	1.9MM	Ruled 2 Sides	Metric	
AR-1000	1000MM				

## ALUMINUM METERSTICK

MS-2

Aluminum meterstick is parallel, accurate and flexible.

### FEATURES

- This rule lies flat and features large, easy to read numbers
- Anodized aluminum

Cat. No.	Length	Thickness	Description	Graduation	EDP
MS-2	1m (39.37")	1.9mm (.075")	Ruled 2 Sides	English and Metric	36107



## STEEL STRAIGHT EDGES

### 380 STEEL STRAIGHT EDGES

### 385 STEEL STRAIGHT EDGES WITH BEVEL EDGE

12-72"/300-1800MM

### 387 STEEL STRAIGHT EDGES WITH BEVEL AND GRADUATED EDGE

12-48"/300-1200MM

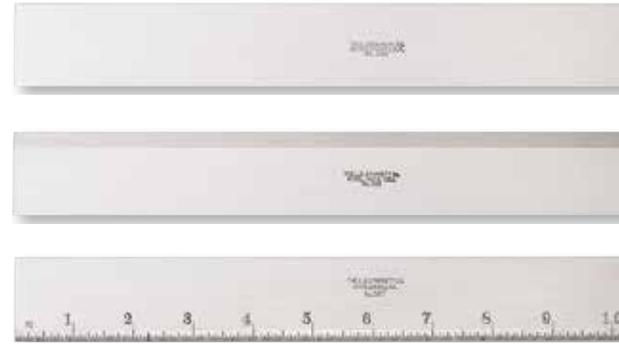
These straight edges are precision ground and nicely finished to rigid Starrett standards. They are unexcelled for drawing or scribing straight lines and checking surfaces for straightness. Their thickness and design permit them to retain shape and accuracy, but still be portable and easy to handle.

The 380 straight edge is not beveled or graduated. The 385 straight edge is beveled one edge, but not graduated. The 387 straight edge has one edge that is both beveled and graduated in 32nds of an inch.

The 380 and 385 straight edges in sizes 36" and longer are marked with arrows at two suspension points. If the straight edges are brought to the work and used on edge, they should be suspended at these two points to minimize deflection. Most jobs involve the use of straight edges in the flat position – and it is in this position that we check most stringently.



Top, 380-12; middle, 385-12; bottom, 387-12



Steel Straight Edges				380		385 with Bevel		387 with Bevel, Graduations	
Length		Width x Thickness		Cat. No.	EDP	Cat. No.	EDP	Cat. No.	EDP
Inch	mm	Inch	mm						
12	300	1-13/32 x 11/64	36 x 4.4mm	380-12	51438	385-12	51455	387-12	51468
18	450	1-13/32 x 11/64	36 x 4.4mm	380-18	51439	385-18	51456	387-18	51469
24	600	1-13/32 x 11/64	36 x 4.4mm	380-24	51440	385-24	51457	387-24	51470
				380-24 W/SLC*	66895				
36	900	2-13/32 x 7/32	60 x 5.5mm	380-36	51441	385-36	51458	387-36	51471
48	1200	2-13/32 x 7/32	60 x 5.5mm	380-48	51442	385-48	51459	387-48	51472
72	1800	3-5/32 x 9/32	80 x 7mm	380-72	51444	385-72	51461		

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

### 386 DRAFTSMEN'S STEEL STRAIGHT EDGES WITH BEVEL EDGE

12-72"/300-1800MM

These straight edges are thinner than our 385 straight edge (3/32" or 2.4mm) making them easier for draftsmen to use. Available in lengths up to 72" long. They have an attractive nickel plated finish, are beveled on one edge, and have a convenient hang-hole on one end.

386 Draftsmen's Steel Straight Edges with bevel edge					
Length		Width x Thickness		Cat. No.	EDP
Inch	mm	Inch	mm		
12	300	1-9/16 x 3/32	40 x 2.4	386-12	51462
24	600	1-9/16 x 3/32	40 x 2.4	386-24	51463
36	900	1-9/16" x 3/32	40 x 2.4	386-36	51464
48	1200	2-1/8 x 3/32	54 x 2.4	386-48	51465
72	1800	2-5/8 x 7/64	66 x 2.8	386-72	51467



## PARALLELS

### 384 STEEL PARALLELS

1/8" X 1" - 1/2" X 1-1/4"/3 X 25MM - 13 X 31MM

The 384 Steel Parallels are hardened and ground to close limits. They are indispensable for inspection and layout work or for various setups on drill presses, milling and grinding machines, shapers, etc. Furnished in pairs, 6" length, they are made from a special grade of tool steel, hardened and accurately ground on the four sides. In tool rooms or machine shops, several pairs of these parallels will be of great value.

S384JZ Parallel Set

#### 384 Steel Parallels, 6" (150mm) Length

Thickness		Width		Pairs	
Inch	mm	Inch	mm	Cat. No.	EDP
1/8"	3mm	1"	25mm	384A	51445
3/16"	5mm	7/8"	22mm	384C	51447
1/4"	6mm	3/4"	19mm	384E	51449
		1"	25mm	384F	51450
3/8"	10mm	1/2"	13mm	384G	51451
		3/4"	19mm	384H	51452
		3/8"	10mm	384M	63645
1/4"	6mm	1/2"	13mm	384N	63646
		5/8"	16mm	384P	63647
3/8"	10mm	1"	25mm	384R	63648
		5/8"	16mm	384S	63649
1/2"	13mm	3/4"	19mm	384T	63650
		1"	25mm	384W	63651
		1-1/8"	28mm	384X	63652
		1-1/4"	31mm	384Y	63653

#### 384 Steel Parallel Sets

Description	Cat. No.	EDP
Set of 4 Pairs – Sizes A, C, E, G – In Case	S384JZ	51453
Set of 4 Pairs – Sizes N, M, P, F – In Case	S384-1Z	63676
Set of 4 Pairs – Sizes G, H, R, M – In Case	S384-2Z	63677
Set of 5 Pairs – Sizes S, T, W, X and Y – In Case	S384-3Z	63678



## PARALLELS

### 154 ADJUSTABLE PARALLELS

3/8 – 2-1/4" / 9.5-57MM

These adjustable parallels provide a wide range of use in layout, gaging, inspection work and for setups on various machine tools. Their adjustability makes it possible to adjust them to exact size by micrometer measurement and also permits use in place of several solid-type parallels.

These parallels are useful as gages in checking the size of slots and openings. They are also convenient for use in machine vises, for leveling or adjusting work on setups of milling and grinding machines, shapers, planers, drill presses and for many other applications.

Parallels slide smoothly and can be easily adjusted. The smaller sizes A, B, and C, are locked by one screw while the larger sizes, D, E, and F, have two lock screws. All parallels are 9/32" (7mm) thick.

154 Adjustable Parallels					
Range		Length		Cat. No.	EDP
3/8 – 1/2"	9.5-12.7mm	1-3/4"	45mm	154A	50578
1/2 – 11/16"	12.7-17.5mm	2-1/8"	55mm	154B	50579
11/16 – 15/16"	17.5-24mm	2-11/16"	70mm	154C	50580
15/16 – 1-5/16"	24-33mm	3-9/16"	90mm	154D	50581
1-5/16 – 1-3/4"	33-44mm	4-3/16"	105mm	154E	50582
1-3/4 – 2-1/4"	44-57mm	5-1/16"	130mm	154F	50583

154 Adjustable Parallel Sets		
Description	Cat. No.	EDP
Set of 4 Parallels – Sizes A, B, C, D – In Case	S154SZ	50584
Set of 6 Parallels – Sizes A, B, C, D, E, F – In Case	<b>S154LZ</b>	50586
Case Only for Set of 4	S154SZZ	55194
Case Only for Set of 6	S154LZZ	55195



Checking inside measurement of slot with parallel and outside micrometer



Set S154LZ with 154E in foreground



**PROTRACTORS,  
ANGLE MEASUREMENT**

# PROTRACTORS

## C19 STEEL

0-180°

This steel protractor is a highly useful and accurate tool for setting bevels, transferring angles, small squaring tasks, checking cutter clearances within certain limits, and the direct reading of angles and supplementary angles.

### FEATURES

- The back of the tool is flat for ease of use
- The blade can be locked firmly at any angle by the lock nut
- Double graduations from 0-180° in opposite directions permitting the direct reading of angles and supplementary angles
- 6" satin chrome blade for ease of reading and resistance to rust
- Round head

Cat. No.	Blade Length	Range	EDP
C19	6"	0-180°	50127

## C183 STEEL

0-180°

The same features as the C19, except that it has a rectangular head, thus providing four convenient working edges.

Cat. No.	Blade Length	Range	EDP
C183	6"	0-180°	50672

## C182 STEEL

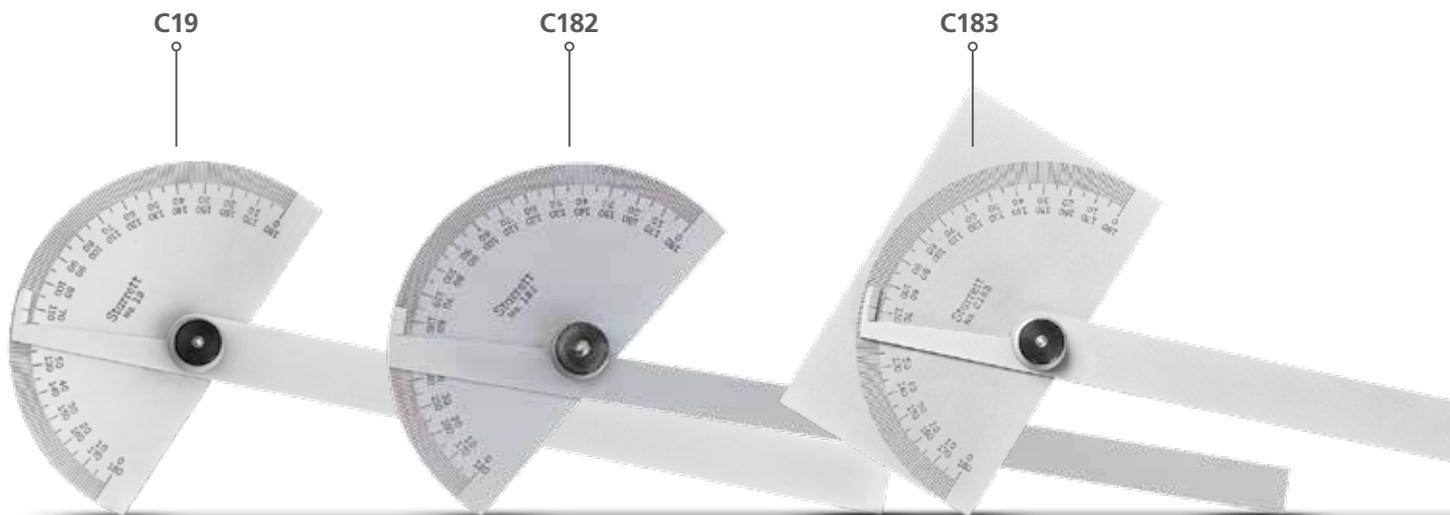
0-180°

Weighs 3 ounces and features a satin chrome finish. Furnished with one needle point and one cone point.

### FEATURES

- Will allow the drawing of any number of radial lines at any angle through a common center
- The fulcrum point can be drawn back into the hub and frictionally held in a safe position
- Satin chrome finish for ease of reading and resistance to rust

Cat. No.	Blade Length	Range	EDP
C182	6"	0-180°	64361



# PROTRACTORS

## 493 PROTRACTOR AND DEPTH GAGES

0-180°

The ability to measure angles and depths is combined in these convenient tools.

### C493

- Angular measurement is from 0-180° in opposite directions allowing the direct reading of angles and supplementary angles
- Depths are measured from a 6" (150mm) blade (our C610N)
- Both tools have a flat surface on the back of the head permitting laying the tool flat on paper or work
- No-glare satin chrome finish
- Semicircular head

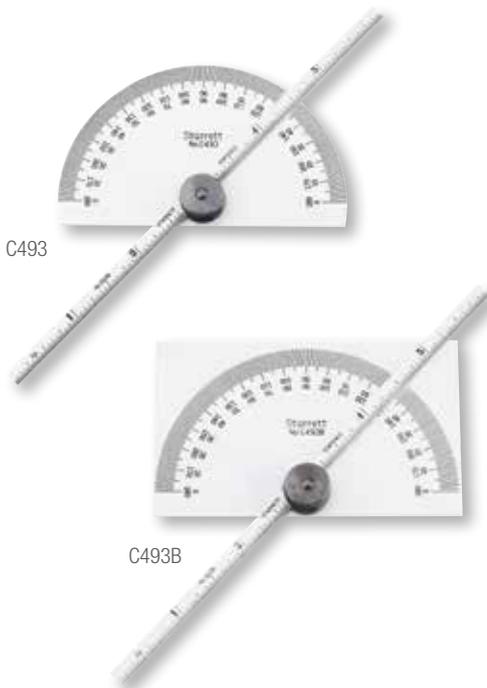
### C493B

This gage is exactly the same as the C493, except that it has a rectangular protractor head which provides four convenient working edges.

C493 Protractor and Depth Gages				
Cat. No.	EDP	Blade Length	Blade Graduations	Range
C493	52532	6"	32nds, 64ths	0-180°
C493B	52534	6"	32nds, 64ths	0-180°

Replacement Blades		
Cat. No.	EDP	Blade Length
C610N-6	52696	6"
C610N-12	67103	12"



## 22C DRILL POINT GAGE

59°

This gage was designed specifically for use in drill grinding. It provides a quick, accurate way for determining the correct drill point angle of 59° and the correct length of drill lips necessary for clean-cut drilling at maximum feeds and speeds.

- The sliding head may be adjusted to any position along the rule and locked by a thumb nut
- The head is beveled to 59° (the correct drill point angle), and is also graduated in 32nds along the 59° face for measuring the drill lips which should be of equal lengths
- The hook rule has accurate, machine-divided graduations in 8ths, 16ths, quick-reading 32nds and 64ths
- Hook is adjustable and can be shortened or extended on either side of the rule, and may also be removed if desired
- Tool can also be used as a Plain Rule, Hook Rule, Depth Gage, and Slide Caliper
- Will handle up to a 2" diameter drill

22C Drill Point Gage					
Cat. No.	EDP	Head		Hook Rule	
		Bevel	Graduations	Length	Graduations
22C	50150	59°	32nds	6"	8ths, 16ths; Quick-Reading 32nds, 64ths





## PRO SITE PROTRACTOR

### 505A-12 AND 505A-7

#### ALUMINIUM MITRE

The popular ProSite 505 protractor family consists of two 300mm (12") combination protractors, a 300mm (12") mitre protractor and two 175mm (7") mitre protractors. The combination protractors take the guesswork out of these functions: mitre cuts, single cuts, compound mitre cuts, included conversion table, protractor and roof pitches. The mitre protractors are ideal for carpenters, plumbers and all building trades that require the measuring and transferring of angles.

#### FEATURES

- ProSite protractors take error-prone calculations out of the process of mitre cuts.
- This easy-to-use tool has two laser engraved scales.
- Mitre cut scale transfers readings directly to the mitre saw for mitre joints.
- Single cut scale transfers readings directly to the mitre saw.
- Made from durable 6.5mm (1/4") aluminium with Teflon® "O" ring for smooth and precise operation.
- Protractor saves time and reduces waste.



505A-12

505A-7

Cat. No.	Description
505A-12	300mm (12") Mitre Protractor
505A-7	175mm (7") Mitre Protractor

### 505P-7

#### PLASTIC MITRE

Our 175mm (7") hardened plastic mitre protractor offers the same functionality as the 505A-7 protractor.



Cat. No.	Description
505P-7	175mm (7") Plastic Mitre Protractor



**CALIPERS, DIVIDERS  
AND TRAMMELS**

## SPRING-TYPE CALIPERS



274, 275, 277 Calipers

Quick-adjusting spring nut

### 274, 275, 277 TOOLMAKERS' SPRING-TYPE CALIPERS AND DIVIDERS WITH ROUND LEGS AND SOLID NUT

3, 6"/75, 150MM

Toolmakers' Calipers and Dividers are the finest tools of their type. Designed for toolmakers and all good mechanics who require finer adjustment and better balance so a more sensitive "feel" can be obtained. Precision made to rigid Starrett standards throughout.

The fulcrum stud is hardened and the bearing surfaces of the legs are large enough to prevent any side deflection. The bow spring is strong and flexible, and the adjustment is centrally located in the legs to assure smooth action.

#### 274, 275, 277 Toolmakers' Spring-Type Calipers and Dividers

Size and Approx. Capacity	Inside Calipers		Outside Calipers		Dividers		
	Inch	mm	Cat. No.	EDP	Cat. No.	EDP	Cat. No.
3"	75mm	274-3	51301	275-3	51305	277-3	51309
6"	150mm	274-6	51303	275-6	51307	277-6	51311

Pre-setting a 275-6 outside caliper to a rule for a transfer measurement



### 73, 79, 83 "YANKEE" SPRING-TYPE CALIPERS AND DIVIDERS WITH FLAT LEGS AND QUICK-SPRING OR SOLID NUT

4, 6, 8, 12"/100, 150, 200, 300MM

"Yankee" Calipers and Dividers are made from a high-grade steel and well-finished. The legs are made of flat stock and are very durable. The fulcrum stud is hardened and has a smooth bearing surface. The bow spring, although flexible, is exceedingly strong to assure reliability.

All sizes are available with either spring nut or solid nut. The Starrett quick-adjusting automatic-closing spring nut is designed for making fast, positive adjustments. The threads of the nut firmly engage the screw at the slightest pressure from the leg. When the pressure is withdrawn, the nut automatically releases itself, sliding freely over the screw. This feature saves time in opening and closing.

#### 73 "Yankee" Spring-Type Inside Calipers

Size and Approx. Capacity	Solid Nut Cat. No.	EDP	Quick-Spring Nut	
			Cat. No.	EDP
4"	73A-4	50334	73B-4	50335
6"	73A-6	50336	73B-6	50337
8"	73A-8	50338	73B-8	50339
12"	73A-12	50342	73B-12	50343

#### 79 "Yankee" Spring-Type Outside Calipers

4"	79A-4	50364	79B-4	50365
6"	79A-6	50366	79B-6	50367
8"	79A-8	50368	79B-8	50369
12"	79A-12	50372	79B-12	50373

#### 83 "Yankee" Spring-Type Dividers

4"	83A-4	50376	83B-4	50377
6"	83A-6	50378	83B-6	50379
8"	83A-8	50380	83B-8	50381
12"	83A-12	50384	83B-12	50385

## FIRM AND LOCK-JOINT CALIPERS



### IMPROVED FIRM-JOINT CALIPERS

26 (OUTSIDE)

6-36"/150-900MM

27 (INSIDE)

6-24"/150-600MM

- Improved joint designed for tension adjustment
- Tension will not change with leg movement
- Legs are made from a high-grade steel, are ruggedly constructed and well-finished



### LOCK-JOINT CALIPERS WITH FINE-ADJUSTMENT

38 (OUTSIDE) AND 39 (INSIDE)

6-24"/150-600MM

- Joint can be quickly and firmly locked by a partial turn of the large knurled disc
- Spring washer under the disc maintains proper leg tension when joint is unlocked
- Provided with an adjusting screw to permit fine-adjustments for close measurements
- Once legs have been set to approximate size and joint locked, final adjustment is made by a few turns of the knurled adjusting nut
- Legs are made of well shaped high-grade steel and are ruggedly constructed and nicely finished



### LOCK-JOINT TRANSFER TYPE CALIPERS WITH FINE-ADJUSTMENT

36 (OUTSIDE) AND 37 (INSIDE)

6-24"/150-600MM

One of the handiest and most versatile calipers ever made, Starrett Lock-Joint Transfer Calipers feature a transfer arm, a fine-adjustment screw, and a locking joint.

- Transfer arm allows transfer measurements from places where it is necessary to move the legs after they have been set to size
- Adjusting screw permits close adjustment for fine measurements
- Once legs have been set to approximate size and the joint locked, final adjustment is made with a few turns of the knurled adjusting nut
- Joint can be quickly and firmly locked by a partial turn of the large knurled disc
- Spring washer under the disc maintains proper tension of legs when joint is loosened
- Ruggedly constructed legs from high-grade steel and are well-shaped and nicely finished



#### Firm and Lock-Joint Calipers

Size*	26 Outside Calipers				27 Inside Calipers		36 Outside Calipers		37 Inside Calipers		38 Outside Calipers		39 Inside Calipers	
	in	mm	Cat. No.	EDP	Cat. No.	EDP	Cat. No.	EDP	Cat. No.	EDP	Cat. No.	EDP	Cat. No.	EDP
6	150	26-6	50186	27-6	50193	36-6	50245	37-6	50249	38-6	50253	39-6	50257	
12	300	26-12	50189	27-12	50196	36-12	50246	37-12	50250	38-12	50254	39-12	50258	
18	450	26-18	50190	27-18	50197									
24	600	26-24	50191	27-24	50198	36-24	50248	37-24	50252	38-24	50256	39-24	50260	
36	900	26-36	50192											

\* Actual capacity is one-third greater than the listed size.



**HOLE GAGES, SLOT GAGES**

## SMALL HOLE GAGES

### 829 SMALL HOLE GAGES

.125-.500"/3.2-12.7MM

These full-ball gages are used for general work.

829 Small Hole Gages					
Range		Approx. Length		Cat. No.	EDP
Inch	mm	Inch	mm		
.125-.200	3.2-5.1	2-7/8	75	829A	53070
.200-.300	5.1-7.6	3	80	829B	53071
.300-.400	7.6-10.2	3-3/8	85	829C	53072
.400-.500	10.2-12.7	3-1/2	90	829D	53073
Set of 4 in Case				<b>S829EZ</b>	53074
831 Small Hole Gages					
.125-.200	3.2-5.1	2-13/16	70	831A	53083
.200-.300	5.1-7.6	3-1/8	80	831B	53084
.300-.400	7.6-10.2	3-3/8	85	831C	53085
.400-.500	10.2-12.7	3-1/2	90	831D	53086
Set of 4 in Case				S831EZ	53087
830 Small Hole Gages					
.125-.150	3.2-3.8	2	50	830A	53076
.150-.200	3.8-5.1			830B	53077
.200-.300	5.1-7.6			830C	53078
.300-.400	7.6-10.2			830D	53079
.400-.500	10.2-12.7			830E	53080
Set of 5 in Case				S830FZ	53081



## TELESCOPING GAGES

### 229 TELESCOPING GAGES WITH ONE TELESCOPING ARM

1/2-6"/13-150MM

- Features a handle, one rigid contact arm and one spring-tensioned telescoping contact arm

#### 229 Telescoping Gages

Range		Handle Length		Cat. No.	EDP
Inch	mm	Inch	mm		
1/2 – 3/4	13-19	2-3/8	60	229A	50923
3/4 – 1-1/4	19-32			229B	50924
1-1/4 – 2-1/8	32-54			229C	50925
2-1/8 – 3-1/2	54-89	3-1/4	82	229D	50926
3-1/2 – 6	89-150			229E	50927

#### 229 Telescoping Gage Sets

Description	Cat. No.	EDP
Set of 3, 229A, B, C in Case	S229FZ	50928
Set of 5, 229A, B, C, D, E in Case	S229GZ	50929

Handles can be individually ordered and/or ordered in larger sizes such as 8", 12" or longer, similar to 579 Telescoping Gage listing, upon request.



## TELESCOPING GAGES

Starrett telescoping gages are used for determining the true size of holes, slots, and recesses up to 6" (150mm). The ends of both contacts are hardened and ground to a radius to allow proper clearance on the smallest hole the gage will enter. These tools must be slightly "rocked" in the hole being measured to ensure that the tool is on the proper diameter before it is locked and withdrawn. The final hole size is obtained by measuring over the gage contacts with a micrometer.



## TELESCOPING GAGES

### 579 SELF-CENTERING TELESCOPING GAGES WITH TWO TELESCOPING ARMS

#### 5/16-6"/8-150MM

- Similar to the 229 Telescoping Gage with a slightly greater range and two telescoping contacts
- Handles are rigidly attached to the contact plungers and are automatically self-centering
- Constant spring tension gives uniform contact pressure
- Both plungers are easily locked at any desired setting



#### 579 Telescoping Gages

Range Inch	mm	Handle Length		Cat. No.	EDP
		Inch	mm		
5/16 – 1/2"	8-13mm	2-3/8"	60mm	579A	52610
		8"	200mm	579A-8	63192
		12"	300mm	579A-12	63195
1/2 – 3/4"	13-19mm	2-3/8"	60mm	579B	52611
		8"	200mm	579B-8	63193
		12"	300mm	579B-12	63196
3/4 – 1-1/4"	19-32mm	2-3/8"	60mm	579C	52612
		8"	200mm	579C-8	63194
		12"	300mm	579C-12	63197
1-1/4 – 2-1/8"	32-54mm	2-3/8"	60mm	579D	52613
		8"	200mm	579D-8	67114
		12"	300mm	579D-12	63198
2-1/8 – 3-1/2"	54-89mm	2-3/8"	60mm	579E	52614
		8"	200mm	579E-8	67115
		12"	300mm	579E-12	63199
3-1/2 – 6"	89-150mm	3-1/4"	82mm	579F	52615
		8"	200mm	579F-8	67116
		12"	300mm	579F-12	63200

#### 579 Telescoping Gage Sets

Description	Cat. No.	EDP
Set of 4, 579A, B, C, D in Case	S579GZ	52616
Set of 6, 579A, B, C, D, E, F in Case	S579HZ	52617

Handles can be individually ordered. Handles longer than 12" (300mm) are available on special order.

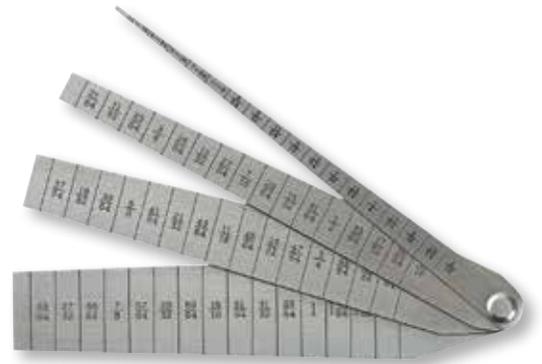


# TAPER GAGES

## 267 TAPER GAGE

1/16 – 1-1/16"

- Specially designed for rapid, accurate checking of inside diameters of tubing
- Also very useful for general gaging of slot widths, hole sizes, setting calipers, etc.
- Thin, tapered leaves graduated to measure inside diameters or widths from 1/16" to 1-1/16" in 64ths of an inch
- Nicely finished spring-tempered steel, approximately 1" wide by 5-1/4" long



## 270 TAPER GAGE

.010-.150"/0.3-4MM

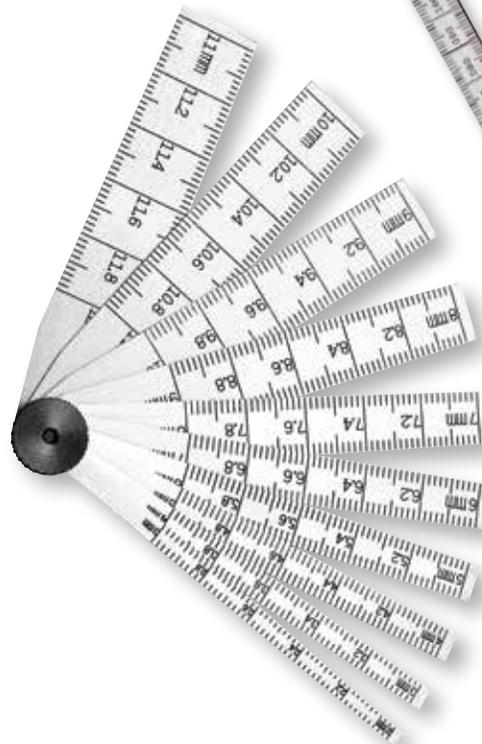
- Very useful tool, especially for bearing work and for gaging slots
- Made of quality tool steel and accurately tapered throughout entire length for quick and convenient measuring
- 7/16" (11mm) wide by 6-1/4" (160mm) long
- Can be used as a precision shim
- One side graduated from .010" to .150" in thousandths of an inch; the reverse side from 0.3mm to 4mm in one-twentieth of a mm (0.05mm)



## 269, 269M TAPER GAGES

.100-1"/2-25MM

- These gages are for determining hole sizes in dies and all kinds of other work
- Read in thousandths of an inch or 0.02mm
- Made of tempered steel with a locking device for fixing any leaf in position for use



267 Taper Gage				
Description	Cat. No.	EDP		
Taper Gage, 1/16 – 1-1/16" range	267	51286		
270 Taper Gage				
Taper Gage, .010-.150"/0.3-4mm range	270	51292		
269 Taper Gages - .001" Graduation				
Range	Length	Leaves	Cat. No.	EDP
.100-.500"	2-1/2"	8	269A	51290
.500-1"	2-3/4"	10	269B	51291
269M Taper Gages - 0.02mm Graduation				
2-12mm	64mm	10	269MA	56031
12-25mm	70mm	13	269MB	56032

### TAPER GAGES

These are named "taper" gages only because of their shape. They do not measure taper, but they do measure hole and slot sizes. They are quick to use, very accurate, and are a convenient size.



## FIXED GAGE STANDARDS

## WIRE AND STANDARD GAGES

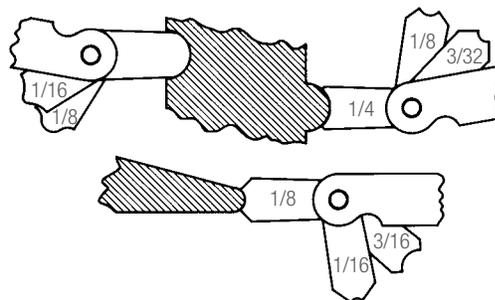
### 178, 178M FILLET OR RADIUS GAGES WITH LOCKING DEVICE

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 inch sizes and two millimeter 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.

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

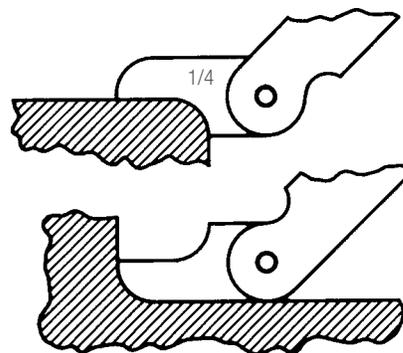


### 272, 272M FILLET OR RADIUS GAGES

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.

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



### 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" inclusive by .010", four leaves with concave and convex radii from .125-.20" inclusive by .025", one leaf with concave and convex radii of .250", three leaves with concave radii only from .300-.400" inclusive by .050" and three leaves with convex radii only from .300-.400" by .050".

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



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

## C391 CENTER GAGE

60° AMERICAN NATIONAL

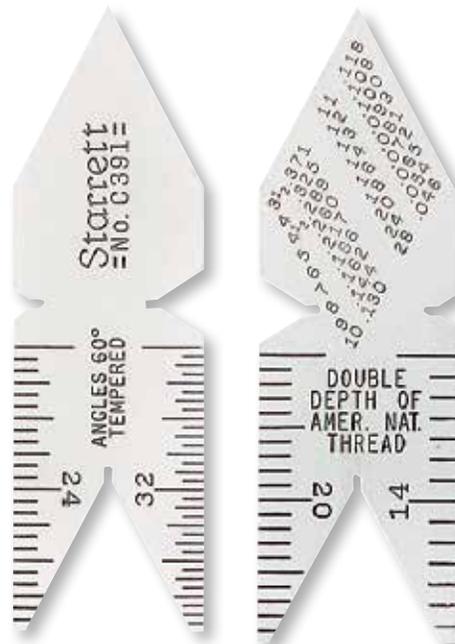
## C396 CENTER GAGE

55° WHITWORTH OR ENGLISH

## C398M CENTER GAGE

60° METRIC

- Extremely handy for use in grinding and setting screw cutting tools
- Meet 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



C391 Center Gage. Left: Front 60° angle side. Right: Back with double depths of threads gage.

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		
C398M	51478	Metric Standard, 60°

# 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 definite 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.



155



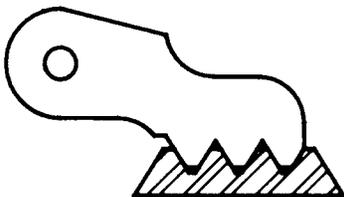
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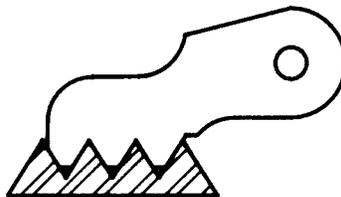
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474



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

### FORMULAS

American Natational 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



476



473



156M



159M



472

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
472	52484	51	4-84	First Corner 17 Leaves: 4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18 Second Corner 17 Leaves: 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50 Third Corner 17 Leaves: 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

## 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.

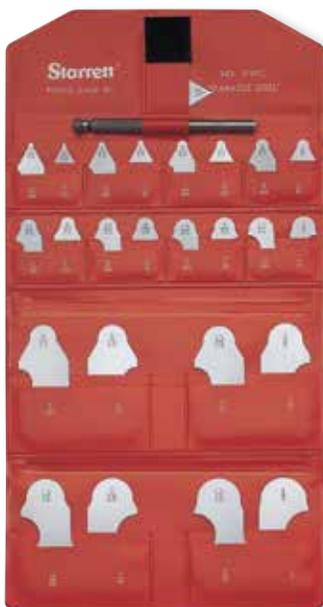
Many different sets for maximum convenience. Each set is furnished in an attractive case, providing complete protection and easy, instant selection of the right gage size for the job.

#### 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



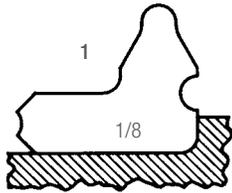
Holder 110 with  
167-3/16 attached

S167CHZ Radius Gage Set with 25  
gages and holder in case

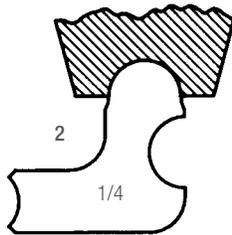


Gaging radii using gage with holder

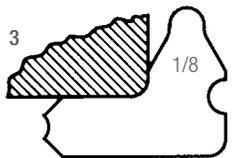
**FIVE DIFFERENT GAGING SURFACES** – Ideal for Checking Convex and Concave Radii of All Types



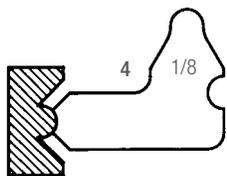
**Fig 1.** Checking concave (internal) radius with 90° arc. Also checks if sides are tangent to radius and 90° to each other.



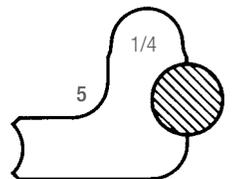
**Fig 2.** Checking concave (internal) radius with arc up to 180°. Also will check radius shown in Fig. 1 but not relationship of sides.



**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**

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

**S167M Radius Gage Sets – Millimeter**

1-7mm	0.5mm	13	Without Holder	S167MAZ	55817
0.5-7mm	0.5mm	14	With Holder	S167MAHZ	55818
8-15mm	1mm	8	Without Holder	S167MBZ	55819
1-7mm	0.5mm	21	Sets S167MA and S167MB Combined, without Holder	S167MCZ	55820
8-15mm	1mm				
0.5-7mm	0.5mm	22	Sets 167MB and S167MAH Combined, with Holder	S167MCHZ	55821
8-15mm	1mm				
1-15mm	1mm	15	Without Holder	S167MDZ	55822

**SD167 Radius Gage Sets – Decimal-Inch**

.020-.300	.020	19	Without Holder	SD167FZ	63464
.350-.500	.050		With Holder	SD167FHZ	63460
.010-.025	.005	26	Without Holder	SD167GZ	63433
.030-.100	.010				
.120-.300	.020		With Holder	SD167GHZ	63463
.350-.500	.050				
Holder Only				110	50475

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

**Individual Radius Gage Specifications**

167 – Inch			167M – mm			167 – Decimal-Inch		
Radius	Cat. No.	EDP	Radius	Cat. No.	EDP	Radius	Cat. No.	EDP
1/64"	167-1/64	50646	0.5mm	167M-1/2	55795	.010	167-010	63434
1/32"	167-1/32	50622	1mm	167M-1	55796	.015	167-015	63435
3/64"	167-3/64	50623	1.5mm	167M-1 1/2	55797	.020	167-020	63436
1/16"	167-1/16	50624	2mm	167M-2	55798	.025	167-025	63437
5/64"	167-5/64	50625	2.5mm	167M-2 1/2	55799	.030	167-030	63438
3/32"	167-3/32	50626	3mm	167M-3	55800	.040	167-040	63439
7/64"	167-7/64	50627	3.5mm	167M-3 1/2	55801	.050	167-050	63440
1/8"	167-1/8	50628	4mm	167M-4	55802	.060	167-060	63441
9/64"	167-9/64	50629	4.5mm	167M-4 1/2	55803	.070	167-070	63442
5/32"	167-5/32	50630	5mm	167M-5	55804	.080	167-080	63443
11/64"	167-11/64	50631	5.5mm	167M-5 1/2	55805	.090	167-090	63444
3/16"	167-3/16	50632	6mm	167M-6	55806	.100	167-100	63445
13/64"	167-13/64	50633	6.5mm	167M-6 1/2	55807	.120	167-120	63446
7/32"	167-7/32	50634	7mm	167M-7	55808	.140	167-140	63447
15/64"	167-15/64	50635	8mm	167M-8	55809	.160	167-160	63448
1/4"	167-1/4	50636	9mm	167M-9	55810	.180	167-180	63449
17/64"	167-17/64	50637	10mm	167M-10	55811	.200	167-200	63450
9/32"	167-9/32	50638	11mm	167M-11	55812	.220	167-220	63451
5/16"	167-5/16	50639	12mm	167M-12	55813	.240	167-240	63452
11/32"	167-11/32	50640	13mm	167M-13	55814	.260	167-260	63453
3/8"	167-3/8	50641	14mm	167M-14	55815	.280	167-280	63454
13/32"	167-13/32	50642	15mm	167M-15	55816	.300	167-300	63455
7/16"	167-7/16	50643				.350	167-350	63456
15/32"	167-15/32	50644				.400	167-400	63457
1/2"	167-1/2	50645				.450	167-450	63458
						.500	167-500	63459

# THICKNESS GAGES

## ENGLISH AND METRIC THICKNESS GAGES

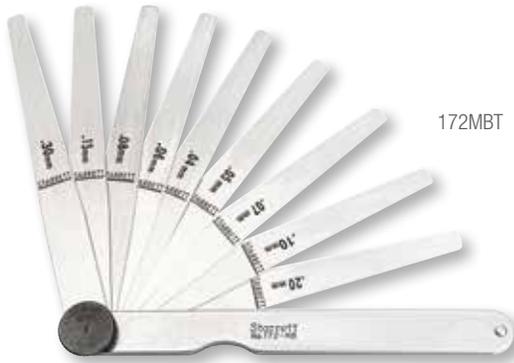
### .0015-.200"/0.03-5MM

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

- Leaves made of finest tempered-steel, carefully finished to correct thickness, individually tested and marked with thickness
- Locking device on most gages permits securely locking one or more leaves in position
- Leaves easily removed or replaced
- Rugged, substantial steel case protects leaves



172AT



172MBT



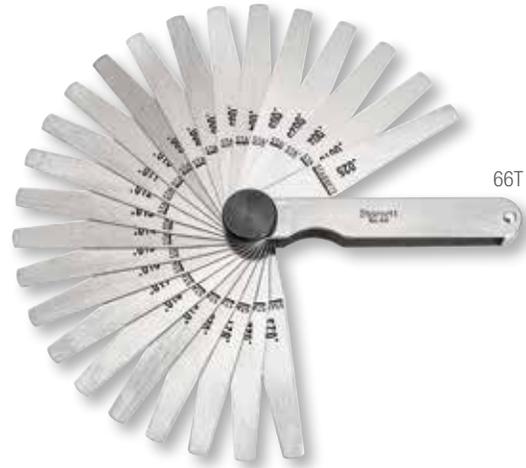
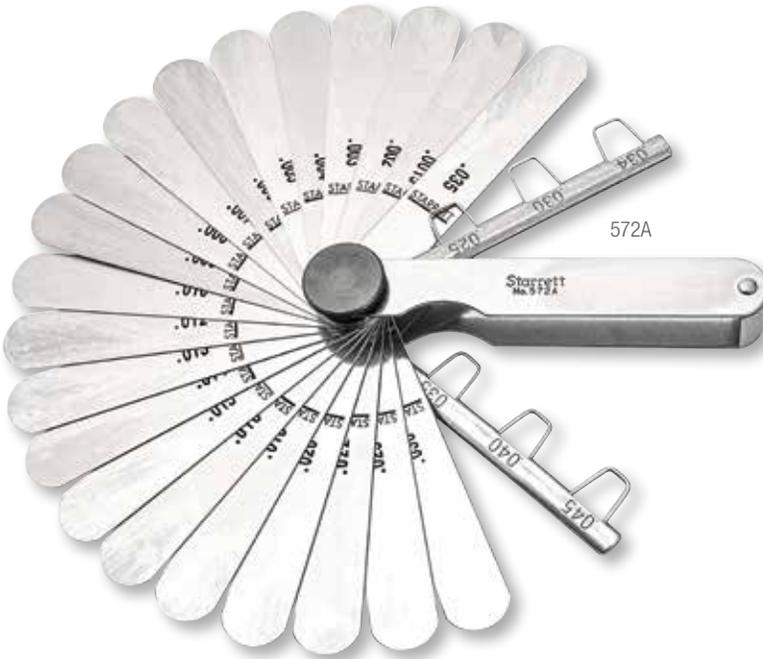
172A



66



467



**Inch Reading Thickness Gages with Straight Leaves**

Cat. No.	EDP	No. of Leaves	Size Leaves	(Range) Leaf Thickness (Inches)	Description/Remarks
172A	50649	9	1/2 x 3-1/32"	.0015, .002, .003, .004, .006, .008, .010, .012, .015	With Locking Device
<b>66</b>	50314	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	With Locking Device
<b>66B</b>	57097	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	With Locking Device
<b>467</b>	52464	13	1/2 x 4-1/2"	.0015, .002, .003, .004, .006, .008, .010, .020, .030, .040, .075, .100, .200	With Locking Device
172E	50654	8	1/2 x 12"	.002, .003, .004, .005, .006, .008, .010, .015	With Locking Device
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	With Locking Device and Spark Plug Wire Gages
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	With Locking Device

**Inch Reading Thickness Gages with Tapered Leaves**

<b>66T</b>	50315	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	With Locking Device
172AT	50650	9	1/2-1/4 x 3-1/32"	.0015, .002, .003, .004, .006, .008, .010, .012, .015	With Locking Device
<b>172CT</b>	50652	8	1/2-1/4 x 6"	.002, .003, .004, .006, .008, .010, .012, .015	With Locking Device

**Millimeter Reading Thickness Gages with Straight Leaves**

<b>66MA</b>	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	With Locking Device
<b>173MA</b>	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	With Locking Device
<b>467M</b>	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	With Locking Device

**Millimeter Reading Thickness Gages with Tapered Leaves**

<b>172MBT</b>	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	With Locking Device
<b>173MAT</b>	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	With Locking Device
<b>173MCT</b>	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	With Locking Device

## "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.

- 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 is furnished in 20' or 6m (nondispensable) rolls in a cardboard box. Also, the .0005", 25' size is furnished in a cardboard box.
- Made of the finest tempered steel
- 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

Thickness	Length	Cat. No.	EDP
.001"	25'	666-1	52796
.0015"		666-1 1/2	52797
.002"		666-2	52798
.0025"		666-2 1/2	52799
.003"		666-3	52800
.004"		666-4	52801
.005"		666-5	52802
.006"		666-6	52803
.007"		666-7	52804
.008"		666-8	52805
.009"		666-9	52806
.010"		666-10	52807
.011"		666-11	52808
.012"		666-12	52809
.013"		666-13	52810
.014"	666-14	52811	
.015"	666-15	52812	

#### Inch Reading Rolls – Cardboard Box

.0005"	25'	666-1/2	64210
.016"	20'	666-16	52813
.017"		666-17	52814
.018"		666-18	52815
.019"		666-19	52816
.020"		666-20	52817
.021"		666-21	52818
.022"		666-22	52819
.023"		666-23	52820
.024"		666-24	52821
.025"		666-25	52822

#### Millimeter Reading Rolls – Dispenser Case

0.03mm	7.6m	666M-3	52823
0.04 mm		666M-4	52824
0.05mm		666M-5	52825
0.06mm		666M-6	52826
0.08mm		666M-8	52827
0.10mm		666M-10	52828
0.15mm		666M-15	52829
0.20mm		666M-20	52830
0.25mm		666M-25	52831
0.30mm		666M-30	52832
0.35mm	666M-35	52833	

#### Millimeter Reading Rolls – Cardboard Box

0.40mm	6.1m	666M-40	52834
0.45mm		666M-45	52835
0.50mm		666M-50	52836

# "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.

- Inch sizes are 12" long, 1/2" wide and furnished in 32 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
- 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		
Thickness	Cat. No.	EDP
0.03mm	667M-3	52869
0.04mm	667M-4	52870
0.05mm	667M-5	52871
0.06mm	667M-6	52872
0.08mm	667M-8	52873
0.10mm	667M-10	52874
0.15mm	667M-15	52875
0.20mm	667M-20	52876
0.25mm	667M-25	52877
0.30mm	667M-30	52878
0.35mm	667M-35	52879
0.40mm	667M-40	52880
0.45mm	667M-45	52881
0.50mm	667M-50	52882

## 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.



Inch Gages – 12"		
Thickness	Cat. No.	EDP
.0005"	667-1/2	64209
.001"	667-1	52837
.0015"	667-1 1/2	52838
.002"	667-2	52839
.0025"	667-2 1/2	52840
.003"	667-3	52841
.004"	667-4	52842
.005"	667-5	52843
.006"	667-6	52844
.007"	667-7	52845
.008"	667-8	52846
.009"	667-9	52847
.010"	667-10	52848
.011"	667-11	52849
.012"	667-12	52850
.013"	667-13	52851
.014"	667-14	52852
.015"	667-15	52853
.016"	667-16	52854
.017"	667-17	52855
.018"	667-18	52856
.019"	667-19	52857
.020"	667-20	52858
.021"	667-21	52859
.022"	667-22	52860
.023"	667-23	52861
.024"	667-24	52862
.025"	667-25	52863
.026"	667-26	52864
.027"	667-27	52865
.028"	667-28	52866
.029"	667-29	52867
.030"	667-30	52868

Individual Assortments		
Cat. No.	EDP	Description
S667A	63274	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		
S667D	52883	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

### 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.



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



PRECISION SHOP TOOLS

## SCRIBERS

### 29 SCRATCH GAGE

This tool is extremely useful for scribing lines parallel to a given surface. It is made of steel and the head is hardened. The gage is securely locked by a knurled clamp screw and split bushing in the head.

The marker is a square piece of thin tempered-steel firmly held against the edge of the beam by a screw. The beam is graduated a full 6" by 64ths of an inch, and fine adjustments may be made by a slight rotating movement of the head.



29B Scratch Gage

#### 29 Scratch Gage

Size Beam	Graduation	Cat. No.	EDP
6" (150mm)	64ths	29B	50201

Two extra cutters sent with each gage.

### 70 POCKET SCRIBERS

#### CARBIDE OR HARDENED STEEL POINTS

The handle is made of steel, knurled and nickel plated. The scriber point is steel, properly hardened and finely tapered so the location of the point is not obscured.

The scriber is held firmly in the handle by a knurled chuck and when not in use can be reversed, telescoped into the handle, and locked by the chuck. The hexagon-shaped head prevents rolling.

#### 67 IMPROVED SCRIBER

Scribers are steel, properly tempered and well finished. The points are finely tapered so that the scriber point can be easily seen on the work. The handle, as well as the points, have a knurled grip.

The long bent point is useful for reaching through holes. The length of the scriber with the short point is 9" (225mm) and with the long bent point, 12" (300mm). Points screw into the handle and fit either end. The knurled handle is nickel-plated.

#### 68 ADJUSTABLE SLEEVE SCRIBER

A very handy scriber with a point 8" (200mm) in length that is held by an adjustable knurled sleeve. The adjustable sleeve may be clamped close to or away from the working point.

The sleeve is nickel-plated. Available with or without knife point.

#### 70 Pocket Scribers

Point	Point Length		Handle Diameter		Cat. No.	EDP
	Inch	mm	Inch	mm		
Steel	2-3/8	60	1/4	6.4	70A	50323
	2-7/8	72	3/8	9.5	70B	50324
Carbide	2-3/8	60	1/4	6.4	70AX	50327
	2-7/8	72	3/8	9.5	70BX	56092

#### Points Only for 70 Pocket Scribers

Point	For Starrett Scriber No.	Part No.	EDP
Steel	70A	PT02355A	70332
	70B	PT02355B	70333
Carbide	70AX	PT14398	71527
	70BX	PT19306	72049

#### 67 Improved Scribers

Catalog	EDP	Description
67A	50316	Complete with 3 Points (1 Straight, 1 Short Bent, 1 Long Bent)
67B	50317	With 2 Points (1 Straight, 1 Short Bent)

#### Points Only for 67 Improved Scribers

Part	EDP	Description
PT16584	71555	Extra Straight Point
PT16585	71556	Extra Short Bent Point
PT16586	71557	Extra Long Bent Point

#### 68 Adjustable Sleeve Scribers

Cat. No.	EDP	Description
68A	50322	With Knife Point
68B	50321	Without Knife Point



70A, 67A, 68A Scribers

# PRECISION SHOP TOOLS

## 1610 KLEENSCRIBE™ LAYOUT DYE

- Deep blue, quick-drying dye for clean, dry metal surfaces
- Brush or spray an opaque blue background that makes scribed lines stand out sharp and clear
- Will not rub off on hands or clothing or flake away
- Unaffected by cutting lubricants and heat generated during machining
- To remove, use a rag or wiper, moistened with denatured alcohol

### IDEAL FOR NUMEROUS APPLICATIONS:

- Laying out dies, cams, templates, jigs, fixtures, patterns, castings
- Touching cutting tool to work before setting machine for cut
- Identifying tools, parts, bar stock and other shop metals
- Checking alignment of gears and wearing parts



Kleenscribe™ Layout Dye		
Size/Description	Cat. No.	EDP
4 oz. (0.1 liter) Plastic Bottle	1610-4	53212
16 oz. (0.5 liter) Plastic Bottle	1610-16	53213
32 oz. (1 liter) Plastic Bottle	1610-32	53214
11-1/2 oz. (0.3 liter) Aerosol Can	1611	55896

## 1 ADJUSTABLE-JAW CUT NIPPERS

Special design provides powerful leverage for efficient and clean cutting. Especially recommended for all applications involving wire cutting. These tools can be adjusted for wider jaw openings to easily cut tile and mosaics.

- Heat-treated steel frames for strength
- Red vinyl coated handles for a firm, comfortable grip
- Jaws can be detached and replaced, or resharpened. Jaws should be ground in pairs and referenced from the serrations
- Jaws can be adjusted on the frames. Each jaw has an allowance of about 1/4" (6.4mm) to cut tile or to adjust after resharpening.
- Stud and stop screw on the handle can be adjusted for proper jaw closure, thereby preventing damage from excess pressure on the jaws
- A flat safety spring below the cutting edges of the jaws forms a yielding seat for the end of the wire to press against while being cut
- Classic design and available with either hardened steel or carbide jaws for extra long life



1 Adjustable-Jaw Cut Nippers										
Size	Capacity (Max. Wire Dia.)			Jaw Width		Jaws	Cat. No.	EDP	Jaws Only (Pair)	
	Inch	mm	Inch	mm	Inch				mm	Part No.
5-1/2	138	.050	1.3	21/32	16.5	Carbide Tipped	1X-5 1/2	50004	PT01931-1	50006
7	175	.080	2	13/16	21	Carbide Tipped	1X-7	50005	PT01932-1	50007

## PRECISION SHOP TOOLS

### WIGGLER OR CENTER FINDER WITH ATTACHMENTS 828

Wiggler/Center Finder S828 and four different attachments adapt to countless applications and are readily interchangeable. The attachments are snapped in the chuck without removing the collet nut and are clamped by a ball swivel-joint that permits adjustment to an angular position or true concentricity.

**With Pointed Shank 828A**, working centers can be quickly and accurately located. Spring tension on the ball of the point permits guiding the point to true concentricity so that the work can be brought into perfect alignment with the machine spindle.

**Ball Contact 828B** is useful in locating work by first bringing the contact (ball diameter .250" or 6.35mm) against the work, a slot, hole, shoulder, or end, and indexing the work to the desired position relative to the spindle.

**Disc Contact 828C**, which has a small disc at the end (.100"/2.54mm) diameter, permits use in more confined areas such as slots or shallow holes.

**Offset Indicator Holder 828D** with the Last Word® Test Indicators, the user can sweep holes or O.D.s for checking run-out or concentricity, establish center distances, check straightness or alignment of flat surfaces.

Wiggler or Center Finder with Attachments		
Description	Cat. No.	EDP
Wiggler/Center Finder, Complete With Case and 4 Attachments, 828B, C, D, PT09186	S828HZ	53064
Wiggler/Center Finder with 3 Attachments, 828B, C, PT09186, Without Indicator Holder, Without Case	S828	53065
Wiggler/Center Finder with Pointed Shank	828A	53066
Pointed Shank Only	PT09186	71164
Ball Contact Only (.250"/6.35mm Ball)	828B	53067
Disc Contact Only (.100"/2.54mm Disc)	828C	53068
Offset Indicator Holder Only	828D	53069



Complete set with case includes left-to-right: S828 Wiggler/Center Finder (PT09186 Pointed Shank attached), 828B Ball Contact, 828C Disc Contact, and 828D Offset Indicator Holder

### 827 EDGE FINDERS

#### .375", .500" AND 10MM BODY DIAMETERS FOR FAST, ACCURATE WORK LOCATION

Work surfaces may be located easily, quickly and accurately with these edge finders. Work with flat, straight edges, shoulders, grooves, round work, studs, dowels or center points and scribed lines – all can be accurately located with this handy tool. Body and contacts are made of tool steel, hardened, ground and lapped to close tolerances for diameter and concentricity.

#### How To Use:

Edge finders are easy to use. They are placed in a collet or chuck. The worktable is then traversed to obtain contact between the rotating edge finder and the work. Contact will shift to concentric position relative to the body and with very slight additional table adjustment, will move off center with a decided wobble. At this point, the center of the finder is exactly one-half the diameter of the contact from the work edge, permitting accurate location for other machining operations relative to the edge.

For locating center points and scribed lines, the pointed contact is used by putting a pencil or rule against the center point and making it run concentrically. Then the point is brought down to the center point or intersection of scribed lines and the table is adjusted so that when the tool barely touches the work, the lineup with the point in question can be ascertained.

827 Edge Finders				
Description	Body Diameter	Contact Diameter	Cat. No.	EDP
Single End	.375"	.200"	827A	53062
Double End	.500"	.200" and pointed contact	827B	53063
Single End	10mm	6mm	827MA	56041
Double End	10mm	6mm and pointed contact	827MB	66452

Furnished in attractive, protective case.



Above: Locating the center with 827MB  
Left: Locating the edge of a part with 827MA

# PUNCHES

## AUTOMATIC CENTER PUNCHES WITH ADJUSTABLE STROKE



Rugged automatic center punch with adjustable stroke

18

Rugged automatic punches with all-steel handles and parts

- Internal mechanism automatically strikes a blow when downward pressure is applied
- Adjustable knurled cap regulates the force of the blow
- Spring tension, which regulates the blow, is constant so marks made by the point are uniform in depth and size for each setting
- All sizes are identical in style, differing only in the striking power
- The point can be easily removed for regrinding or replacement
- Heavy-duty 18C is capable of striking a much heavier blow than the other sizes



Easy one-hand precision center punching

818

This punch is similar to our 18C, except that it has a lightweight, knurled aluminum handle for a positive grip and easy handling

- No hammer required! Just hold the punch in an upright position, press the handle down, and a built-in mechanism strikes a perfect center mark every time.
- The force of the blow can be adjusted by turning the knurled cap
- All working parts made of properly hardened tool steel. Hardened tool steel point may easily be removed for sharpening or replacement. (Replacement PT22256)
- Works on metal, plastics, wood and other machinable materials



Automatically locates and centers holes through hinges, latches, catches, etc.

819 HINGE-LOCATING

This automatic centering punch combines all the features of our 818 lightweight aluminum punch with an exclusive self-centering locating sleeve that automatically centers starter holes for screws

- Simply engage the beveled edge of the sleeve with the countersunk hole in the hinge and press down on the handle until the built-in mechanism strikes a blow for truly concentric starting holes every time. To draw hinges, etc., sideways, tilt the punch slightly in the opposite direction.
- Eliminates the risk of drilling off center, causing screws to pull hinges or hardware off center
- Punch can be adjusted for striking light or heavy impressions by turning the knurled cap
- Point is easily removed for replacement (Replacement PT09966)

Automatic Center Punches with Adjustable Stroke						
Description	Length		Diameter		Cat./ Part No.	EDP
	Inch	mm	Inch	mm		
Punch	4"	100mm	7/16"	11mm	18AA	50119
	5"	125mm	9/16"	14mm	18A	50120
Punch, Heavy-Duty	5-1/4"	130mm	11/16"	17mm	18C	56757
Point Only for 18AA					PT06689	12901
Point Only for 18A					PT06690	12902
Point Only for 18C					PT22256	72445

Special points for stamping numbers, letters, special symbols, etc. can be furnished. Contact the Special Order Department.

818 Automatic Center Punch					
Length		Diameter		Cat. No.	EDP
Inch	mm	Inch	mm		
5"	125mm	5/8"	16mm	818	53048

819 Hinge-Locating Automatic Center Punch					
Length		Diameter		Cat. No.	EDP
Inch	mm	Inch	mm		
5"	125mm	5/8"	16mm	819	53049

# PUNCHES



## 117 CENTER PUNCHES WITH ROUND SHANKS

- Hardened and properly tempered
- Well proportioned
- Knurled finger grip
- Ground at the proper angle
- Accurately centered tips

## 264 CENTER PUNCHES WITH SQUARE SHANKS

- Hardened and properly tempered
- Square knurled grip
- Will not roll
- Accurately centered tips
- Ground at the proper angle



117 and 264 Center Punches

Length Inch	mm	Dia. at Top of Tapered Point		117		264	
		Inch	mm	Cat. No.	EDP	Cat. No.	EDP
3"	75mm	1/16"	1.5mm	117AA	50482	264A	51278
3-1/2"	88mm	5/64"	2mm			264B	51279
3-3/4"	95mm	3/32"	2.5mm			264C	51280
4"	100mm	5/64"	2mm	117A	50483		
		3/32"	2.5mm	117B	50484		
		1/8"	3mm	117C	50485	264D	51281
		5/32"	4mm	117D	50486		
4-1/4"	108mm	5/32"	4mm			264E	51282
4-1/2"	114mm	3/16"	5mm			264F	51283
5"	125mm	1/4"	6.5mm	117E	50487	264G	51284
Set of 5, 117AA, A, B, C, D in Plastic Case				S117PC	50488		
Set of 7, 264A, B, C, D, E, F, G in Round Red Plastic Box						S264WB	51285





## PUNCHES



Tapered Point

### 816 PRICK PUNCHES

- Accurately centered
- Ground at a sharp angle
- Hardened and tempered
- Knurled grip

### 800 SQUARE-HEAD NAIL SETS

- Round, knurled grip
- Large, square head
- Will not roll
- Beveled head prevents breakage
- Cupped punch surface
- Hardened and tempered steel



816 and 800 Punches							
Length	Punch Diameter		816		800		
	Inch	mm	Inch	mm	Cat. No.	EDP	Cat. No.
4"	100mm	1/32"	0.8mm			800A	53029
		1/16"	1.5mm			800B	53030
		5/64"	2mm	816A	53043	800C	53031
		3/32"	2.5mm			800D	53032
		1/8"	3mm	816B	53044	800E	53033
		5/32"	4mm	816D	53046		
Combination Starrett Punch Set in Plastic Case. One Each 816A, B, D Prick Punches, and Two Center Punches 117AA, B			S816PC	57078			
Set of 5 in Protective Plastic Case. One Each of 800A, B, C, D, E					S800PC	64131	

# PUNCHES



## 565 DRIVE PIN PUNCHES

- Hardened and tempered steel
- Knurled grip



## B565 BRASS DRIVE PIN PUNCHES

- Ideal for softer materials
- Solid brass prevents damaging delicate work
- Knurled grip



565 and B565 Drive Pin Punches

Length Inch	mm	Diameter Punch		565		B565	
		Inch	mm	Cat. No.	EDP	Cat. No.	EDP
4"	100mm	1/16"	1.5mm	565A	52578	B565A	12465
		3/32"	2.5mm	565B	52579	B565B	12466
		1/8"	3mm	565C	52580	B565C	12467
		5/32"	4mm	565D	52581	B565D	12468
		3/16"	5mm	565E	52582	B565E	12469
		7/32"	5.5mm	565F	52583	B565F	12470
		1/4"	6mm	565G	52584	B565G	12471
		5/16"	8mm	565H	52585	B565H	12472
Set of 8 Punches (1 of Each Size) in Round Red Plastic Box				S565WB	52586		
Set of 8 Punches (1 of Each Size) in Protective Vinyl Case				S565PC	52587		
Set of 8 Punches (1 of Each Size) in Fabric Pouch						SB565Z	12473

# PUNCHES



## 248 DRIVE PIN PUNCHES FOR MACHINE SHOP AND MOTOR SERVICE WORK

- Extra-long drive pin punches, measuring 8" (200mm). The bodies are 4-1/2" (115mm) and the drive pin sections are 3-1/2" (90mm) long.
- Well-proportioned, hardened, properly tempered with a knurled grip
- Designed to withstand hard use
- Provide a most satisfactory punch for machine shop and motor service work
- Diameter of punches is slightly less than listed

## B248 BRASS DRIVE PIN PUNCHES FOR MACHINE SHOP AND MOTOR SERVICE WORK

- Same features as 248 extended length drive pin punches, but in a softer brass construction ideal for more delicate work
- Available in four sizes from 3/16" to 3/8" and as a full set of four in an attractive fabric pouch

248 and B248 Drive Pin Punches							
Length		Diameter Punch		248		B248 Brass	
Inch	mm	Inch	mm	Cat. No.	EDP	Cat. No.	EDP
8"	200mm	1/8"	3mm	248A	51181		
		3/16"	5mm	248B	51182	B248B	12460
		1/4"	6mm	248C	51183	B248C	12461
		5/16"	8mm	248D	51184	B248D	12462
		3/8"	9.5mm	248E	51185	B248E	12463
Set of 5 Punches (1 of Each Size) in Protective Vinyl Case				S248PC	51186		
Set of 5 Punches (1 of Each Size) in Plain Box				S248	51187		
Set of 4 Brass Punches (1 of Each Size) in Fabric Pouch						SB248Z	12464

# SCREWDRIVERS



## 555 JEWELERS' SCREWDRIVERS

- Ideal for fine, delicate work
- Swivel knobs are concave to fit the finger
- Hexagonal knobs to prevent rolling
- Knurled grip
- Overall length of screwdrivers is approximately 3-3/4" (95mm)



555 Jewelers' Screwdrivers					
Blade Width Inch/mm	Phillips Blade No.	Complete Screwdriver Cat. No.	EDP	Blade Only Part No.	EDP
.025" (0.6mm)		555AA	52549	PT02449AA	70361
.040" (1mm)		555A	52550	PT02449A	70362
.055" (1.4mm)		555B	52551	PT02449B	70363
.070" (1.8mm)		555C	52552	PT02449C	70364
.080" (2mm)		555D	52553	PT02449D	70365
.100" (2.5mm)		555E	52554	PT02449E	70366
	#0	555F	52561	PT14443	71534
Set of 6 Screwdrivers, 555AA, A, B, C, D, E – In Case				S555Z-6	52564
Set of 7 Screwdrivers, 555AA, A, B, C, D, E, F – In Case				<b>S555Z-7</b>	52566

## STARRETT SCREWDRIVERS

- Made for relatively small and very delicate work
- Bodies are made from knurled, nickel-plated steel
- Replaceable blades, made from the best quality steel, properly tempered and nickel-plated
- A slight turn of the knurled chuck locks the blade in place
- Blades can be reversed into the screwdriver body for safety



## 551 PRECISION SCREWDRIVERS

The 551 Screwdrivers with soft-touch handle are lightweight and ergonomic. The blades are made of chromium-vanadium steel, hardened and chrome-plated, allowing them to hold up well in the toughest applications.

### FEATURES

- Precision-machined tips for top quality and exact fit
- Vapor-chromed non-slip tips
- Hardened for maximum durability
- Tapered handles allow rapid rotation
- Swivel knobs are concave to fit finger



551 Precision Screwdrivers			
Blade Width Inch/mm	Phillips Blade No.	Complete Screwdriver Cat. No.	EDP
.060" (1.5mm)		551A	67195
.080" (2.0mm)		551B	67196
.100" (2.5mm)		551C	67197
.120" (3.0mm)		551D	67198
	#00	551E	67199
	#0	551F	67200
	#1	551G	67201
Set of 7 Screwdrivers With Case, 551A, B, C, D, E, F, G		<b>S551Z-7</b>	67203
Case Only		S551ZZ	67204



## SCREWDRIVERS

### 553 POCKET SCREWDRIVERS

The 553 Screwdrivers feature a hexagonally shaped head to prevent them from rolling. When not in use, the blade can be reversed into the screwdriver body for conveniently and safely carrying them in pockets. Size takes no more room than a penknife.

Handy steel and carbide scriber points are also available to fit these handles, including 70 Scriber points.

#### FEATURES

- Hexagonal head prevents rolling
- Small in size with reversable/removable blade
- Steel and carbide scriber points available
- Knurled grip



#### 553 Pocket Screwdrivers

Blade Width		Blade Length		Cat. No.	EDP	Blade Only	
Inch	mm	Inch	mm			Part No.	EDP
.100"	2.5mm	1-7/8"	48mm	553A	52543	PT02351A	70330
.150"	3.8mm	3"	75mm	553B	52544	PT02351B	70331

#### Scriber Points Only

Fits Model	Steel		Carbide	
	Cat. No.	EDP	Cat. No.	EDP
553B	PT02355B	70333	PT19306	72049

## PIN VISES



### 240 PIN VISES WITH TAPERED COLLETS

.010-.200"/0.25-5.1MM

- Special tapered collet, providing maximum clamping surface
- Smaller body diameter than the chuck to allow fast opening and closing and rapid rotation when used on small work
- Available individually or as a complete set in a convenient case

240 Pin Vises			
Range			
Inch	mm	Cat. No.	EDP
.010-.055"	0.25-1.4mm	240A	51136
.025-.075"	0.64-1.9mm	240B	51137
.045-.135"	1.2-3.4mm	240C	51138
.110-.200"	2.8-5.1mm	240D	51139
Set of All 4 Sizes in Protective Vinyl Case		S240Z	51140



### 165 DOUBLE END PIN VISE

0-.125"/0-3.2MM

- Reversible collets with two size capacities at each end
- One chuck holds work or tools 0-.031" and .093-.125" diameter (0-0.8mm and 2.5-3.2mm). The other chuck holds .031-.062" and .062-.093" diameter (0.8-1.6mm and 1.6-2.5mm).
- "Back support" provided by beveled chuck ends

165 Double End Pin Vise			
Range			
Inch	mm	Cat. No.	EDP
0-.125"	0-3.2mm	165	50608

## PIN VISES

Starrett pin vises are useful for securely holding small stock, taps, drills, reamers, scribers, wire, small files, and other tools. The jaws on all are hardened and with a few turns of the binding nut, a firm grip may be obtained. Handles and binding nuts are nickel-plated except for the 166 pin vise.

A hole extends through the full length of the handles so that wires of any length and any diameter up to the full size of the tool can be held.

**NOTE:** These tools not recommended for powered use.



### 162 PIN VISES

0-.187"/0-4.8MM

The handles of these pin vises are reduced in size so that they can be rapidly rotated between thumb and finger when filing small work.

162 Pin Vises			
Range			
Inch	mm	Cat. No.	EDP
0-.040"	0-1mm	162A	50599
.030-.062"	0.8-1.6mm	162B	50600
.050-.125"	1.3-3.2mm	162C	50601
.115-.187"	2.9-4.8mm	162D	50602
Set of All 4 Sizes in Protective Vinyl Case		S162Z	50604



### 166 PIN VISES WITH INSULATED, OCTAGONAL HANDLES

0-.187"/0-4.8MM

These pin vises are the same as our 162 except that they have an insulating PVC handle which is octagonally shaped, preventing them from rolling when laid down.

166 Pin Vises			
Range			
Inch	mm	Cat. No.	EDP
0-.040	0-1	166A	50609
.030-.062	0.8-1.6	166B	50610
.050-.125	1.3-3.2	166C	50611
.115-.187	2.9-4.8	166D	50612
Set of All 4 Sizes in Protective Vinyl Case		S166Z	50614

## PIN VISES



### 93 T-HANDLE TAP WRENCHES

The 93 T-Handle Tap Wrenches are for holding taps, drills, reamers and other small tools to be turned by hand. They are properly heat treated to withstand ordinary shop use. The jaws conform to the tool being held, making it rigid and less apt to loosen.

The 93D, E and F sizes are identical in construction to the 93A, B and C models, except that the bodies are proportionately longer. These longer tap wrenches are very handy in machine, automobile service and aviation repair shops because they eliminate the need for stocking special long taps for depths which cannot be reached with shorter wrenches.

#### FEATURES

- Sliding handle is frictionally held, permitting the handle to be removed or positioned
- Can be aligned using a lathe center or upright drilling machine to ensure a straight tap

**NOTE:** These tools are designed to hold square shanks. Round shanks can be gripped, but care must be used. Excessive tightening may break the binding nut.



### 91 TAP WRENCHES

The 91 Tap Wrenches are strong and well proportioned. They are nicely finished and the gripping surfaces are properly tempered. They will firmly hold square or round shanks. They are plunger operated by knurled sleeve – the spring inside the sleeve causes plunger to back off when pressure is removed.

**NOTE:** Round shanks can be gripped, but care must be used. Excessive pressure may break the moveable V-jaw.



### 174 TAP WRENCH

This is a well-designed tap wrench, ideal for holding smaller diameter taps, drills, reamers and other tools up to 1/4" (6.35mm) in diameter.

It will firmly grip round or square shanks. It is lightweight, well proportioned, and the gripping surface is properly heat treated.

93 T-Handle Tap Wrenches							
Capacity		Square Shank		Body Length		Cat. No.	EDP
Tap Size		Inch	mm	Inch	mm		
1/16-3/16	1.6-4.7	1/16-5/32	1.6-4	2	50	93A	50427
7/32-7/16	5.5-11	5/32-1/4	4-6.4	2-1/2	65	93B	50428
1/4-1/2	6.4-12.7	3/16-5/16	4.7-8	3-1/2	90	93C	50429
1/16-3/16	1.6-4.7	1/16-5/32	1.6-4	6	150	93D	50430
7/32-7/16	5.5-11	5/32-1/4	4-6.4	10	250	93E	50431
1/4-1/2	6.4-12.7	3/16-5/16	4.7-8	13	330	93F	50432
91 Tap Wrenches							
1/16-1/4	1.6-6.35	3/32-5/32	2.4-4	6	150	91A	50419
3/16-1/2	4.7-12.7	5/32-9/32	4-7	9	225	91B	50420
1/4-5/8	6.35-16	5/32-3/8	4-9.5	12	300	91C	50421
5/16-3/4	8-19	13/64-7/16"	5.2-11	16	400	91D	50422
174 Tap Wrench							
No. 0-14		1/4 diameter	6.35	3-5/8	90	174	50658

## VICES AND CLAMPS

### 1620 TOOL AND INSTRUMENT OIL

Special high-refining process makes Starrett Tool and Instrument Oil colorless, ensures thorough lubrication of close-fitting parts at extreme temperatures and provides a strong, lasting film over all areas requiring protection against rust.

#### FEATURES

- This oil is made to our specifications and used in our factory to lubricate and protect our precision measuring tools and instruments
- General purpose lubricant for a wide range of applications
- Ideal for maximum protection and lubrication of measuring tools, precision instruments and light machinery
- Guards highly finished tools, parts and machine surfaces against rust
- Protects firearms, fishing tackle and other sporting equipment and keeps working parts in perfect condition
- Cleans bright metals and polishes furniture
- Starrett oil can also be used for automobile generators, starters, hinges, locks, and springs

Lubricating the slide on a 123 Vernier Caliper assures maximum protection and lubrication of working parts



#### 1620 Tool and Instrument Oil

Description	Cat. No.	EDP
4 fl. oz. (0.1 liter) Plastic Bottle	1620	53216

### 706 INSPECTION BLOCKS

1" X 2" X 3"

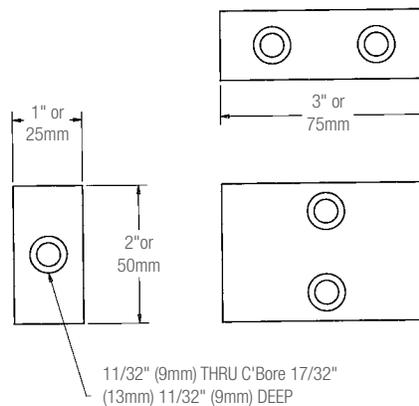
### 706M INSPECTION BLOCKS

25 X 50 X 75MM

These Inspection Blocks are manufactured to precision tolerances, and are of great value for all inspection laboratories and in-shop setups where positioning is important.

- High accuracy
- Hardened steel, ground and lapped
- Matched pair available

Specifications	
Block Dimensions	1" x 2" x 3" (25 x 50 x 75mm)
Parallelism	.0001" (0.003mm)
Squareness	.0001 in/in (0.003mm/25mm)
Hardness	RC 63-65
Flatness	.0001" (0.003mm)



#### Inch Blocks

Description	Cat. No.	EDP
Single 1 x 2 x 3" Block in Case	706AZ	57121
Matched Pair in Case	706BZ	57122

#### Millimeter Blocks

Single 25 x 50 x 75mm Block in Case	706MAZ	64968
Matched Pair in Case	706MBZ	64969



## MACHINISTS' LEVELS

## LEVEL USE

To get a correct reading with a level, both ends of the bubble should be viewed. If the gaps between the ends of the bubble and the lines are unequal at any time, then they should be averaged out. The reason for this is temperature, which affects the size of the bubble. As a level is warmed the liquid expands, thereby reducing the size of the bubble so that at true-level there will be gaps at both ends between the bubble and the reading lines. Conversely, if the temperature is very cold, the bubble could expand and overlap the reading lines.

Excessive hand heat on the center of the level for an extended period of time could expand the center, causing the working surface to become slightly convex and also create a tendency to spin on flat surfaces. This is more noticeable on very precise levels.

Any level can be checked for accuracy on any flat surface regardless of whether it is level or not. Simply put the level on the surface and note the position of the bubble. Then reverse the level in the same spot. If the level is true, the bubble will be in the same relative position both ways.

Some models, like our 98 machinist levels with an adjustable system, have an adjustment that can be made on the job.

## LEVEL VIAL INFORMATION

The accuracy of a level is dependent on the proper machining of the working surface, the straightness, and rigidity of the construction and the sensitivity of the level vial. Accuracies are very often specified in parts of degrees such as 10-second accuracy or 43-minute accuracy. Technically, we are referring to the sensitivity of the level vial, but many interchange these terms. Since this means little to most people, we use the more practical definition of inches per foot of elevation. For instance, a 10-second vial accuracy means if the level is on an incline that is .0005" per foot, then the bubble on the vial will move .100" (slightly less than 1/8").

There are three general types of level vials. Ground vials are generally used in precision levels; bent glass and plastic vials are used in most other levels.

Most level vials have just two lines spanning the length of the bubble because most users just want to know if something is level or not.

The more precise levels have vials with a number of reading lines on each side of the bubble. All Inch reading vial graduations are .100" apart. This will show the machinist in a very precise manner how level the equipment is.

Metric reading levels have vial graduations 2mm apart and accuracies are usually described as millimeters per meter. This is an easy conversion to make, so we converted our Inch specifications to an understandable metric reading. Machinists only need to know how far they are out of level if the bubble moves to the next line.

### 199, 98 AND 132 PRECISION MACHINISTS' LEVELS

These are the finest levels available, used for precision work that is typically required in the industry. They all have these features:

- All level bases are made from the finest quality seasoned cast iron and are precision-machined on the reference surface
- Non-machined surfaces have an attractive, black wrinkle finish
- All models except the 199 have an involute longitudinal groove between the bearing flats for accurate seating on round work. This groove has a special involute design, permitting better centering and greater capacity to handle larger rounds
- Groove and bearing flats are machined together for maximum accuracy

## MASTER PRECISION LEVELS

### 199 MASTER PRECISION LEVEL

#### 15"/380MM

The efficiency of modern, high speed machinery depends to a large degree upon the levelness of the machine set-up.

- Specially designed to set up, check and test machinery of all types
- At-a-glance reading of the exact variation of machinery levelness
- Ground and graduated main vial of 10-second accuracy; one division equals 1/2 thousandth of an inch (0.0005") per foot, or 0.04mm per meter
- Main vials have seven graduations on each side of the bubble
- Auxiliary level vial shows lateral position and assists in horizontal setting
- Level vials are positioned so breakage is reduced to a minimum
- Special alloy iron used to obtain freedom from thermal effects
- Seasoned, machined castings
- Scraped reference surface
- Nonconductive top plate and black wrinkle finish on nonmachined surfaces
- Finished wood case



Builders' and Contractors' Levels can be found in our Jobsite and Workshop Tools Catalog

199 Master Precision Level								
Length Base		Width Base		Height Level		Cat. No.	EDP	
Inch	mm	Inch	mm	Inch	mm			
15	380	1-5/8	40	3	75	199Z 199Z W/SLC*	50719 66932	

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

# MACHINISTS' LEVELS

## 98 MACHINISTS' LEVELS WITH GROUND AND GRADUATED VIALS

### 4-18"/100-450MM

These levels have ground and graduated main vials. All sizes have a cross test vial except the 4" (100mm) model.

The 12" (300mm) model also has a plumb vial and the 18" (450mm) size has a double plumb vial.

These vials are adjustable to a positive setting and are housed in a satin chrome finished brass tube with a friction-fit closing cover to prevent breakage.

The base of the levels features an involute groove running the length of the base, which provides a reliable seat for round work such as pipes or shafting.

With the cross test vial, it is possible to simultaneously level in both directions. This prevents inaccuracies in the main vial reading caused by canting the level sidewise on round work.

The 6" through 18" (150-450mm) main level vials have graduations that are approximately 80-90 seconds or .005" per foot (0.42mm per meter). There are five, six, or seven lines on each side of the bubble, depending on the base length.



End view showing involute groove



98 Machinists' Levels with Ground and Graduated Vials					Tube and Plug Assemblies			
Size			Without Case		In Finished Wood Case			
Inch	mm	Description	Cat. No.	EDP	Cat. No.	EDP	Part No.	EDP
4	100	Without Cross Test Vial	98-4	50440				
6	150	With Cross Test Vial	98-6	50441			PT99430	64497
		With Cross Test Vial, Standard Letter of Certification*	98-6 W/SLC	66935				
8	200	With Cross Test Vial	98-8	50442			PT99431	64498
		With Single Plumb Vial and Cross Test Vial	98-12	50443	98Z-12	50444		
12	300	With Single Plumb Vial and Cross Test Vial	98-12 W/SLC	66934	98Z-12 W/SLC	66933	PT99432	64499
		Standard Letter of Certification*						
18	450	With Double Plumb Vial and Cross Test Vial	98-18	50445	98Z-18	50446		

To guarantee extreme accuracy, the length of your level should not be longer than the work you are leveling.

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

## MACHINISTS' LEVELS

### 130 BENCH LEVEL

3-3/8"/85MM

This is a very handy, compact bench level with a sensitive and accurate single vial. The body is made of seasoned cast iron with black wrinkle finish and an accurately machined base leveling surface.

130 Bench Level				
Size		Description	Cat. No.	EDP
Inch	mm			
3-3/8	85	With Main Vial	130	50560



### 135 POCKET LEVELS WITH SATIN NICKEL-PLATED FINISH

2-1/2 AND 3-1/2"/63 AND 88MM

Another extremely useful Starrett level that fits handily in the pocket with no sharp edges. Made from hexagonal stock with convex ends and satin nickel-plated finish.

135 Pocket Levels with Satin Nickel-Plated Finish				
Size		Description	Cat. No.	EDP
Inch	mm			
2-1/2	63	With Main Vial	135A	50570
3-1/2	88		135B	50571



## CROSS TEST LEVELS

### 134 CROSS TEST LEVEL AND PLUMB

2 X 3"/50 X 75MM

This is an especially useful little level, invaluable for plumbing, approximate squaring and leveling work. Made from brass with nickel finish, all working surfaces are flat and true. The level has two vials at right angles for cross test leveling without moving the tool and a plumb level at the top. An accurate, well-made and reliable tool, it is also very light and compact and can be easily carried in the pocket.

### 136 CROSS TEST LEVEL

2-3/4 X 2-3/4"/70 X 70MM

Similar to our 134 level, the 136 has two vials at right angles which permit leveling in both directions without moving the level from the work. The level is light and compact, with an attractive black wrinkle finish and a ground reference surface. Made from cast iron.

134 Cross Test Level				
Size		Description	Cat. No.	EDP
Inch	mm			
2 x 3	50 x 75	With Cross Test Vials and Plumb Vial	<b>134</b>	50569



136 Cross Test Level				
Size		Description	Cat. No.	EDP
Inch	mm			
2-3/4 x 2-3/4	70 x 70	With Cross Test Vials	<b>136</b>	50572



## ALUMINUM LEVELS

Starrett®

STARRETT  
TORPEDO

NEW!

Manufactured with 9" extruded aluminum frames with high visibility yellow and red ABS plastic construction for impact resistance.



## FEATURES

- Vertical, horizontal, and 45° vials
- V-grooved top surface and magnetic bottom surface

Cat. No.	Inch (mm)	Magnetic Model	EDP
KLTS9-N	9" (225mm)	X	30728

STARRETT  
EXACT  
TORPEDOStarrett®  
EXACT®

Manufactured with 9-1/2" extruded aluminum frames and finished with red high visibility powder coat paint, including impact resistant ABS gray plastic end caps.



## FEATURES

- Vertical, horizontal, and 45° vials
- Milled top surface finished with a V-groove and a magnetic bottom surface
- Includes impact resistant ABS plastic end caps

Cat. No.	inch (mm)	Magnetic Model	EDP
KLTX95-N	9-1/2" (240mm)	X	30727

# ALUMINUM LEVELS

**Starrett®**  
**EXACT® PLUS**

## STARRETT EXACT PLUS TORPEDO

NEW!

Starrett Exact Plus torpedo levels are manufactured with a 10" sturdy die cast enclosed aluminum frame and finished with durable powder coat paint.

LEVELS



### FEATURES

- Vertical, horizontal, and 45° vials
- Includes a milled top surface finished with a V-groove and a magnetic bottom surface

Cat. No.	Inch (mm)	Magnetic Model	EDP
KLTXP10-N	10" (250mm)	X	30726





## SPECIALTY

### AM ANGLE METER MAGNETIC ANGLE METER, 0 TO 90°

Large readable scale for accurate readings from 0 to 90° in any quadrant. Integral magnetic base frees hands when used on ferrous surfaces.

#### FEATURES

- Measures any angle for pitch or slope
- Handy rise, run, angle and pitch information on back of the tool



Cat. No.	Description	EDP
AM-2	Magnetic Angle Meter, 0 to 90°	36080

### BE-1 BULL'S-EYE CIRCULAR LEVEL

Circular bull's-eye level has full 360° large sight for easy viewing. Each level features sturdy plastic construction and is ideal for home, workshop and industry use.



Cat. No.	Description	EDP
BE-1	1-3/4" Circular Level	36078

# TAPE MEASURES



## STARRETT EXACT

Produced of high impact resistant ABS plastic for extended case life, these tape measures offer overmold for improved grip. Their ergonomic design fits comfortably in the hand and incorporate industry standard standout and improved blade protection.

NEW!

### FEATURES

- Nylon coated blade provides twice the abrasion resistance than other tapes
- High impact resistant ABS plastic case and rubber plastic overmolding
- Includes a steel belt clip



Cat. No.	Blade Size	Graduation*	EDP
KTX12-12-N	1/2" x 12'	English	30649
KTX12-12ME-N	1/2" x 12' (3.5m)	English/Metric	30650
KTX12-3.5M-N	1/2" x 3.5m	Metric	30648
KTX34-16-N	3/4" x 16'	English	60400
KTX34-16ME-N	3/4" x 16' (5m)	English/Metric	30652
KTX34-5M-N	3/4" x 5m	Metric	30651

Cat. No.	Blade Size	Graduation*	EDP
KTX1-16-N	1" x 16'	English	30653
KTX1-25-N	1" x 25'	English	30654
KTX1-26ME-N	1" x 26' (8m)	English/Metric	30655
KTX1-8M-N	1" x 8m	Metric	30656
KTX1-30-N	1" x 30'	English	30657
KTX1-35-N	1" x 35'	English	30658

**\*Blade Graduation Style:**  
**English:** Graduated in 1/16" / **Metric:** Graduated in Millimeters  
**English/Metric:** Graduated 1/16" and Millimeters



TAPE

## M1 OIL

### M1® INDUSTRIAL QUALITY ALL-PURPOSE LUBRICANT

M1 is the "modern one" – the superior alternative. It dries and will not attract dirt, dust or other contaminants as other leading lubricants do.

Starrett is a leader in precision measuring tools. We use M1 in our manufacturing areas and it works. M1 will work for you too. The best lubricant value for your money.

- M1 produces a micro-thin, airtight coating/film that simultaneously dries as it protects, avoiding dirt, grime, etc., that other "wet" lubricants actually attract
- The can will spray upside down in awkward places without losing propellant power



M1 Aerosol Cans spray upside down and in awkward places. Spray wand (shown) is included with each aerosol can.



12 oz. Aerosol Can

1 pt. Spray bottle sold empty for refilling from bulk container

**Penetrates:** Deep-down penetration works quickly to free frozen nuts, bolts, and metal parts. Actually gets under caked-on dirt to clean the metal for removal.

**Prevents Rust:** Protects metal against rust and corrosion damage by providing a molecular shield that locks to the metal.

**Cleans:** Actually removes grease, tar, and grime from metal parts and painted surfaces. Cleans and polishes for lasting protection.

**Stops Squeaks:** Has instant lubrication properties that spread into those hard-to-reach metal parts to stop squeaking and sticking.

**Displaces Moisture:** M1 is not soluble in water, so it gets under moisture to lift it away from the surface to be protected.

**Nonconductive:** Prevents short circuits in high moisture environments, halts electrical leakage from wet ignition wires.

### INDUSTRIAL APPLICATIONS

Applications for industry are endless. Protect working surfaces of machinery, use in dip tanks to protect production parts in process, or apply on tools when stored. M1 is also ideal in highly corrosive situations that destroy metal equipment like rollers, racks, conveyors, etc. used in marine environments.

### UNIVERSAL APPLICATIONS

Use to dry wet automotive ignition systems. Great on ski bindings and prevents snow from sticking to shovels. Ideal on sticky drawer slides and window frames. Removes tar from car bumpers and painted surfaces. Can also be easily removed to prepare surfaces for painting. Use on tools, hinges, appliances, guns, knives, bicycles, mowers, fishing gear, locks, and more.

### BULK CONTAINERS

Larger size containers of M1 make economical sense. You can also use and refill the handy spray dispenser bottle that saves you money and prevents the unwanted waste and disposal of empty cans.



1 Gallon (3.8 liters)



5 Gallon (19 liters)



53 Gallon Drum (200 liters)



M1 is available in bulk for industrial applications in 1 Gallon Cans, 5 Gallon Pails, and 53 Gallon Drums.

Specifications	
Color	Amber (clear)
Odor	Pleasant
Specific Gravity	.80 @ 60° F (15.5° C)
Viscosity	2.2 cSt (centiStokes) converts to 10.5 SUS (seconds universal Saybolt) at 72° F (22.2° C)
Lubrication	1500 lb (680.4 kg) of pressure (independent testing)
Flash Point	174 °F (79 °C) T.C.C.
VOC (wt%) CARB Method 310	9.2
Pour Point	-100° F (-73° C) excellent low temperature stability
Evaporation Rate	.7 (water = 1)
Coverage	3500 to 4000 sq. ft. (72-82 sq. meters) per U.S. Gal. (4.5 liters)
Boiling Point, Initial	370 - 470° F (187.8 - 243.3° C)
Weight, Applied Coating	1.7 x 10 <sup>-3</sup> lb per sq. ft.
Film Thickness	.0004" (0.010mm) average
Dielectric Strength	18,000v with .100" (2.54mm) gap
Humidity	Meets and exceeds ASTM-D655 zero rust after 1000 hours Meets and exceeds ASTM-B117 zero rust after 48 hours
Salt Spray	Indoor protection lasts up to a year. Outdoor protection – reapply as needed.
NSF registered 124332 Category Code H2	Acceptable as a lubricant, release agent or anti-rust film on equipment and machinery parts in and around food processing areas where there is no possibility of direct food contact



SLIDE CALIPERS

# VERNIER CALIPERS

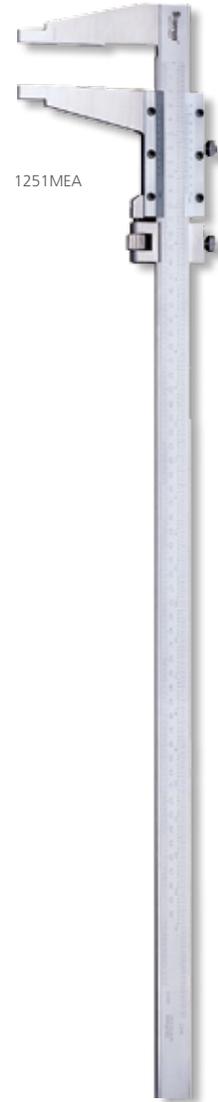
## 125 & 1251

### VERNIER CALIPERS

High quality, basic vernier caliper that offers inch and metric measurement

- Standard: DIN 862
- Measure outside diameter, inside diameter, depth and step
- Stainless steel hardened, ground and lapped measuring surfaces

Cat No	Range	Graduation
125MEB-6/150	150mm / 6"	0.05mm / 1/128"
125MEB-8/200	200mm / 8"	0.05mm / 1/128"
125MEB-12/300	300mm / 12"	0.05mm / 1/128"
125MEA-6/150	150mm / 6"	0.02mm / 0.001"
125MEA-8/200	200mm / 8"	0.02mm / 0.001"
125MEA-12/300	300mm / 12"	0.02mm / 0.001"
1251MEA-12/300	300mm / 12"	0.02mm / 0.001"
1251MEA-20/500	500mm / 20"	0.02mm / 0.001"
1251MEA-24/600	600mm / 24"	0.02mm / 0.001"
1251MEA-40/1000	1000mm / 40"	0.02mm / 0.001"



SLIDE CALIPERS

# DIAL CALIPERS

## 3202

### DIAL CALIPERS

With the ability to provide quick, accurate measurement of outside diameter, inside diameter, thickness and depth, the dial caliper is the most versatile precision measuring tool used in industry today.

- Standard: DIN 862
- Smooth sliding, anti shock new design dial movement
- Hardened stainless steel bar, measuring surfaces, rack, gears and depth bar
- Lock screws for dial bezel and for holding the sliding jaw in position.

Cat No	Range	Resolution
3202M-150	150mm	0.02mm
3202M-200	200mm	0.02mm
3202M-300	300mm	0.02mm
3202-6	6"	0.001"
3202-8	8"	0.001"
3202-12	12"	0.001"





**MICROMETERS**

# OUTSIDE MICROMETERS

## 436

### OUTSIDE MICROMETERS

Precision micrometers used by skilled workmen worldwide. They are accurate, rugged and easy to use

- Standard: DIN 863
- Tungsten carbide measuring faces
- Starrett satin chrome finish for reduced glare and increased resistance to rust
- Advanced sleeve design with staggered lines and distinct figures for easy readability
- Balanced frame and thimble design ensure easy handling
- Ratchet controller giving uniform pressure and consistent measurements.
- Ring type lock nut for quick and sure locking
- Hardened one-piece spindle



V436.2MXRL-25

Cat No	Range	Resolution
436.2MXRL-25	0-25mm	0.01mm
436.1MXRL-50	25-50mm	0.01mm
436.1MXRL-75	50-75mm	0.01mm
436.1MXRL-100	75-100mm	0.01mm
436.1MXRL-125	100-125mm	0.01mm
436.1MXRL-150	125-150mm	0.01mm
436MXRL-175*	150-175mm	0.01mm
436MXRL-200*	175-200mm	0.01mm
436MXRL-225*	200-225mm	0.01mm
436MXRL-250*	225-250mm	0.01mm
436MXRL-275*	250-275mm	0.01mm
436MXRL-300*	275-300mm	0.01mm
234MB-150	150mm Setting Standard	
234MB-175	175mm Setting Standard	
234MB-200	200mm Setting Standard	
234MB-225	225mm Setting Standard	
234MB-250	250mm Setting Standard	
234MB-275	275mm Setting Standard	
V436.2MXRL-25	0-25mm	0.001mm
V436.1MXRL-50	25-50mm	0.001mm
V436.1MXRL-75	50-75mm	0.001mm
V436.1MXRL-100	75-100mm	0.001mm



T436.1XRL-2

436MXRL-300

## 436

### OUTSIDE MICROMETER SETS WITH STANDARDS

Recommended for mechanics, automotive service and machine shops, toolrooms, inspection departments and wherever gauging involves a wide range of measurements. All sets come with attractive, protective cases which

Cat No	Range	Resolution
S436.2MCXRLZ	0-150mm	0.01mm
S436MDXRLZ	150-300mm	0.01mm
S436MEXRLZ	0-300mm	0.01mm

Cat No	Range	Resolution
S436.1CXRLZ-1	0-6"	0.001"
S436DXRLZ	6-12"	0.001"
S436EXRLZ	0-12"	0.001"



S436.2MCXRLZ

Cat No	Range	Resolution
436.1XRL-1	0-1"	0.001"
436.1XRL-2	1-2"	0.001"
436.1XRL-3	2-3"	0.001"
436.1XRL-4	3-4"	0.001"
436.1XRL-5	4-5"	0.001"
436.1XRL-6	5-6"	0.001"
436XRL-7*	6-7"	0.001"
436XRL-8*	7-8"	0.001"
436XRL-9*	8-9"	0.001"
436XRL-10*	9-10"	0.001"
436XRL-11*	10-11"	0.001"
436XRL-12*	11-12"	0.001"
234B-6	6" Setting Standard	
234B-7	7" Setting Standard	
234B-8	8" Setting Standard	
234B-9	9" Setting Standard	
234B-10	10" Setting Standard	
234B-11	11" Setting Standard	
T436.1XRL-1	0-1"	0.0001"
T436.1XRL-2	1-2"	0.0001"
T436.1XRL-3	2-3"	0.0001"
T436.1XRL-4	3-4"	0.0001"

## STARRETT PRODUCT LINES...

POWER TOOL ACCESSORIES & HAND TOOLS

JOBSITE & WORKSHOP TOOLS

BAND SAW BLADES & MACHINES

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# PRECISION SHOP TOOLS

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