



Special Function Dial Gages

This section includes special function dial gages that we list as regular items. Gages are also available with electronic indicators on request, where noted.

- ◆ Chamfer Gages
- ◆ Countersink Gages
- ◆ Hole Gages
- ◆ Bore Gages – See Bore Gages Section
- ◆ Direct-Reading Thickness Gages
- ◆ Snap Gages
- ◆ Groove Gages
- ◆ Caliper Gages
- ◆ Depth Gages
- ◆ Out-of-roundness Gages
- ◆ Inside Dial Gages
- ◆ Automotive Gages
- ◆ Crankshaft Distortion Gages
- ◆ Cylinder Gages
- ◆ Disc Brake Gages
- ◆ Large Diameter Gages

In addition, we have made many other special function gages to suit a wide variety of our customers' specific requirements. If you have a special application, we invite you to submit your drawings and specifications to our Special Order Department at 121 Crescent Street, Athol, MA 01331, USA. We will be happy to provide a prompt quotation.

Chamfer Gages

For Internal Chamfers:
No. 683 Series 0-90°
No. 684 Series 90-127°

For External Chamfers:
No. 685 Series 0-90°
No. 686 Series 90-127°

These gages directly measure the diameter of chamfered holes. No setting master is necessary. When the three-blade plunger is pressed against a flat surface, the gage should read the set number stamped on the back of the indicator. In case of wear, the gage may be adjusted to read the proper number.

All ground surfaces are of hardened tool steel. Indicators are AGD design.

Internal gages will measure the largest diameter of any chamfer that has an included angle within the range of angles printed on the dial face of the gage.

External gages will measure the smallest diameter of any chamfer within the range of angles printed on the dial face of the gage.



Left, No. 683-1Z;
 Right, No. 685-3Z.

Right, No. 684-2Z Chamfer Gage with No. F2710-3 Electronic Indicator on the No. 695 Check Stand.

See specifications on next page.



Chamfer Gages (continued)

Internal Gages

Inch Reading

Range	0-90° Angle		90-127° Angle	
	Catalog No.	EDP No.	Catalog No.	EDP No.
0-3/8"	683-1Z	63684	684-1Z	63688
0-1/2"	683-2Z	63685	684-2Z	63689
0-1"	683-3Z	63686	684-3Z	63690
1-2"	683-4Z	63687	684-4Z	63691

Millimeter Reading with Yellow Dials

0-9.5mm	683M-1Z	64989	684M-1Z	64993
0-12.7mm	683M-2Z	64990	684M-2Z	64994
0-25mm	683M-3Z	64991	684M-3Z	64995
25-50mm	683M-4Z	64992	684M-4Z	64996

External Gages

Inch Reading

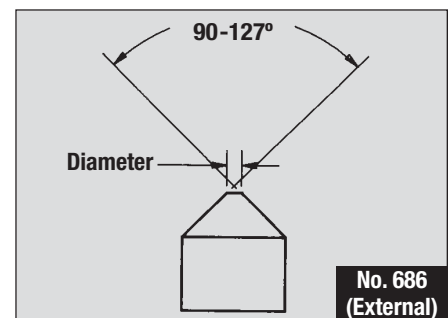
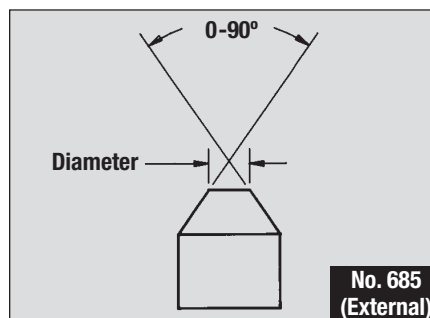
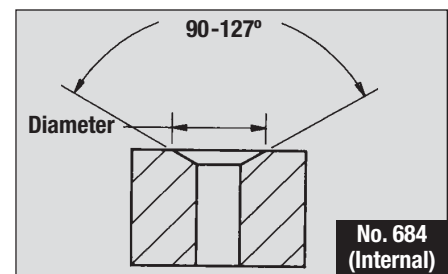
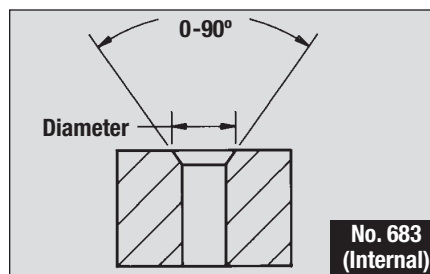
1/8-1/2"	685-1Z	63692	686-1Z	63695
3/16-1"	685-2Z	63693	686-2Z	63696
1-2"	685-3Z	63694	686-3Z	63697

Millimeter Reading with Yellow Dials

3.2-12.7mm	685M-1Z	64997	686M-1Z	65000
4.7-25mm	685M-2Z	64998	686M-2Z	65001
25-50mm	685M-3Z	64999	686M-3Z	65002

Check Gage Stand for Chamfer, Countersink and Hole Gages

Description	Catalog No.	EDP No.
8-3/16" H x 6" W x 4" D (212 x 150 x 100mm) Hold Downs – 5" (125mm) on Center – 1/4" (6.3mm) Holes	695	63875



NOTE: Also available with electronic indicators.
Please specify.

Gages furnished in deluxe padded case.



Countersink Gages

- No. 687 Series** 82°
- No. 688 Series** 90°
- No. 689 Series** 100°

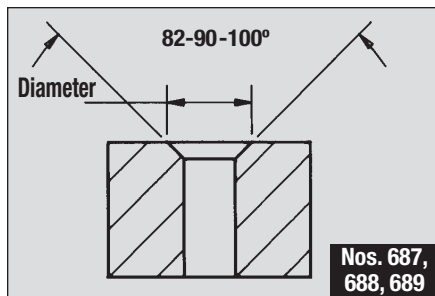
Starrett Countersink Gages are offered in three different angles so that the gage sets on the angular side of the countersink, as opposed to a chamfer gage which sets on the top edge of the chamfer.

This gage directly reads the large diameter of the countersink in .002" or 0.05 mm increments. A set master ring is furnished with each gage for calibration and setting. Press the button on top of the indicator to firmly depress the gage head into the countersink. When the gage is removed, the indicator reading is held in place until the reset button is activated.

All ground surfaces are of hardened tool steel. Indicators are AGD design.



Left-to-right: Nos. 687-4Z, No. 688-3Z, No. 689-1Z.



Inch Reading

Range	82° Angle		90° Angle		100° Angle	
	Catalog No.	EDP No.	Catalog No.	EDP No.	Catalog No.	EDP No.
.020-.170"	687-1Z	63698	688-1Z	63702	689-1Z	63706
.160-.360"	687-2Z	63699	688-2Z	63703	689-2Z	63707
.360-.560"	687-3Z	63700	688-3Z	63704	689-3Z	63708
.560-.780"	687-4Z	63701	688-4Z	63705	689-4Z	63709

Millimeter Reading with Yellow Dials

0.5-4.3mm	687M-1Z	65003	688M-1Z	65007	689M-1Z	65011
4-9mm	687M-2Z	65004	688M-2Z	65008	689M-2Z	65012
9-14.2mm	687M-3Z	65005	688M-3Z	65009	689M-3Z	65013
14.2-19.8mm	687M-4Z	65006	688M-4Z	65010	689M-4Z	65014

Check Gage Stand for Chamfer, Countersink and Hole Gages

Description	Catalog No.	EDP No.
8-3/16" H x 6" W x 4" D (212 x 150 x 100mm) Hold Downs – 5" (125mm) on Center – 1/4" (6.3mm) Holes	695	63875

NOTE: Also available with electronic indicators. Please specify.

Gages furnished in deluxe padded case.



Hole Gages

No. 690 Series
.010-.330"

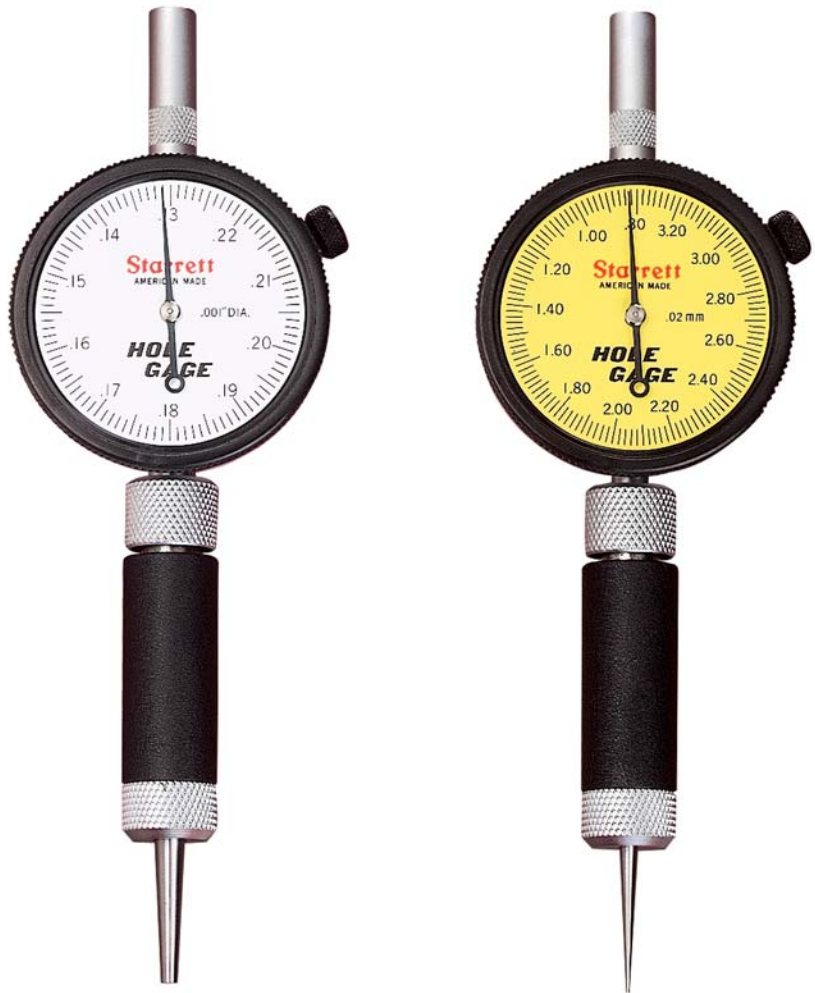
No. 690M Series
0.25-8.35mm

These hole gages will check hole diameters to .001" and 0.02mm. They are fast, accurate, easy to read and have a balanced design for easy one-hand operation.

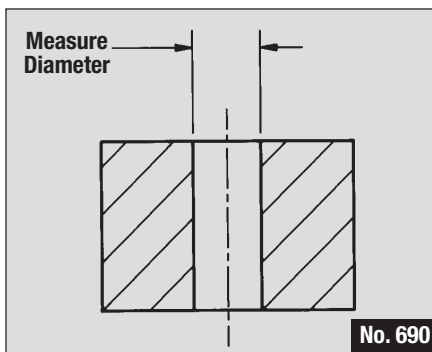
The gage can be pressed down on a flat surface and checked so the size should read the same as the set number stamped on the back of the indicator. It can also be checked and set with an optional "setting master".

All ground surfaces are of hardened tool steel. Indicators are AGD design.

Holes that need to be accurately checked must have no chamfers or countersinks.



Left, No. 690-3Z; right, No. 690M-2Z.



Inch Reading

Range	Gages		Set Masters (Optional)	
	Catalog No.	EDP No.	Part No.	EDP No.
.010-.040"	690-1Z	63710	PT23710-1	63879
.030-.130"	690-2Z	63711	PT23710-2	63880
.130-.230"	690-3Z	63712	PT23710-3	63881
.230-.330"	690-4Z	63713	PT23710-4	63882

Millimeter Reading with Yellow Dials

.25-1.00mm	690M-1Z	63714	PT23710-5	63883
.75-3.30mm	690M-2Z	63715	PT23710-6	63884
3.30-5.85mm	690M-3Z	63716	PT23710-7	63885
5.85-8.35mm	690M-4Z	63717	PT23710-8	63886

Check Gage Stand for Chamfer, Countersink and Hole Gages

Description	Catalog No.	EDP No.
8-3/16" H x 6" W x 4" D (212 x 150 x 100mm) Hold Downs - 5" (125mm) on Center - 1/4" (6.3mm) Holes	695	63875

NOTE: Also available with electronic indicators.
Please specify.

Gages furnished in deluxe padded case.