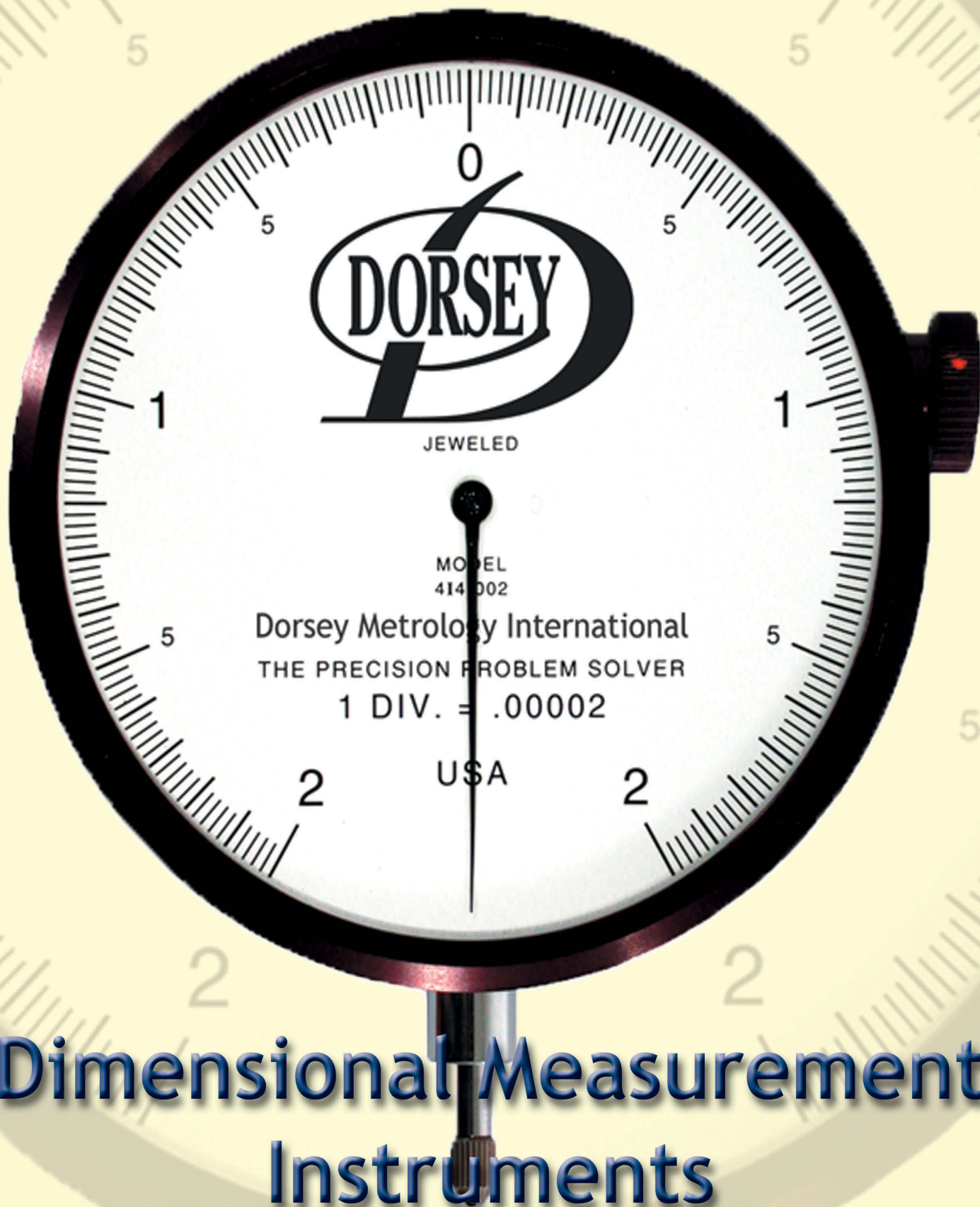


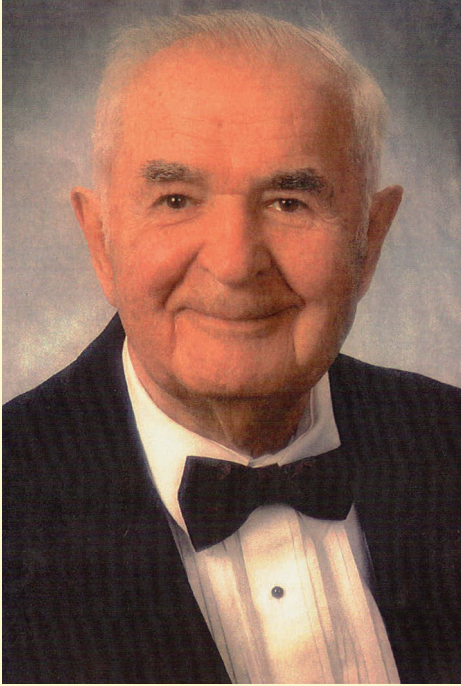
# Dorsey Metrology International



## Dimensional Measurement Instruments



# HISTORY OF DORSEY



In 1955 Dorsey Gage Company was incorporated in New York State by its founders, Theodore F. Luty Sr. and his wife Helen Luty. The company began in Hyde Park, New York as a machine shop specializing in the manufacture of simple inspection gages and sub-contract machining. From the very beginning, the company aim was to provide precision craftsmanship and customer satisfaction. As the company grew, it began to design and build equipment, which addressed the specific needs of its customers. This exposure in turn provided the basis for the continuing development of Dorsey Gage Company's standard inspection products.

In 1975 Dorsey purchased the instrument division of the Hamilton Watch Company of Lancaster, Pennsylvania. This acquisition added the well-known and respected Hamilton / Datcon dial indicator instruments to the Company's products. The next year, 1976, Dorsey relocated to 253 Mansion Street in the Poughkeepsie, New York.

In 1986 Dorsey Gage acquired Pexit, an English company known throughout Europe and Asia for their precision optical comparators. The design and manufacture of Pexit comparators was relocated to Poughkeepsie, New York, where it became the Optical Metrology Division of Dorsey Gage. Since its inception, the Optical Metrology Division has adapted the Dorsey philosophy of providing a top quality inspection instrument that exactly matches the customers' requirements.

## Theodore Francis Luty

Throughout the entire development of the Dorsey family of inspection products, the company also continued the sale of their craftsman services. These services included; instrumentation, contract machining, inspection, automation and the manufacture of special tooling and equipment. While catering to a variety of companies, their most prominent customer was IBM Corporation. It was through these efforts with IBM, that Dorsey Gage Company became involved in a project known as the electrostatic chuck program. This program was the basis for Dorsey's Semiconductor Division.

On March 1, 2001, Dorsey Gage Company and the E.S.C. Division were sold. Prior to the closing, the metrology division became a separate company, with Ted Luty Jr. as president. The new company, Dorsey Metrology International, consisted of the division's former management, employees and assets. The old Dorsey Gage Company, now with a new name, Dorsey Metrology, continues the manufacturing and distribution of gages, inspection instruments and optical comparators.

Following Brown & Sharpe's (Hexagon's) closure of the Standard Gage Company also in Poughkeepsie, N.Y. Dorsey Metrology announced their intension to manufacture and support many of the products that were previously manufactured by Standard Gage Company. On April 18, 2002 Dorsey Metrology acquired much of Standard Gage Company's specialized tooling and machinery at auction and subsequently hired key Standard employees to continue manufacturing of the core products. These key products included the Standard style bore and snap gages that have long been an established industry standard. Dorsey continues to provide Standard's customers with high quality interchangeable parts, modifications, specials and new models to meet their current and future needs.

Dorsey Metrology is now in its third generation of Luty Family management. On December 19, 2012, Devon Luty (the former vice-president) was named president of the company. The company's corporate offices and current manufacturing are all located at 53 Oakley Street, Poughkeepsie.



**Ted Luty Jr., C.E.O**  
**Devon Luty, President**



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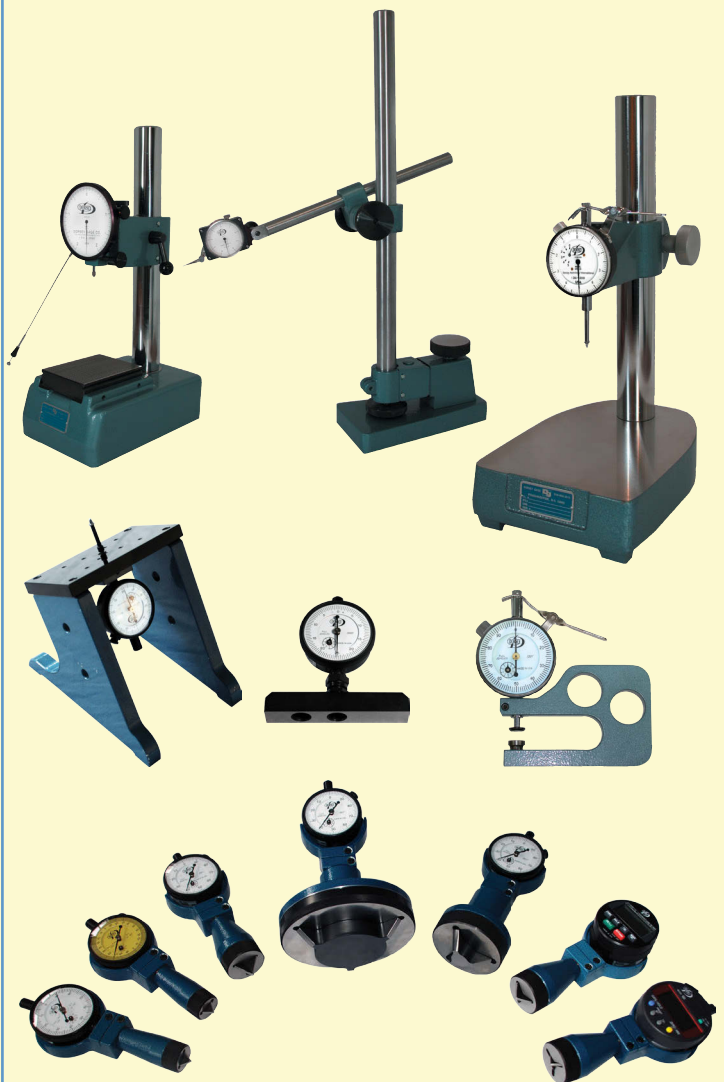
## Section A Indicating Devices

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Dorsey Metrology International  
Website: [www.dorseymetrology.com](http://www.dorseymetrology.com)

Tel: (845) 454-3111 Fax: (845) 454-3888  
53 Oakley Street, Poughkeepsie, NY 12601

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# INDICATING DEVICES SECTION

## HIGH AMPLIFICATION DIAL INDICATORS

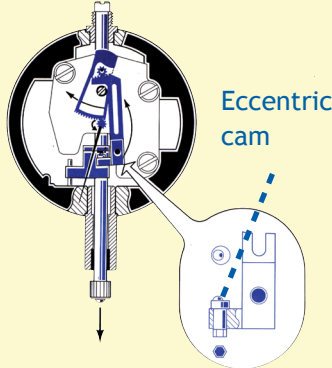
Dorsey's high amplification dial indicators feature a shock proof "following" type jeweled movement utilizing the unique lever principle of amplification and lightweight low inertia segmented precision gears for unparalleled accuracy and repeatability.

Available in single revolution or multi-revolution styles

Revolution counters are a standard feature on all Dorsey multi-revolution indicators

"Cartridge Style" movement can be easily replaced as an assembly or removed for repair

Universal movements can be used in either ANSI/AGD group 2, 3 or 4 indicators



Eccentric cam

The illustration to the left shows Dorsey's unique shock proof, high amplification indicator movement. Our indicators feature this lever principal and an adjustable eccentric cam to achieve unparalleled accuracy and repeatability.

Friction free fully jeweled movement

High accuracy gear segment movement

Jam proof/Shock proof- "following lever spindle" eliminates the possibility of jamming as the gage movement is not driven by rack & pinion spindle

Zero adjustment knob keeps the zero always at 12:00 position (ANSI/AGD 3 & 4 only)

Lapped chrome plated steel spindle

Chrome plated **HARDENED STEEL STEM** is virtually crush proof

## TRADITIONAL DIAL INDICATORS

Dorsey's traditional rack and pinion dial indicators feature heavy duty forged bronze cases, massive gears & spindles and fully jeweled hardened stainless steel cartridge style movements.

Forged bronze, chrome plated case

Fully jeweled, heavy duty replaceable cartridge movement

Revolution counters are standard on all multi-revolution indicators

Machined aluminum bezel, sealed with teflon "O" ring

Stainless steel heavy duty rack spindle

Hardened stainless steel stem screwed onto case boss

Unique case design features solid back to protect movement from contamination

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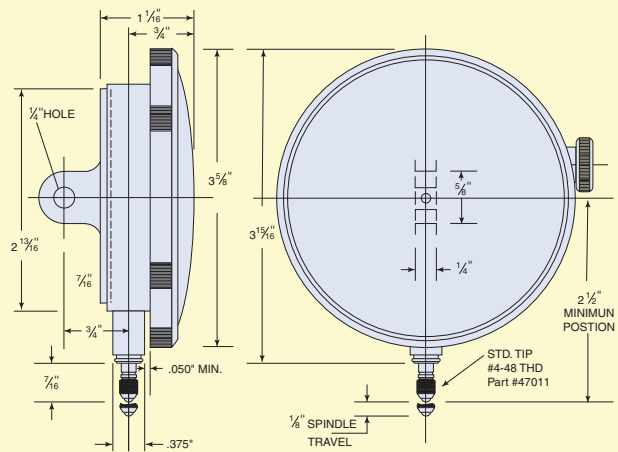
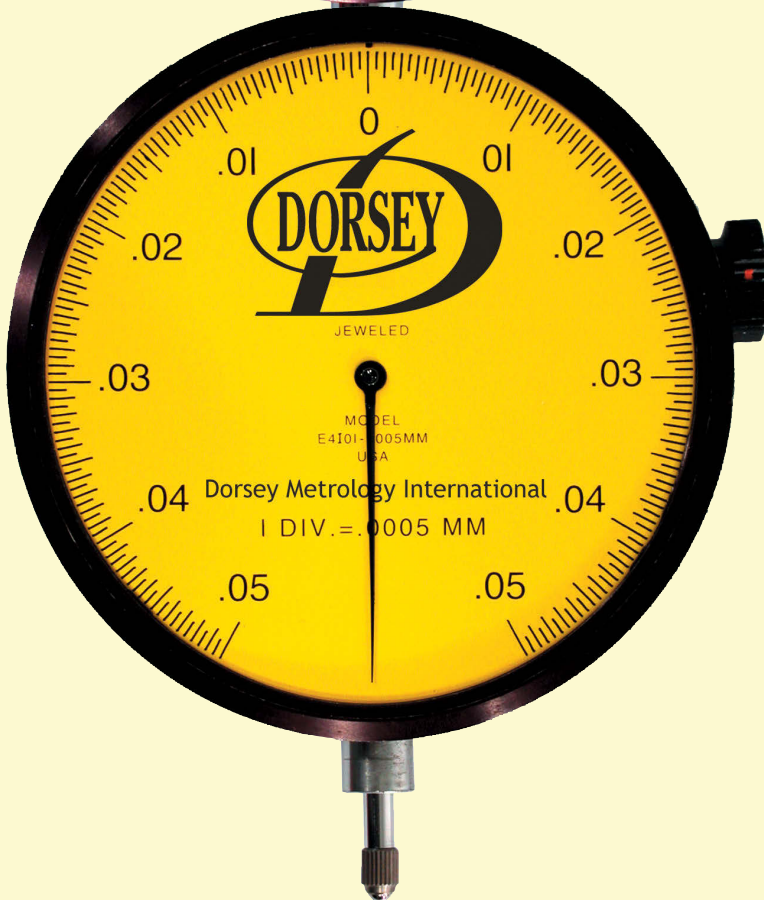


# ULTRA HIGH AMPLIFICATION GROUP 4

## 20 Millionths that you can actually read!

### FEATURES:

- High amplification movement permits:
  - Graduations as fine as 0.00002".
  - Improved readability and minimized judgement error.
  - Performance comparable to more expensive gaging methods.
  - Convenient portability - no external connections required.
  - Interchangeability - can be used in the same environment as any other mechanical dial indicator.
  - Simplified service - complete movement is easily removed from the case for cleaning or direct replacement at low cost.
- Lever principle of amplification - minimizes effect of spindle sideshake. Linearity and repeatability maintained through millions of cycles.
- 3-5/8" bezel - conforms to ANSI/AGD standards.
- Adjustable gaging force - easily adjustable from 2 to 5 oz. by externally accessible screw.
- External zero adjustment knob - makes possible the advantage of adjusting indicator hand to zero rather than rotating bezel to 'zero' hand.
- Optional lifting lever or cable release. Use lifting lever only when indicator is back mounted. Cable release may be used when indicator is back or stem mounted and enhanced stability of gaging setup.



See page A-12 for dial face options, A-13 for accessories & contacts and A-4 for back options

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A-2

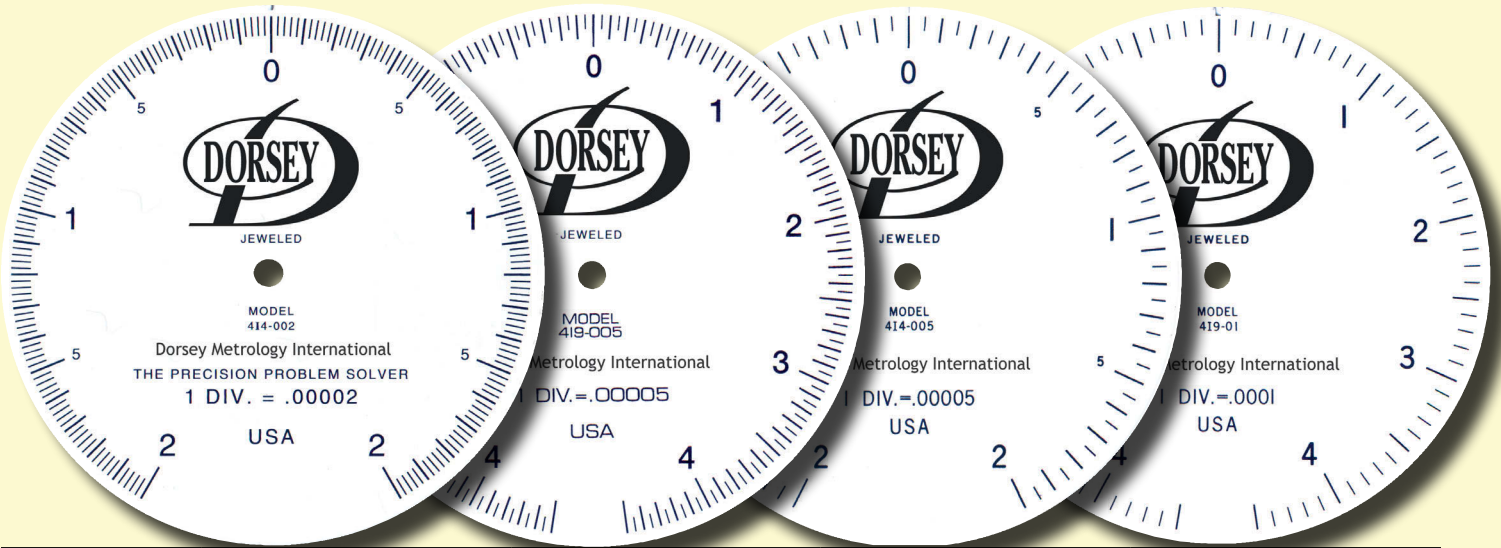


Dorsey Metrology International  
Website: [www.dorseymetrology.com](http://www.dorseymetrology.com)

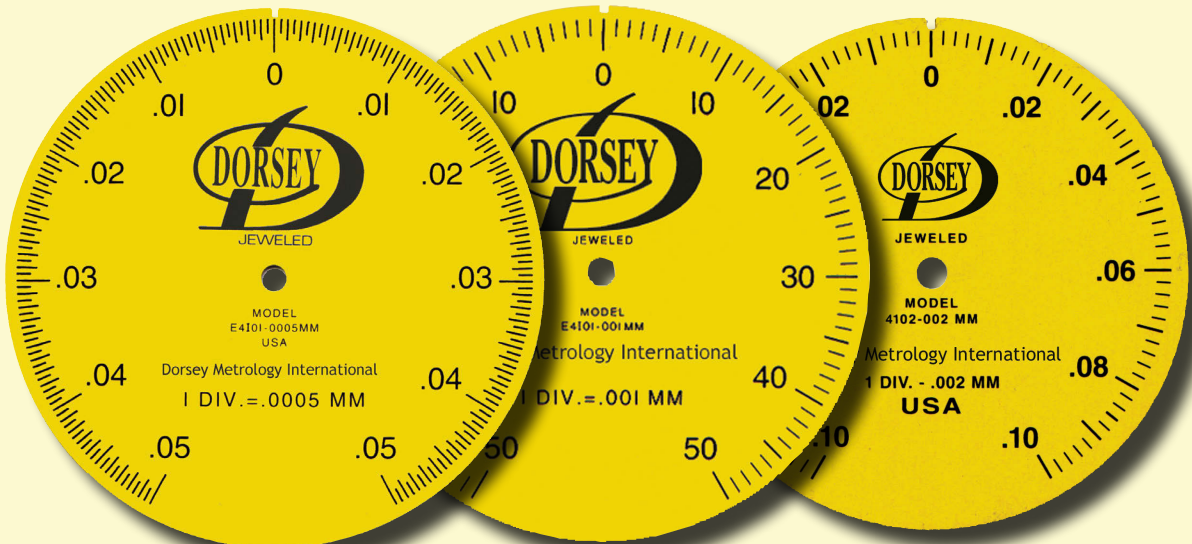
Tel: (845) 454-3111 Fax: (845) 454-3888  
53 Oakley Street, Poughkeepsie, NY 12601

# ULTRA HIGH AMPLIFICATION GROUP 4

The most precise indicator on the planet!



INCH MODEL	414-002	419-005	414-005	419-01
Graduation	.00002"	.00005"	.00005"	.0001"
Total Travel	.004"	.009"	.004"	.009"
Dial	.002"-0-.002"	.0045"-0-.0045"	.002"-0-.002"	.0045"-0-.0045"
Revolutions	1 Rev.	1 Rev.	1 Rev.	1 Rev.
Accuracy	less than +/- .00002"	less than +/- .00005"	less than +/- .00005"	less than +/- .0001"
Repeatability	+/- 10 millionths (.000010")	+/-10 millionths (.000010")	+/-10 millionths (.000010")	+/- 20 millionths (.00002")



METRIC MODEL	4101-0005mm	4101-001mm	*4102-002mm
Graduation	0.0005mm	0.001mm	0.002mm
Total Travel	0.1mm	0.1mm	0.2mm
Dial	0.05-0-0.05mm	0.05-0-0.05mm	0.10-0-0.10mm
Revolutions	1 Rev.	1 Rev.	1 Rev.
Accuracy	less than +/- 0.0005mm	less than +/- 0.001mm	less than +/- 0.002mm
Repeatability	+/- 0.0001mm	+/- 0.0002mm	+/- 0.0004mm

\* Special order

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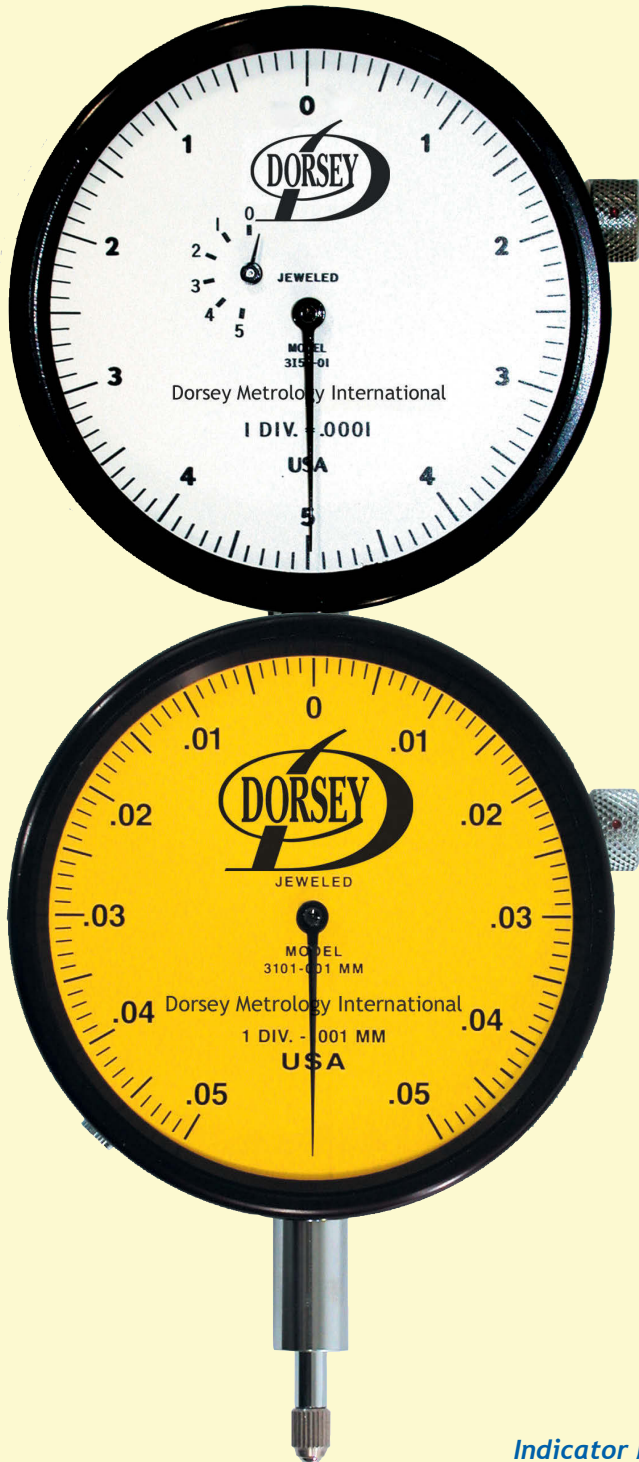
A-3



Dorsey Metrology International  
Website: [www.dorseyMetrology.com](http://www.dorseyMetrology.com)

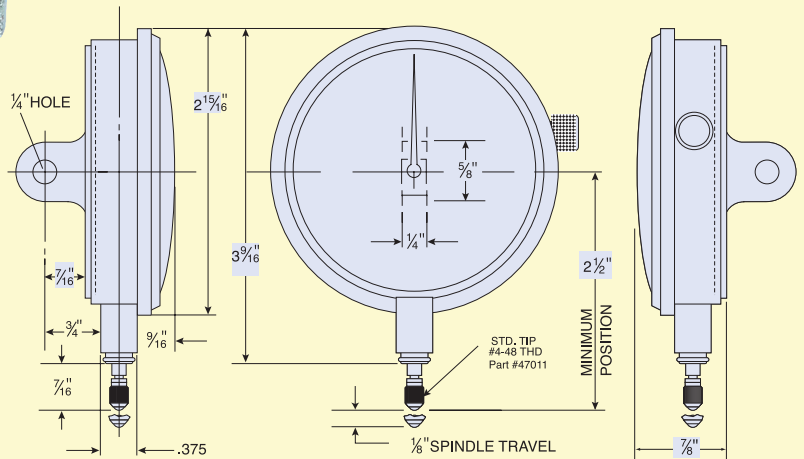
Tel: (845) 454-3111 Fax: (845) 454-3888  
53 Oakley Street, Poughkeepsie, NY 12601

# ULTRA HIGH AMPLIFICATION GROUP 3

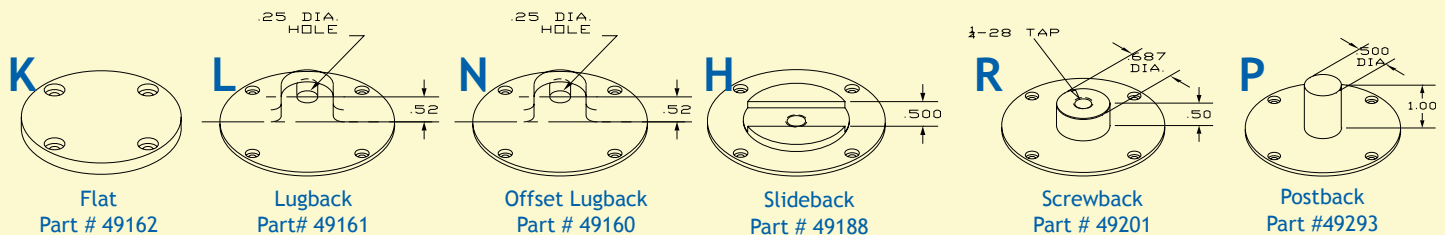


## FEATURES:

- High amplification movement - graduations as fine as .00005". Improved readability and minimizes judgement error.
- Lever principle of amplification - minimizes effect of spindle sidsshake. Linearity and repeatability maintained through millions of cycles.
- 2-15/16" Bezel - fits many existing fixtures. Conforms to ANSI/AGD standards.
- Adjustable gaging force - easily adjusts from 2 to 5 ounces by externally accessible screw.
- External zero adjustment knob makes possible the advantage of adjusting indicator hand to zero rather than rotating bezel to 'zero' hand.
- Optional lifting lever or cable release. Use lifting lever only when indicator is back mounted. Cable release may be used when indicator is back or stem mounted and enhances stability of gaging setup.
- Optional tolerance hands or shaded dials to facilitate production gaging.



## Indicator back options for Group 3 & 4



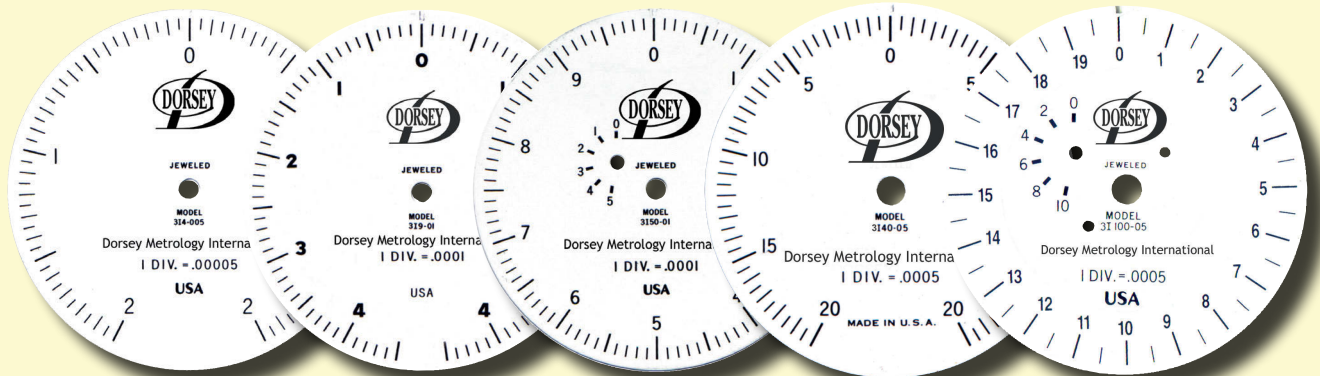
See page A-12 for dial face options, A-13 for accessories and contacts

Proudly made in the USA

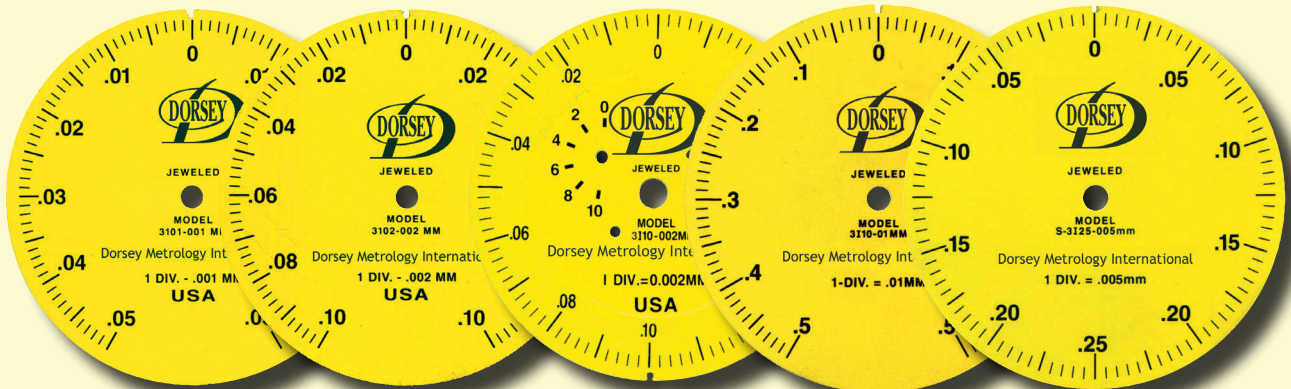




# ULTRA HIGH AMPLIFICATION GROUP 3

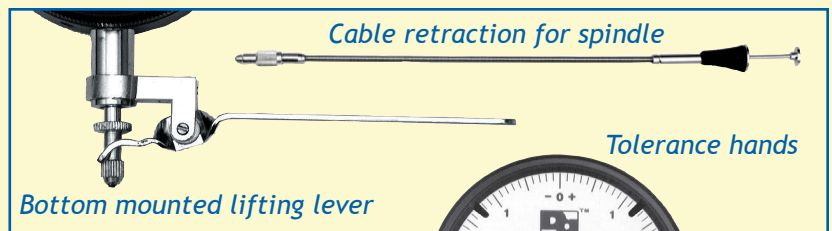


MODEL	314-005	319-01	3150-01	*3140-05	*31100-05
Graduation	.00005"	.0001"	.0001"	.0005"	.0005"
Total Travel	.004"	.009"	.050"	.040"	.100"
Dial	.002"-0-.002"	.0045"-0-.0045"	0-.005"-0	.02"-0-.02"	0-.010"-0
Revolutions	1 Rev.	1 Rev.	5 Rev.	1 Rev.	5 Rev.
Accuracy	+/- .00005"	+/- .0001"	+/- .0001"	+/- .0005"	+/- .0005"
Repeatability	+/- .00002"	+/- .00002"	+/- .00002"	+/- .0001"	+/- .0001"



MODEL	3101-001mm	3102-002mm	*3110-002mm	3110-01mm	S3125-005mm
Graduation	0.001mm	0.002mm	0.002mm	0.01mm	0.005mm
Total Travel	0.1mm	0.2mm	1.0mm	1.0mm	0.5mm
Dial	0.05-0-0.05mm	0.10-0-0.10mm	0.5-0-0.5mm	0.05-0-0.05mm	0-0.25mm-0
Revolutions	1 Rev.	1 Rev.	5 Rev.	1 Rev.	1 Rev.
Accuracy	+/- 0.001mm	+/- 0.002mm	+/- 0.002mm	+/- 0.01mm	+/- 0.005mm
Repeatability	+/- 0.0005mm	+/- 0.0005mm	+/- 0.0005mm	+/- 0.002mm	+/- 0.001mm

AGD/ANSI GROUP 3 & 4	
ACCESSORIES	PART #
Bottom Mounted Lifting Lever	49341
Tolerance Hands	49156
Cable Release	47935
Special Shaded Dials	As Quoted



\* Special order

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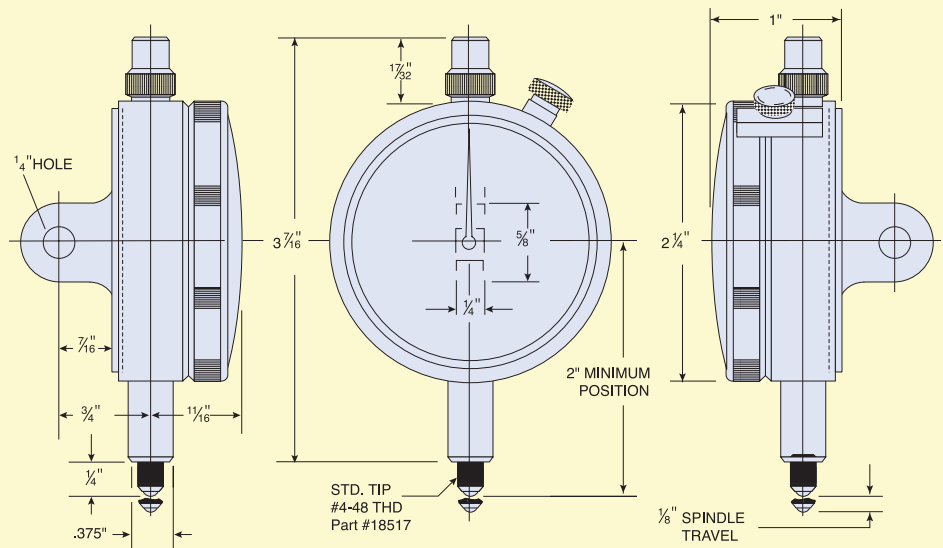
# ULTRA HIGH AMPLIFICATION GROUP 2

All Dorsey Ultra Amplification Indicators utilize the lever principle of motion. They do not rely on rack and pinion motion. This eliminates the inherent error between the meshing of racks and gears.

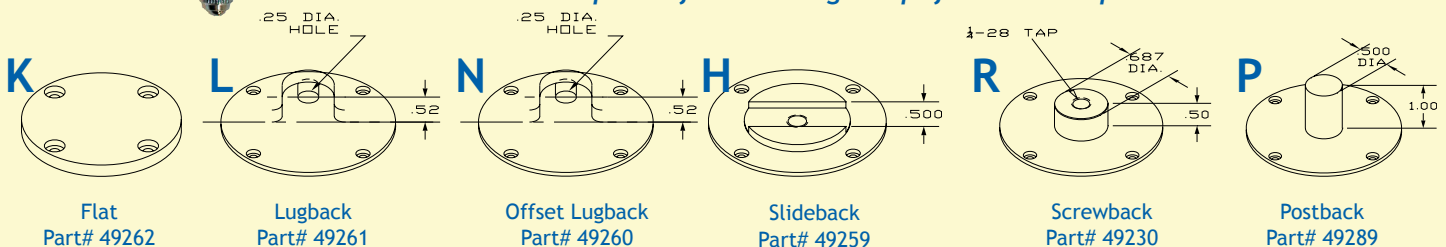


## FEATURES:

- High amplification movement - graduations as low as .00005". Improves readability and minimizes judgement error.
- Lever principle of amplification - minimizes effect of spindle sideshake. Linearity and repeatability maintained through millions of cycles.
- 2.25" Bezel - fits many existing fixtures. Conforms to ANSI/AGD standards.
- Low gaging force - standard is 3 oz. Available at higher or lower values with factory adjustment.
- Chrome plated hardened steel stem is designed for clamping. It is virtually crush proof.
- Bezel zero adjustment - insures positive lock.
- Straight through spindle - permits installation of top mounted accessories and options.
- Optional lifting lever positions - can be attached to top bushing or stem.
- Optional tolerance hands or shaded dials to facilitate production gaging.



### Indicator back options for Ultra High Amplification Group 2



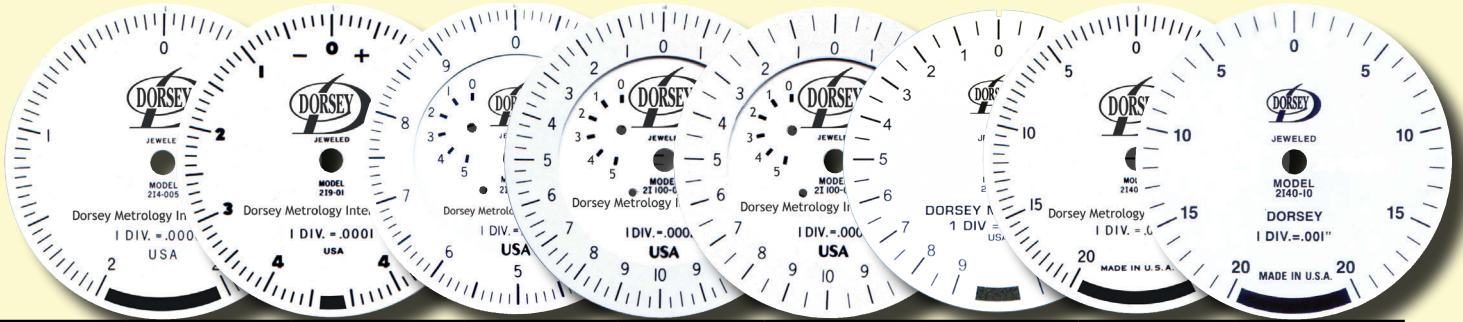
See page A-12 for dial face options, A-13 for accessories and contacts

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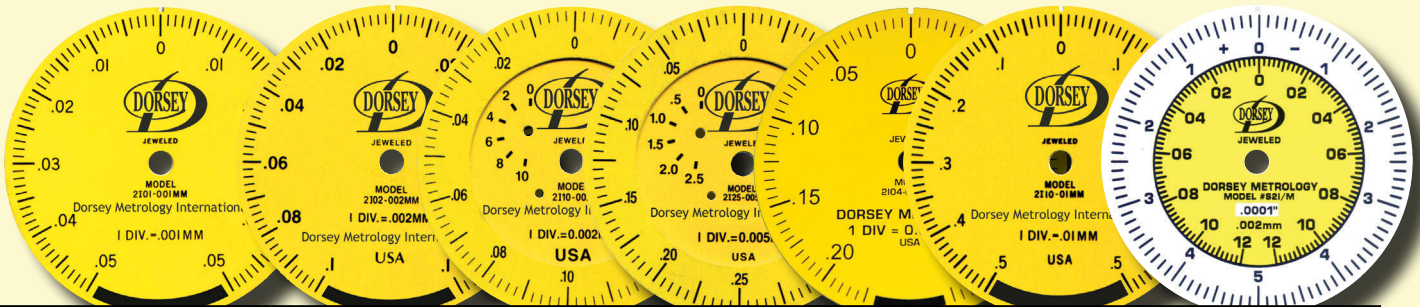


# ULTRA HIGH AMPLIFICATION GROUP 2

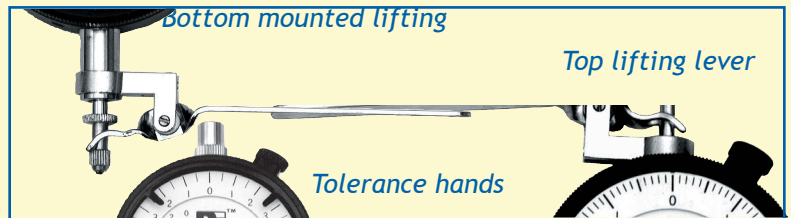
Dials can be supplied to your specification. See page A-13 for options.



MODEL	214-005	219-01	2150-01	21100-025	21100-05	2118-05	2140-05	2140-10
Graduation	.00005"	.0001"	.0001"	.00025"	.0005"	.0005"	.0005"	.001"
Total Travel	.004"	.009"	.050"	.100"	.100"	.018"	.040"	.040"
Dial	.002"-0-.002"	.0045"-0-.0045"	0-.005"-0	0-.10"-0	0-.10"-0	.009"-0-.009"	.020"-0-.020"	.020"-0-.020"
Revolutions	1 Rev.	1 Rev.	5 Rev.	5 Rev.	5 Rev.	1 Rev.	1 Rev.	1 Rev.
Accuracy	+/- .00005"	+/- .0001"	+/- .0001"	+/- .00025"	+/- .0005"	+/- .0005"	+/- .0005"	+/- .0005"
Repeatability	+/- .00001"	+/- .00002"	+/- .00002"	+/- .00005"	+/- .0001"	+/- .0001"	+/- .0001"	+/- .0001"



MODEL	2101-001mm	2102-002mm	2110-002mm	2125-005mm	2104-005mm	2110-01mm	S21/M
Graduation	0.001mm	0.002mm	0.002mm	0.005mm	0.005mm	0.01mm	.0001" (0.002mm)
Total Travel	0.1mm	0.2mm	1.0mm	2.5mm	0.4mm	1.0mm	.010" / 0.24mm
Dial	0.05-0-0.05mm	0.1-0-0.1mm	0-.1mm-0	0-.25mm-0	0.2-0-0.2mm	0.5-0-0.5mm	0-.005"-0
Revolutions	1 Rev.	1 Rev.	5 Rev.	5 Rev.	1 Rev.	1 Rev.	1 Rev.
Accuracy	+/- 0.001mm	+/- 0.002mm	+/- 0.002mm	+/- 0.005mm	+/- 0.005mm	+/- 0.01mm	+/- .0001" (0.002mm)
Repeatability	+/- 0.0002mm	+/- 0.0004mm	+/- 0.0004mm	+/- 0.001mm	+/- 0.001mm	+/- 0.002mm	+/- .00002" (.0005mm)



For perpendicular indicator add -90 as suffix.

Example: 2101-001mm-90

For extended indicator stem of 3 inches add D4- as prefix.

Example: D4-2150-01

ACCESSORIES	AGD 2 PART #
Bottom Mounted Lifting Lever	49341
Top Mounted Lifting Lever	49340
Tolerance Hands	49255
Special Shaded Dials	As Quoted

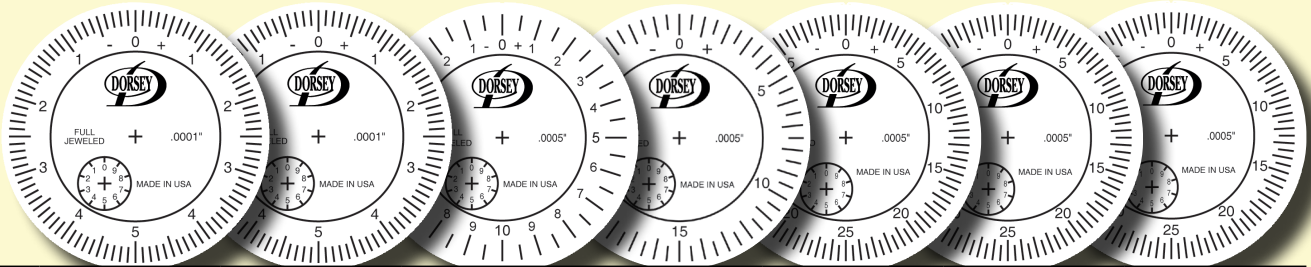
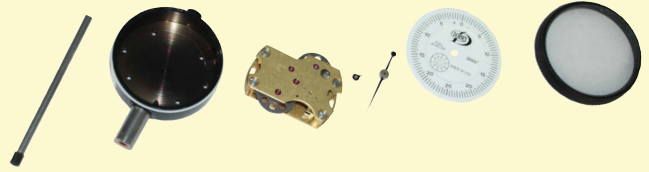
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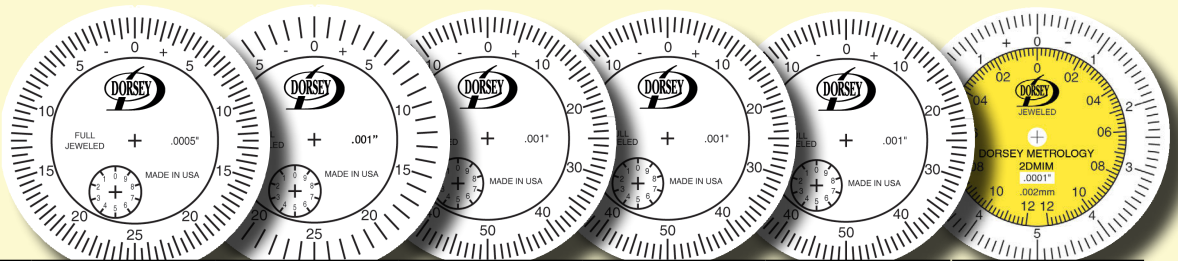
# GROUP 2 TRADITIONAL DIAL INDICATORS

## FEATURES:

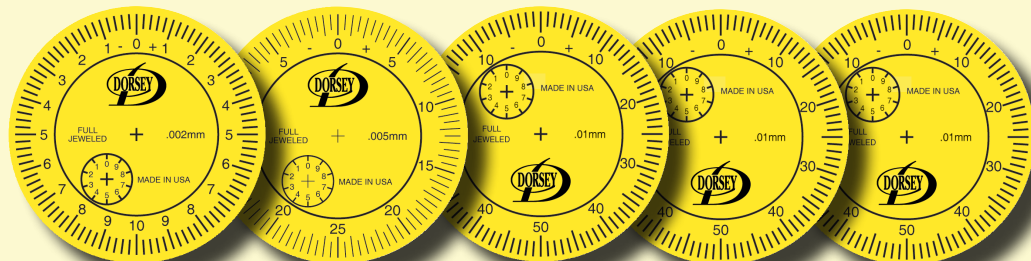
- Precision rack and pinion design.
- Protective case opens from front to protect movement from contamination.
- Fully jeweled movement with rev. counter.
- Forged bronze, chrome plated case.
- Screwed-on, hardened steel chrome plated stem.
- Universal .375" diameter stem with #4-48 spindle thread.
- Balanced and continuous dial faces available.



MODEL	2DM025-01	2DM100-01	2DM050-05	2DM075-05	2DM125-05	2DM250-05	2DM500-05
Graduation	.0001"	.0001"	.0005"	.0005"	.0005"	.0005"	.0005"
Total Travel	.025"	.100"	.050"	.075"	.125"	.250"	.500"
Revolutions	2.5 Rev.	10 Rev.	5 Rev.	2.5 Rev.	2.5 Rev.	5 Rev.	10 Rev.
Travel/Rev.	.010"	.010"	.020"	.030"	.050"	.050"	.050"



MODEL	2DM1000-05	2DM125-10	2DM250-10	2DM500-10	2DM1000-10	2DMIM
Graduation	.0005"	.001"	.001"	.001"	.001"	.0001"/0.002mm
Total Travel	1.00"	.125"	.250"	.500"	1.00"	.010"/0.24mm
Revolutions	20 Rev.	5 Rev.	2.5 Rev.	5 Rev.	10 Rev.	1 Rev.
Travel/Rev.	.050"	.050"	.100"	.100"	.100"	.010"/0.24mm



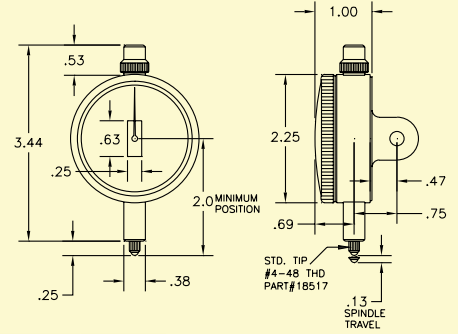
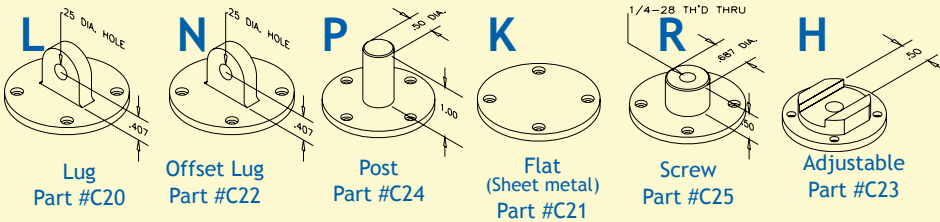
MODEL	2DM005-002mm	2DM012-005mm	2DM5-01mm	2DM10-01mm	2DM25-01mm
Graduation	0.002mm	0.005mm	0.01mm	0.01mm	0.01mm
Total Travel	.5mm	1.25mm	5mm	10mm	25mm
Revolutions	2.5 Rev.	2.5 Rev.	5 Rev.	10 Rev.	25 Rev.
Travel/Rev.	0.200mm	0.50mm	1.0mm	1.0mm	1.0mm

Proudly made in the USA



# TRADITIONAL DIAL INDICATORS

## BACK OPTIONS FOR GROUP 2



The letter designating the indicator back follows the letter designating the dial format.

Example #1: 2I50-01B

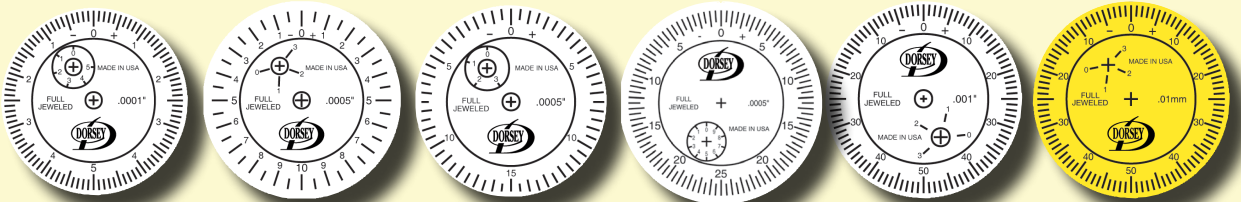
H

Example #2: 2DM100-01B

H

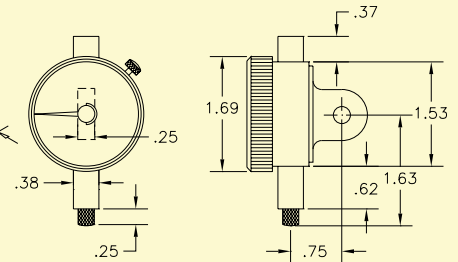
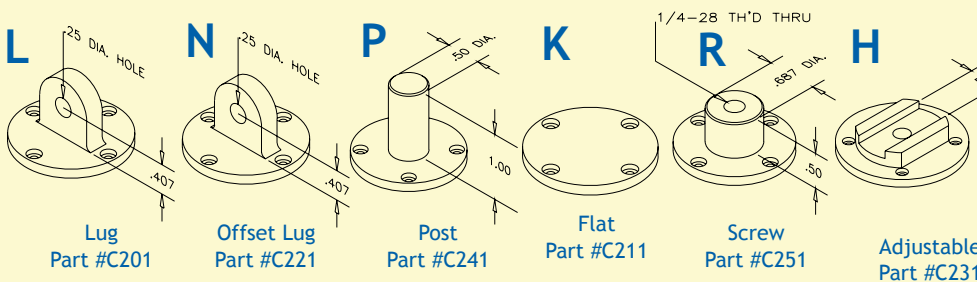
See page A-12 for dial face options, A-13 for accessories and contacts

# GROUP 1 TRADITIONAL DIAL INDICATORS



MODEL	1DM025-01	1DM050-05	1DM075-05	1DM125-05	1DM250-10	1DM2-01mm
Graduation	.0001"	.0005"	.0005"	.0005"	.001"	0.01mm
Total Travel	.025"	.050"	.075"	.125"	.250"	2.5mm
Revolutions	2.5 Rev.	2.5 Rev.	2.5 Rev.	2.5 Rev.	2.5 Rev.	2.5 Rev.
Travel/Rev.	.010"	.020"	.030"	.050"	.100"	1.0mm

## BACK OPTIONS FOR GROUP 1



The letter designating the indicator back follows the letter designating the dial format.

Example #1: 2I50-01B

H

Example #2: 2DM100-01B

H

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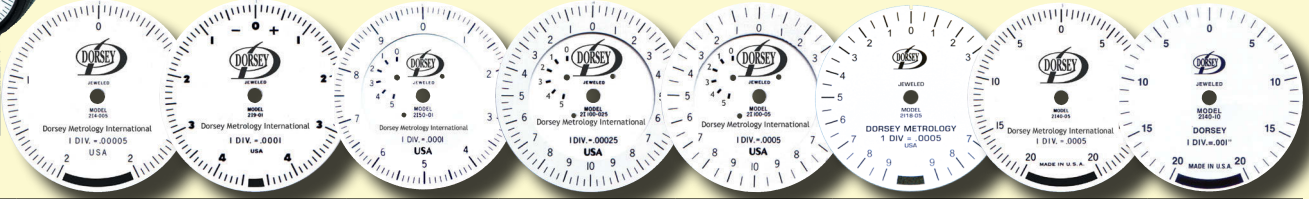
# DORSEY STANDARD DIAL INDICATING UNIT

## HIGH AMPLIFICATION FEATURES

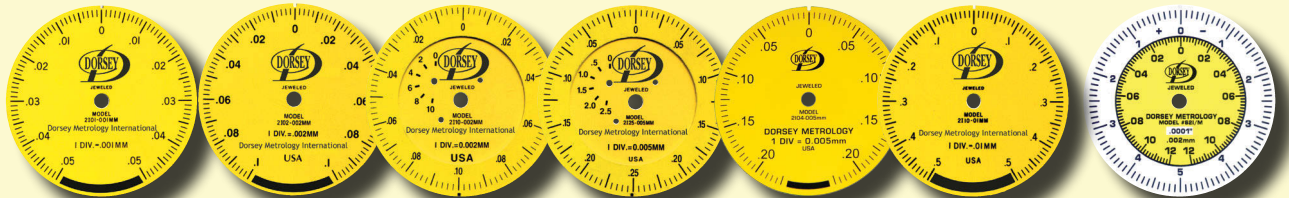
- Shock proof fully jeweled Dorsey high amplification movement.
- Cartridge style movement assembly is easily replaced to limit gage downtime.
- Heavy duty aluminum housing.
- Directly interchangeable with Standard Gage® Brown and Sharp bore gaging products.
- All resolutions feature .125" spindle travel.



For perpendicular indicator unit add -90 as suffix.  
Example: DS-2140-05-90  
High Amplification Series Only

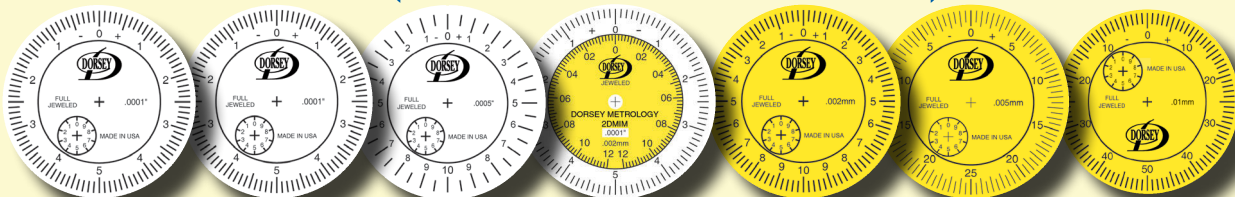


Model	DS-214-005	DS-219-01	DS-2150-01	DS-21100-025	DS-21100-05	DS-2118-05	DS-2140-05	DS-2140-10
Graduation	.00005"	.0001"	.0001"	.00025"	.0005"	.0005"	.0005"	.001"
Total Travel	.004"	.009"	.050"	.100"	.100"	.018"	.040"	.002"
Dial	.002"-0-.002"	.0045"-0-.0045"	0-.005"-0	0-.10"-0	0-.10"-0	.009"-0-.009"	.020"-0-.020"	.002"-0-.002"
Revolutions	1 Rev.	1 Rev.	3 Rev.	3 Rev.	3 Rev.	1 Rev.	1 Rev.	1 Rev.
Accuracy	+/- 0.00005"	+/- 0.0001"	+/- 0.0001"	+/- 0.00025"	+/- 0.0005"	+/- .0005"	+/- 0.0005"	+/- 0.001"
Repeatability	+/- 0.00001"	+/- 0.00002"	+/- 0.00002"	+/- 0.00005"	+/- 0.0001"	+/- .0001"	+/- 0.0001"	+/- 0.0005"



Model	DS-2101-001mm	DS-2102-002mm	DS-2110-002mm	DS-2125-005mm	DS-2104-005mm	DS-2110-01mm	DS-S21/M
Graduation	0.001mm	0.002mm	0.002mm	0.005mm	0.005mm	0.01mm	.0001" (0.002mm)
Total Travel	0.1mm	0.2mm	1.0mm	2.5mm	0.4mm	1.0mm	.010" / 2.5mm
Dial	0.05-0-0.05mm	0.10-0-0.10mm	0-.10mm-0	0-.25mm-0	0.2-0-0.2mm	0.5-0-0.5mm	0-.050"-0
Revolutions	1 Rev.	1 Rev.	3 Rev.	3 Rev.	1 Rev.	1 Rev.	1 Rev.
Accuracy	+/- 0.001mm	+/- 0.002mm	+/- 0.002mm	+/- 0.005mm	+/- 0.005mm	+/- 0.01mm	+/- .0001" (.002mm)
Repeatability	+/- 0.0002mm	+/- 0.0004mm	+/- 0.0004mm	+/- 0.001mm	+/- 0.001mm	+/- 0.002mm	+/- .00002" (.0005mm)

## TRADITIONAL MOVEMENT (RACK & PINION MOVEMENT)



Model	DS-2DM025-01	DS-2DM100-01	2DM050-05	DS-2DM1M	2DM005-002mm	2DM012-005mm	DS-2DM5-01mm
Graduation	.0001"	.0001"	.0005"	.010"/0.25mm	0.002mm	0.005mm	0.01mm
Total Travel	.025"	.100"	.50"	.0001"/0.002mm	.5mm	1.25mm	5mm
Revolutions	2.5 Rev.	10 Rev.	5 Rev.	1 Rev.	2.5 Rev.	2.5 Rev.	5 Rev.
Travel/Rev.	.010"	.010"	.020"	.010"/0.25mm	0.200mm	0.50mm	1.0mm

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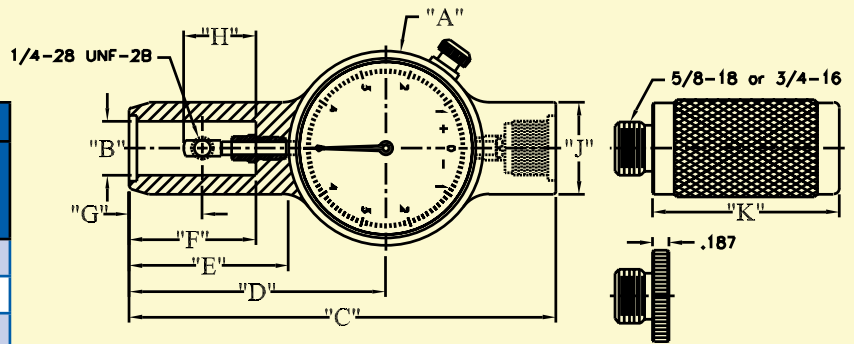


# DORSEY STANDARD DIAL INDICATING UNIT

## TECHNICAL SPECIFICATIONS

Dorsey offers an integrated indicator housing for just about any application.

DIAL UNIT HOUSINGS					
DIM.	AGD 1	SMALL AGD2	STANDARD AGD 2	HEAVY DUTY AGD 2 HD	1" SHAFT AGD 3
A	1.90"	2.25"	2.25"	2.25"	2.75"
B	.38"	.50"	.62"	1.00"	1.00"
C	3.50"	4.25"	5.25"	6.12"	6.5"
D	2.42"	2.40"	3.16"	3.66"	3.81"
E	1.50"	1.30"	1.90"	2.40"	2.45"
F	1.00"	1.10"	1.50"	2.00"	2.00"
G	.36"	.60"	.84"	1.13"	1.06"
H	.50"	.50"	.84"	.88"	1.19"
J	.56"	.88"	1.06"	1.44"	1.44"
K	.91"	2.00"	2.20"	3.00"	3.00"



## INDICATOR HOUSING OPTIONS



For .312" dia. shaft  
Part # Example:  
DS-1DM025-01  
Only available for  
1DM indicators

For .500" dia. shaft  
Part # Example:  
DS-2150-01-2

For .625" dia. shaft  
Part # Example:  
DS-2150-01  
Standard unit

For .625" dia shaft  
Part # Example:  
DS-2DM025-01

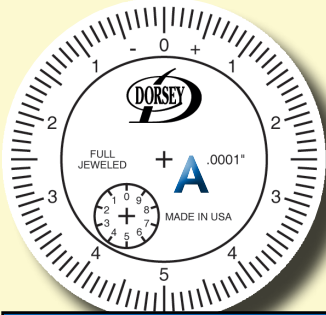
For 1" dia. shaft  
Part # Example:  
DS-2150-01-6

Digital or independent dial indicator housing  
Pt # DX4-81035 for most digital indicators  
Pt # DX4-81040 for DM series digital indicators

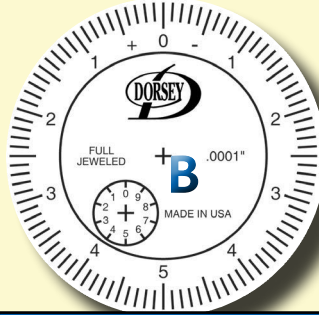
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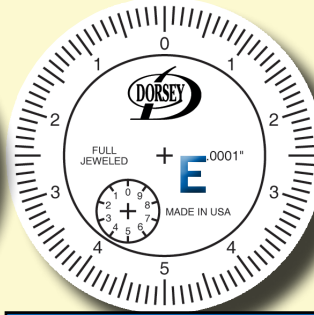
# DIAL FACE FORMATS (AGD SIZE 2)



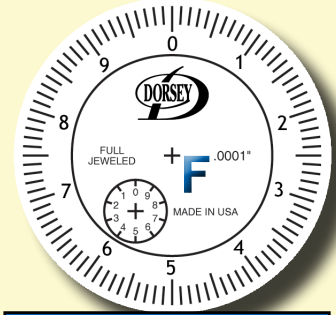
**A**  
Balanced Numbering  
(Plus on right. Minus on left.)  
Note: For Snap/OD gages



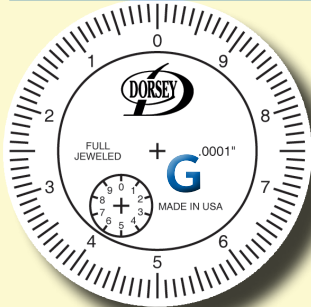
**B**  
Balanced Numbering  
(Plus on left. Minus on right.)  
Note: For bore/ID gages



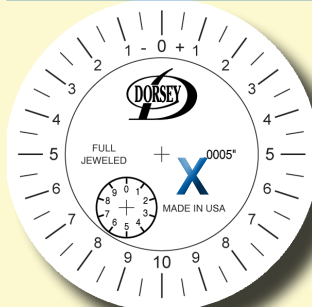
**E**  
Balanced Numbering  
(Plus and minus omitted)



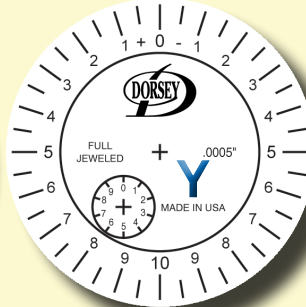
**F**  
Continuous Clockwise Numbering



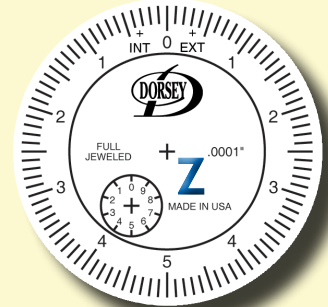
**G**  
Continuous Counter-Clockwise  
Numbering



**X**  
Preloaded  
When the indicator contact is fully depressed, the Rev. counter shows "0" and the large hand is at 6 o'clock



**Y**  
Reversed Action  
Indicator spindle is spring loaded up  
A.K.A. pushdown indicator



**Z**  
No Charge  
Both internal and external on outer dial for ID/OD gages

The letter designating the dial format follows the indicator part number.

## SPECIAL SHADED DIALS

Example #1: 2I50-01B

H

Example #2: 2DM100-01B

H



## TRADITIONAL DIAL INDICATOR OPTIONS



Internal hole attachment  
1.68" depth  
Part #C28



Internal hole attachment  
.81" depth  
Part #C29



Right angle  
attachment  
Part #C30



Top left lifting lever  
Part #C77  
Part #C77R (Right)

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# INDICATOR TOOLS, ACCESSORIES, & CONTACTS

Part #TLDI-4003  
Pinion centralizing  
face plate



Part #TLDI-4004M  
Metric calibration  
face plate set for  
ANSI/AGD -2



Part #TLDI-4004  
English calibration  
face plate set for  
ANSI/AGD -2



Part #TLDI-4006  
Hand installation punch tool



Part #TLDI-4013  
Pinion spring press tool



Part #TLDI-4005  
Calibration adjustment wrench



Part #TLDI-4008  
.060 Screw driver



Part #TLDI-4007  
Pinion tweezer



Part #TLD1-4002  
Indicator hand removal tool



Part #TLDI-4001  
Holding Fixture

CONTACTS	PART #	MATERIAL	L	W	DIA/ or RAD
	18517	Steel	.235"		(#2 Std) .125" Ball
	47011	Steel	.276"		(#3 & 4 Std) .125" Ball
	18518	Steel	.375"		.125" Ball
	18519	Ruby	.276"		.125" Ball
	18520	Carbide	.276"		.250" Radius
	47936	Ruby	.276"		.180" Radius
Blank (Soft)	47066	Steel	1.00"		.156" Dia.
Extended Range	16631	Steel	.236"		
Extended Shovel	4082-ES	Carbide		Steel	.125" Dia.
	18531	Steel	.32"		.156" Dia.
	47072	Steel	.500"		.156" Dia.
	47071	Steel	1.000"		.156" Dia.
	162	Steel	.30"		4-48 male to M 2.5
	163	Steel	.30"		M 2.5 male to 4-48
	164	Steel	.37"		5-44 male to 4-48
	47937	Steel	.250"		.156" Dia.
	47076	Steel	.500"		.156" Dia.
	47079	Steel	.750"		.156" Dia.
	47074	Steel	1.00"		.156" Dia.
	18532	Carbide	.250"		.156" Dia.
	18533	Carbide	.500"		.156" Dia.
	18534	Carbide	.750"		.156" Dia.
	18535	Carbide	1.00"		.156" Dia.
	18533	Carbide	.500"		.156" Dia.
	18524	Steel	.100"		.020" Dia.
	18525	Steel	.100"		.040" Dia.
	18526	Steel	.200"		.060" Dia.
	18527	Steel	.500"		.080" Dia.
		297-S	Steel		
297-C		Carbide			.250" Dia.
298-S		Steel			.500" Dia.
110		Steel	.250"		.250" Dia.
		3655	Steel		

	PART#	MATERIAL	L	DIA/ or RAD
	2740	Steel		
	2740-C	Carbide		
	47075	Steel	.500"	.156" Dia., .25" Rad.
	47080	Steel	.750"	.156" Dia., .25" Rad.
	47073	Steel	1.000"	.156" Dia., .25" Rad.
	112	Steel	.250"	.187" Dia., .25 Rad.
	18528	Steel	.100"	
	18529	Steel	.150"	
	18530	Steel	.200"	
	4082-SN	Steel		With lock nut
	4085-CSN	Carbide		With lock nut
	4082-ESN	Carbide		Extended / nut
	18522	Carbide	.375"	.040" Dia.
	47077	Steel	1.00"	.060" Dia.
	47943	Carbide	1.00"	.060" Dia.
	302-S	Steel		
	302-C	Carbide		
	175-1			.040" Thick
	175-2			.060" Thick
	175-3			.090" Thick
Use between indicator and spindle to extend contact reach.				
	125			
Used to adapt 8mm indicator stem to 3/8" hole.				
	120		.230" Dia. X 5"	
Used in conjunction with part #110 mushroom shoulder contact to increase spindle pressure.				

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# DIGITAL INDICATORS

Dorsey offers the most popular styles of digital indicators to complement our gages. Use the matrix below to select the proper indicator for your application. Please note that we offer many other digital indicators. Contact us if your requirements are not met by these selections.

	PART#	RANGE	RESOLUTION	ACCURACY	FEATURES/DESCRIPTION
 <p>STYLE 1</p>	MT543-692BDM	.500" / 12.7mm	.00005" / 0.001mm	< .0008"	ID-S series, SPC output, inch/metric select, rotating face, capacitive system, 20,000 hour battery life # SR44
	MT543-392BDM	.500" / 12.7mm	.00005" / .0001" / .0005" Inch and 0.001mm / 0.01mm Metric Selectable	< .00012"	This ID-C series includes, large digital readout display, Inch/Metric switchable, go/ no-go feature by setting upper & lower limits and SPC data output, rotating face, 5,000 hour battery life.
	MT543-266BDM	.500" / 12.7mm	.00005" / 0.001mm	< .00012"	This ID-C series is designed for I.D/bore gage applications, digital readout and analog bar graph displays, Inch/Metric switchable, minimum value holding function, go/no-go feature and SPC data output, 2,000 hour battery life.
	MT543-287BDM	.500" / 12.7mm	.00001"-.05"/ 0.0002 - 1mm	< .00012"	Programmable model Inch/Metric 2:1 and 4:1 Digital Indicator Ordering MT543
 <p>STYLE 2</p> <p>Made in the USA</p>	DM-A2500-C	.250"	.0001" / 0.002mm	+/- .0001"	Numeric & analog visual display, inch/metric selectable, floating zero, rotating bezel, incremental measuring mode, high/low tolerance settings, min/max hold reading, TIR, absolute/preset measuring mode, max/min reading and display/freeze reading hold, programmable lock combination, data output.
	DM-A3500-C	.250"	.00005" / 0.001mm	+/- .00005"	
	DM-A2600-C	.600"	.0001" / 0.002mm	+/- .00005"	
	DM-A2110-C	1.00"	.0001" / 0.002mm	+/- .00005"	
	DM-Q2500-C	.250"	.0001" / 0.002mm		Same as above except without analog visual display and with programmable presets and ratios used for three point gages and countersink and chamfer gages.
	DM-Q3500-C	.250"	.00005" / 0.001mm		
 <p>STYLE 3</p> <p>Made in the USA</p>	M2034101	+/- .040"/1.00mm	.00001" / 0.0002mm .00002" / 0.0005mm .00005" / 0.001mm .0001" / 0.002mm	+/- .020" = 0.25%	Digital readout and analog bar graph display, Inch/Metric and resolution switchable, deviation from zero or preset capabilities for actual size, auto power down, Go/No-go feature and data output.
	M2034201	+/- .040"/1.00mm	.0002" / 0.005mm .0005" / 0.01mm .001" / 0.02mm	+/- .040" = 0.50%	Utilizes the features above plus hold, min/max & TIR functions, multiplier function for ratios and two point difference measurement.
 <p>STYLE 4</p> <p>Made in the USA</p>	M2033101	+/- .040"/1.00mm	<b>Digital Display</b> .00002" / 0.0005mm .00005" / 0.001mm .0005" / 0.001mm .0001" / 0.002mm	+/- 0.50%	Inch/Metric, resolution switchable Digital readout and analog fan display, min/max TIR, hold and reset function without output
	M2033111	+/- .040"/1.00mm	<b>Analog Display</b> .0005" / 0.001mm .0001" / 0.002mm .001" / 0.02mm	+/- 0.50%	Includes same features as above, but also includes RS232 output
 <p>STYLE 5</p>	FV54520790	.50"	.00005" / 0.001mm	+/- .0001"	Sylvac Swiss electronic package, OPTO RS232 output, inch/metric switchable, hold function, preset, single lithium battery #CR2032 4500 hour life, face rotates 270 degrees
	FV54520777	1.00"			
	FV54520875	.50"	.00005" / 0.001mm or .0005" / 0.01mm	+/- .00008"	Includes same features as Style 1 above, also includes Min/Max/TIR modes, tolerance signal lights, selectable resolution
	FV5420888	1.00"			

Note: All indicator part #s shown above include a standard flat back. Contact us for other optional backs & accessories.

# MODULES AND REMOTE TRANSMITTERS

- All Dorsey dimensional measurement instruments that are used with digital indicators can be connected to wireless transmitters.
- The real time wireless data collection and recording system efficiently sends the measurement files to a base station, saving time and eliminating errors.
- The electronically collected measurement can be used for a variety of purposes:
  - To enter data directly into any statistical process control (SPC) or data acquisition (DAQ) software or take real-time data directly into Windows applications such as Excel, Minitab, SPC software, etc.
  - The dimensional readings taken in real time can be sent to interface with the CNC controllers of machine tools to automatically adjust the machine settings for part size variations and trends.



DYN Groove Gage



#6 Bore Gage



I.D. Indicating Plug Gage



SDN Snap Gage with bench stand



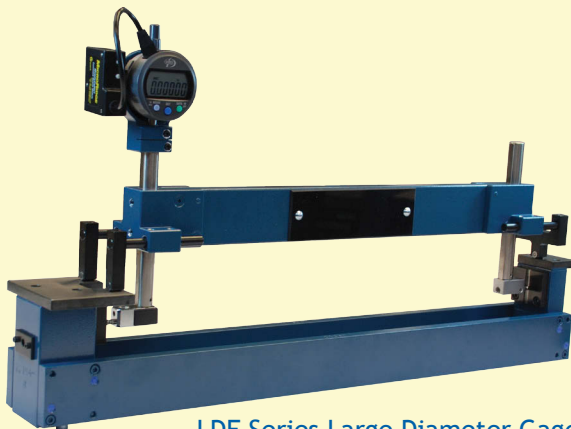
SSG Snap Gage



Countersink Gage



J-2 Jaw Gage



LDF Series Large Diameter Gage

Dorsey Metrology and MicroRidge have come together to offer the MobileCollect Wireless on any Dorsey Instruments available with variety of manufacturer's digital indicators such as Mahr-Federal, Mitutoyo, Starrett and Sylvac-Fowler. The MobileCollect is a great alternative to their proprietary wireless data collections systems but both options are available.

**MobileCollect**  
*wireless on the move*

MicroRidge Systems Inc.  
Tel: 541-593-1656  
[www.microridge.com](http://www.microridge.com)



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# FAST CHECK THICKNESS GAGE

Recommended for quick thickness checks of flat sheet materials and wide variety of small parts. Supplied with hardened steel gaging contacts, lifting levers and clockwise continuous dial indicators. Special frames, throat depths & contacts can be made to suit application.



Part #FC1 1/2" dia. anvils, 1" opening, 2" throat depth, with 2DM500-10F .001" Grad. dial with .5" travel



Part #FC2 Tube wall thickness 1.5" opening, 2" throat depth, .312 dia. lower anvil with part# 2DM1000-10F .001" Grad. dial with 1" travel



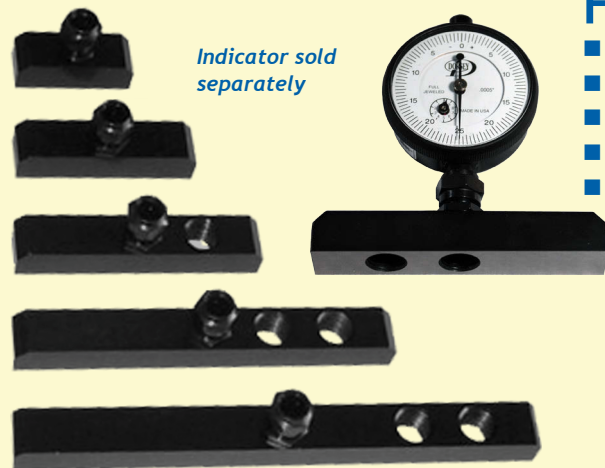
Part #FC3 Spherical contacts 1.5" opening, 1" throat depth with part# 2DM1000-10F .001" Grad. dial with 1" travel

Part #FC1-01 Frame and contacts, less indicator

Part #FC2-01 Frame and contact, less indicator

Part #FC3-01 Frame and contacts, less indicator

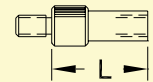
## DEPTH GAGES



Indicator sold separately

### FEATURES:

- Ground & hardened steel base.
- Base is .75" wide x .62" high.
- Holes located 1" and then 2" from end.
- Includes 3/8" dia indicator collet.
- Available with dial or digital indicators.



BASES	
DESCRIPTION	PART #
2" long, 1 central hole	C-512
3" long, 1 central hole	C-513
4" long, 2 holes	C-514
6" long, 3 holes	C-516
8" long, 3 holes	C-518

CONTACT EXTENSIONS	
DESCRIPTION	PART #
Contact	112
1" Extension	47071
2" Extension	47071-2
3" Extension	47071-3
4" Extension	47071-4
5" Extension	47071-5
Contact/extension set 6pc	DDGCS

## "V" BASE DIAL DEPTH GAGE

Used to measure depths of small holes, engraving, rivets or slots with extreme accuracy, Knife edge base with center cut permits unobstructed view of point for exact positioning

PART #	DESCRIPTION
DDG-125B	"V" Base dial depth gage with .0005" graduation, .125" range balanced dial (Mil. Spec.)
DDG-125C	"V" Base dial depth gage with .0005" graduation, .125" range continuous dial
2DM125-05AY	Replacement indicator, .0005" graduation, .125" range, balanced dial, push down series
2DM125-05GY	Replacement indicator, .0005" graduation, .125" range, continuous dial, push down series
DDG-125NI	"V" Base with contact, less indicator
DDG-CASE	Fitted Storage Box

Shown is DDG-125C

### FEATURES:

- .125" Range.
- .0005" Graduation dial indicator.
- Ground hardened steel base.
- Base is 2.5" x .5".
- Interchangeable hardened steel gaging contact.
- Also available with digital indicator.



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# BG-DIRECT & BG-2 BENCH GAGE

BG Series bench gages are universal indicating depth or flush pin gages used to check depths, lengths, face concentricity or locations.

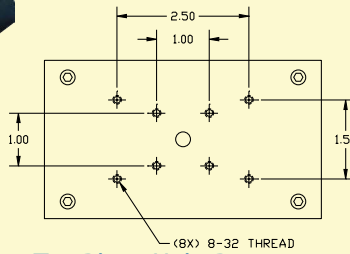
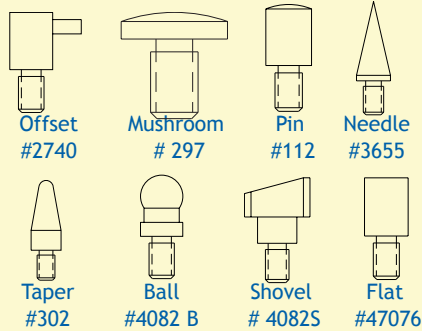
The BG Direct utilizes various models of a dial or digital indicators. The indicator is protected from damage as it is enclosed beneath the gage itself.

The rest plate is 3" x 5" hardened and ground steel which has a series of threaded holes. Special nesting rests or holding fixtures and clamps can be mounted to orient parts for measurement of specific dimensions.

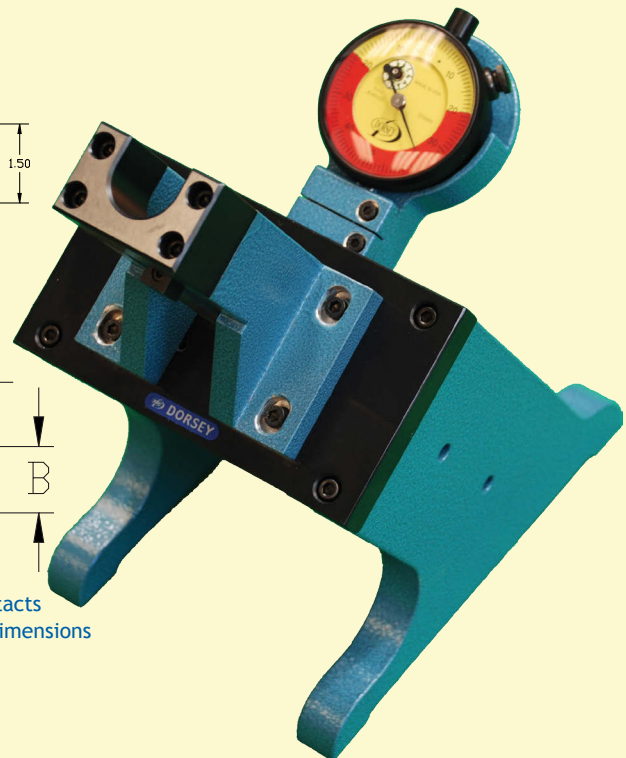
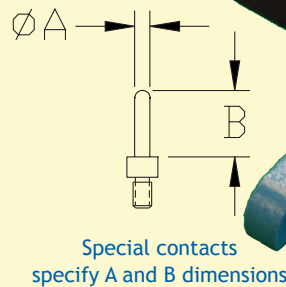


PART #	DESCRIPTION
BGD	Model BG Direct with Part #112 steel pin contact and (1" range, .001" graduation) dial indicator
BGD-NI	Model BG Direct with Part #112 steel pin contact less indicator
BGD-SET	Model BG Direct with set of steel contacts (shown below) (1" range, .001" graduation) dial indicator
BGD-SETNI	Model BG Direct with set of steel contacts less indicator
BGD-CASE	Fitted Storage Case

## BG Direct



Top Plate Hole Pattern



## BG-2 Bench Gage

The BG-2 utilizes a right angle movement that offers substantial benefits. The indicator, in a protective housing, is mounted above the rest plate in a position that minimizes operator eye movement. The gaging mechanism is reversible, retractable, has a 3" range of measurement travel and .075" of gaging travel.

PART #	DESCRIPTION
BG2	Model BG with Part #112 steel pin contact and (.0005" graduation) dial indicator
BG2-NI	Model BG with Part #112 steel pin contact and less indicator
BG2-SET	Model BG with set of steel contacts (shown above) and (.0005" graduation) dial indicator
BG2-SETNI	Model BG with set of steel contacts less indicator
BGD-CASE	Fitted Storage Case

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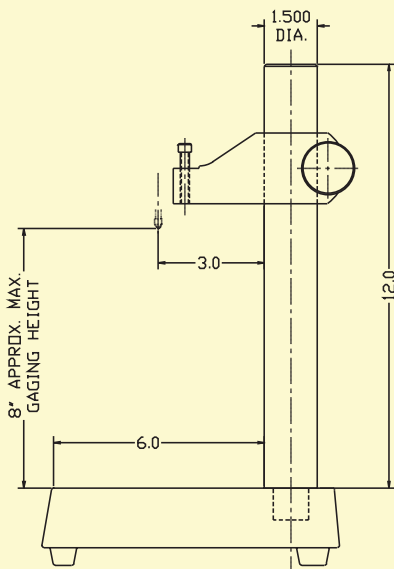


# THE PRODUCTION COMPARATOR STAND

The Dorsey E-1 comparator stand is specially designed for use in production and shop areas. The comparator stand has a large base and 3" throat clearance to give the user maximum flexibility for measuring various size pieces. This product may be used with any of Dorsey's dial or digital indicators.

## FEATURES:

- Rugged design - built to meet requirements for greater versatility in gaging equipment.
- 6" x 5.88" base - greater work area.
- 9" maximum gaging capacity.
- 3" throat clearance - will accommodate various size parts.
- Three point head clamping - assures positive dial indicator support and reduces damage due to overtightening.
- Portable from one location to another.
- Recessed nameplate - provides area for shop identification labels.
- Accommodates all AGD indicators - specially designed for use with all Dorsey indicators with a horizontal mounting lug.
- Adjustment head can be locked and sealed for production applications.
- Special applications: rests, nests and holding fixtures can be designed to meet specific part configurations.
- Cast iron base and chrome plated column.



PART #	DESCRIPTION
48656	E1 STAND
48656-S3	E1 STAND WITH FINE ADJUSTMENT HEAD

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# S2 COMPARATOR STAND (WITH FINE ADJUST)

The S-2 precision comparator stand was designed for manufacturing areas requiring high accuracy such as grinding and inspection departments. It is recommended for use with all Dorsey high amplification dial and digital indicators, but will accommodate other gaging devices having a standard .375" or 8mm diameter mounting stem.

## FEATURES:

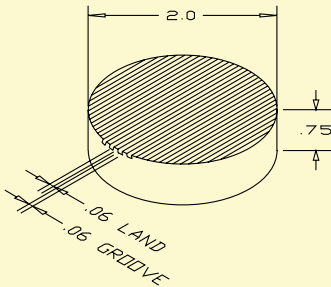
- Unique fine adjustment head - Dorsey's frictionless reed spring design prevents backlash and drifting. Insures rapid, precise zero positioning of any dial indicator. Permits Dorsey high amplification dial indicators or other gaging instruments of equal sensitivity to perform to their full capability of measuring to millionths of an inch repetitively and accurately.
- Ground and chrome plated columns provide maximum wear and corrosion resistance.
- Precision machined and ground cast base insures perpendicularity of column to anvil.
- Anvils for the S2 and S2N are made from hardened and lapped high grade tool steel.

PART #	DESCRIPTION
47145	S2 STAND WITHOUT ANVIL
S2-HEAD	FINE ADJUSTMENT HEAD ONLY

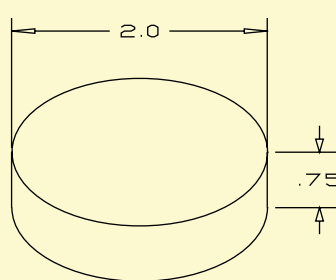
Shown with optional #414-002 dial indicator



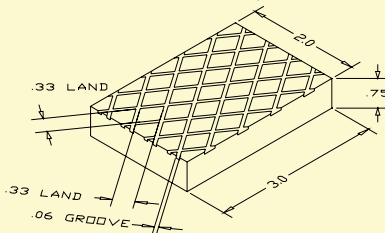
Part# 47141  
Straight serrated surface anvil 2" dia.



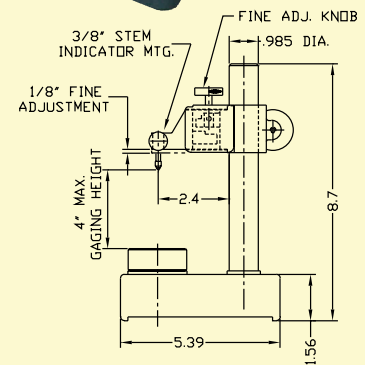
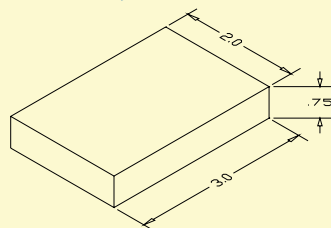
Part# 47113  
Flat surface anvil 2" dia.



Part# 47139  
Flat diamond serrated surface anvil 2"x3"



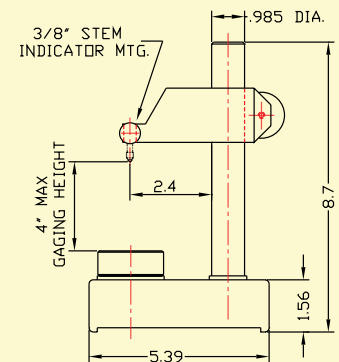
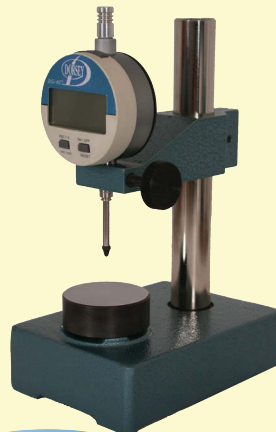
Part# 47138  
Flat surface anvil 2"x3"



# S2N COMPARATOR STAND (WITH STATIC HEAD)

The S2N production and shop area comparator stand is specifically designed without fine adjustment for use with digital indicators, long range indicators and electronic probes with remote readouts. The S2N stand maximum gaging height is 4.0" inches and the throat clearance is 2.4".

Shown with optional extended range digital indicator



PART #	DESCRIPTION
47145N	S2N STAND WITHOUT ANVIL
For Anvil options, please see above	

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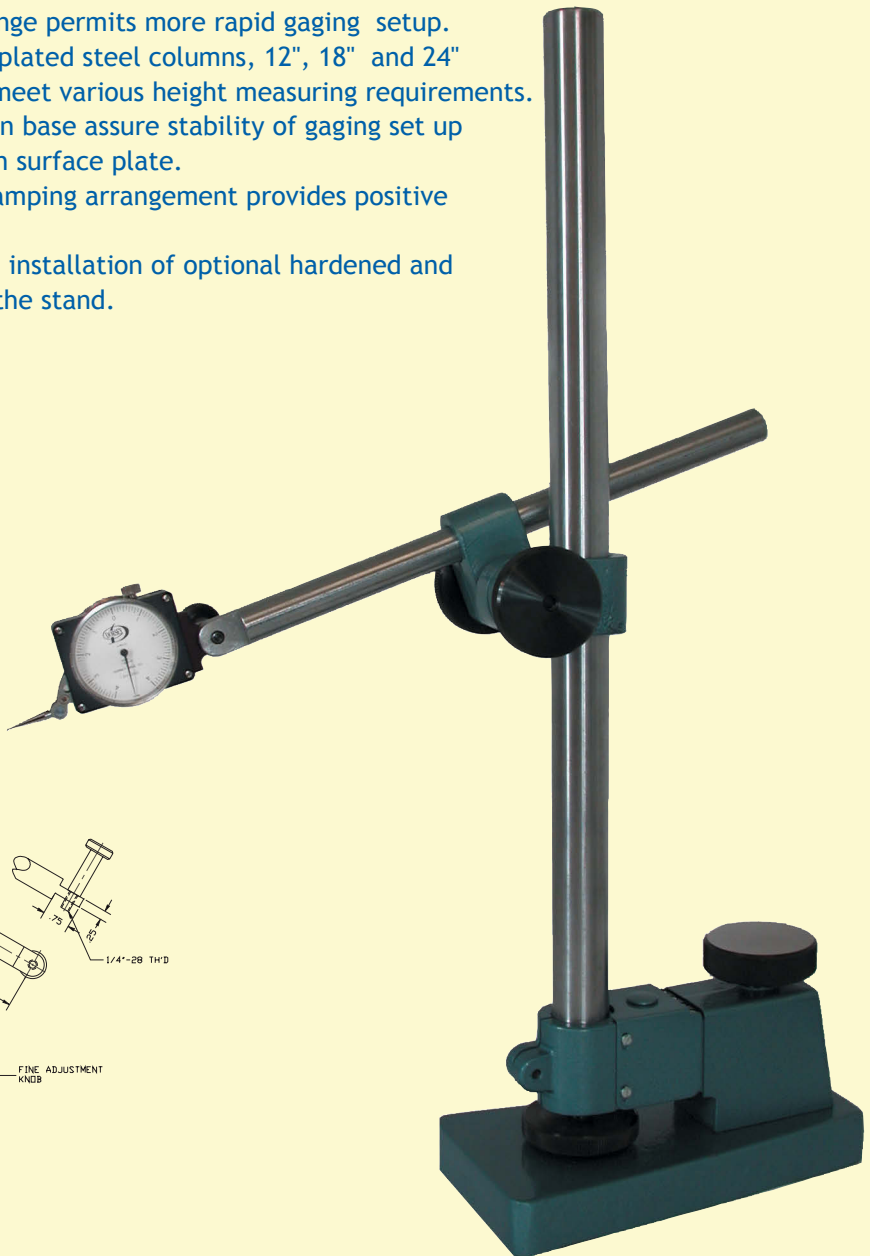
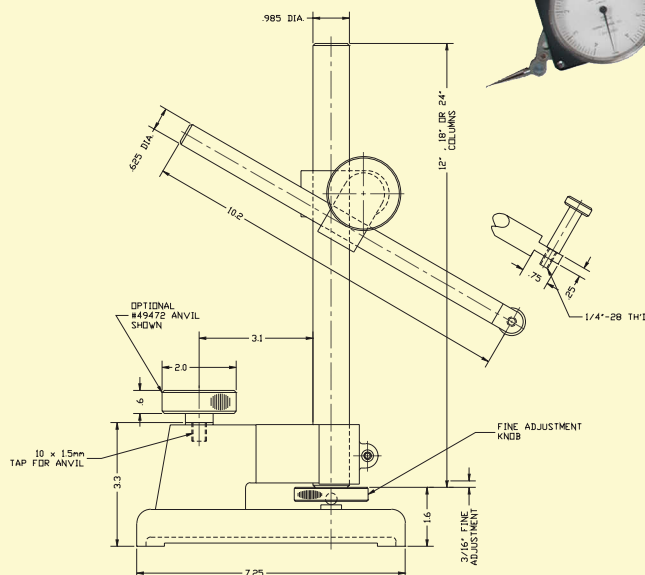
# S4 COMPARATOR HEIGHT STAND

The Dorsey S4 height stand is designed for making comparative height measurements. It is designed primarily for transfer measurements on a surface plate but the optional anvil also permits its use as a conventional comparator stand. This stand will accommodate mechanical, electronic, digital or pneumatic probes with a standard mounting lug. The Model S4 stand can be adjusted vertically, horizontally and radially to adapt to any height gaging situation.

## FEATURES:

- Fine adjustment base - original frictionless reed spring mechanism assures "no tilt" vertical adjustment of the column.
- Wide fine adjustment range - total .19" range permits more rapid gaging setup.
- Interchangeable columns - sturdy chrome plated steel columns, 12", 18" and 24" are easily interchangeable in the field to meet various height measuring requirements.
- Triangular support - three precision flats on base assure stability of gaging set up when transferring height measurements on surface plate.
- Positive clamping design - split bushing clamping arrangement provides positive locking on cross arm assembly.
- Optional anvil - provisions in base for field installation of optional hardened and lapped steel anvil increases versatility of the stand.

ORDERING INFORMATION	PART #
S4 Stand with 12" column	49451
S4 Stand with 18" column	49456
S4 Stand with 24" column	49457
OPTIONAL 2" diameter anvil	49472



### The Fine Adjustment Base

By rotating the adjustment wheel, the column is raised or lowered. Motion parallel to the longitudinal axis of the column is maintained by the reed-spring assembly. Downward pressure on the wheel is sustained by the coil spring preventing backlash and drift.

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B-5



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Website: [www.dorseymetrology.com](http://www.dorseymetrology.com)

Tel: (845) 454-3111 Fax: (845) 454-3888  
53 Oakley Street, Poughkeepsie, NY 12601



# S3 COMPARATOR STAND

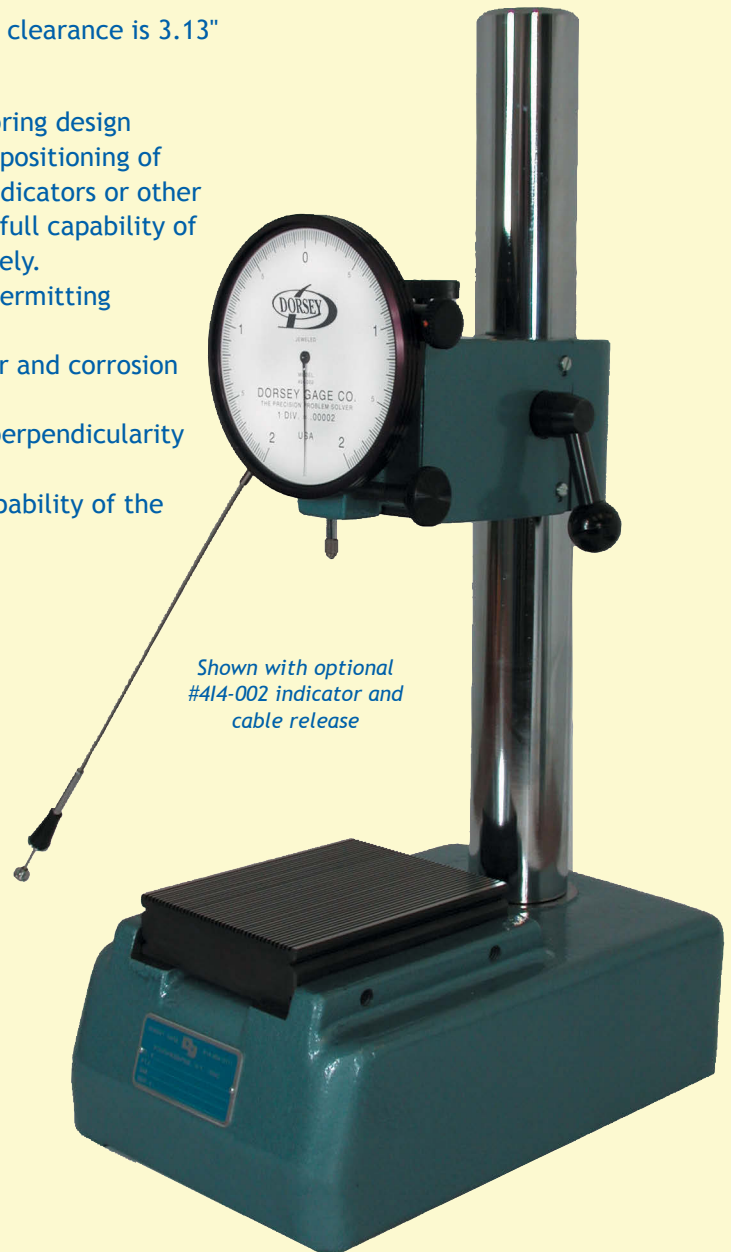
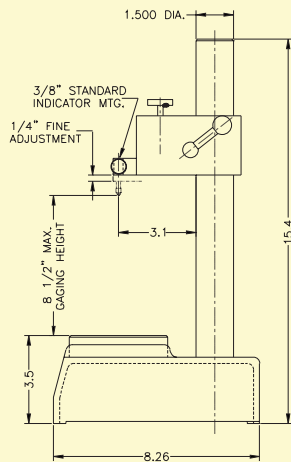
The S-3 precision comparator stand was designed for manufacturing areas requiring high accuracy, such as grinding and inspection departments. It is recommended for use with all Dorsey high amplification dial and digital indicators, but it will also accommodate other gaging devices having a standard .375" or 8mm diameter mounting stem.

The maximum gaging height is 8.5" as standard and the throat clearance is 3.13"

## FEATURES:

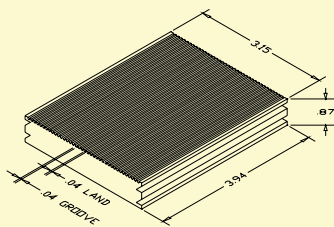
- Unique fine adjustment head - Dorsey's frictionless reed spring design prevents backlash and drifting. Insures rapid, precise zero positioning of any dial indicator. Permits Dorsey high amplification dial indicators or other gaging instruments of equal sensitivity to perform to their full capability of measuring to millionths of an inch repetitively and accurately.
- Rugged construction - provides maximum gaging stability permitting measurements in millionths.
- Ground and chrome plated columns provide maximum wear and corrosion resistance.
- Precision machined cast base and anvil supports - insures perpendicularity of column to anvil.
- Selection of hardened and lapped anvils - increases the capability of the stands to accommodate many part configurations.

PART #	DESCRIPTION
47405	S3 STAND WITHOUT ANVIL
S3-HEAD	S3 FINE ADJUSTMENT HEAD ONLY

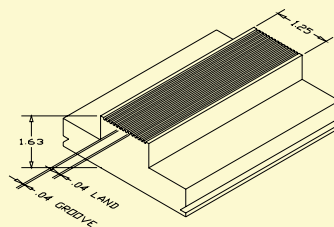


*Shown with optional #414-002 indicator and cable release*

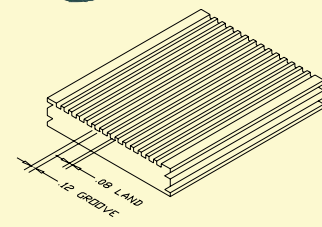
## Hand Lapped Anvils:



**Part# 47402**  
*Thin serration and flat reversible anvil*



**Part# 47403**  
*Rail type anvil 1.25" x 3.88"*



**Part# 47404**  
*Wide serration and flat reversible anvil*

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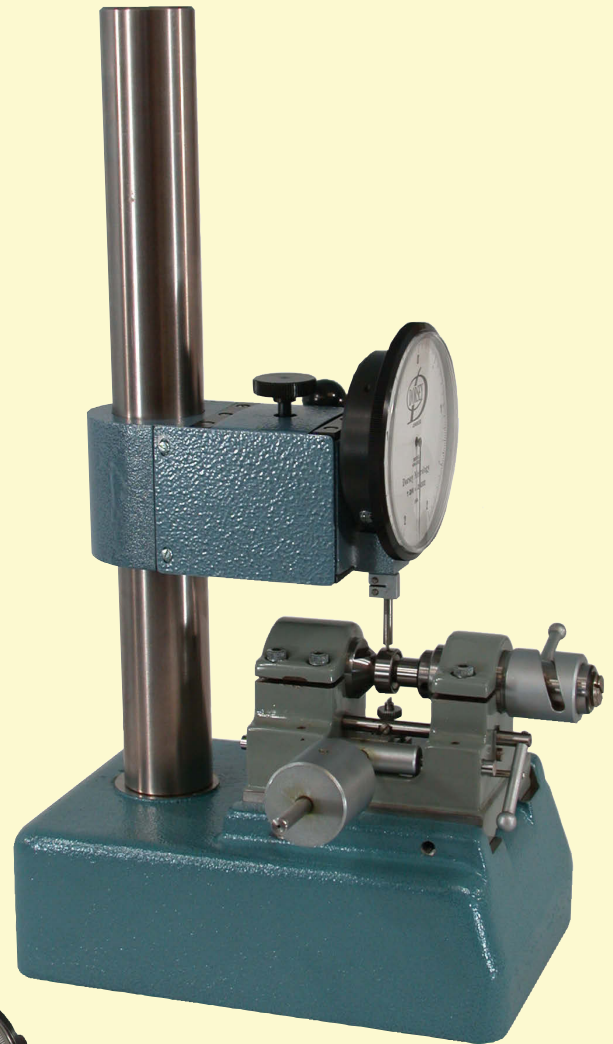
# BEARING RADIAL PLAY GAGE

The S-3 comparator stand anvil can be replaced with a radial play fixture and accessories to check the internal clearance of miniature bearings. Miniature bearing radial play fixture, part # 49388-3-01, capable of checking bearings ID range .040"-.870", OD range up to 1.0".

## FEATURES:

- S-3 stand.
- Radial play attachment.
- Choice of standard anvil set which includes the carrier, anvil and clamp assembly.
- Special radial play contact.
- Variable pressure weight arm assembly adjustable from 6.5 to 16 oz., upward force.
- Dial indicator model # 414-002 (.00002 graduation) or #4101-0005mm (0.0005mm).

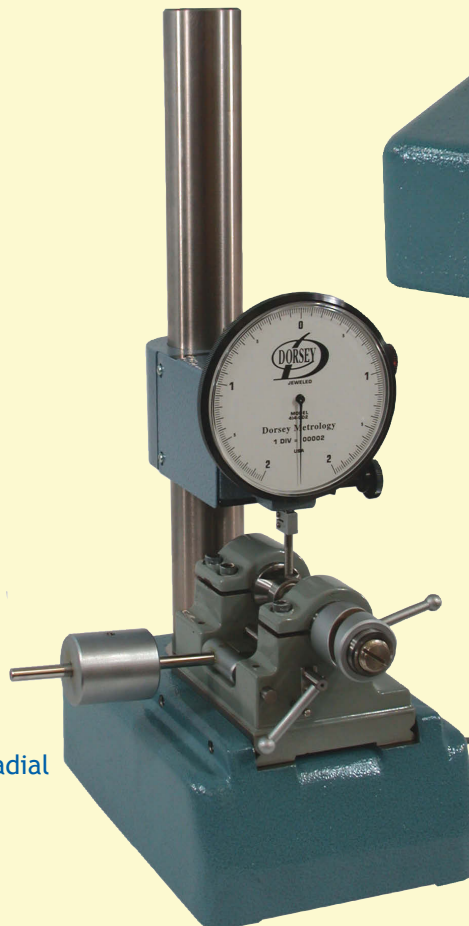
STANDARD ANVILS (CHOICE OF ONE WITH PURCHASE)	
Anvil Set No.	Bearing Bore Diameter
49388-3-01	Gage with 1 Anvil
493-SET	Gage with 9 Anvils
49373	.0400"
49374	.0469"
49375	.0550"
49376	.0781"
49377	.0937"
49378	.1250"
49379	.1562"
49380	.1875"
49381	.2500"
*INQUIRE ABOUT COMPLETE PACKAGE	



Additional arbor bearing sets are available for any size requirement. Please contact us for details.

## INTERMEDIATE AND LARGE SIZE BEARINGS

Dorsey also offers fixtures to inspect radial play on large and intermediate sized bearings. Contact us for details.



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# COUNTERSINK & CHAMFER GAGES



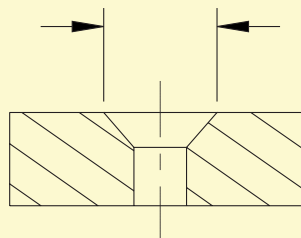
## FEATURES:

- Hardened and ground steel plunger and rest plate.
- Masters on any flat surface, no special master required.
- The angle of the gage must be larger than the angle of the part to be inspected.
- Measures the top diameter directly on the dial indicator or digital indicator.
- 3 Blade contact insures accurate repeatable readings.
- .001"/0.02mm dial indicator, standard.
- Inch or metric dial or digital indicators available.
- Optional ring gage setting masters are available.

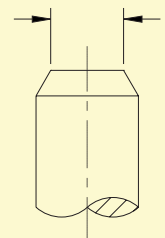
I.D.- COUNTERSINK MODEL 0-90°				
RANGE	INCH PART#	RANGE	METRIC PART#	DIGITAL PART#
0-3/8"	DC-90-375	0-9.5MM	DC-90-375M	DC-90-375-E
0-1/2"	DC-90-500	0-12.7MM	DC-90-500M	DC-90-500-E
0-1"	DC-90-1000	0-25MM	DC-90-1000M	DC-90-1000-E
1-2"	DC-90-2000	25-50MM	DC-90-2000M	DC-90-2000-E
2-3"	DC-90-3000	50-75MM	DC-90-3000M	DC-90-3000-E
3-4"	DC-90-4000	75-100MM	DC-90-4000M	DC-90-4000-E

I.D.- COUNTERSINK MODEL 90-127°				
RANGE	INCH PART#	RANGE	METRIC PART#	DIGITAL PART#
0-3/8"	DC-127-375	0-9.5MM	DC-127-375M	DC-127-375-E
0-1/2"	DC-127-500	0-12.7MM	DC-127-500M	DC-127-500-E
0-1"	DC-127-1000	0-25MM	DC-90-1000M	DC-127-1000E
1-2"	DC-127-2000	25-50MM	DC-127-2000M	DC-127-2000-E
2-3"	DC-127-3000	50-75MM	DC-127-3000M	DC-127-3000-E
3-4"	DC-127-4000	75-100MM	DC-127-4000M	DC-127-4000-E

I.D. gage measures this diameter



O.D. gage measures this diameter



O.D.- CHAMFER MODEL 0-90°				
RANGE	INCH PART#	RANGE	METRIC PART#	DIGITAL PART#
1/8-1/2"	DO-90-500	3.2-12.7MM	DO-90-500M	DO-90-500-E
3/16-1"	DO-90-1000	4.7-25MM	DO-90-1000M	DO-90-1000-E
1-2"	DO-90-2000	25-50MM	DO-90-2000M	DO-90-2000-E

O.D.-CHAMFER MODEL 90-127°				
RANGE	INCH PART#	RANGE	METRIC PART#	DIGITAL PART#
1/8-1/2"	DO-127-500	3.2-12.7MM	DO-127-500M	DO-127-500-E
3/16-1"	DO-127-1000	4.7-25MM	DO-127-1000M	DO-127-1000-E
1-2"	DO-127-2000	25-50MM	DO-127-2000M	DO-127-2000-E

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# SPECIAL APPLICATIONS

In addition to its already diverse product line of precision dimensional gaging instruments, Dorsey offers special applications to accommodate a variety of needs.



Gage-Chek

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# DORSEY BORE GAGING

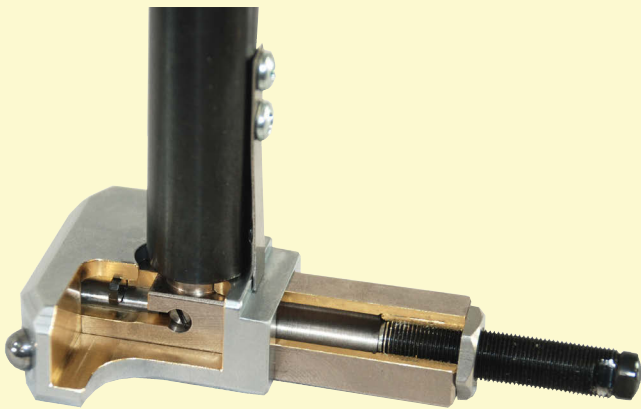
Bore gages are comparative instruments designed to check hole diameter and condition. These bore gages use the principle of two point gaging and three point centralization. The gaging contacts are diametrically opposed which allows the most accurate reading of a bore. The reference contact is constructed to allow range extensions and adapters to be added to change the measuring size of the gage without loss of accuracy or balance.

During use, the gage is inserted on an angle for easy entry into the bore. The centralizer insures locating on the true diameter. The gage is "rocked" and the indicator is observed to find the lowest measurement to obtain a true diameter reading.

Dorsey offers a variety of reference masters from specific size master rings to Dorsey's corresponding family of adjustable bore gage setmasters.

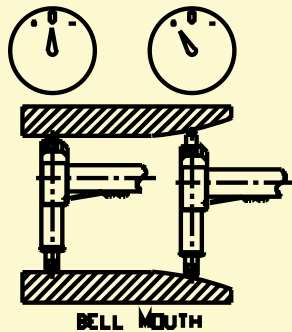
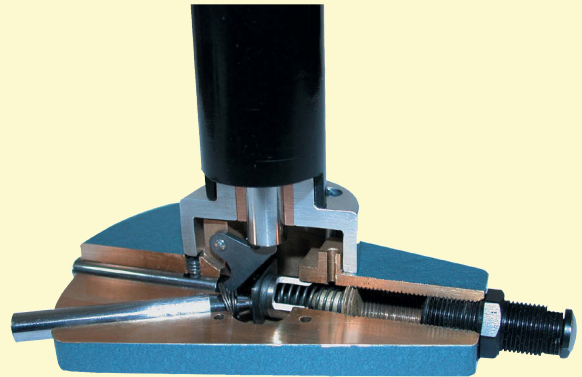
## DBL Series Bore Gages

The independant dynamic centralizer secures two carbide balls on one easy to clean and compact unit.



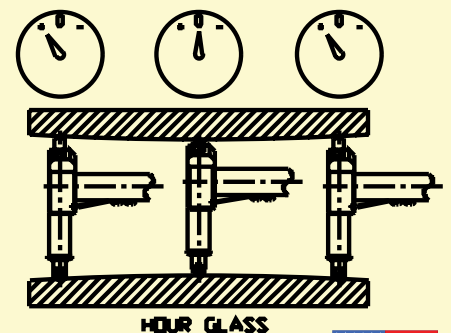
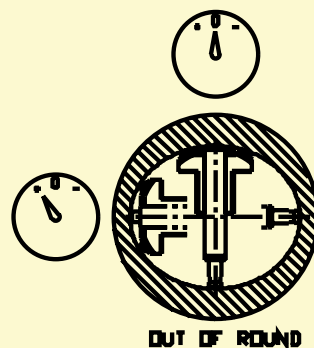
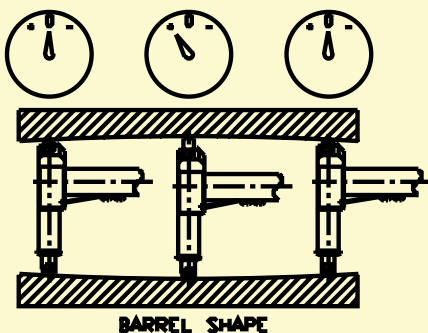
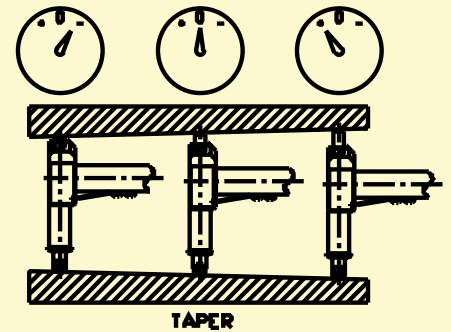
## Dorsey Standard Bore Gages

A single piece gaging head encloses both gaging pin centralizing pins in one rugged, compact and durable unit.



## “Explore the Bore”

Illustrations on this page are typical of bore conditions that can be identified while using a two point bore gage with three point centralization. The exact dimensional variations of these and other objectionable part conditions are easily detected by the dial indicator reading. A .0001" movement of the gaging pin is instantly transferred to the dial appearing visually as approximately 1/16".



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C-1

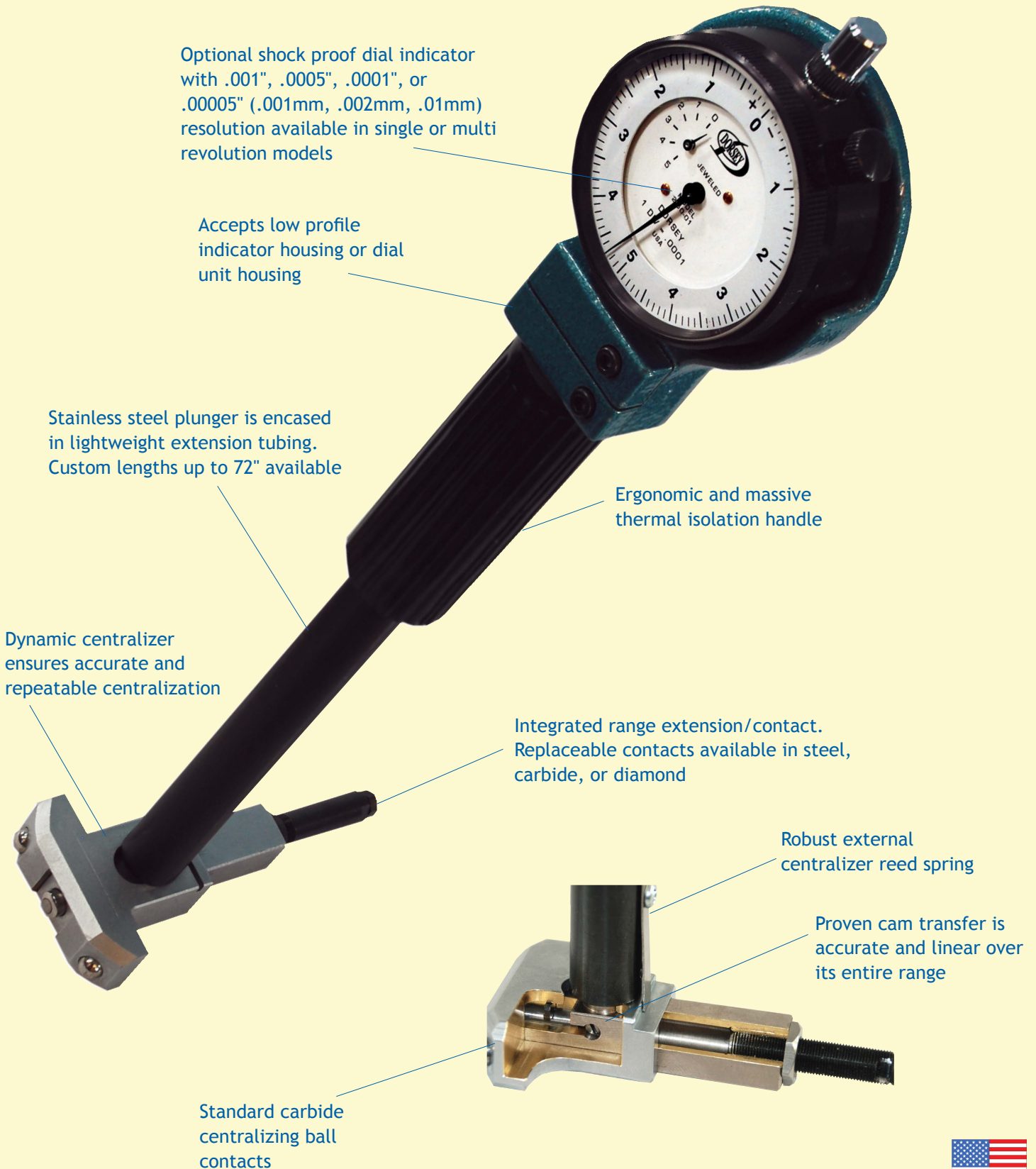


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53 Oakley Street, Poughkeepsie, NY 12601

# DBL SERIES - INTERNAL DIAL BORE GAGES

DBL self centralizing bore gages are ideal for toolroom and production applications. Easy to use, easy to disassemble and easy to clean. Only 4 moving parts are used in this precision economical gage.



Optional shock proof dial indicator with .001", .0005", .0001", or .00005" (.001mm, .002mm, .01mm) resolution available in single or multi revolution models

Accepts low profile indicator housing or dial unit housing

Stainless steel plunger is encased in lightweight extension tubing. Custom lengths up to 72" available

Ergonomic and massive thermal isolation handle

Dynamic centralizer ensures accurate and repeatable centralization

Integrated range extension/contact. Replaceable contacts available in steel, carbide, or diamond

Robust external centralizer reed spring

Proven cam transfer is accurate and linear over its entire range

Standard carbide centralizing ball contacts

Proudly made in the USA



# DBL SERIES - INTERNAL DIAL BORE GAGES

DBL bore gages are designed to be lightweight, versatile, accurate and are ideal for toolroom and production applications. The DBL series bore gages feature two point gaging and three point centralization. The gaging contacts are diametrically opposed providing the most accurate reading of the bore. The reference contact accepts various length range extensions and adapters to change the measuring size of the gage without the loss of accuracy or balance. The independent external centralizer with two fixed carbide ball locators align and self-center the gaging pin and reference contact during operation. The centralizer insures locating and reading the true diameter.

## **DBL-248**

.248 - .501"

6.299 - 12.725mm



## **DBL-998**

.998 - 1.501"

25.349 - 38.125mm



## **DBL-300**

3.00 - 6.00"

76.200 - 152.400mm



## **DBL-499**

.499 - 1.001"

12.674 - 25.425mm



## **DBL-1499**

1.499 - 3.00"

38.0745 - 76.200mm



All DBL series gages include carbide centralizing contacts, a .0001" or 0.002mm graduation dial indicator and fitted wooden storage box.

Other options available: carbide or diamond contacts, extra lengths, 2 and 3 point depth stops, choice of any Dorsey "high amplification", "traditional" or digital indicators, single rev models and digital indicators.

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C-3



Dorsey Metrology International  
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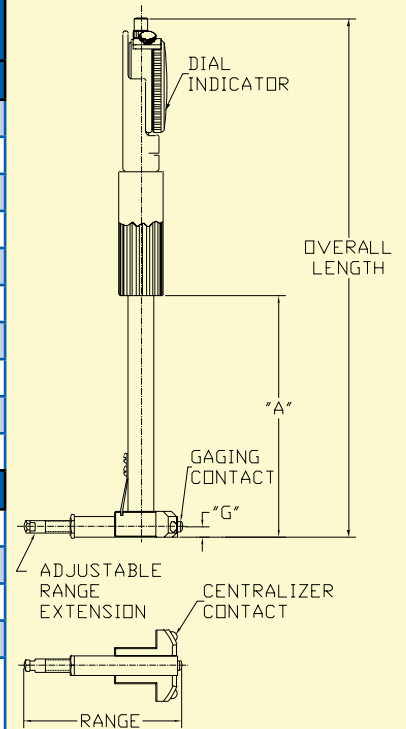
# DBL SERIES - INTERNAL DIAL BORE GAGES

MODEL	RANGE (inches)	OVERALL LENGTH (inches)	"A" GAGING DEPTH (inches)	"G" DIMENSION (inches)	GAGING CONTACT TRAVEL	
					STANDARD	OPTIONAL
DBL-248-S	.248-.501	6.31	2.25	.140	.010"	.016"
DBL-248-C	.248-.501	6.31	2.25	.140	.010"	.016"
DBL-499-S	.499-1.001	9.75	3.00	.188	.016"	.022"
DBL-499-C	.499-1.001	9.75	3.00	.188	.016"	.022"
DBL-998-S	.998-1.501	9.75	3.00	.188	0.25"	.050"
DBL-998-C	.998-1.501	9.75	3.00	.188	0.25"	.050"
DBL-1499-S	1.499-3.00	10.75	4.00	.188	.025"	.050"
DBL-1499-C	1.499-3.00	10.75	4.00	.188	.025"	.050"
DBL-300-S	3.00-6.00	11.75	5.00	.250	.025"	.070"
DBL-300-C	3.00-6.00	11.75	5.00	.250	.025"	.070"

## SPECIAL RANGE MODELS

DBL-365-S	.365-.620	6.31	2.25	.140	.010"	.016"
DBL-620-S	.620-1.001	9.75	3.00	.188	.016"	.022"
DBL-200-S	2.00-4.00	10.75	4.00	.188	.025"	.050"
DBL-400-S	4.00-10.00	11.75	5.00	.250	.025"	.070"

Note: For optional gaging contact travel add -GC to part #.  
 For gage less indicator, add -NI to part #.  
 Special gaging depths available per application.  
 -S - Steel, -C - Carbide

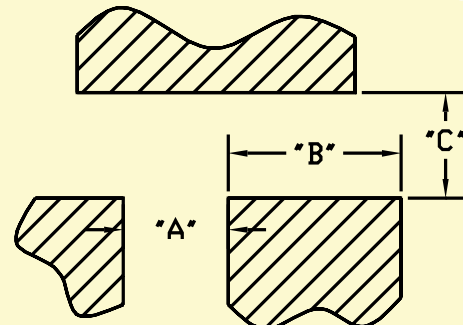


# DBL OFFSET BORE GAGING

This type of gaging is used during machining or jig grinding operations to avoid disturbing machine tool setup. Also used to avoid obstructions in measurement area. Price includes fitted storage case.



ORDERING INFORMATION				
MODEL		INCHES		
		DIAMETER "A"	"B"	"C"
2-OS	DBL-499-OSS	.5"-1"	3"	1.56"
	DBL-499-OSC	.5"-1"	3"	1.56"
3-OS	DBL-998-OSS	1"-1.5"	5"	2.00"
	DBL-998-OSC	1"-1.5"	5"	2.00"
4-OS	DBL-1499-OSS	1.5"-3"	5"	2.00"
	DBL-1499-OSC	1.5"-3"	5"	2.00"



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# DORSEY STANDARD BORE GAGES

## A TIME PROVEN DESIGN MADE BETTER BY DORSEY

This design of rugged production line bore gages has been an industry standard for more than 75 years. Dorsey offers precise replacement models built to the same exacting specifications but, with a choice of any of Dorsey's "High Amplification", "Traditional" or digital indicators. We continue to provide the original Standard Gage Company® customers with high quality interchangeable parts. We also build bore gages with modifications, special gages and new models to meet their current and future needs.

Comfortable & ergonomic, this well balanced handle can be removed to gain clearance in restricted areas.

Optional shock proof dial indicator with .001", .0005", .0001", or .00005" (.001mm, .002mm, .01mm) resolution available in single or multi revolution models. Available with Dorsey's digital housings for use with most digital indicator models.

Thermally insulated high impact resistant shield protects extension tubing.

Precisely machined cast phosphor bronze gaging head for sensitivity and durability.

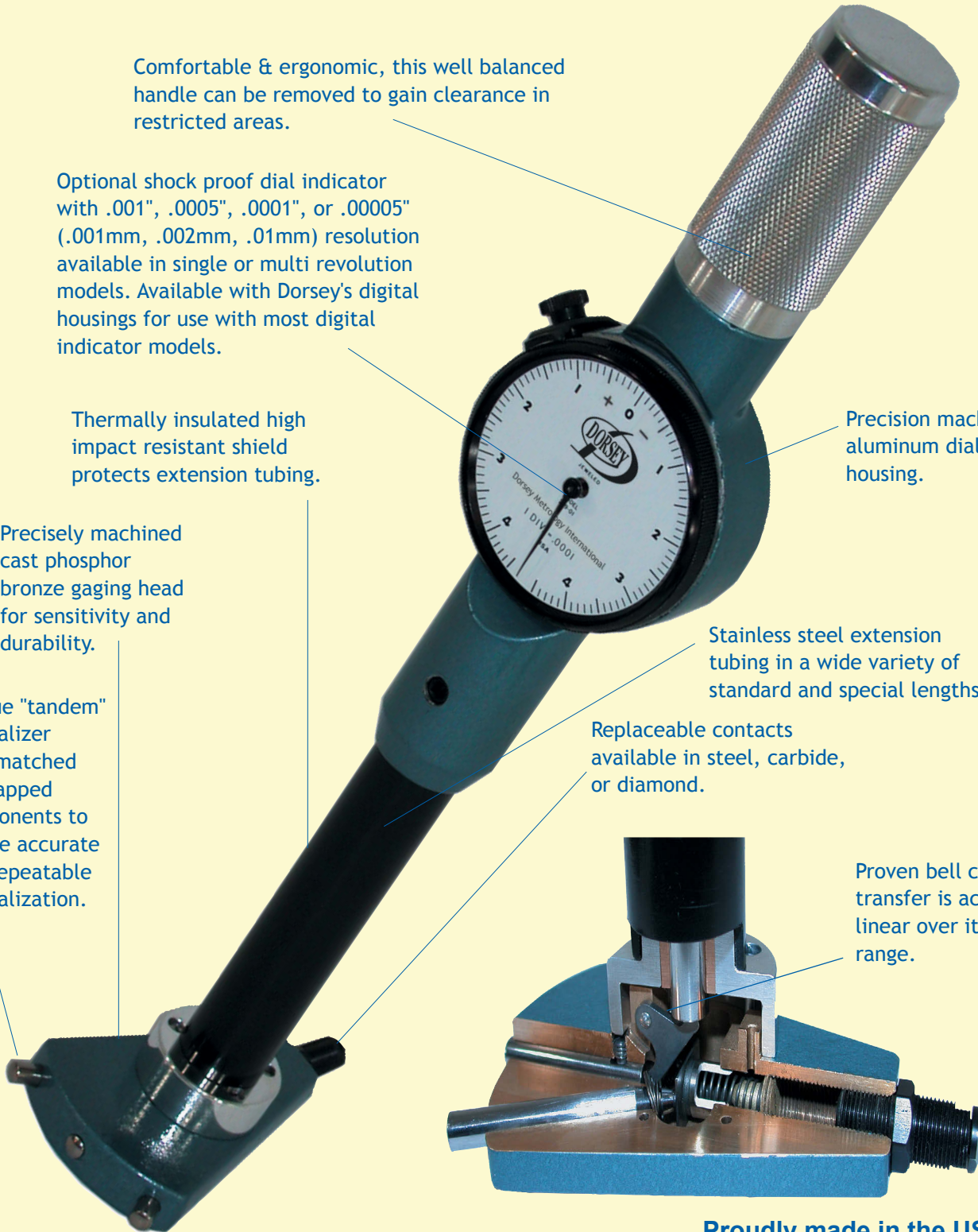
Unique "tandem" centralizer uses matched and lapped components to ensure accurate and repeatable centralization.

Precision machined aluminum dial unit housing.

Stainless steel extension tubing in a wide variety of standard and special lengths.

Replaceable contacts available in steel, carbide, or diamond.

Proven bell crank transfer is accurate and linear over its entire range.



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C-5



Dorsey Metrology International  
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**STYLE 1** - All sizes utilize the same dial unit housing for extreme versatility

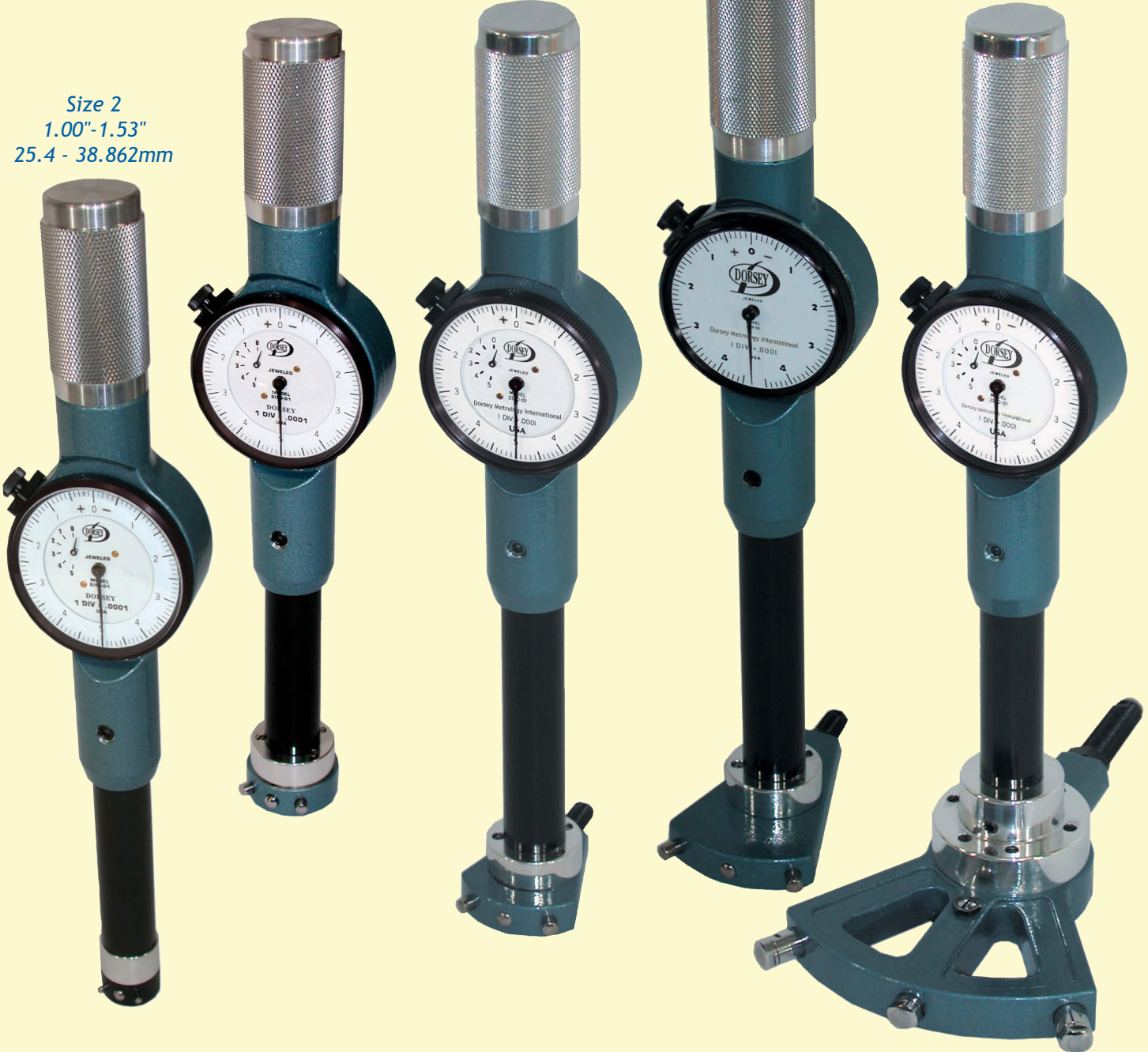
*Size 3*  
1.50"-2.16"  
38.1 - 54.864mm

*Size 4*  
2.12"-3.13"  
53.848 - 79.502mm

*Size 5*  
3.09"-6.13"  
78.486 - 155.702mm

*Size 6*  
6.00"-12.13"  
152.4 - 308.102mm

*Size 2*  
1.00"-1.53"  
25.4 - 38.862mm



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# DORSEY STANDARD LARGE BORE GAGES

A TIME PROVEN DESIGN EXPANDED TO MEASURE LARGE BORE SIZES

**Style 1-** Both models utilize the same robust 1" heavy duty dial unit housing with a choice of various resolutions and spindle travel in both inch or metric readings (see catalog pages A-10 - A-11).

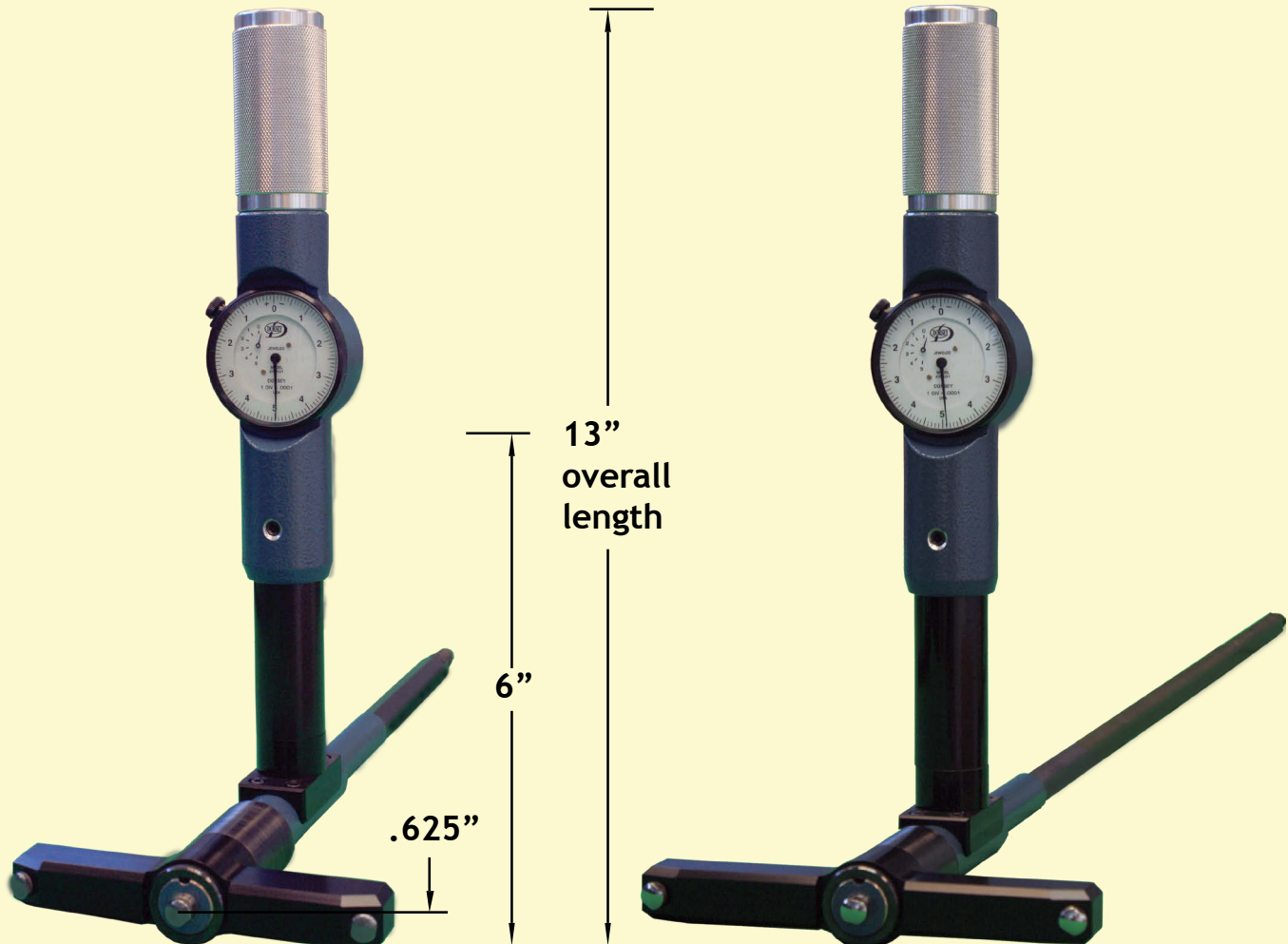
\*Both the #7 and #8 bore gages measure .625" from the bottom of a blind bore.

\*The standard gaging depth is 6" but can be supplied with depth extensions to 144".

\*Besides these large bore gages, we also offer two companion bore gage setting masters that are set to size with gage block combinations. Setmaster # DBM-12000 (12"-24") and # DBM-24000 (20" to 36") are adjustable, more convenient to handle and less expensive than a library of traditional large rings.

Size 7  
10.00"-24.00" / 254mm - 610mm

Size 8  
21.00"-36.00" / 533mm - 915mm



## OPTIONAL: BORE GAGE DEPTH EXTENSIONS

4" DEPTH EXTENSION	12" DEPTH EXTENSION	36" DEPTH EXTENSION
5" DEPTH EXTENSION	14" DEPTH EXTENSION	Other Lengths Available
6" DEPTH EXTENSION	16" DEPTH EXTENSION	37-72"
8" DEPTH EXTENSION	24" DEPTH EXTENSION	72-144"
10" DEPTH EXTENSION	30" DEPTH EXTENSION	

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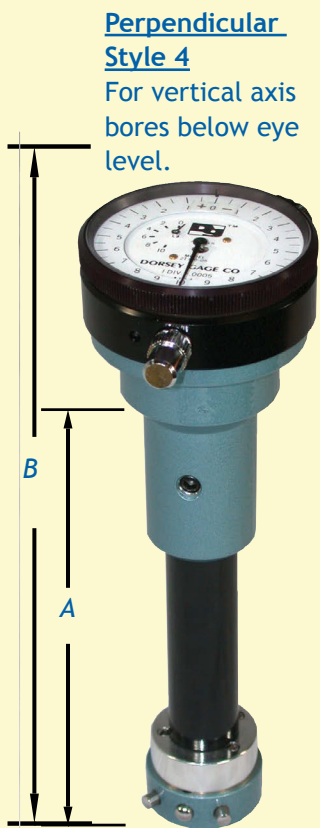
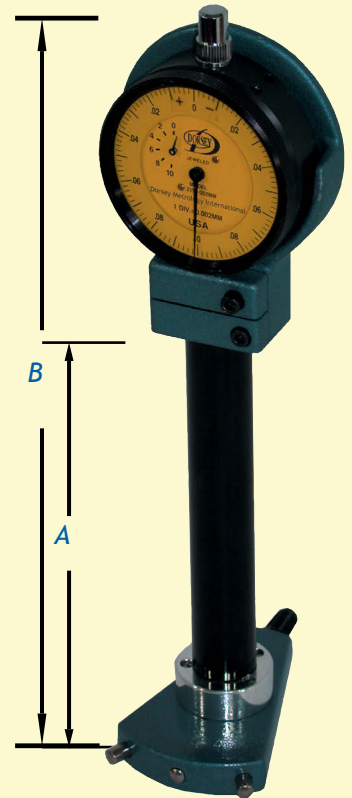
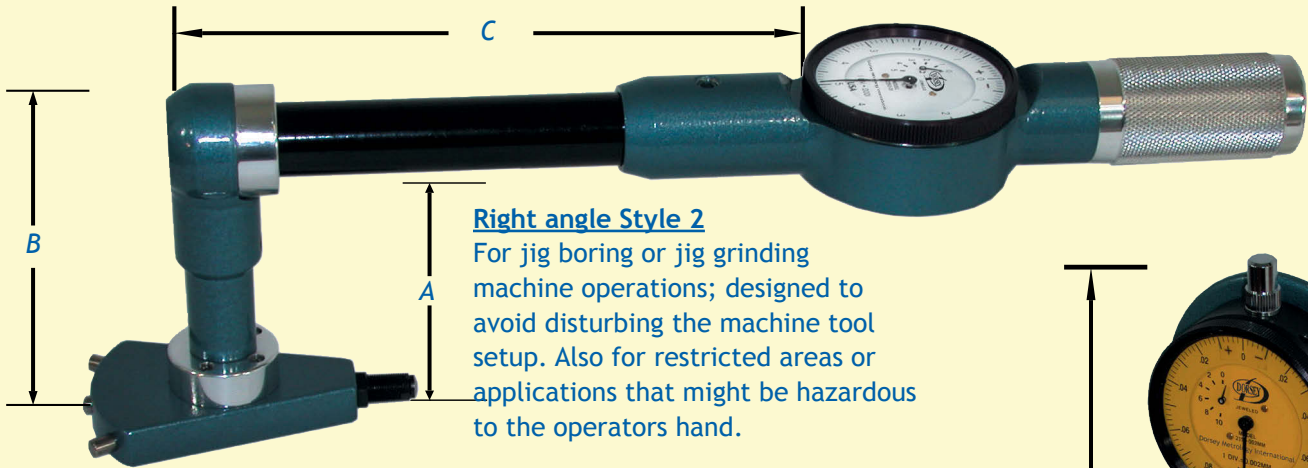


Dorsey Metrology International  
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# DORSEY STANDARD BORE GAGES

There are 5 optional styles that are designed especially for applications where space restrictions or gaging positions are not suitable to the use of the Style 1.



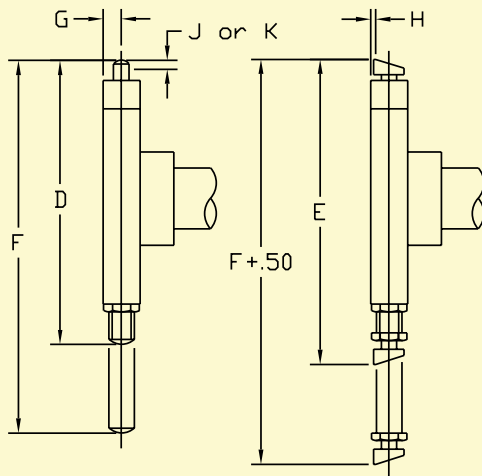
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# DORSEY STANDARD BORE GAGES

GAGE SIZE	STANDARD STYLE 1			RIGHT ANGLE STYLE 2			VERTICAL STYLE 3			PERPENDICULAR STYLE 4		PISTOL GRIP STYLE 5		FLUSH STYLE 7			
	A		B	A		B	C	A		B	A		B	B			
	STD	MIN		STD	MIN			STD	MIN		STD	MIN					
2	5.00"	2.31"	8.12"	2.53"	2.35"	3.88"	6.25"	6.0"	2.31"	8.75"	6.0"	2.31"	8.13"	1.63"	1.63"	5.75"	-
3	5.00"	2.63"	10.50"	2.53"	2.35"	3.88"	6.25"	6.0"	2.63"	9.0"	6.0"	2.63"	8.13"	1.63"	1.63"	5.75"	-
4	5.00"	2.63"	10.50"	2.53"	2.35"	3.88"	6.25"	6.0"	2.63"	9.00"	6.0"	2.63"	8.13"	1.63"	1.63"	5.75"	-
5	6.00"	2.63"	11.50"	2.53"	2.35"	3.83"	6.25"	6.0"	2.63"	9.00"	6.0"	2.63"	8.13"	1.63"	1.63"	5.75"	-
6	6.00"	2.63"	12.00"	2.50"	2.50"	4.44"	6.69"	6.0"	5.50"	9.44"	6.0"	4.00"	8.13"	3.00"	3.00"	9.38"	1.50"

Note: Additional range ext. up to 20" available for #6



## GAGE-HEAD DIMENSIONS (ALL STYLES)

SIZE	D		E		F	G	H	J	K	RANGE EXTENSION ADAPTER PART #
	MIN	MAX	MIN	MAX						
2	1.00"	1.53"	1.19"	1.69"	1.75"	.195"	.140"	.025"	.050"	DS-B0-85929
3	1.5"	2.16"	1.69"	2.56"	3.13"	.224"	.156"	.025"	.050"	DS-B0-85934
4	2.12"	3.13"	2.56"	3.56"	4.00"	.224"	.032"	.025"	.075"	DS-B0-85942
5	3.09"	6.13"	3.50"	6.44"	8.00"	.224"	.032"	.025"	.075"	DS-B0-85952
6	6.00"	12.13"	6.44"	12.63"	20"	.312"	.032"	.030"	.100"	DS-B0-85967

- D = Standard gaging range
- E = Gaging range with optional offset contacts
- F = Maximum gaging range with extension adapters
- G = Standard center line
- H = Offset center line modification add -H to part #
- J = Standard gaging plunger travel
- K = Optional extended plunger travel add -K to part #

## BORE GAGE EXTENSION HOUSING #3, 4 & 5

EXTENSION HOUSING ASSEMBLY	
PART #	DESCRIPTION
DX2-8100503	3" "A" LENGTH EXTENSION
DX2-8100504	4" "A" LENGTH EXTENSION
DX2-8100505	5" "A" LENGTH EXTENSION
DX2-8100506	6" "A" LENGTH EXTENSION
DX2-8100508	8" "A" LENGTH EXTENSION
DX2-8100510	10" "A" LENGTH EXTENSION
DX2-8100512	12" "A" LENGTH EXTENSION
DX2-8100514	14" "A" LENGTH EXTENSION
DX2-8100516	16" "A" LENGTH EXTENSION
DX2-8100518	18" "A" LENGTH EXTENSION
DX2-8100524	24" "A" LENGTH EXTENSION
DX2-8100530	30" "A" LENGTH EXTENSION
DX2-8100536	36" "A" LENGTH EXTENSION
Other Lengths Available	
	37-71"
	72-144"



## CONTACT MATERIALS

Steel (Standard), tungsten carbide, or diamond are supplied in the following quantities unless otherwise specified  
**Size 2, 3, 4, or 5**

- 1 gaging plunger
- 2 centralizing plungers (diamond not available)
- 1 interchangeable reference contact

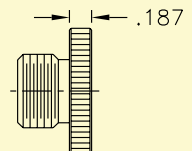
### Size 6

- 4 interchangeable contacts

Note: Materials may be specified intermixed

## BORE GAGE DUST CAP:

- Replaces standard handle.
- Minimize overall length ("B" dimension).



SIZE	REDUCES "B" DIM. BY	PART #
2-6	2.06"	DS-B0-84725
6 Heavy Duty	2.81"	DS-B0-84731

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# DIAL BORE GAGE COMBINATION KIT

## Models 2,3,4,5

### FEATURES:

- Industry's most popular dial bore gage now available in an easy-to-use combination kit.
- Standard with jeweled shock proof indicator movement.
- Available with a wide variety of indicators including .00005" or 0.001mm.
- Replaces separate dial bore gages covering the same ranges as models # 2, 3, 4, and 5.
- Considerable cost savings.
- Convenient carrying case.
- Ideal for small shops or short production runs.
- Interchangeable gage heads and range extensions to cover diameters from 1.000" to 8.000" or 25mm to 200mm.



PART #	DESCRIPTION
DS-B1-K2345	WITH .0001" GRAD DIAL INDICATOR
DS-B1-K2345M	WITH 0.002mm GRAD DIAL INDICATOR

## EXTRA LENGTH BORE GAGE EXTENSIONS:

- Bore gage extension housings with gaging depths up to 36" are normally manufactured from stainless steel tubing. See the price list for ordering data for each model.
- Bore gages with extra length extensions beyond 36" are available in other material options. Most long bore gages are normally produced from stainless steel tubing up to 72" depths. Traditionally, beyond this length, the #4, #5 and #6 bore gages are constructed using segmented steel tubing. All extra length bore gage tubing may also be provided with carbon fiber extensions that are lighter weight, more thermally stable and structurally stronger.

### Maximum Recommender Gaging Depths

GAGE SIZE	INCH DEPTH
SIZE #2	60" maximum
SIZE #3	72" maximum
SIZE #4	96" maximum

GAGE SIZE	INCH DEPTH
SIZE #5	144" maximum
SIZE #6	144" maximum

#6 Dorsey/Standard bore gage with 5' steel extension housing. The Weight is 7¾ lbs/3.52kg (less range extensions).



#6 Dorsey/Standard bore gage with 4' carbon fiber extension housing. The weight is 4 lbs/1.8kg (less range extensions).



#4 Dorsey/Standard bore gage with 4' carbon fiber extension housing. The weight is 2½ lbs/1.13kg (less range extensions).



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# DORSEY STANDARD BORE GAGES

DS- B1- 1 2 1 0 4 -12  
 Style Indicator Contacts Indicator Gage Size A Length

GAGE SIZE	INDICATOR GRADUATION	HIGH AMPLIFICATION INDICATOR	PART NUMBER	TRADITIONAL INDICATOR	TRADITIONAL PART NUMBER
1.00 - 1.53" <b>2</b> 25.4 - 38.9mm	.0005" <sup>5</sup>	DS-214-005	DS-B1-10102		
	.0001" <sup>5</sup>	DS-219-01	DS-B1-11102		
	.0001"	DS-2150-01	DS-B1-12102	DS-2DM025-01	DS-B2-12102
	.00025"	DS-211000-025	DS-B1-10112		
	.0005" <sup>5</sup>	DS-2140-05	DS-B1-13102		
	.0005"	DS-21100-05	DS-B1-14102	DS-2DM050-05	DS-B2-14102
	NONE	LESS INDICATING UNIT	DS-B1-15102		
	0.010mm <sup>5</sup>	DS-2110-01mm	DS-B1-16102	DS-2DM5-01mm	DS-B2-16102
	0.005mm	DS-2125-005mm	DS-B1-17102	DS-2DM012-005mm	DS-B2-17102
	0.002mm	DS-2110-002mm	DS-B1-18102	DS-2DM005-002mm	DS-B2-18102
	0.002mm <sup>5</sup>	DS-2102-002mm	DS-B1-19102		
	0.001mm <sup>5</sup>	DS-2101-001mm	DS-B1-10122		
	.0001" / .002mm <sup>5</sup>	S21.M	DS-B1-12102M		
	.00005" / 0.001mm	DIGITAL	DS-B5-10102		
	1.50 - 2.16" <b>3</b> 38.1 - 54.8mm	.0005" <sup>5</sup>	DS-214-005	DS-B1-10103	
.0001" <sup>5</sup>		DS-219-01	DS-B1-11103		
.0001"		DS-2150-01	DS-B1-12103	DS-2DM025-01	DS-B2-12103
.00025"		DS-211000-025	DS-B1-10113		
.0005" <sup>5</sup>		DS-2140-05	DS-B1-13103		
.0005"		DS-21100-05	DS-B1-14103	DS-2DM050-05	DS-B2-14103
NONE			DS-B1-15103		
0.010mm <sup>5</sup>		DS-2110-01mm	DS-B1-16103	DS-2DM5-01mm	DS-B2-16103
0.005mm		DS-2125-005mm	DS-B1-17103	DS-2DM012-005mm	DS-B2-17103
0.002mm		DS-2110-002mm	DS-B1-18103	DS-2DM005-002mm	DS-B2-18103
0.002mm <sup>5</sup>		DS-2102-002mm	DS-B1-19103		
0.001mm <sup>5</sup>		DS-2101-001mm	DS-B1-10123		
.0001" / .002mm <sup>5</sup>		S21.M	DS-B1-12103M		
.00005" / 0.001mm		DIGITAL	DS-B5-10103		
2.12 - 3.13" <b>4</b> 54.0 - 79.5mm		.0005" <sup>5</sup>	DS-214-005	DS-B1-10104	
	.0001" <sup>5</sup>	DS-219-01	DS-B1-11104		
	.0001"	DS-2150-01	DS-B1-12104	DS-2DM025-01	DS-B2-12104
	.00025"	DS-211000-025	DS-B1-10114		
	.0005" <sup>5</sup>	DS-2140-05	DS-B1-13104		
	.0005"	DS-21100-05	DS-B1-14104	DS-2DM050-05	DS-B2-14104
	NONE		DS-B1-15104		
	0.010mm <sup>5</sup>	DS-2110-01mm	DS-B1-16104	DS-2DM5-01mm	DS-B2-16104
	0.005mm	DS-2125-005mm	DS-B1-17104	DS-2DM012-005mm	DS-B2-17104
	0.002mm	DS-2102-002mm	DS-B1-18104	DS-2DM005-002mm	DS-B2-18104
	0.002mm <sup>5</sup>	DS-2102-002mm	DS-B1-19104		
	0.001mm <sup>5</sup>	DS-2110-001mm	DS-B1-10124		
	.0001" / .002mm <sup>5</sup>	S21.M	DS-B1-12104M		
	.00005" / 0.001mm	DIGITAL	DS-B5-10104		
	3.09 - 6.13" <b>5</b> 78.5 - 156mm	.0005" <sup>5</sup>	DS-214-005	DS-B1-10105	
.0001" <sup>5</sup>		DS-219-01	DS-B1-11105		
.0001"		DS-2150-01	DS-B1-12105	DS-2DM025-01	DS-B2-12105
.00025"		DS-211000-025	DS-B1-10115		
.0005" <sup>5</sup>		DS-2140-05	DS-B1-13105		
.0005"		DS-21100-05	DS-B1-14105	DS-2DM050-05	DS-B2-14105
NONE			DS-B1-15105		
0.010mm <sup>5</sup>		DS-2110-01mm	DS-B1-16105	DS-2DM5-01mm	DS-B2-16105
0.005mm		DS-2125-005mm	DS-B1-17105	DS-2DM012-005mm	DS-B2-17105
0.002mm		DS-2102-002mm	DS-B1-18105	DS-2DM005-002mm	DS-B2-18105
0.002mm <sup>5</sup>		DS-2102-002mm	DS-B1-19105		
0.001mm <sup>5</sup>		DS-2110-001mm	DS-B1-10125		
.0001" / .002mm <sup>5</sup>		S21.M	DS-B1-12105M		
.00005" / 0.001mm		DIGITAL	DS-B5-10105		

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# DORSEY STANDARD LARGE BORE GAGES

DS-                      B1-                      1                      2                      1                      0                      4                      -12  
 Style                      Indicator                      Contacts                      Indicator                      Gage Size                      A Length

GAGE SIZE	INDICATOR GRADUATION	HIGH AMPLIFICATION INDICATOR	PART NUMBER	TRADITIONAL INDICATOR	TRADITIONAL PART NUMBER
6.00 - 12.13" <b>6</b> 152.5 - 308.0mm	.0005" <sup>S</sup>	DS-214-005	DS-B1-10106		
	.0001" <sup>S</sup>	DS-219-01	DS-B1-11106		
	.0001"	DS-2150-01	DS-B1-12106	DS-2DM025-01	DS-B2-12106
	.00025"	DS-211000-025	DS-B1-10116		
	.0005"	DS-2140-05	DS-B1-13106		
	.0005"	DS-21100-05	DS-B1-14106	DS-2DM050-05	DS-B2-14106
	NONE		DS-B1-15106		
	0.010mm <sup>S</sup>	DS-2110-01mm	DS-B1-16106	DS-2DM5-01mm	DS-B2-16106
	0.005mm	DS-2125-005mm	DS-B1-17106	DS-2DM012-005mm	DS-B2-17106
	0.002mm	DS-2110-002mm	DS-B1-18106	DS-2DM0005-002mm	DS-B2-18106
	0.002mm <sup>S</sup>	DS-2102-002mm	DS-B1-19106		
	0.001mm <sup>S</sup>	DS-2101-001mm	DS-B1-10126		
	.0001" / .00005" <sup>S</sup>	S2I.M	DS-B1-12106M		
	.00005" / 0.001mm	DIGITAL	DS-B5-10106		T
10.00 - 24.00" <b>7</b> 254 - 610mm	.00005"	DS-214-005	DS-B1-10107		
	.0001"	DS-219-01	DS-B1-11107		
	.0001"	DS-2150-01	DS-B1-12107	DS-2DM025-01	DS-B2-12107
	.00025"	DS-211000-025	DS-B1-10117		
	.0005"	DS-2140-05	DS-B1-13107		
	.0005"	DS-21100-05	DS-B1-14107	DS-2DM050-05	DS-B2-14107
	NONE	LESS INDICATING UNIT	DS-B1-15107		
	0.010mm	DS-2110-01mm	DS-B1-16107	DS-2DM5-01mm	DS-B2-16107
	0.005mm	DS-2125-005mm	DS-B1-17107	DS-2DM012-005mm	DS-B2-17107
	0.002mm	DS-2110-002mm	DS-B1-18107	DS-2DM0005-002mm	DS-B2-18107
	0.002mm	DS-2102-002mm	DS-B1-19107		
	0.001mm	DS-2101-001mm	DS-B1-10127		
	.0001" / .002mm	S2I.M	DS-B1-12107M		
	.00005" / 0.001mm	DIGITAL	DS-B5-10107		
21.00 - 36.00" <b>8</b> 533 - 915mm	.00005"	DS-214-005	DS-B1-10108		
	.0001"	DS-219-01	DS-B1-11108		
	.0001"	DS-2150-01	DS-B1-12108	DS-2DM025-01	DS-B2-12108
	.00025"	DS-211000-025	DS-B1-10118		
	.0005"	DS-2140-05	DS-B1-13108		
	.0005"	DS-21100-05	DS-B1-14108	DS-2DM050-05	DS-B2-14108
	NONE		DS-B1-15108		
	0.010mm	DS-2110-01mm	DS-B1-16108	DS-2DM5-01mm	DS-B2-16108
	0.005mm	DS-2125-005mm	DS-B1-17108	DS-2DM012-005mm	DS-B2-17108
	0.002mm	DS-2110-002mm	DS-B1-18108	DS-2DM0005-002mm	DS-B2-18108
	0.002mm	DS-2102-002mm	DS-B1-19108		
	0.001mm	DS-2101-001mm	DS-B1-10128		
	.0001" / .002mm	S2I.M	DS-B1-12108M		
	.00005" / 0.001mm	DIGITAL	DS-B5-10108		

## WOOD STORAGE BOX



PART #	GAGE SIZE
DX2-89952	2
DX2-89953	3
DX2-89954	4
DX2-89955	5
DX2-89956	6
DX2-89927	COMBINATION KIT

DS Series bore gages are shipped in disposable shipping containers. To order a fitted wooden storage box see the chart.

## FEATURES:

- Additional range ext up to 36". See Pricelist.
- All models come with steel contacts but carbide and diamond contacts are also available.

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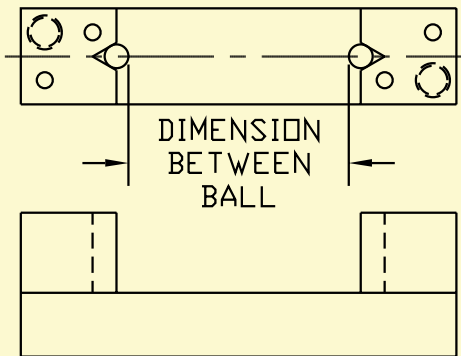
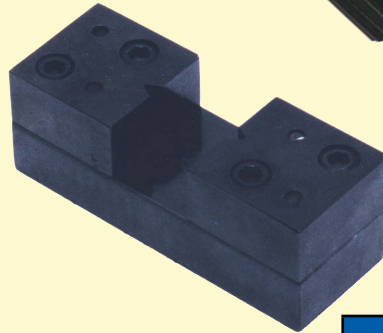
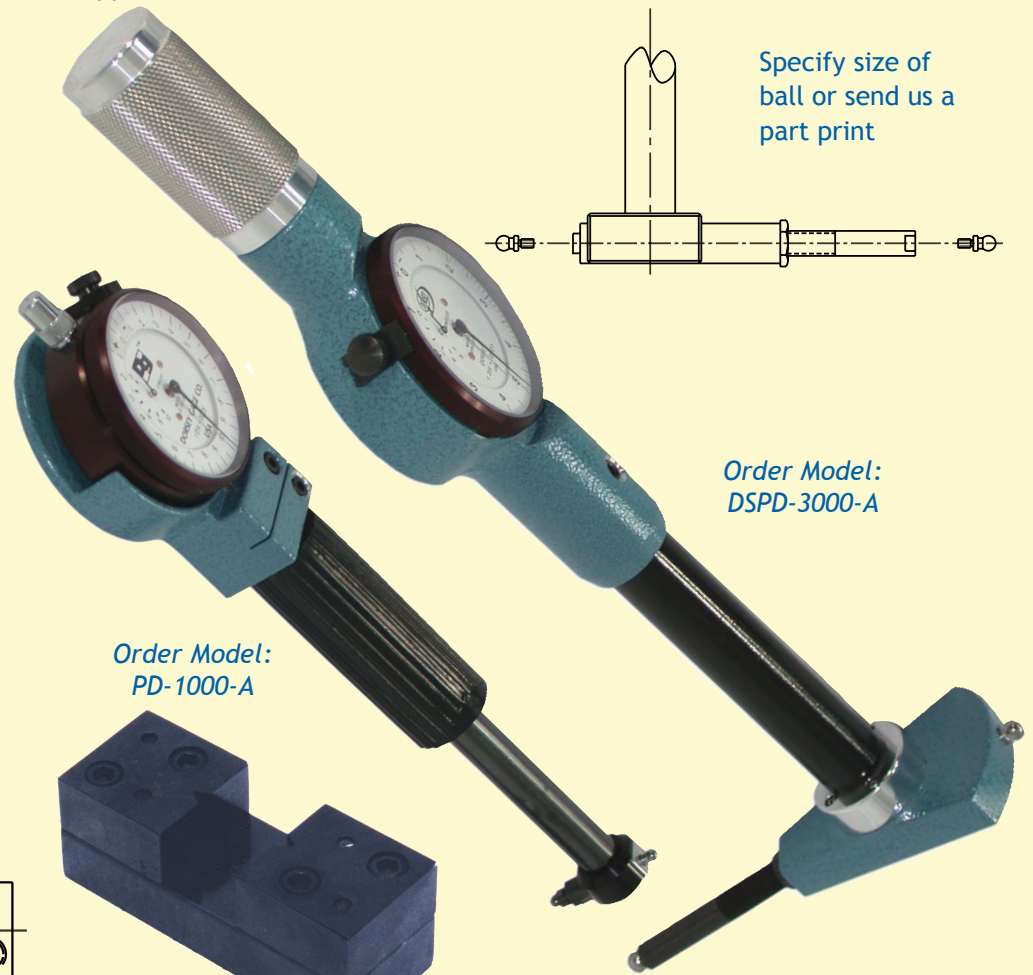
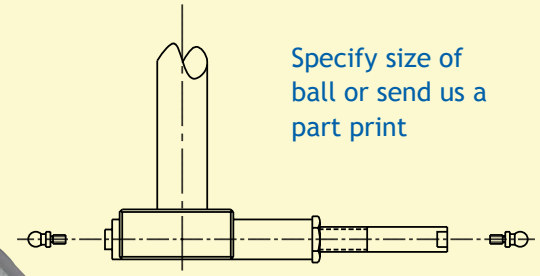


# INTERNAL PITCH DIAMETER BORE GAGE

The Internal Pitch Diameter gage is ideally suited to check the internal pitch diameter of gears and splines. It can also be used to check any internal dimension where centralization is not necessary. Production models are available for a specific "best wire size" dimension. Models over 1.25" are supplied with interchangeable screw-in contacts. Special Fixed "V" masters are available to suit the application.

## FEATURES:

- Carbide ball contacts (best wire size).
- Interchangeable screw in contacts.
- Can be used to check PD or major root diameter of gears and splines.
- Optional fitted storage case available.



"V" Style pitch diameter setmaster, built per application

INTERCHANGEABLE CARBIDE CONTACTS	
PART #	DIAMETER
.1250"	4081-125B
.1875"	4082-187B
.2500"	4082-250B
SPECIALS QUOTED PER APPLICATION	

PART #	CONTACT TYPE	GAGING DEPTH (INCHES)	BOTTOM OF HEAD TO CENTERLINE OF CONTACT	FRAME STYLE	BETWEEN BALL/ROLL DIMENSION	STORAGE BOX PART #
PD-500	FIXED	3"	.188"	DBL-499	.50" - 1.25"	9000
DSPD-1000-A	INTERCHANGEABLE	5"	.224"	DS # 3	1.25" - 3.00"	DX2-89953
PD-1000-A	INTERCHANGEABLE	4"	.188"	DBL-998	1.25" - 3.00"	9000
DSPD-3000-A	INTERCHANGEABLE	6"	.224"	DS # 5	3.0" - 6.0"	DX2-89955
PD-3000-A	INTERCHANGEABLE	5"	.250"	DBL-300	3.0" - 6.0"	9005
DSPD-6000-A	INTERCHANGEABLE	6"	.312"	DS # 6	6.0" - 13.0"	DX2-89956

\* Indicator sold separately, see section A

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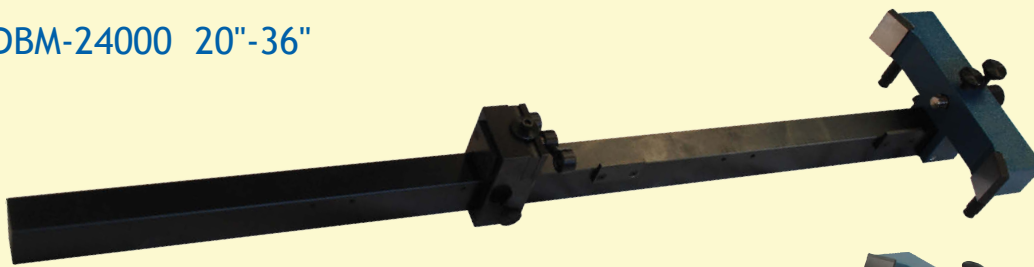
# ADJUSTABLE BORE GAGE SETMASTERS

Bore gages are comparative instruments. Used to compare parts being manufactured to known dimensions. "Setting" the bore gage to a known dimension requires the use of a reference master. The master ring is the most common type reference master used in industry and each ring is limited to one specific hole size. This means that a master ring inventory can reflect a large investment. Dorsey's adjustable bore gage setmasters maintain all the advantages of master rings, but provide the added feature of adjustability. Within the specified capacity of each Dorsey "Setmaster", any dimension can be set by easily adjusting the master to a preset combination of gage blocks.

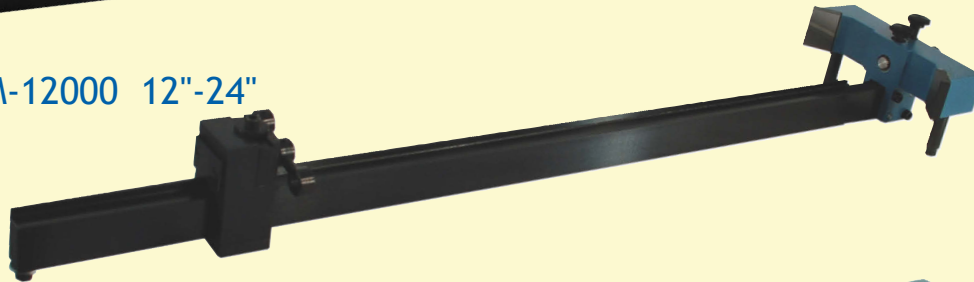
## FEATURES:

- Only five setmasters are required to cover a range between .25" and 36".
- Mastering cycle repeatability within .000050".
- Setting cycle repeatability within +/- .00010".
- Ring correlation accuracy within +/- .00010".
- Used to set Dorsey DBL or Dorsey/Standard Series bore gages.  
Can also be used to set many other brands of bore gages - contact us for details.

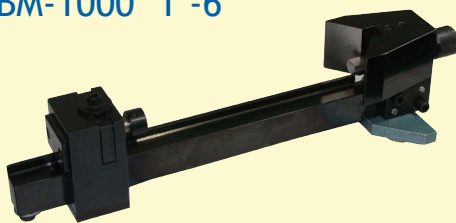
DBM-24000 20"-36"



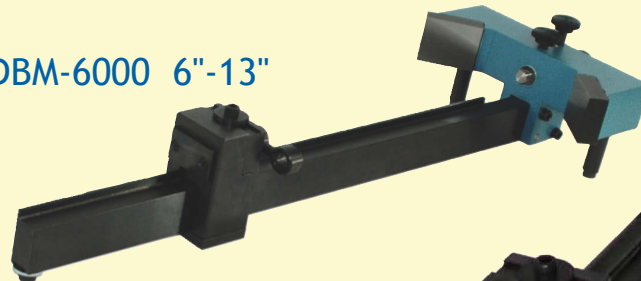
DBM-12000 12"-24"



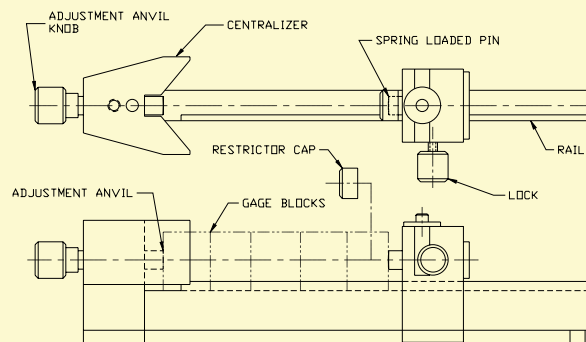
DBM-1000 1"-6"



DBM-6000 6"-13"



DBM-250 .25"-1"



DBL-300  
Shown being  
set with DBM-  
1000 master

Can also be used to  
set Dorsey standard  
bore gages



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# I.D. INDICATING PLUG GAGE

Dorsey's indicating plug gages are used for repetitive bore measurement applications where extreme accuracy is important. These high accuracy gages often take the place of air or electronic bore gages.

## FEATURES:

- Self centering plug head eliminates operator influence for extremely accurate applications.
- Non tipping design offers fast / simple accurate results.
- Carbide contacts are housed and protected by a dedicated hardened steel sleeve which is ground approximately .001" smaller than the lower limit of the bore being inspected.
- Single dial unit housing can be used with interchangeable plug heads.
- Plug heads: choice of 3 "H" dimensions allows measurement of thru bores, blind holes or super blind holes.

## HOW TO ORDER:

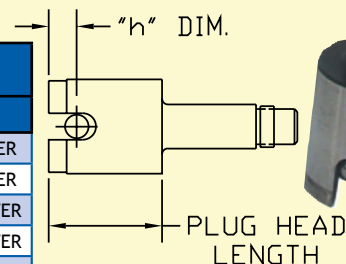
- 1) Select measurement head size, specify check diameter and min/max bore sizes
- 2) Determine if extension is required
- 3) Select adapter # for dial unit housing
- 4) Select an indicating device (see pages A-10 A-14)

Part# DX4-81037  
Digital indicator housing  
(indicator not included)

PLUG HEAD DIAMETER		THRU BORES H=.400"	BLIND BORES		SUPER BLIND BORES H=.039"
INCHES	MM	HEAD	HEAD	H DIM	HEAD PART #
.098 - .117	2.5 - 2.9	N/A	D240-035	1.5mm	N/A
.118 - .157	3.0 - 4.0	D240-400	D240-040	1.5mm	D240-500
.158 - .236	4.1 - 6.0	D240-405	D240-050	1.8mm	D240-505
.237 - .472	6.1 - 12.0	D240-410	D240-052	2.5mm	D240-510
.473 - .787	12.1 - 20.0	D240-415	D240-055	2.5mm	D240-515
.788 - 1.181	20.1 - 30.0	D240-420	D240-060	2.5mm	D240-520
1.182 - 1.574	30.1 - 40.0	D240-425	D240-065	3.5mm	D240-525
1.575 - 2.362	40.1 - 60.0	D240-430	D240-070	3.5mm	D240-530
2.363 - 3.150	60.1 - 80.0	D240-435	D240-075	4.0mm	D240-535
3.151 - 3.397	80.1 - 100.0	D240-440	D240-080	4.0mm	D240-540
3.398 - 4.331	100.1 - 110.0	D240-445	D240-085	4.0mm	D240-545
4.332 - 4.724	110.1 - 120.0	D240-450	D240-090	4.0mm	D240-550
4.725 - 5.118	120.1 - 130.0	D240-455	D240-095	4.0mm	D240-555
5.119 - 5.512	130.1 - 140.0	D240-460	D240-100	4.0mm	D240-560
5.513 - 5.906	140.1 - 150.0	D240-465	D240-105	4.0mm	D240-565
5.907 - 6.299	150.1 - 160.0	D240-470	D240-110	4.0mm	D240-570
6.300 - 6.693	160.1 - 170.0	D240-475	D240-115	4.0mm	D240-575
6.694 - 7.087	170.1 - 180.0	D240-480	D240-120	4.0mm	D240-580
7.088 - 7.480	180.1 - 190.0	D240-485	D240-125	4.0mm	D240-585
7.481 - 7.874	190.1 - 200.0	D240-490	D240-130	4.0mm	D240-590
7.875 - 9.000	200.1 - 230.0	D240-616	D240-617	4.0mm	N/A
PART# 1199	Plug head adapter, (to 5/8 dial unit housing)				
	Chrome plated plug head add -C to Par#				
-DS	For Depth stop, add -DS to end of Part#				
D240-315	Right angle attachment w/.040" (1mm) Travel				

DEPTH STOP	
PART #	DESCRIPTION
-DS3	FOR PLUG OD LESS THAN 3.151"/80mm
-DS6	FOR PLUG OD LESS THAN 3.142 /80.1 TO 6.299"/160mm
-DS9	FOR PLUG OD LESS THAN 6.300"/160.1 TO 9.000"/230mm
WOODEN STORAGE BOX	D240B-3 up to 3" diameter D240B-6 up to 6" diameter

DEPTH EXTENSIONS FOR USE ON HEADS WITH DIAMETERS GREATER THAN .49" (12.5mm)	
PART #	DESCRIPTION
D240-309	3.9" (100mm) X .47" (12mm) DIAMETER
D240-310	9.8" (250mm) X .47" (12mm) DIAMETER
D240-311	19.7" (500mm) X .47" (12mm) DIAMETER
D240-312	29.5" (750mm) X .47" (12mm) DIAMETER
D240-313	40" (1000mm) X .47" (12mm) DIAMETER

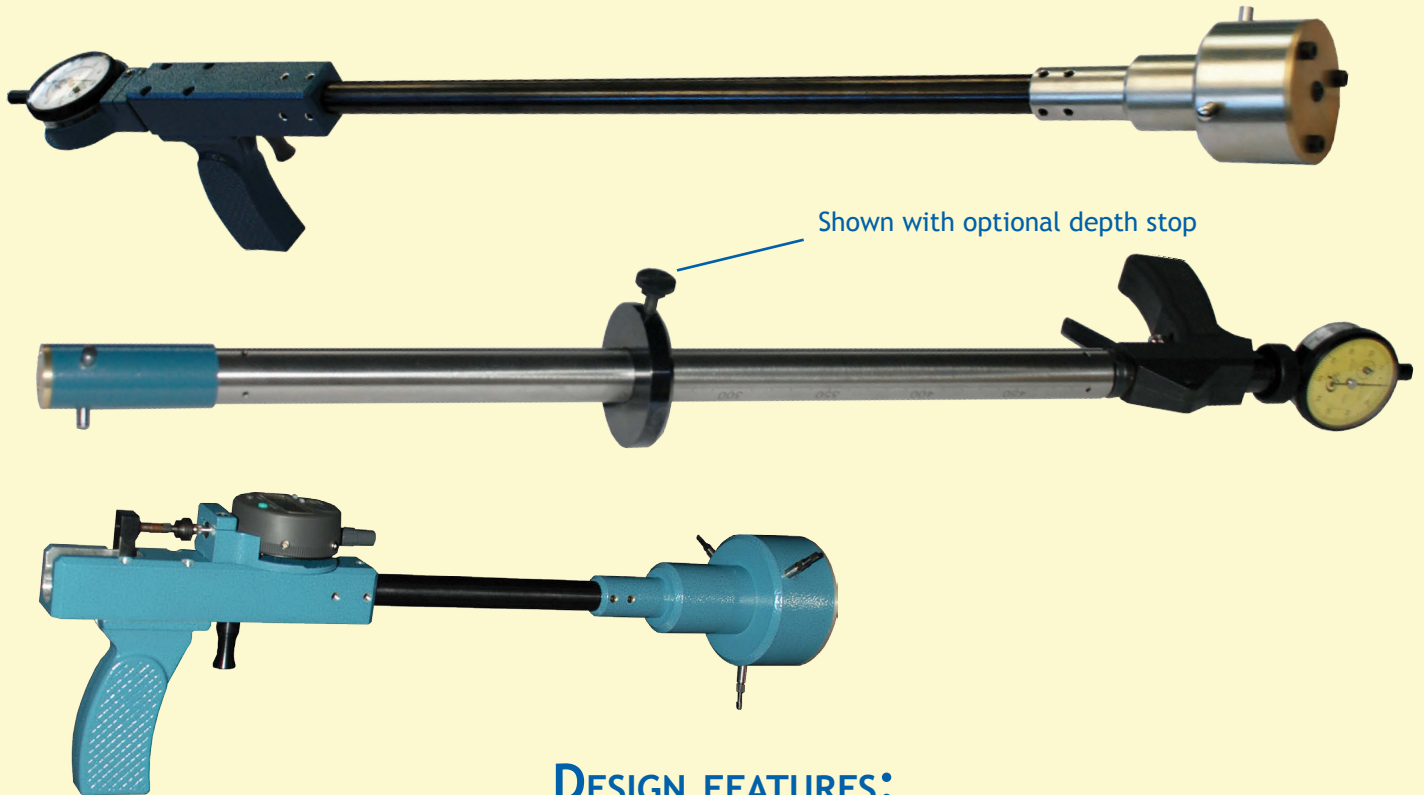


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# RLBG SERIES - RETRACTABLE BORE GAGE

The RLBG Series retractable bore gages are designed per application. They are primarily used to check deep holes where long retraction is required. Recess diameters and grooves can be checked for size, taper or out of roundness. Trigger action retracts and expands contacts. The gage has a fast, smooth and uniform gaging pressure over its entire range.



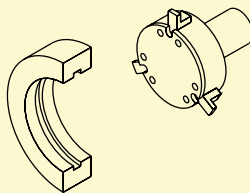
## DESIGN FEATURES:

- Cast aluminum or lightweight composite pistol grip housing.
- Gage can be designed to retract into or away from the indicator.
- Fixed or interchangeable contacts.
- Depth stop or scale-on-shaft facilitates checking at a specific depth.
- Single piece or multiple screw together gaging shafts.
- 2 or 3 point measurement.

## RETRACTABLE BORE GAGE APPLICATIONS

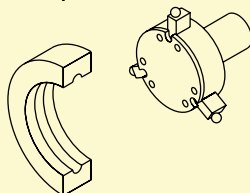
### Groove measurement

Precise groove measurements can be made easily and accurately.



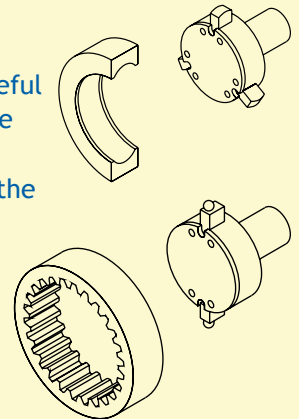
### Ball race or radius groove measurement

The RLBG can be configured to quickly and accurately check ball races and spherical grooves.



### Spherical or irregular shape measurement

Spherical shaped contacts can be useful in deep bores where holding the bore gage straight in the bore is difficult. Depth stops are also very helpful in the alignment of bore gages.



### Spline & Gear measurement

Spline or gear measurement of pitch diameter or major diameter is available

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# INDICATING DISC GAGE

Indicating disc gages are used to measure I.D.s or O.D.s around shafts and other obstructions such as grooves, stepped areas or boss type obstacles in the shaft area or any other configuration that prevents the use of a standard snap, bore or straight frame shallow diameter gages. Indicating disc gages feature the principle of two point measurement and fixed centralizing locators. Most disc gages are made for a specific size or can be used with 1/4" adjustment contacts to span a variety of sizes.



## FEATURES:

- Two point measurement.
- Fixed centralizing locators.
- .025" gaging contact travel.
- .250" of OD adjustment on adjustable models.
- Can be used with digital or dial indicator or LVDT probe.
- Available in right angle or perpendicular designs to clear obstructions see page C-8.
- Standard 2 point contact or optional 3 point contact.

PART #	WITHIN DIAMETER RANGE (INCHES)	PART #	WITHIN DIAMETER RANGE (INCHES)
IDG-25	0 - .25	IDG-475	4.50 - 4.75
IDG-50	.25 - .50	IDG-500	4.75 - 5.00
IDG-75	.50 - .75	IDG-525	5.00 - 5.25
IDG-100	.75 - 1.00	IDG-550	5.25 - 5.50
IDG-125	1.00 - 1.25	IDG-575	5.50 - 5.75
IDG-150	1.25 - 1.50	IDG-600	5.75 - 6.00
IDG-175	1.50 - 1.75	IDG-625	6.00 - 6.25
IDG-200	1.75 - 2.00	IDG-650	6.25 - 6.50
IDG-225	2.00 - 2.25	IDG-675	6.50 - 6.75
IDG-250	2.25 - 2.50	IDG-700	6.75 - 7.00
IDG-275	2.50 - 2.75	IDG-725	7.00 - 7.25
IDG-300	2.75 - 3.00	IDG-750	7.25 - 7.50
IDG-325	3.00 - 3.25	IDG-775	7.50 - 7.75
IDG-350	3.25 - 3.50	IDG-800	7.75 - 8.00
IDG-375	3.50 - 3.75	IDG-825	8.00 - 8.25
IDG-400	3.75 - 4.00	IDG-850	8.25 - 8.50
IDG-425	4.00 - 4.25	IDG-875	8.50 - 8.75
IDG-450	4.25 - 4.50	FIDG-XXX	For fixed (special) model, add F as prefix
		IDG3-XXX	For 3 point contact of interrupted diameters

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# DYS GROOVE GAGE

Dorsey's Dynamike Model DYS groove gage combines a light weight, compact rigid cast frame and a patented ball bushing slide with a series of interchangeable gaging arms to suit virtually any application.

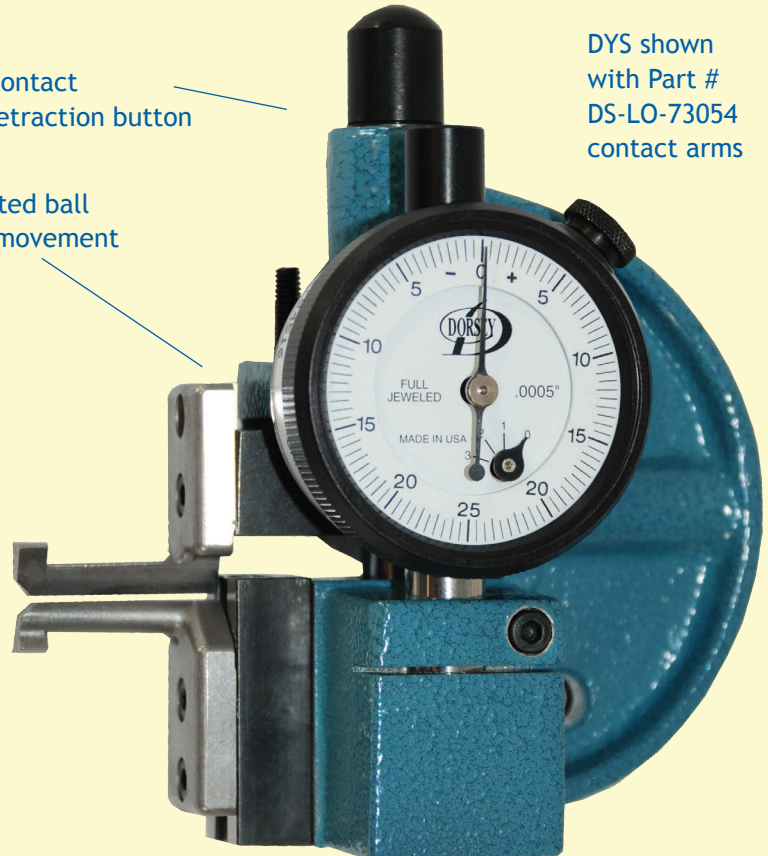
## FEATURES:

- .25" (6mm) of gaging travel / retraction.
- .25" to .75"(6mm-19mm) diameter range.
- 1.25" (32mm) long precision ground adjustment rail.
- Can accomodate dial or digital indicator.
- Retraction pulls away from indicator.

Contact retraction button

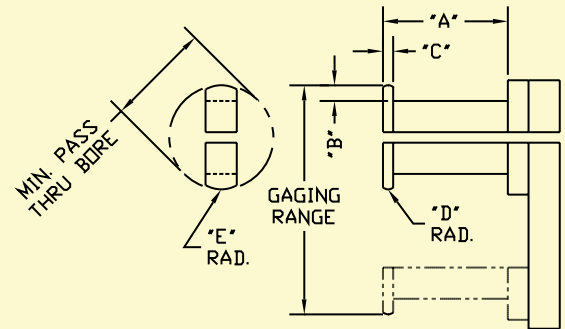
Patented ball slide movement

DYS shown with Part # DS-LO-73054 contact arms



Shown actual size

Gage shown is DYS with special metric indicator, part# 2305 arms and part # 18967 bench stand



The DYS Groove Gage is supplied per model # below with DYS Groove Gage body, model # 1DM125-05 dial indicator, .0005" graduation and the appropriate contact arm set for the range noted below:

PART #	RANGE	MIN / BORE	TYPE	"A" Dim.	"B" Dim.	"C" Dim.	CONTACT ARM #
DYS-250-2	.250 - .500	.187	2 Point	.50	.030	.030	# 2305-2
DYS-250-3	.250 - .500	.187	3 Point	.50	.030	.030	# 2305-3
DYS-500-2	.500 - .750	.350	2 Point	1.00	.075	.060	# 2306-2
DYS-500-3	.500 - .750	.350	3 Point	1.00	.075	.060	#2306-3
DYS-Blank*	To Suit	.370	2 Point	.750	.097	.125	# DS-LO-73054*

PART #	DESCRIPTION
DYS-O	DYS Groove Gage body only less gaging arms and indicator
18967	For the Bench Stand used with the DYS gages
2335	Clamp nut used with part # 2305 & #2306 contact arms
DS-LO-2335	Clamp nut used with part # DS-LO-73054

\*Note: Blank contacts can be used as supplied or modified to suit a specific application.

\*Note #2: For pricing on special gaging arms to suit a specific application, submit the part print with your quotation. Arms can be ordered separately.

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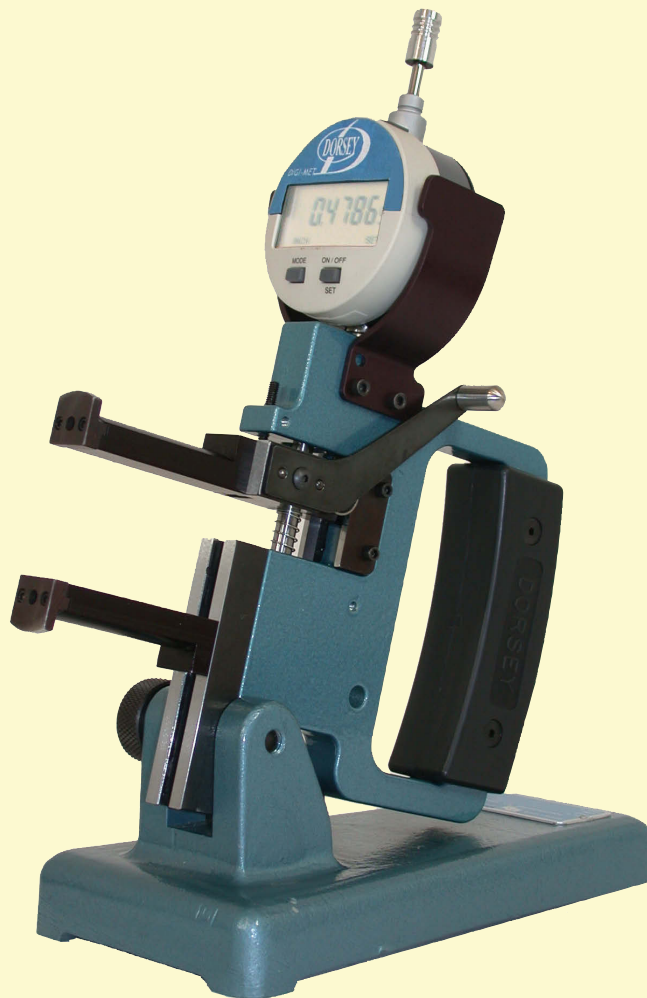
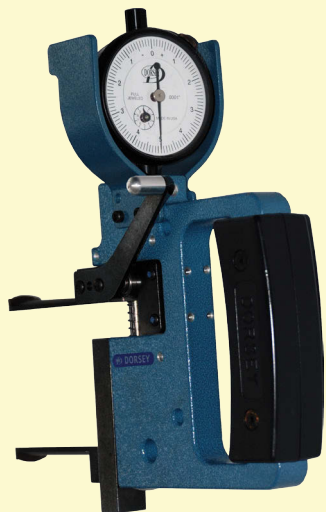


# DYN GROOVE GAGE

Dorsey's Dynamike Model DYN groove gage combines a patented ball bushing slide with a series of gaging arms to suit almost any application. Gaging contact retraction is accomplished by using a conveniently mounted thumb lever while gaging range adjustment is accomplished by sliding the static gaging arm along its precision ground rail.

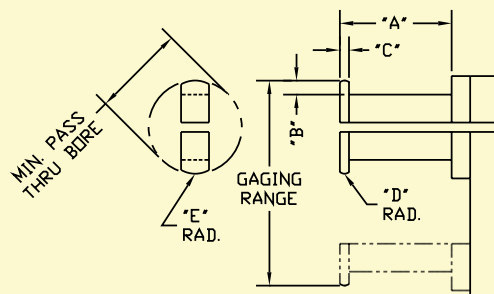
## FEATURES:

- .500" (13mm) of gaging travel/retraction.
- .75" to 4" (19mm - 100mm) diameter range.
- 3" Long precision ground adjustment rail.
- Precision machined cast jig plate frame.
- Thermal isolation grips.
- an accomodate any Dorsey's "High Amplification", "Traditional" or digital indicators.
- Retraction pulls away from indicator.
- Indicator can be rotated 360 degrees to suit any application.



The DYN Groove Gage is supplied per model # below with DYN Groove Gage body, model # 2DM125-05 dial indicator, .0005" graduation and the appropriate contact arm set for the range noted below.

PART #	RANGE	MIN / BORE	TYPE	"A" Dim.	"B" Dim.	"C" Dim.	CONTACT ARM #
DYN-750-2	.750 - 2.00	.500	2 Point	1.50	.125	.125	# 2405-2
DYN-750-3	.750 - 2.00	.500	3 Point	1.50	.125	.125	# 2405-3
DYN-2000-2	2.00 - 4.00	2.00	2 Point	2.00	.190	.125	# 2465-2
DYN-2000-3	2.00 - 4.00	2.00	3 Point	2.00	.190	.125	#2465-3
DYN-Blank-S*	To Suit	.370	2 Point	.750	.097	.125	# DS-LO-73054*
DYN-Blank-L*	To Suit	.85	2 Point	1.44	.206	.190	# DS-LO-73055*



\*Note: Blank contacts can be used as supplied or modified to suit a specific application.

\*Note #2: For pricing on special gaging arms to suit a specific application, submit the part print with your quotation. Arms can be ordered separately.

PART #	DESCRIPTION
DYN-O	DYN Groove Gage body only less gaging arms and indicator
48502-S	For the Bench Stand used with the DYN gages
2335	Clamp nut used with part # 2405 & #2465 contact arms
DS-LO-2335	Clamp nut used with part # DS-LO-73054 AND # DS-LO-73055

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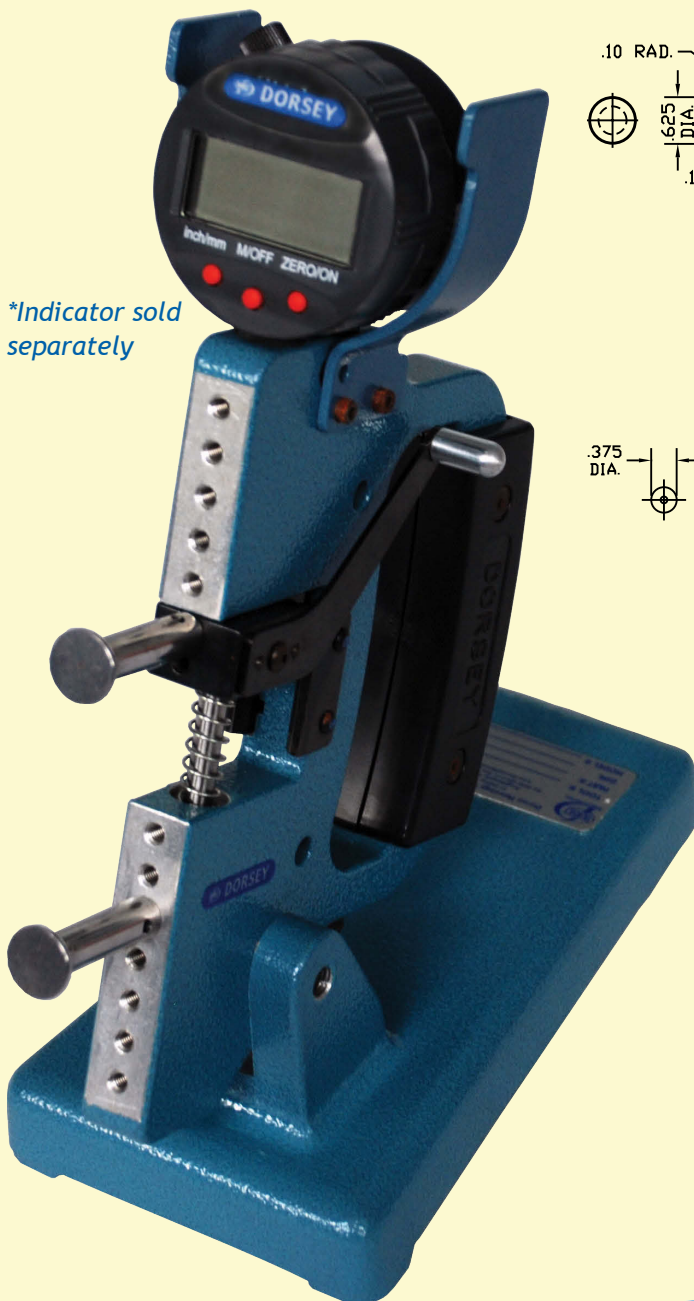
# UNIVERSAL GAGE- ID/OD/LOCATION

Dorsey's universal measuring gage was designed to combine our proven patented precision linear movement with a frame that accommodates a wide variety of contacts. This gage can precisely measure various internal and external dimensions such as diameters, grooves, splines, tapers, wall thickness, counterbores and hole locations and even threads.

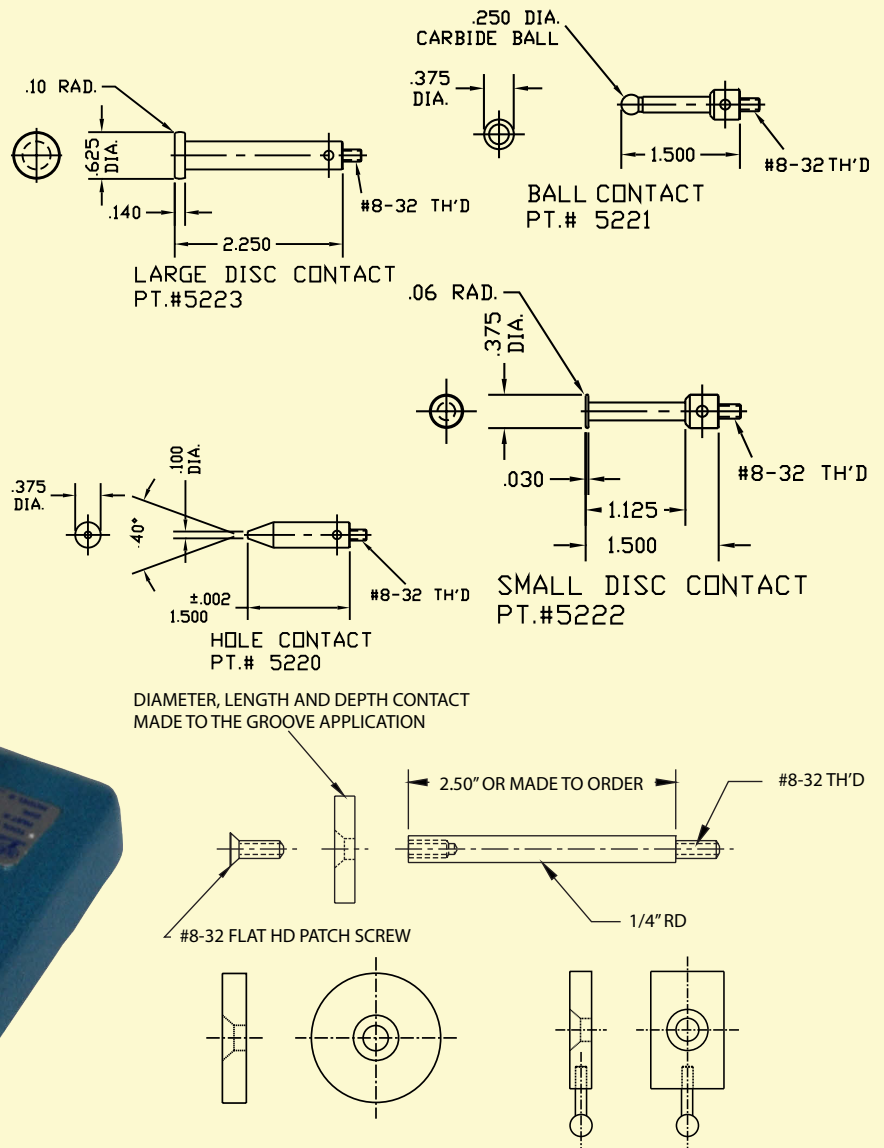
## FEATURES:

- Patented linear slide with 1" (25 mm) of gaging travel / retraction.
- Indicator can be rotated 360 degrees to suit application.
- Measurement range up to 5" ID / 2/5" OD.
- Light weight precision machined jig plate frame.
- Can accommodate dial or digital indicators.

MODEL	DESCRIPTION
UG-1	Universal gage complete with standard disc contact (part #5211-2)
UG-KIT	Universal gage complete with standard disc contact (part #5211-2), ball contacts (part #5213), .25" disc contacts (part #5214), digital indicator (part #F15830) and fitted storage case
48502-S	Bench Stand for UG



*\*Indicator sold separately*



Contact designed specific to groove. Can be manufactured by Dorsey or by the customer.

Dorsey's engineering department can help with the contact design. Send a part print.

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# EASY BORE SERIES (2 OR 3 POINT RETRACTABLE HOLE GAGES)

These retractable bore gages are ideal for inspection on the shop floor. They feature a series of 24 interchangeable heads and 2 handles to accommodate the complete range of diameters between .236" and 7.87".



PART #	PISTOL GRIP & LEVER HANDLE DESCRIPTION
F20308	Pistol grip for .236" - .629" diameter
F20309	Pistol grip for .630" - .787" diameter
F20310	Lever grip for .236" - .629" diameter
F20311	Lever grip for .630" - .787" diameter

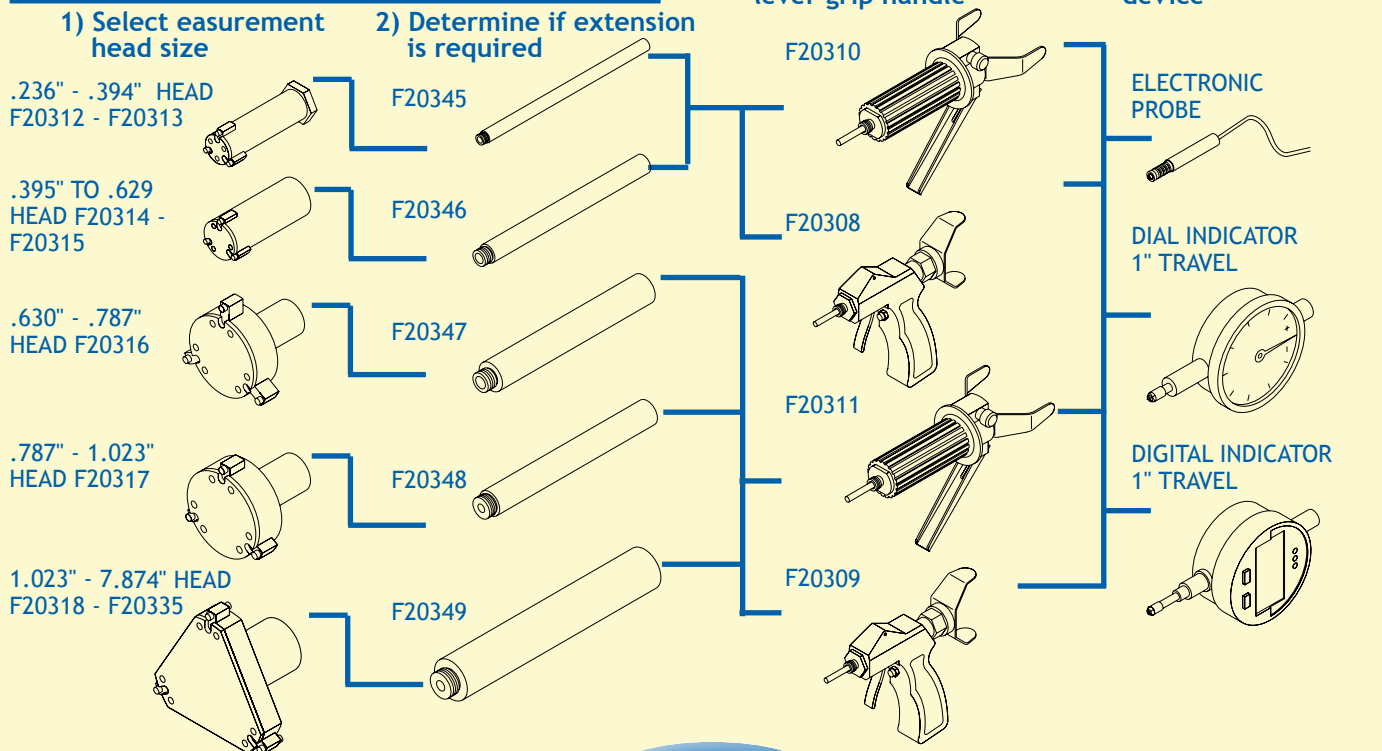
PART #	FITTED STORAGE CASE DESCRIPTION
F80524	Pistol grip head and master 16-40mm
F80525	Pistol grip head and master 41-60mm
F80526	Pistol grip head and master 61-80mm
F80527	Pistol grip head and master 81-100mm

EXTENSIONS FOR LONGER DEPTHS			
PART #	GAGE HEAD	METRIC	INCH
F20345	F20312 - F20313	100mm	3.937"
F20346	F20314 - F20315	100mm	3.937"
F20347	F20316	100mm	3.937"
F20348	F20317	150mm	5.905"
F20349	F20318 - 20335	150mm	5.905"
F20338	Adapter for Bowlers/Fowler head		
F20337	Adapter for Mitutoyo Borematic		

PART #	OPTIONS DESCRIPTION
F20336	Stand for pistol grip bore gage
EBGI	Ultra protective housing for pistol grip

HEAD PART #	HEAD SIZE		LINE A	LINE B	MASTER SETTINGS BILATERAL CLASS
	MM	INCH	INCH	INCH	
F20312	6-8	.236-.315	.109	2.36	F21162 .2912
F20313	8-10	.315-.394	.118	2.36	F21164 .3437
F20314	10-13	.394-.511	.157	2.36	F21167 .3475
F20315	13-16	.511-.630	.236	2.36	F21172 .5025
F20316	16-20	.630-.787	.295	2.36	F21177 .7187
F20317	20-26	.787-1.023	.433	2.36	F21185 .9062
F20318	26-32	1.023-1.260	.433	2.36	F21191 1.0312
F20319	32-40	1.260-1.575	.433	2.75	F21205 1.4062
F20320	40-50	1.575-1.968	.591	2.75	F21450 1.75
F20321	50-60	1.968-2.362	.591	2.75	F21451 2.1875
F20322	60-70	2.362-2.756	.591	2.75	F21452 2.5625
F20323	70-80	2.756-3.150	.591	2.75	F21453 2.9375
F20324	80-90	3.150-3.543	.591	2.75	F21454 3.3437
F20325	90-100	3.543-3.937	.591	2.75	F21455 3.75
F20326	100-110	3.937-4.330	.767	2.75	F21456 4.125
F20327	110-120	4.330-4.724	.767	2.75	F21457 4.5625
F20328	120-130	4.724-5.118	.767	2.75	F21458 4.9062
F20329	130-140	5.118-5.512	.767	2.75	F21459 5.3125
F20330	140-150	5.512-5.906	.767	2.75	F21460 5.7187
F20331	150-160	5.906-6.299	.767	2.75	F21461 6.1093
F20332	160-170	6.299-6.693	.866	2.75	F21462 6.5
F20333	170-180	6.693-7.087	.866	2.75	F21463 6.9062
F20334	180-190	7.087-7.480	.866	2.75	F21464 7.2912
F203	190-200	7.480-7.874	.866	2.75	F21465 7.6875

## INDIVIDUAL GAGE SELECTION GUIDE



# BC UNIVERSAL ID/OD BENCH COMPARATOR

## ADJUSTABLE INSIDE / OUTSIDE DIAMETER FIXTURES

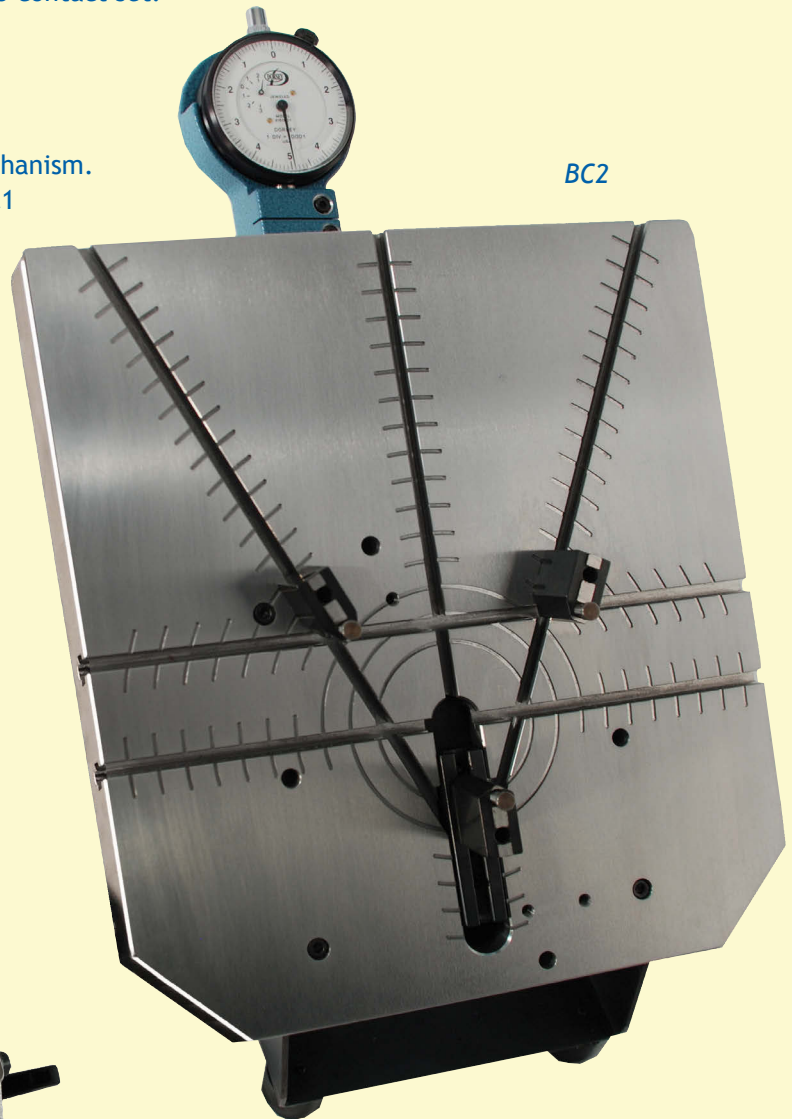
This comparator offers 2 or 3 point measurements for both ID and OD on one benchtop plate. Features include two or three point measurement, linear ball bushing movement and a wide range of adjustment. The fixture can be positioned at any angle from horizontal to vertical to duplicate the machining process angle eliminating deflection and deformation variation as potential sources of error. Hardened steel work surfaces insures years of accurate trouble free use.

### FEATURES:

- Gage is supplied with model 2DM025-01 .0001" graduation 1:1 dial indicator, 3 contact holders and BCC-GS25 contact set.
- Reversing the top plate selects either I.D. or O.D.
- Base with carrying handle features 90 degrees of adjustment with angle locking mechanism.
- .400" linear gaging or retraction range.
- Patented precision linear ball bushing gaging mechanism.
- Ground and plated work stage 5.25" x 6.75" on BC1 and 9.75" x 10.75" on BC2.
- Witness lines aid with gage alignment.
- Includes fitted wooden storage case.
- 2 Hex adjustment wrenches.
- Special contacts designed per requested application.



BC1



BC2

*Note: Special ratio 4:5 dial indicator or electronically compensated digital indicator is recommended for 3 point non-diametric contact arrangement. See page C-22 for optional indicators.*

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C-22

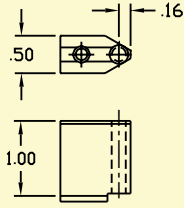


**Dorsey Metrology International**  
Website: [www.dorseymetrology.com](http://www.dorseymetrology.com)

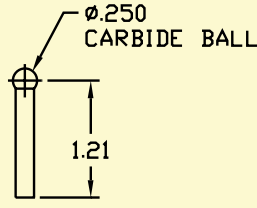
Tel: (845) 454-3111 Fax: (845) 454-3888  
53 Oakley Street, Poughkeepsie, NY 12601

# BC UNIVERSAL ID/OD BENCH

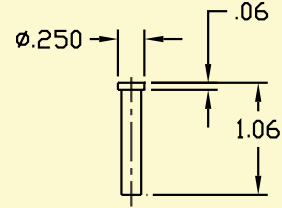
ORDERING INFORMATION					
PART #	DESCRIPTION	"T" CONFIGURATION		"Y" CONFIGURATION	
		I.D. RANGE	O.D. RANGE	I.D. RANGE	O.D. RANGE
BC1	Gaging Fixture with 3 contacts, 3 holders and .0001" grad. indicator	.75" - 4.44"	.25" - 5.19"	.75" - 5.25"	.25" - 6.00"
BC1-NI	Same as above, less indicator				
BC2	Gaging Fixture with 3 contacts, 3 holders and .0001" grad. indicator	2" - 8.44"	1.5" - 9.19"	2" - 10.00"	1.5" - 10.88"
BC2-NI	Same as above, less indicator				



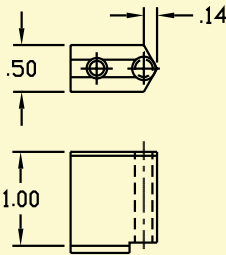
**Part #2759-S (Steel)**  
**Part #2759-C (Carbide)**  
Contact holder, flat  
(2 required)



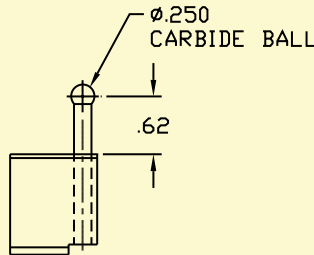
**Part #BCC-CB25**  
Carbide ball contact



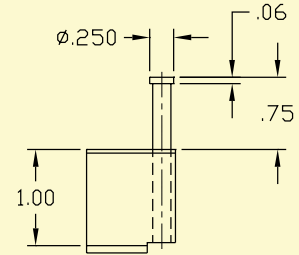
**Part #BCC-GS25**  
Steel groove contact



**Part #2760-S (Steel)**  
**Part #2760-C (Carbide)**  
Contact holder, sharp  
(1 required)



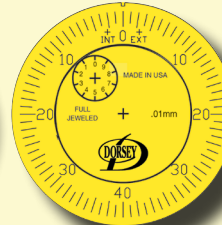
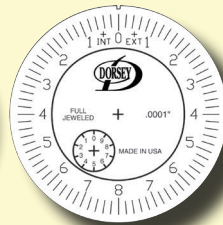
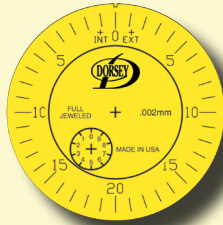
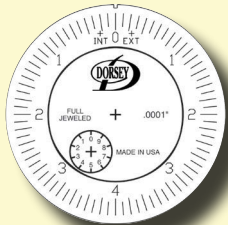
**Part #BCC-CB25**  
Shown in contact  
holder part #2760



**Part #BCC-GS25**  
Shown in contact  
holder part #2760

## 4:5 RATIO INDICATORS FOR RECOMMENDED USE WITH 3 POINT "Y" CONFIGURATION

Example: .010 spindle travel is displayed as .008" on indicator



MODEL	2DMR025-017	2DMR125-05Z	2DMR005-002mmZ	2DMR5-01mmZ	MT543-287B
Total Travel	.02"	.100"	0.4mm	4.0mm	.5"/12mm
Graduation	.0001"	.0005"	0.002mm	0.01mm	Selectable
Revolutions	2.5 Rev.	2.5 Rev.	2.5 Rev.	5 Rev.	N/A
Travel/Rev.	.008"	.040"	0.16mm	0.8mm	N/A

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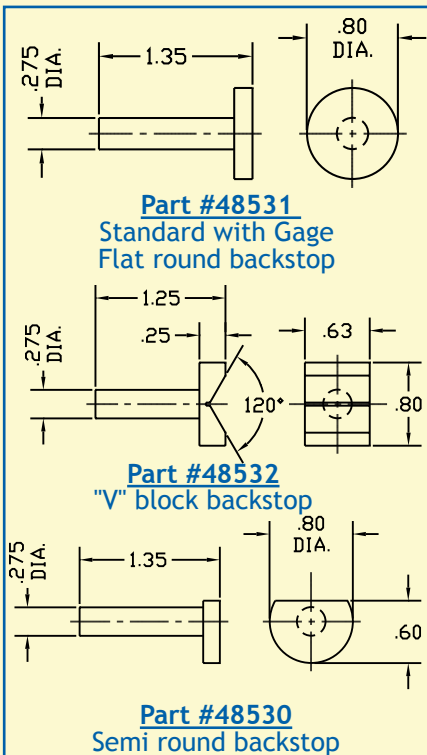
# THE VERSATILE SNAP GAGE

## FEATURES:

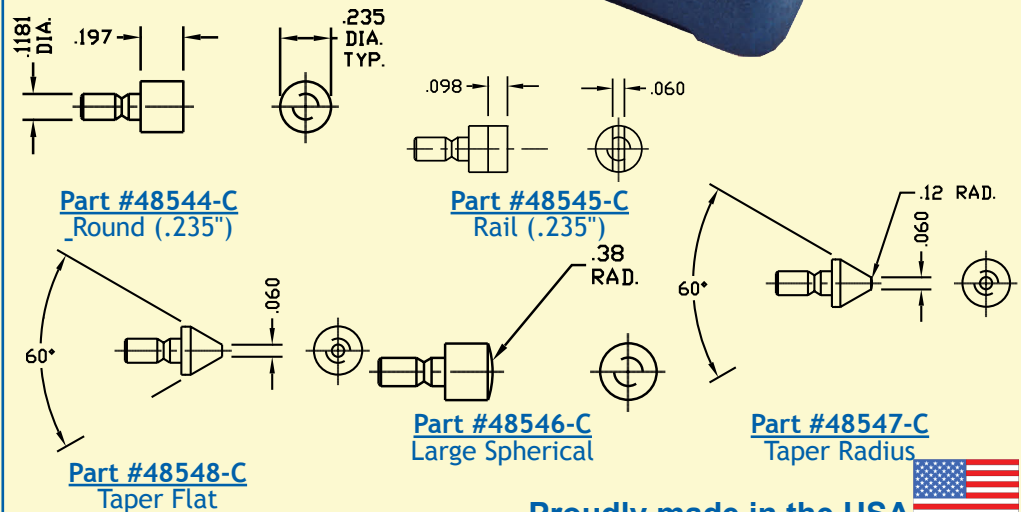
- Checks multiple shapes. A combination of contact points, backstops and accessories may be selected and custom assembled to meet the most exacting needs.
- Comparative measurements can be made of almost any shape: diameters, spheres, grooves, shafts, flats, etc.
- Specifically designed for Dorsey's high amplification dial indicators with graduations as fine as .00002" (0.0005mm).
- Two frame sizes are available.
- Hand held or mount on an optional bench stand.
- Utilizes dial and digital indicators as well as electronic transducers. Display on electronic columns or remote digital devices. SPC compatible.
- Tailstock fine adjustment of 1" maintains contact parallelism throughout the gaging range.
- Standard thumb actuated retraction of .100" makes part loading easy.
- Contacts suitable for most applications can be supplied from a wide variety in stock. All anvils utilize shank-lock design for maximum holding pressure.
- Several backstop designs are available to accommodate a variety of part configurations.



ORDERING INFORMATION	
PART #	DESCRIPTION
48554	0 - 1" range versatile snap gage with choice of one set of contacts
48555	1 - 2" range versatile snap gage with choice of one set of contacts
48502-V	Bench Stand for versatile snap gage



Part #48544 shown with dial indicator (part #414-002), and bench stand (part #48502-V)

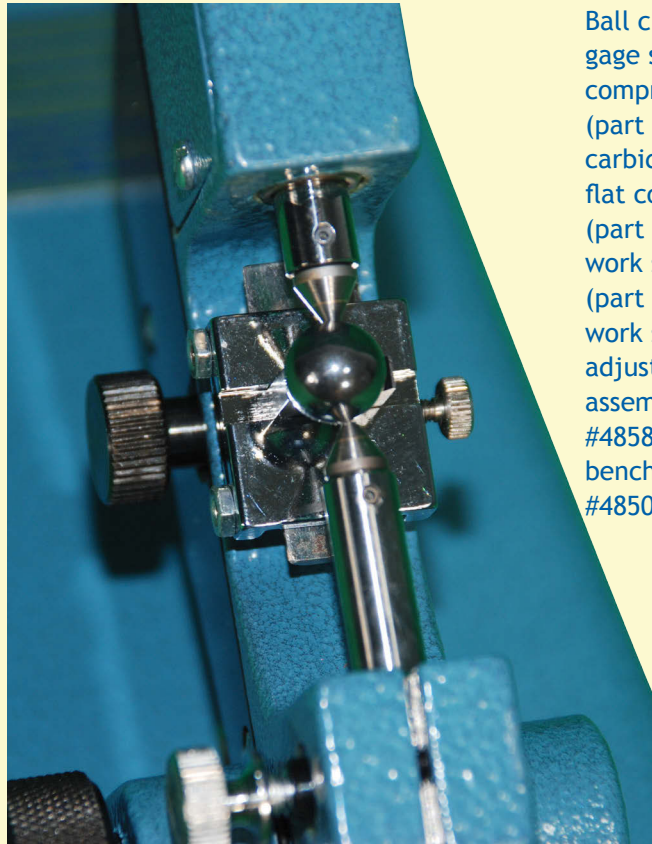


Proudly made in the USA



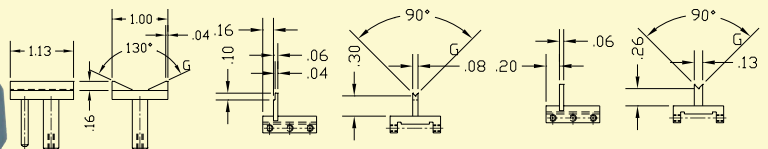
# SNAP GAGE ASSEMBLY FOR BALL MEASUREMENTS

Measuring balls and other spherical items is one of the most popular applications of the Versatile Snap Gage. Two snap gage frames, 0-1" (Part #48554) and 1"-2" (Part #48555) cover the range of ball diameters from the smallest manufactured up to 2" diameter. The "V" backstops have been specially designed to facilitate the measurement of balls.



Ball checking gage shown is comprised of gage (part #48554C), carbide tapered flat contacts (part #48548), work support (part #48569), work support adjustment assembly (part #48581) and bench stand (part #48502-V)

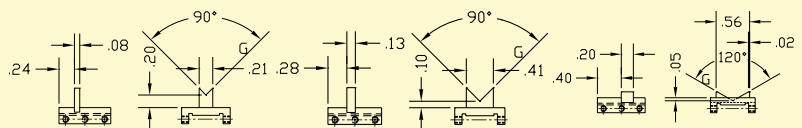
**Work Support Note:** work support adjustment assembly part #48581. Must be used with work support No.1 through No.6



"V" block screw controlled backstop  
**Part #48583**  
1" - 2" balls

Work support No.1  
**Part #48568**  
.060" - .100" balls

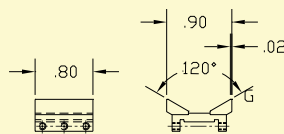
Work support No.2  
**Part #48569**  
.100" - .160" balls



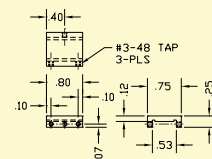
Work support No.3  
**Part #48570**  
.160" - .250" balls

Work support No.4  
**Part #48571**  
.250" - .500" balls

Work support No.5  
**Part #48572**  
.50" - 1.00" balls



Work support No.6  
**Part #48574**  
1.00" - 1.750" balls



Work support blank  
**Part #48582**

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# MODEL J2 HORIZONTAL JAW GAGE

The model J2 jaw gage features Dorsey's proven precision lapped chrome/steel bushing in a rigid cast iron frame. A series of interchangeable contacts, and adjustable two axis rest stage along with a micrometer type adjustment tail stock combine to make the J2 jaw gage suitable for most high accuracy OD inspection tasks.

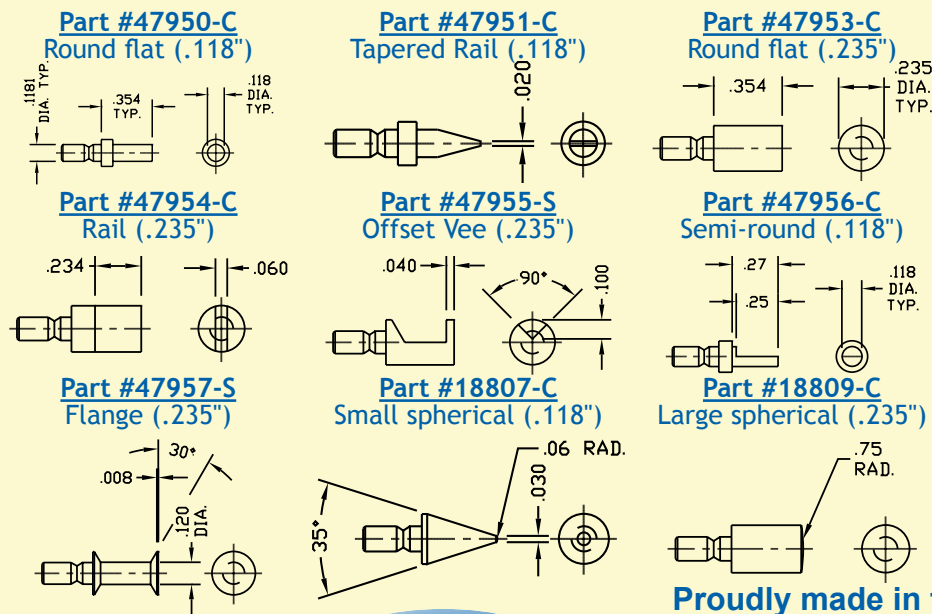
## FEATURES:

- Check diameters, widths, lengths, and locations.
- Ideal for screw machine and small parts applications.
- Specifically designed for Dorsey's high amplification dial indicators with graduations as fine as .00002" (0.0005mm).
- Utilize dial and digital indicators, or electronic displays and is SPC compatible.
- Standard thumb actuated retraction of .100" makes part loading easy.
- Tailstock fine adjustment of 1" maintains contact parallelism throughout the gaging range.
- Interchangeable contact points are available for a variety of part configurations. Each set of contacts utilizes a shank-lock design for maximum holding pressure.
- Backstop for locating the part may be adjusted both horizontally or vertically to suit the part configuration.

Gage shown below features round carbide contacts (part #47950), and model #414-002 dial indicator (sold separately)



J-2 WITH #47950 CONTACTS



Proudly made in the USA



# SSG STYLE SNAP GAGES

This design of rugged production line snap gages has been the industry standard for more than 75 years. Dorsey offers this easily adjusted gage built to the same exacting specifications and precision as the original Standard Gage® product. Interchangeable repair parts for Standard Gage® products are also available.

## FEATURES:

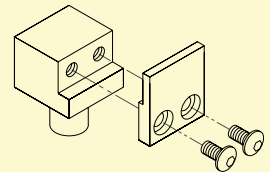
- .060" gaging travel is standard, optional with .100" or .500".
- Adjustable gaging pressure.
- Lower anvil features 1" travel micrometer style adjustment with rapid lock nut.
- Well balanced precision machined aluminum jig plate frame with thermal isolation grips.
- Collet mounted indicator can be rotated to suit application.
- Available with any Dorsey dial or digital indicators.
- 5/8" square solid carbide lapped anvils with generous lead radius.
- Anvils are flat & parallel within .00015" below 4", .0002" in 4"-8", .00025" in 8-12" and .0003" above 12".
- Nylon backstop protects parts during loading.

\* Shown with #2110-002 indicator and optional #48502-S bench stand

Solid carbide anvils feature generous lead radius to protect part



Blade type anvil  
Special sizes  
available



RANGE		FLAT 5/8" SQ. ANVILS		
		2150-01	2110-002mm	WITHOUT INDICATOR
INCH	METRIC	.0001" GRAD MULTI REV.	0.002mm MULTI REV.	
0 - 1"	0 - 25mm	DS-S2-12371	DS-S2-18371	DS-S2-15371
1 - 2"	25 - 51mm	DS-S2-12372	DS-S2-18372	DS-S2-15372
2 - 3"	51 - 76mm	DS-S2-12373	DS-S2-18373	DS-S2-15373
3 - 4"	76 - 102mm	DS-S2-12374	DS-S2-18374	DS-S2-15374
4 - 5"	102 - 127mm	DS-S2-12375	DS-S2-18375	DS-S2-15375
5 - 6"	127 - 152mm	DS-S2-12376	DS-S2-18376	DS-S2-15376
6 - 7"	152 - 178mm	DS-S2-12377	DS-S2-18377	DS-S2-15377
7 - 8"	178 - 203mm	DS-S2-12378	DS-S2-18378	DS-S2-15378
8 - 9"	203 - 229mm	DS-S2-12379	DS-S2-18379	DS-S2-15379
9 - 10"	229 - 254mm	DS-S2-12380	DS-S2-18380	DS-S2-15380
10 - 11"	254 - 279mm	DS-S2-12381	DS-S2-18381	DS-S2-15381
11 - 12"	279 - 305mm	DS-S2-12382	DS-S2-18382	DS-S2-15382
12 - 13"	305 - 330mm	DS-S2-12383	DS-S2-18383	DS-S2-15383
13 - 14"	330 - 356mm	DS-S2-12384	DS-S2-18384	DS-S2-15384
14 - 15"	356 - 381mm	DS-S2-12385	DS-S2-18385	DS-S2-15385
15 - 16"	381 - 406mm	DS-S2-12386	DS-S2-18386	DS-S2-15386
16 - 17"	406 - 432mm	DS-S2-12387	DS-S2-18387	DS-S2-15387
17 - 18"	432 - 458mm	DS-S2-12388	DS-S2-18388	DS-S2-15388
18 - 19"	458 - 483mm	DS-S2-12389	DS-S2-18389	DS-S2-15389
19 - 20"	483 - 508mm	DS-S2-12390	DS-S2-18390	DS-S2-15390
20 - 21"	508 - 533mm	DS-S2-12391	DS-S2-18391	DS-S2-15391
21 - 22"	533 - 559mm	DS-S2-12392	DS-S2-18392	DS-S2-15392
22 - 23"	559 - 584mm	DS-S2-12393	DS-S2-18393	DS-S2-15393
23 - 24"	584 - 610mm	DS-S2-12394	DS-S2-18394	DS-S2-15394
48502-S		BENCH STAND		

OPTIONAL CONTACT TRAVEL	OPTIONAL BLADE ANVILS	LIFTING LEVER	SIDE STOPS
To specify extended gaging contact travel, add "TXX" to end of part number. -T100 = .100" Travel -T500 = .500" Travel Standard with Lifting Lever (-L)	To specify blade anvils, add "-BXXX" to end of part number. -B40 = .040" Wide x .08 tall -B60 = .060" Wide x .12 tall -B80 = .080" Wide x .16 tall -B100 = .100" Wide x .20 tall -B125 = .125" Wide x .31 tall -B156 = .156" Wide x .31 tall -B187 = .187" Wide x .31 tall	To specify a lifting lever, add "-L" to end of part number.	To specify side stops, add "SS" to end of part number. Note: Side stops are made to order.

Part # sequence: Snap gage part #, Contact travel, Blade anvil, Lifting lever, Side stops

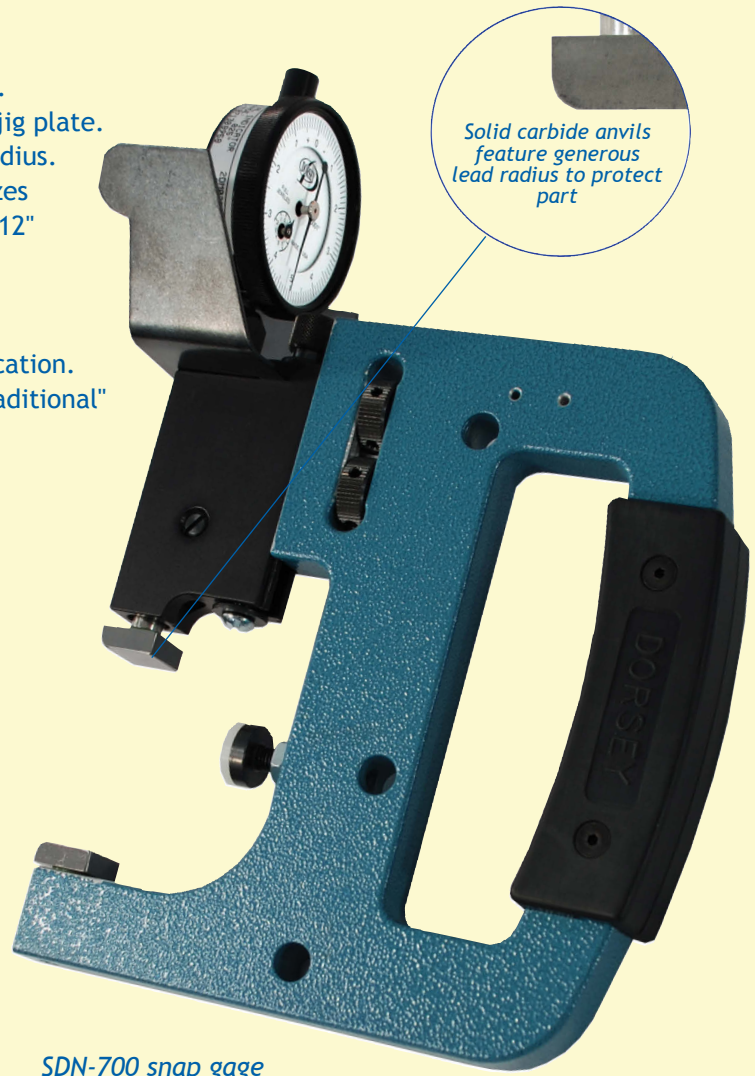
Proudly made in the USA 

# SDN SERIES DIAL SNAP GAGE

This rugged snap gage features a precision box-way range adjustment channel to protect the anvil shafts and maximize frame clearance.

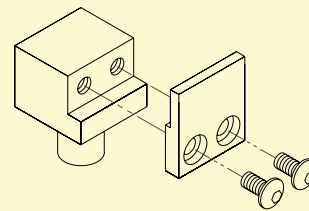
## FEATURES:

- 090° gaging travel is standard, optional with .500".
- Precision box way slide allows 1" of range adjustment.
- Rugged frame is machined from 5/8" thick aluminum jig plate.
- 5/8" solid carbide lapped anvils with generous lead radius.
- Anvils are flat and parallel within .00015" on frame sizes below 4", within .0002" on 4"-8" frames, .00025" on 8-12" frames and within .0003" above 12".
- Heat insulating impact resistant handles.
- Adjustable nylon backstop protects parts.
- Collet mounted indicator can be rotated to suit application.
- May be used with any Dorsey "High Amplification", "Traditional" or digital indicators.

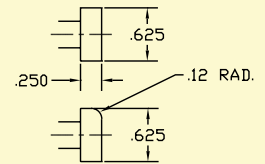


SDN-700 snap gage

RANGE		FLAT 5/8" SQ. ANVILS	
		2I50-01	WITHOUT INDICATOR
INCH	METRIC	.0001" GRAD MULTI REV.	
0 - 1"	0 - 25mm	SDN-00	SDN-00NI
1 - 2"	25 - 51mm	SDN-100	SDN-100NI
2 - 3"	51 - 76mm	SDN-200	SDN-200NI
3 - 4"	76 - 102mm	SDN-300	SDN-300NI
4 - 5"	102 - 127mm	SDN-400	SDN-400NI
5 - 6"	127 - 152mm	SDN-500	SDN-500NI
6 - 7"	152 - 178mm	SDN-600	SDN-600NI
7 - 8"	178 - 203mm	SDN-700	SDN-700NI
8 - 9"	203 - 229mm	SDN-800	SDN-800NI
9 - 10"	229 - 254mm	SDN-900	SDN-900NI
10 - 11"	254 - 279mm	SDN-1000	SDN-1000NI
11 - 12"	279 - 305mm	SDN-1100	SDN-1100NI
12 - 13"	305 - 330mm	SDN-1200	SDN-1200NI
13 - 14"	330 - 356mm	SDN-1300	SDN-1300NI
14 - 15"	356 - 381mm	SDN-1400	SDN-1400NI
15 - 16"	381 - 406mm	SDN-1500	SDN-1500NI
16 - 17"	406 - 432mm	SDN-1600	SDN-1600NI
17 - 18"	432 - 458mm	SDN-1700	SDN-1700NI
18 - 19"	458 - 483mm	SDN-1800	SDN-1800NI
19 - 20"	483 - 508mm	SDN-1900	SDN-1900NI
20 - 21"	508 - 533mm	SDN-2000	SDN-2000NI
21 - 22"	533 - 559mm	SDN-2100	SDN-2100NI
22 - 23"	559 - 584mm	SDN-2200	SDN-2200NI
23 - 24"	584 - 610mm	SDN-2300	SDN-2300NI
48502-S		BENCH STAND	



Blade type anvil  
Special sizes available



Part #209  
Standard carbide anvil

OPTIONAL CONTACT TRAVEL	OPTIONAL BLADE ANVILS	LIFTING LEVER	SIDE STOPS
To specify extended gaging contact travel, add "TXX" to end of part number. -T100 = .100" Travel -T500 = .500" Travel Standard with Lifting Lever (-L)	To specify blade anvils, add "-BXXX" to end of part number. Blade sizes: -B40 = .040" Wide x .08 tall -B60 = .060" Wide x .12 tall -B80 = .080" Wide x .16 tall -B100 = .100" Wide x .20 tall -B125 = .125" Wide x .31 tall -B156 = .156" Wide x .31 tall -B187 = .187" Wide x .31 tall	To specify a lifting lever, add "-L" to end of part number.	To specify side stops, add "SS" to end of part number. Note: Side stops are made to order.

Part # sequence: Snap gage part #, Contact travel, Blade anvil, Lifting lever, Side stops

Proudly made in the USA



# LONG RANGE SNAP GAGE OPTIONS

Dorsey's long range snap gages feature .50"/.12mm of gaging travel and are used to replace many fixed disc setmasters. This option can be fitted to either the SDN or SSG series frame.



LRS-15377 shown

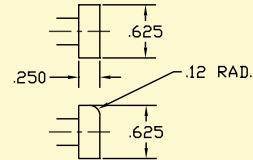
## SSG STYLE

SDN FRAME	SSG FRAME	
PART #	RANGE	PART #
LRS-00	0 - 1"	LRS-15371
LRS-100	.5 - 2"	LRS-15372
LRS-200	1.5 - 3"	LRS-15373
LRS-300	2.5 - 4"	LRS-15374
LRS-400	3.5 - 5"	LRS-15375
LRS-500	4.5 - 6"	LRS-15376
LRS-600	5.5 - 7"	LRS-15377
LRS-700	6.5 - 8"	LRS-15378
LRS-800	7.5 - 9"	LRS-15379
	8.5 - 10"	LRS-15380
	9.5 - 11"	LRS-15381
	10.5 - 12"	LRS-15382
	11.5 - 13"	LRS-15383
	12.5 - 14"	LRS-15384
	13.5 - 15"	LRS-15385
	14.5 - 16"	LRS-15386
	15.5 - 17"	LRS-15387
	16.5 - 18"	LRS-15388

*\*Indicator sold separately*

## SDN STYLE

*\*Indicator sold separately*



**Part #2029**  
Standard carbide anvil



LRS Snap gage with bench stand #48502-S

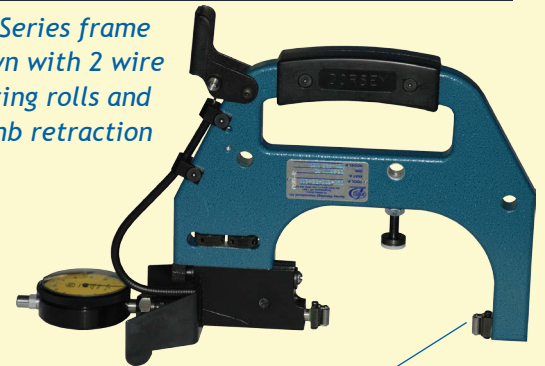
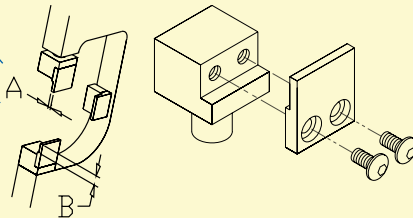
# SNAP GAGE ANVIL OPTIONS

The following options can be specified on either the SSG, SDN or LRS series snap gages.

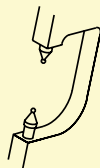
*SDN Series frame shown with 2 wire floating rolls and thumb retraction*

INTERCHANGABLE BLADE ANVILS		
PART #	A DIM.	B DIM.
2274-1	.040" (1mm)	.08
2274-2	.060" (1.5mm)	.12
2274-3	.080" (2mm)	.16
2274-4	.100" (2.5mm)	.20
2274-5	.125" (3.2mm)	.31
2274-6	.156" (4mm)	.31
2274-7	.187" (4.7mm)	.31

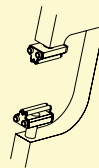
**Self centering form anvils**  
Applications include measurement of major diameter



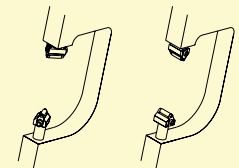
## PITCH DIAMETER GEAR AND SPLINE CONTACTS



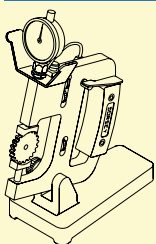
**Fixed ball or roll contacts**  
Can be used in conjunction with side stops to check pitch diameter of helical gears



**2 wire or 3 wire self-aligning floating rolls on interchangeable carriers**  
Best suited for pitch diameter measurement on threads, screw forms, helical gears and splines



**2 Wire or 3 wire floating carbide rolls on fixed carriers (plus special master)**  
Best suited for heavy production inspection of pitch diameter on threads, screw forms, helical gears and splines



Proudly made in the USA



# ADJUSTABLE LIMIT SNAP GAGES

Adjustable limit snap gages are an economical choice for the go/no go measurement of outside diameters or thicknesses. They are also known as AGD snap gages. Frames are machines from stabilized cast iron and are manufactured to ANSI B47-1-1988.



CS STYLE ANVILS			
RANGE		FRAME #	PART #
INCH	METRIC		
* .00 - .195	0 - 5	00	Y88-10150
* .195 - .385	5 - 9.8	00X	Y88-10151
* .385 - .570	9.8 - 14.5	0	Y88-10152
* .570 - .760	14.5 - 19.3	0X	Y88-10153
.00 - .25	0 - 6	1	Y86-10050
.25 - .50	6 - 12.7	2	Y86-10051
.50 - .75	12.7 - 19	2X	Y86-10052
.75 - 1.00	19 - 25.4	3	Y86-10053
1.00 - 1.25	25.4 - 31.8	3X	Y86-10054
1.25 - 1.50	31.8 - 38.1	4	Y86-10055
1.50 - 1.75	38.1 - 44.5	4X	Y86-10056
1.75 - 2.00	44.5 - 50.8	5	Y86-10057
2.00 - 2.25	50.8 - 57.2	5X	Y86-10058
2.25 - 2.50	57.2 - 63.5	6	Y86-10059
2.50 - 2.75	63.5 - 69.9	6X	Y86-10060
2.75 - 3.06	69.9 - 77.7	7	Y86-10061
3.06 - 3.44	77.7 - 87.4	7X	Y86-10062
3.44 - 3.81	87.4 - 96.8	8	Y86-10063
3.81 - 4.19	96.8 - 106.4	8X	Y86-10064
4.19 - 4.56	106.4 - 115.8	9	Y86-10065
4.56 - 4.94	115.8 - 125.5	9X	Y86-10066
4.94 - 5.31	125.5 - 134.9	10	Y86-10067
5.31 - 5.69	134.9 - 144.5	10X	Y86-10068
5.69 - 6.12	144.5 - 155.4	11	Y86-10069
6.12 - 6.62	155.4 - 168.1	11X	Y86-10070
6.62 - 7.12	168.1 - 180.8	12	Y86-10071
7.12 - 7.62	180.8 - 193.5	12X	Y86-10072
7.62 - 8.12	193.5 - 206.2	13	Y86-10073
8.12 - 8.62	206.2 - 218.9	13X	Y86-10074

BLADE ANVILS			
RANGE		FRAME #	PART #
INCH	METRIC		
* .00 - .195	0 - 5	00	Y88-10200
* .195 - .385	5 - 9.8	00X	Y88-10201
* .385 - .570	9.8 - 14.5	0	Y88-10202
* .570 - .760	14.5 - 19.3	0X	Y88-10203
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
0 - .25	0 - 6	2X	Y87-10100
.25 - .50	6 - 12.7	3	Y87-10101
.50 - .75	12.7 - 19	3X	Y87-10102
.75 - 1.00	19 - 25.4	4	Y87-10103
1.00 - 1.25	25.4 - 31.8	4X	Y87-10104
1.25 - 1.50	31.8 - 38.1	5	Y87-10105
1.50 - 1.75	38.1 - 44.5	5X	Y87-10106
1.75 - 2.00	44.5 - 50.8	6	Y87-10107
2.00 - 2.25	50.8 - 57.2	6X	Y87-10108
2.25 - 2.63	57.2 - 66.8	7	Y87-10109
2.63 - 3.00	66.8 - 76.2	7X	Y87-10110
3.00 - 3.38	76.2 - 85.7	8	Y87-10111
3.38 - 3.75	85.7 - 95.3	8X	Y87-10112
3.75 - 4.12	95.3 - 104.6	9	Y87-10113
4.12 - 4.50	104.6 - 114.3	9X	Y87-10114
4.50 - 4.88	114.3 - 124	10	Y87-10115
4.88 - 5.25	124 - 133.4	10X	Y87-10116
5.25 - 5.75	133.4 - 146.1	11	Y87-10117
5.75 - 6.25	146.1 - 158.8	11X	Y87-10118
6.25 - 6.75	158.8 - 171.5	12	Y87-10119
6.75 - 7.25	171.5 - 184.2	12X	Y87-10120
7.25 - 7.75	184.2 - 196.9	13	Y87-10121
7.75 - 8.25	196.9 - 210	13X	Y87-10122

# RING AND DISC MASTERS

All Dorsey masters are ground and lapped to size then polished. Non gaging surfaces are black oxide, and the faces are surface ground. Blanks meet requirements of B47.1-1988 and gages are manufactured in accordance with ANSI B89.1.6-1984.

## PLUG GAGES/PIN GAGES:

Reversible wires, taper lock, tri-lock, whistle notch, go, no-go, reference, bilateral, or unilateral, with or without handles



## THREAD GAGES:

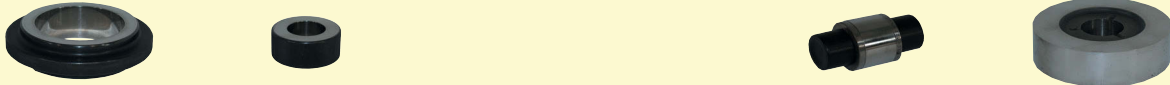
I.D., O.D., taper lock, reversible, helical coil, UNC, UNF, UNEF, NPT, NPTF, ANPT, NPSF, titanium nitride coated, go, no-go, reference, bilateral, or unilateral, with or without handles



\* Special sizes and part simulating masters are available upon request.

## RINGS: Hardened Steel, bilateral tolerance

## DISCS: Hardened Steel, bilateral tolerance



	SIZE RANGE	CLASS	TOLERANCE	RING PART #	DISC PART #
INCH METRIC	.150 - .230" 3.81 - 5.84mm	XX X Y	.00002" .00004" .00007"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	.2301 - .365" 5.84 - 9.27mm	XX X Y	.00002" .00004" .00007"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	.3651 - .510" 9.27 - 12.95mm	XX X Y	.00002" .00004" .00007"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	.5101 - .825" 12.95 - 20.96 mm	XX X Y	.00002" .00004" .00007"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	.8251 - 1.135" 20.96 - 28.83mm	XX X Y	.00003" .00006" .00009"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	1.1351 - 1.510" 28.83 - 38.35mm	XX X Y	.00003" .00006" .00009"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	1.5101 - 2.010" 38.35 - 51.05mm	XX X Y	.00004" .00008" .00012"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	2.0101 - 2.510" 51.05 - 63.75mm	XX X Y	.00004" .00008" .00012"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	2.5101 - 3.010" 63.75 - 76.45mm	XX X Y	.00005" .00010" .00015"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	3.0101 - 3.510" 76.45 - 89.15mm	XX X Y	.00005" .00010" .00015"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	3.5101 - 4.010" 89.15 - 101.85mm	XX X Y	.00005" .00010" .00015"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	4.0101 - 4.510" 101.85 - 114.55mm	XX X Y	.00005" .00010" .00015"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	4.5101 - 5.010" 114.55 - 127.25mm	XX X Y	.000065" .00013" .00019"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	5.0101 - 5.510" 127.25 - 139.95mm	XX X Y	.000065" .00013" .00019"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	5.5101 - 6.010" 139.95 - 152.65mm	XX X Y	.000065" .00013" .00019"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	6.0101 - 7.010" 152.65 - 178.05mm	XX X Y	.00008" .00016" .00024"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####
INCH METRIC	7.0101 - 8.010" 178.05 - 203.45mm	XX X Y	.00008" .00016" .00024"	RXX-#.##### RX-#.##### RY-#.#####	DXX-#.##### DX-#.##### DY-#.#####

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# DORSEY LARGE DIAMETER GAGES



LDF Series



LDLT Series



LDA Series



LDD Series



Ultra Large diameter gage. Measurement range 120" - 132" Weight 10.5lbs/4.76kg

Carbon fiber diameter gages are lighter weight, more thermally stable and structurally stronger.



LDB Series



LDR Series



LDRA Series



LDAR - Midget Reed Series

Dorsey Metrology has built a reputation as a leader in the field of large component dimensional measurement. Dorsey's expertise brings together the largest selection of precise linear measurement movements, frame configurations, sizes, materials, contact point shapes, rest designs and other accessories: all with the knowledge of how to apply them to any large part inspection requirement. With the Dorsey modular design system, it is possible to solve the inspection of almost any part configuration such as, inside / outside diameters, I.D. / O.D. grooves, bearing raceways, lengths, large gear pitch diameters, conical and angular shapes. Applications for these instruments include inspection of components used in aircraft engines and housings, generators, turbines, windmill parts, large bearings, gears, large shaft lengths and ship building apparatus.

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# DORSEY LARGE DIAMETER GAGES



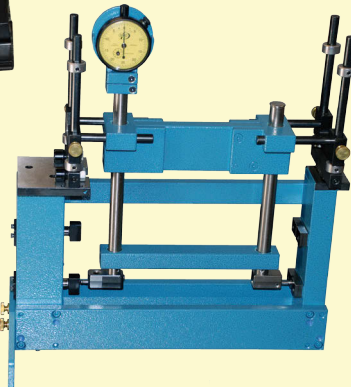
LDF-PD pitch diameter gage



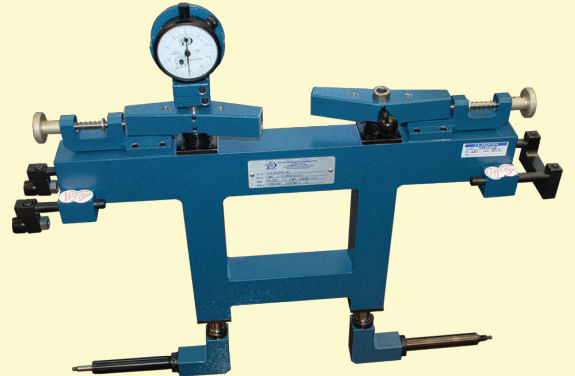
LDF with hump frame



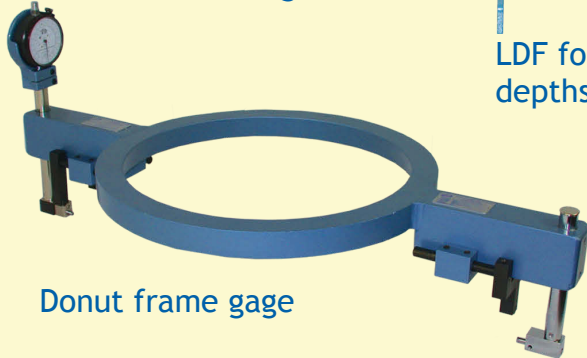
LD-EBB Series extended ball bushing retraction



LDF for double depths



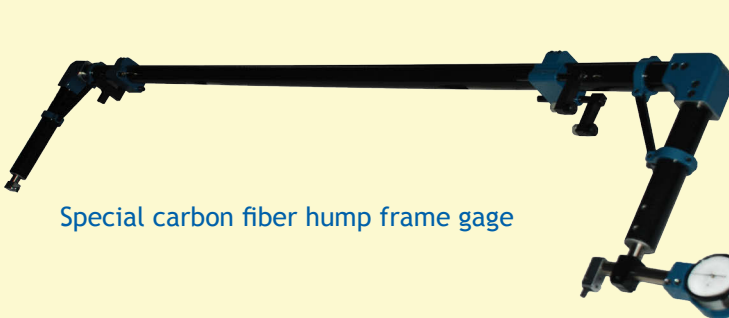
LD - Swing gage, where the heads rotate in for long retraction



Donut frame gage



C-frame gage & master shown



Special carbon fiber hump frame gage



Special carbon fiber frame gage with master

Checks 56.920"/1445.77mm diameter at 8.625"/219mm depth, weight 7.5 lbs/3.4kg

Large Diameter Gages require the expertise and experience that Dorsey Metrology provides in our custom approach in solving your specific measurement needs. Our ability to develop custom concepts and configurations, available in a range of frame material such as Aluminum, Steel and Carbon Fiber makes us a leader in this product category.

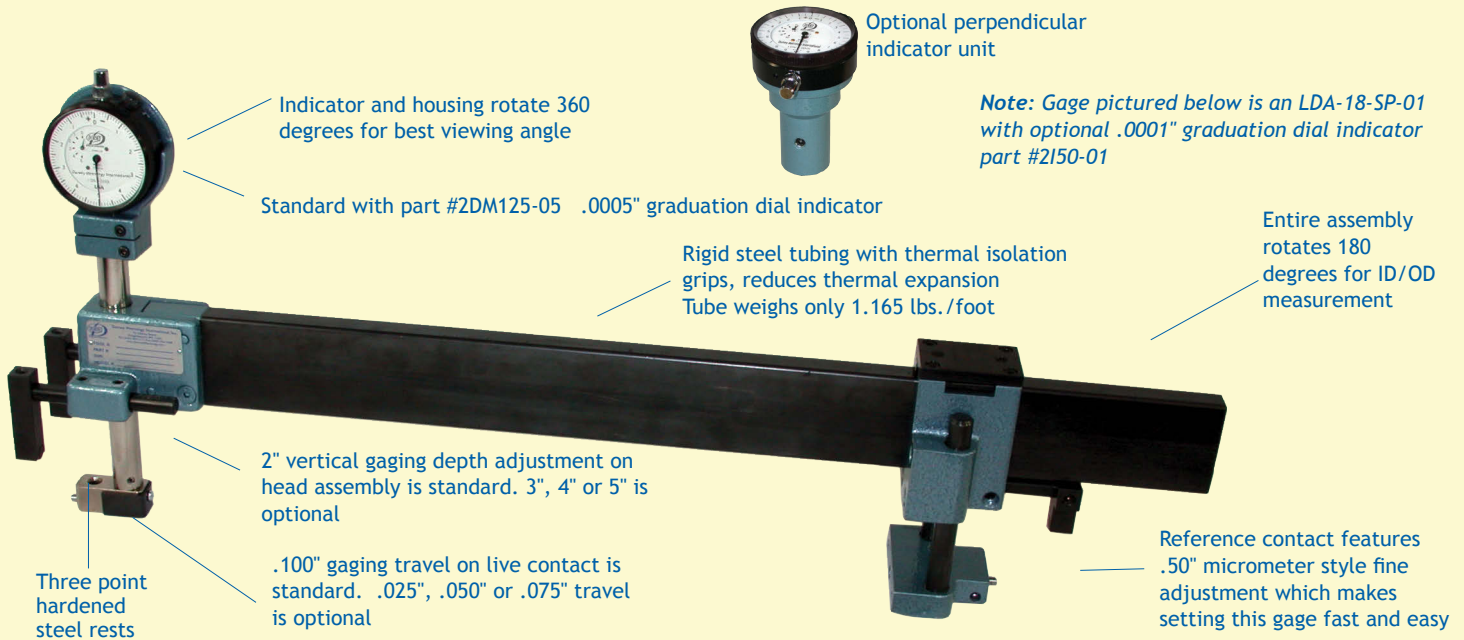
Illustrated parts breakdown can be downloaded at [www.dorseymetrology.com/parts-breakdown](http://www.dorseymetrology.com/parts-breakdown)

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# LDA SERIES- ID/OD ADJUSTABLE FRAME

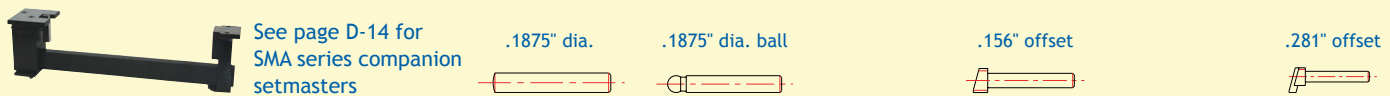
Our most popular adjustable series of ID/OD gage uses rigid steel tubing, cast end blocks and a precision right angle transfer mechanism similar to our bore gages which gives accurate and sensitive readings.



- To order large diameter gages, use the following sequence to specify the desired configuration (there is no need to specify configuration for standard items).

**Model Number - Frame Size - Contact Type - Gaging Depth - Other Options**

- Standard gaging depth range is 0-2". Optional gaging depth of 3", 4" or 5" is available. Specify GD3, GD4 or GD5 to the part # (and use SMVA setmaster).
- Standard LDA frame clearance is 1.25". Contact us for a quotation if additional clearance is required.
- To order roller rests, add "-RR" to the part #. Extended shovel rests add "-ESR", straddle reference rest add "-SRR".
- Standard gaging contact travel is .100. Optional travel of .025, .050 or .075. Specify GC025, GC050 or GC075 to the part #.
- LDA gages are available with a choice of any of Dorsey's "High Amplification", "Traditional", digital indicator or less indicator.



PART #	INCH	METRIC (mm)	STEEL PIN	CARBIDE BALL	STEEL SHOVEL	CARBIDE SHOVEL	EXTENDED CARBIDE SHOVEL
	RANGE	RANGE	SP	CB	SS	CS	ES
LDA-12	6 to 12	150 to 300	LDA-12-SP	LDA-12-CB	LDA-12-SS	LDA-12-CS	LDA-12-ES
LDA-18	12 to 18	301 to 460	LDA-18-SP	LDA-18-CB	LDA-18-SS	LDA-18-CS	LDA-18-ES
LDA-24	18 to 24	461 to 610	LDA-24-SP	LDA-24-CB	LDA-24-SS	LDA-24-CS	LDA-24-ES
LDA-30	24 to 30	611 to 760	LDA-30-SP	LDA-30-CB	LDA-30-SS	LDA-30-CS	LDA-30-ES
LDA-36	30 to 36	761 to 915	LDA-36-SP	LDA-36-CB	LDA-36-SS	LDA-36-CS	LDA-36-ES
LDA-42	36 to 42	916 to 1070	LDA-42-SP	LDA-42-CB	LDA-42-SS	LDA-42-CS	LDA-42-ES
LDA-48	42 to 48	1071 to 1220	LDA-48-SP	LDA-48-CB	LDA-48-SS	LDA-48-CS	LDA-48-ES
LDA-54	48 to 54	1221 to 1370	LDA-54-SP	LDA-54-CB	LDA-54-SS	LDA-54-CS	LDA-54-ES
LDA-60	54 to 60	1371 to 1525	LDA-60-SP	LDA-60-CB	LDA-60-SS	LDA-60-CS	LDA-60-ES

For gage less indicator, add "-NI" to the end of the part #

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# LDF SERIES - ID/OD FIXED FRAME

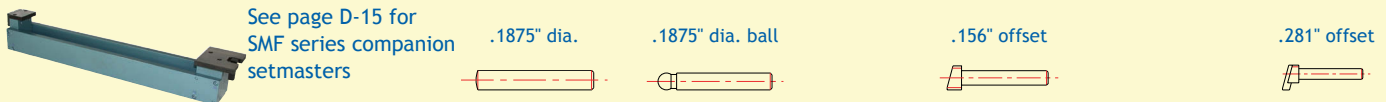
LDF series production gages utilize fixed frames which are more rigid, lighter and more compact than LDA series adjustable gages. LDF gages are normally used for tight tolerances and built to order based on application requirements.



- To order large diameter gages, use the following sequence to specify the desired configuration (there is no need to specify configuration for standard items).

**Model Number - Frame Size - Contact Type - Gaging Depth - Other Options**

- Standard gaging depth range is 0-1". Optional gaging depth of 2" - 5" is available. Specify GD2, GD3, GD4 or GD5 to the part # (and use SMVA setmaster).
- Rest options: to order roller rests, add "-RR" to the part #, extended shovel rests "-ESR", spring loaded rests "-SLR", double depth rests "-DDR", stradle rests "-SRR", sideways rests "-SWR".
- Standard gaging contact travel is .100". Optional travel of .025, .050 or .075. Specify GC025, GC050 or GC075.
- Choice of standard contacts below or honeycomb contacts "HCC", one way radius contacts "OWR".
- Standard LDF frame clearance is .75". Optional clearance of 1.25, 1.75 Specify FC125, FC175 to the part #.
- LDF gages are available with a choice of any of Dorsey's "High Amplification", "Traditional", digital indicators or less indicator.



PART #	INCH	METRIC (mm)	STEEL PIN	CARBIDE BALL	STEEL SHOVEL	CARBIDE SHOVEL	EXTENDED CARBIDE SHOVEL
	RANGE	RANGE	SP	CB	SS	CS	ES
LDF-12	6 to 12	150 to 300	LDF-12-SP	LDF-12-CB	LDF-12-SS	LDF-12-CS	LDF-12-ES
LDF-18	12 to 18	301 to 460	LDF-18-SP	LDF-18-CB	LDF-18-SS	LDF-18-CS	LDF-18-ES
LDF-24	18 to 24	461 to 610	LDF-24-SP	LDF-24-CB	LDF-24-SS	LDF-24-CS	LDF-24-ES
LDF-30	24 to 30	611 to 760	LDF-30-SP	LDF-30-CB	LDF-30-SS	LDF-30-CS	LDF-30-ES
LDF-36	30 to 36	761 to 915	LDF-36-SP	LDF-36-CB	LDF-36-SS	LDF-36-CS	LDF-36-ES
LDF-42	36 to 42	916 to 1070	LDF-42-SP	LDF-42-CB	LDF-42-SS	LDF-42-CS	LDF-42-ES
LDF-48	42 to 48	1071 to 1220	LDF-48-SP	LDF-48-CB	LDF-48-SS	LDF-48-CS	LDF-48-ES
LDF-54	48 to 54	1221 to 1370	LDF-54-SP	LDF-54-CB	LDF-54-SS	LDF-54-CS	LDF-54-ES
LDF-60	54 to 60	1371 to 1525	LDF-60-SP	LDF-60-CB	LDF-60-SS	LDF-60-CS	LDF-60-ES

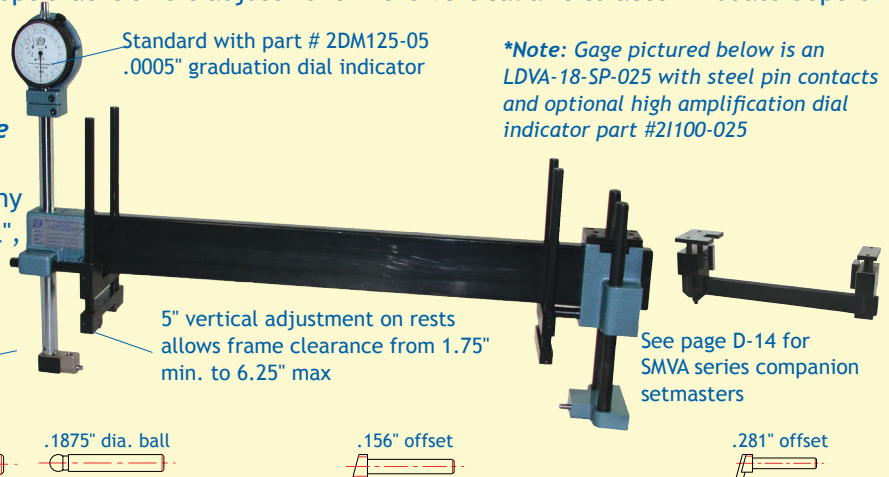
For gage less indicator, add "-NI" to the end of the part #

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# LDVA - ID/OD ADJUSTABLE DIAMETER AND DEPTH

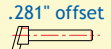
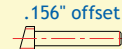
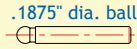
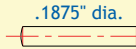
The LDVA is similar to the LDA series gage, except that it offers adjustment in the vertical axis to accommodate depths up to 5".

- To order large diameter gages, use the following sequence:  
Model Number - **Frame Size** - **Contact Type** - **Other Options**.
- LDVA gages are available with a choice of any of Dorsey's "High Amplification", "Traditional", digital indicators or less indicator.



Optional perpendicular indicator unit

5" vertical adjustment on gage heads



PART #	INCH	METRIC (mm)	STEEL PIN	CARBIDE BALL	STEEL SHOVEL	CARBIDE SHOVEL	EXTENDED CARBIDE SHOVEL
	RANGE	RANGE	SP	CB	SS	CS	ES
LDVA-12	6 to 12	150 to 300	LDVA-12-SP	LDVA-12-CB	LDVA-12-SS	LDVA-12-CS	LDVA-12-ES
LDVA-18	12 to 18	301 to 460	LDVA-18-SP	LDVA-18-CB	LDVA-18-SS	LDVA-18-CS	LDVA-18-ES
LDVA-24	18 to 24	461 to 610	LDVA-24-SP	LDVA-24-CB	LDVA-24-SS	LDVA-24-CS	LDVA-24-ES
LDVA-30	24 to 30	611 to 760	LDVA-30-SP	LDVA-30-CB	LDVA-30-SS	LDVA-30-CS	LDVA-30-ES
LDVA-36	30 to 36	761 to 915	LDVA-36-SP	LDVA-36-CB	LDVA-36-SS	LDVA-36-CS	LDVA-36-ES
LDVA-42	36 to 42	916 to 1070	LDVA-42-SP	LDVA-42-CB	LDVA-42-SS	LDVA-42-CS	LDVA-42-ES
LDVA-48	42 to 48	1071 to 1220	LDVA-48-SP	LDVA-48-CB	LDVA-48-SS	LDVA-48-CS	LDVA-48-ES
LDVA-54	48 to 54	1221 to 1370	LDVA-54-SP	LDVA-54-CB	LDVA-54-SS	LDVA-54-CS	LDVA-54-ES
LDVA-60	54 to 60	1371 to 1525	LDVA-60-SP	LDVA-60-CB	LDVA-60-SS	LDVA-60-CS	LDVA-60-ES

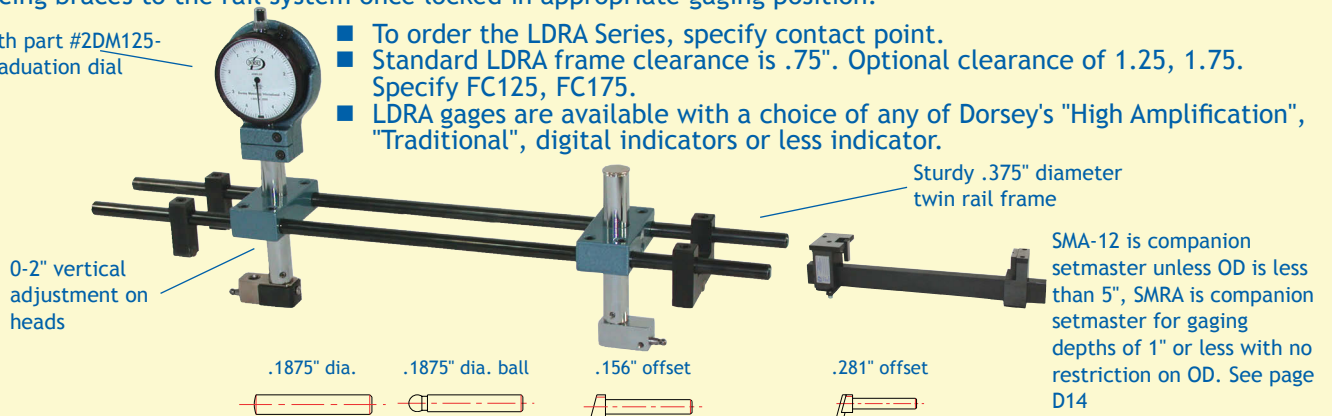
For gage less indicator, add "-NI" to the end of the part #

# LDRA SERIES - ID/OD ADJUSTABLE RAIL FRAME

The LDRA gage uses twin parallel rails for a versatile and economical adjustable frame. End blocks and rests blocks act as reinforcing braces to the rail system once locked in appropriate gaging position.

Standard with part #2DM125-05 .0005" graduation dial indicator

- To order the LDRA Series, specify contact point.
- Standard LDRA frame clearance is .75". Optional clearance of 1.25, 1.75. Specify FC125, FC175.
- LDRA gages are available with a choice of any of Dorsey's "High Amplification", "Traditional", digital indicators or less indicator.



PART #	INCH	METRIC (mm)	STEEL PIN	CARBIDE BALL	STEEL SHOVEL	CARBIDE SHOVEL	EXTENDED CARBIDE SHOVEL
	RANGE	RANGE	SP	CB	SS	CS	ES
LDRA-12	4 to 12	100 to 300	LDRA-SP	LDRA-CB	LDRA-SS	LDRA-CS	LDRA-ES

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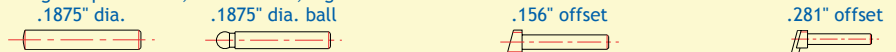


# LDDA - DIRECT READING ID/OD ADJUSTABLE FRAME

These direct reading gages feature lightweight rigid steel tubing, cast end blocks to accommodate depths up to 5". The indicator contacts the part directly on this series of gage, therefore, retraction and gaging travel depend on indicator selected.



- To order this large diameter gages, use the following sequence:  
**Model Number - Frame Size - Contact Type - Gaging Depth - Other Options**
- Standard gaging depth range is 0-2". Optional gaging depth of 3", 4" or 5" is available. Specify GD3, GD4 or GD5 to the part # (and use SMVA setmaster).
- Standard LDDA frame clearance is 1.25". Contact us for a quotation if additional clearance is required.
- Rest options: to order roller rests, add "-RR" to the part #, extended shovel rests "-ESR", spring loaded rests "-SLR", double depth rests "-DDR", stradle rests "-SRR".
- LDDA gages are available with a choice of any of Dorsey's "High Amplification", "Traditional", digital indicators or less indicator.



PART #	INCH	METRIC (mm)	STEEL PIN	CARBIDE BALL	STEEL SHOVEL	CARBIDE SHOVEL	EXTENDED CARBIDE SHOVEL
	RANGE	RANGE	SP	CB	SS	CS	ES
LDDA-12	6 to 12	150 to 300	LDDA-12-SP	LDDA-12-CB	LDDA-12-SS	LDDA-12-CS	LDDA-12-ES
LDDA-18	12 to 18	301 to 460	LDDA-18-SP	LDDA-18-CB	LDDA-18-SS	LDDA-18-CS	LDDA-18-ES
LDDA-24	18 to 24	461 to 610	LDDA-24-SP	LDDA-24-CB	LDDA-24-SS	LDDA-24-CS	LDDA-24-ES
LDDA-30	24 to 30	611 to 760	LDDA-30-SP	LDDA-30-CB	LDDA-30-SS	LDDA-30-CS	LDDA-30-ES
LDDA-36	30 to 36	761 to 915	LDDA-36-SP	LDDA-36-CB	LDDA-36-SS	LDDA-36-CS	LDDA-36-ES
LDDA-42	36 to 42	916 to 1070	LDDA-42-SP	LDDA-42-CB	LDDA-42-SS	LDDA-42-CS	LDDA-42-ES
LDDA-48	42 to 48	1071 to 1220	LDDA-48-SP	LDDA-48-CB	LDDA-48-SS	LDDA-48-CS	LDDA-48-ES
LDDA-54	48 to 54	1221 to 1370	LDDA-54-SP	LDDA-54-CB	LDDA-54-SS	LDDA-54-CS	LDDA-54-ES
LDDA-60	54 to 60	1371 to 1525	LDDA-60-SP	LDDA-60-CB	LDDA-60-SS	LDDA-60-CS	LDDA-60-ES

For gage less indicator, add "-NI" to the end of the part #

# LDDF SERIES- DIRECT READING FIXED FRAME

LDDF Series gages includes all the same features as the LDDA shown above except both cast end blocks are rigidly bolted and pinned in place. This makes the LDDF stronger and lighter.




See page D-15 for SMF series companion setmasters

*\*Note: Gage pictured below is an LDDF-18-CB-01 with carbide ball contacts and optional high amplification dial indicator part #219-01*

See page D-11 for optional frame configurations used to clear obstructions

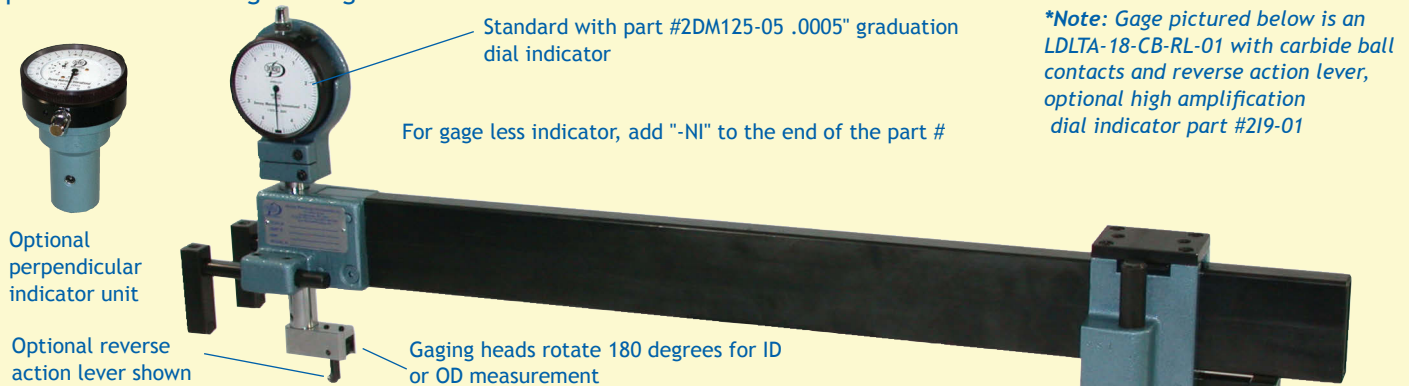
PART #	INCH	METRIC (mm)	STEEL PIN	CARBIDE BALL	STEEL SHOVEL	CARBIDE SHOVEL	EXTENDED CARBIDE SHOVEL
	RANGE	RANGE	SP	CB	SS	CS	ES
LDDF-12	6 to 12	150 to 300	LDDF-12-SP	LDDF-12-CB	LDDF-12-SS	LDDF-12-CS	LDDF-12-ES
LDDF-18	12 to 18	301 to 460	LDDF-18-SP	LDDF-18-CB	LDDF-18-SS	LDDF-18-CS	LDDF-18-ES
LDDF-24	18 to 24	461 to 610	LDDF-24-SP	LDDF-24-CB	LDDF-24-SS	LDDF-24-CS	LDDF-24-ES
LDDF-30	24 to 30	611 to 760	LDDF-30-SP	LDDF-30-CB	LDDF-30-SS	LDDF-30-CS	LDDF-30-ES
LDDF-36	30 to 36	761 to 915	LDDF-36-SP	LDDF-36-CB	LDDF-36-SS	LDDF-36-CS	LDDF-36-ES
LDDF-42	36 to 42	916 to 1070	LDDF-42-SP	LDDF-42-CB	LDDF-42-SS	LDDF-42-CS	LDDF-42-ES
LDDF-48	42 to 48	1071 to 1220	LDDF-48-SP	LDDF-48-CB	LDDF-48-SS	LDDF-48-CS	LDDF-48-ES
LDDF-54	48 to 54	1221 to 1370	LDDF-54-SP	LDDF-54-CB	LDDF-54-SS	LDDF-54-CS	LDDF-54-ES
LDDF-60	54 to 60	1371 to 1525	LDDF-60-SP	LDDF-60-CB	LDDF-60-SS	LDDF-60-CS	LDDF-60-ES

- Standard LDDF frame clearance is .75". Optional clearance of 1.25, 1.75 Specify FC125, FC175.
- LDDF gages are available with a choice of any of Dorsey's "High Amplification", "Traditional", digital indicators or less indicator.

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# LDLTA - ID/OD LEVER TRANSFER ADJUSTABLE FRAME

The LDLT series gage uses 1:1 ratio lever principle. This method of motion transfer is used in conditions of limited accessibility such as face grooves. This low friction transfer is also ideal for checking shallow angles at specified depths without incurring binding in the transfer.



*\*Note: Gage pictured below is an LDLTA-18-CB-RL-01 with carbide ball contacts and reverse action lever, optional high amplification dial indicator part #219-01*

PART #	TYPE	INCH	METRIC	CARBIDE BALL	CARBIDE HALF BALL
		RANGE	(mm) RANGE	CB	HB
LDLTA-12	Adjustable	6 to 12	150 to 300	LDLTA-12-CB	LDLTA-12-HB
LDLTF-12	Fixed	6 to 12	150 to 300	LDLTA-12-CB	LDLTA-12-HB
LDLTA-18	Adjustable	12 to 18	461 to 610	LDLTA-18-CB	LDLTA-18-HB
LDLTF-18	Fixed	12 to 18	461 to 610	LDLTA-18-CB	LDLTA-18-HB
LDLTA-24	Adjustable	18 to 24	461 to 610	LDLTA-24-CB	LDLTA-24-HB
LDLTF-24	Fixed	18 to 24	461 to 610	LDLTA-24-CB	LDLTA-24-HB
LDLTA-30	Adjustable	24 to 30	611 to 760	LDLTA-30-CB	LDLTA-30-HB
LDLTF-30	Fixed	24 to 30	611 to 760	LDLTA-30-CB	LDLTA-30-HB
LDLTA-36	Adjustable	30 to 36	761 to 915	LDLTA-36-CB	LDLTA-36-HB
LDLTF-36	Fixed	30 to 36	761 to 915	LDLTA-36-CB	LDLTA-36-HB
LDLTA-42	Adjustable	36 to 42	916 to 1070	LDLTA-42-CB	LDLTA-42-HB
LDLTF-42	Fixed	36 to 42	916 to 1070	LDLTF-42-CB	LDLTF-42-HB
LDLTA-48	Adjustable	42 to 48	1071 to 1220	LDLTA-48-CB	LDLTA-48-HB
LDLTF-48	Adjustable	42 to 48	1071 to 1220	LDLTA-48-CB	LDLTA-48-HB
LDLTA-54	Fixed	48 to 54	1221 to 1370	LDLTA-54-CB	LDLTA-54-HB
LDLTF-54	Adjustable	48 to 54	1221 to 1370	LDLTA-54-CB	LDLTA-54-HB
LDLTA-60	Fixed	54 to 60	1371 to 1525	LDLTA-60-CB	LDLTA-60-HB
LDLTF-60	Adjustable	54 to 60	1371 to 1525	LDLTA-60-CB	LDLTA-60-HB

See page D-14 for SMA series companion setmasters

- To order large diameter gages, specify **Model Number - Frame Size - Contact Type - Gaging Depth - Other Options**.
- Standard gaging depth range is 0-2". Optional gaging depth of 3", 4" or 5" is available. Specify GD3, GD4 or GD5 to the part # (and use SMVA setmaster).
- Standard frame clearance is 1.25". Contact us for a quotation if additional clearance is required.
- Rest options: to order roller rests, add "-RR" to the part #, extended shovel rests "-ESR", spring loaded rests "-SLR", double depth rests "-DDR", stradle rests "-SRR".
- Reverse action lever, add "-RL" to part #.
- LDLTA and LDLTF gages are available with a choice of any of Dorsey's "High Amplification", "Traditional", digital indicators or less indicator.

## LDLTF SERIES - LEVER TRANSFER ADJUSTABLE

LDLTF Series gages includes all the same features as the LDLTA shown above except both cast end blocks are rigidly bolted and pinned in place. This makes the LDLTF Series more rigid for tighter tolerances and lighter weight than LDLTA.

*\*Note: Gage pictured below is an LDLTF-12-CB-HRL-01 with carbide ball contacts, optional heavy duty reverse reference head, and high amplification dial indicator part #2150-01*



See page D-11 for optional frame configurations used to clear obstructions

See page D-15 for SMF series companion setmasters

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# LBBS SERIES- BALL BUSHING SLIDE MECHANISM

LBBS series gages use a precision ball bushing slide mechanism for applications where retraction is required beyond the range of the indicator. The movement is light, sensitive and accurate while free of any side play. Ideal for applications to bypass obstructions, inspect grooves, contours, recesses or retraction over the major diameter of a reverse taper. Models are available in fixed or adjustable frame designs.

*\*Note: Gage shown is part #LBBS-F-24-SP-05 on a SMF-24-GD1 setmaster*

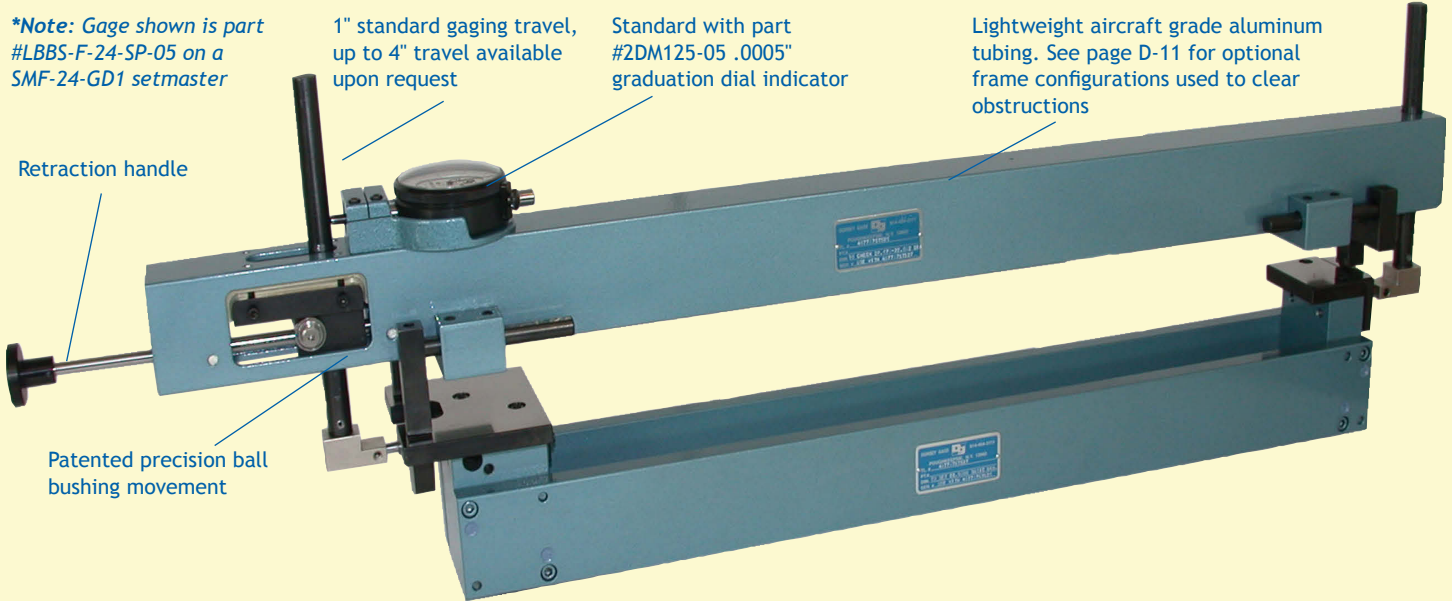
1" standard gaging travel, up to 4" travel available upon request

Standard with part #2DM125-05 .0005" graduation dial indicator

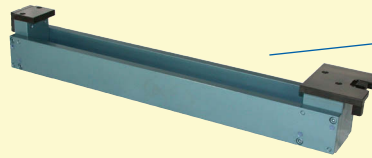
Lightweight aircraft grade aluminum tubing. See page D-11 for optional frame configurations used to clear obstructions

Retraction handle

Patented precision ball bushing movement



PART #	INCH	METRIC (mm)
	RANGE	RANGE
LBBS-A-18/LBBS-F-18	Up to 18	301 to 460
LBBS-A-24/LBBS-F-24	18 to 24	461 to 610
LBBS-A-30/LBBS-F-30	24 to 30	611 to 760
LBBS-A-36/LBBS-F-36	30 to 36	761 to 915
LBBS-A-42/LBBS-F-42	36 to 42	916 to 1070
LBBS-A-48/LBBS-F-48	42 to 48	1071 to 1220
LBBS-A-54/LBBS-F-54	48 to 54	1221 to 1370
LBBS-A-60/LBBS-F-60	54 to 60	1371 to 1525



See page D15 for fixed SMF series companion setmasters or page D14 for adjustable SMA series companion setmasters

LBBS gages are available with a choice of any of Dorsey's "High Amplification", "Traditional", digital indicators or less indicator. For gage less indicator, add "-NI" to the end of the part #.

## How to Order:

- #1- Select Frame Type: Fixed (LBBS-F) or Adjustable (LBBS-A)
- #2- Select Frame Size Range: (i.e.: Within 18-24 range = -24, or 30-36 range = -36)
- #3- Select the Contact Required: -SP=Steel Pin, -CB=Carbide Ball, -SS=Steel Shovel and -CS=Carbide Shovel contacts, -HCC=Honeycomb contacts or -OWR=One way radius contacts
- #4- Select any Rest Configuration Option: -RR for Roller Rests, -ESR for Extended Shovel Rests, -SLR for Spring Loaded Rests, -DDR for Double Depth Rests, -SRR for Straddle Reference Rest
- #5- Select the Readout Required: -01 for .0001" graduation dial indicator, -05 for .0005" graduation dial indicator, -10 for .001" graduation dial indicator, -.002mm for 0.002mm graduation dial indicator, -.01mm for 0.01mm graduation dial indicator, -DI for Digital Indicator or -NI for No Dial Indicator or Readout
- #6- Specify any Frame Clearance Option: (If other than standard dimensions) Frame Clearance for LBBS-A, Adjustable Series = 1.25", Frame Clearance for LBBS-F, Fixed Series = .75" Specify any optional Frame Clearance as follows: -FC150 for 1.5" Clearance, -FC200 for 2" Frame Clearance, etc.
- #7- Specify any gaging depth option: (If other than standard dimensions) the standard gage depth for LBBS-A, Adjustable Series = 0-2", the standard gage depth for LBBS-F, Fixed Series = 0-1" Specify any optional gage depth as follows: GD3 = 3" gage depth, GH.5 = 1/2" gage height

\*An Example is: Model LBBS-F-18-CB-RR-01-FC100-GD2 specifies: A fixed model LBBS movement gage, to check up to 18" in diameter, roller rests, carbide ball contacts, .0001" graduation dial indicator, 1" frame clearance and 1-2" gaging depth.

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# LDAR-6 - MIDGET REED

This economical, heavy duty production gage features a rigid steel plate frame and our bullet proof reed spring gaging transfer. The LDAR mechanism is impervious to coolants, dirt and contaminants and offers great repeatability.

+/- .050" gaging travel on reed mechanism

Micrometer style fine adjustment makes setting this gage fast and easy

Standard with part #2DM125-05 .0005" graduation dial indicator

Three point hardened steel rests allow .375" frame clearance and can be adjusted to accommodate a wide variety of parts

0 - .5" gaging depth adjustment

*\*Note: Gage pictured is LDAR-8-NI with an optional .0001" graduation dial indicator part #2150-01*

PART #	INCH	METRIC (mm)	STEEL DISC	CARBIDE DISC
	RANGE	RANGE	SD	CD
LDAR-6	2" - 6"	50 - 150mm	LDAR-6-SD	LDAR-6-CD
LDAR-8	2" - 8"	50 - 200mm	LDAR-8-SD	LDAR-8-CD
7062	.437 Diameter Steel Conical Disc Contact			
7062C	.500 Diameter Carbide Conical Disc Contact			



See page D-14 for SMRA series companion setmasters or ring/disc masters made to order  
Note: minimum OD setting on SMRA is 4", specify .50" wide restrictor.

- Available with a choice of any of Dorsey's "High Amplification" or "Traditional" dial indicators.

For gage less indicator, add "-NI" to the end of the part #

# LDAR SERIES

LDAR gages feature a lightweight tubular steel frame with a reed pantograph movement. The pantograph movement utilizes parallel springs to transfer motion and is well suited to production applications as dust, dirt or coolant cannot harm or jam the mechanism.

3" of depth adjustment

Three point rest system offers .625" frame clearance

Movement is enclosed in lightweight steel tubular frame eliminating possibility of damage

.625" dia. disc

Standard with part #2DM125-05 .0005" graduation dial indicator

.1875" dia. ball

.156" offset

See page D-14 for SMA series companion setmasters  
Note: specify .18" restrictor for CB or CS contacts, specify .62" restrictor for SD and CD contacts

PART #	INCH	METRIC (mm)	STEEL DISC	CARBIDE DISC	CARBIDE BALL	CARBIDE SHOVEL
	RANGE	RANGE	SD	CD	CB	CS
LDAR-12	6 to 12	150 to 300	LDAR-12-SD	LDAR-12-CD	LDAR-12-SB	LDAR-12-CS
LDAR-18	12 to 18	301 to 460	LDAR-18-SD	LDAR-18-CD	LDAR-18-SB	LDAR-18-CS
LDAR-24	18 to 24	461 to 610	LDAR-24-SD	LDAR-24-CD	LDAR-24-SB	LDAR-24-CS
LDAR-30	24 to 30	611 to 760	LDAR-30-S	LDAR-30-CD	LDAR-30-SB	LDAR-30-CS
LDAR-36	30 to 36	761 to 915	LDAR-36-SD	LDAR-36-CD	LDAR-36-SB	LDAR-36-CS
LDAR-42	36 to 42	916 to 1070	LDAR-42-SD	LDAR-42-CD	LDAR-42-SB	LDAR-42-CS
LDAR-48	42 to 48	1071 to 1220	LDAR-48-SD	LDAR-48-CD	LDAR-48-SB	LDAR-48-CS
LDAR-54	48 to 54	1221 to 1370	LDAR-54-SD	LDAR-54-CD	LDAR-54-SB	LDAR-54-CS
LDAR-60	54 to 60	1371 to 1525	LDAR-60-SD	LDAR-60-CD	LDAR-60-SB	LDAR-60-CS

- To order this large diameter gages, specify: **Model Number - Frame Size - Contact Type.**
- LDAR gages are available with a choice of any of Dorsey's "High Amplification", "Traditional", digital indicators or less indicator.

Note: Contact #7534B and #7534S require two perpendicular contact gaging shafts part #7011

For gage less indicator, add "-NI" to the end of the part #

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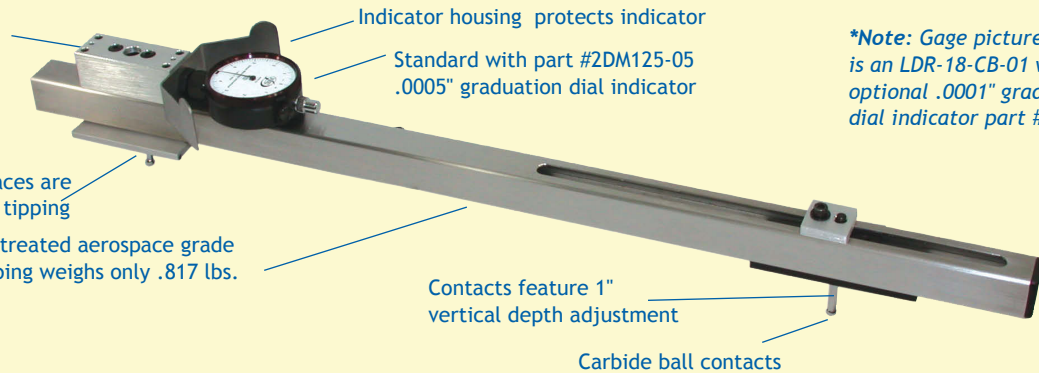
# LDR SERIES- ULTRA LIGHT WEIGHT FRAME WITH REED MOVEMENT

The LDR Series gage uses a lightweight stainless steel tubular frame and a reed pantograph movement. This pantograph movement utilizes parallel reed springs to transfer motion and is well suited to production applications as dust, dirt or coolant cannot harm or jam the mechanism.

Frictionless reed pantograph motion transfer with +/- .050" gaging travel

Carbide rest surfaces are offset 2" to resist tipping

Lightweight heat treated aerospace grade stainless steel tubing weighs only .817 lbs. per foot



*\*Note: Gage pictured below is an LDR-18-CB-01 with optional .0001" graduation dial indicator part #2I9-01*

PART #	ID/OD INCH	ID/OD METRIC (mm)
	RANGE	RANGE
LDR-12	4.5 to 12	115 to 305
LDR-18	12 to 18	305 to 460
LDR-24	18 to 24	460 to 610
LDR-36	24 to 36	640 to 915
LDR-48	36 to 48	915 to 1220
LDR-60	48 to 60	1220 to 1525
5557CB	.25" Dia. Carbide Ball Contacts (Each)	
5557HB	.25" Dia. Carbide Half Ball Contacts (Each)	

■ Contact Choices: Carbide Ball (-CB) or Half Carbide Ball (-HCB).

■ To order this large diameter gage, specify: **Model Number - Frame Size - Contact Type**  
example: LDR-12-CB-01.

■ LDR gages are available with a choice of any of Dorsey's "High Amplification", "Traditional", digital indicators or less indicator.



See page D-14 for SMA series companion setmasters specify .25" wide restrictor

# LDB SERIES- ULTRA LIGHTWEIGHT FRAME WITH BALL BUSHING

LDB series gages use a lightweight stainless steel tubular frame and a precision ball bushing slide mechanism. This gage can be switched from ID to OD and is designed to be used where a full inch of gaging travel, or retraction, is desired.

Standard with part #2DM1000-05 .0005" graduation dial indicator

Indicator housing protects indicator

Carbide rest surfaces are offset 2" to resist tipping

Full inch of gaging travel

Gaging depth adjustable to 5"

Precision cam-lock fine adjustment mechanism makes setting this gage fast and easy

Gaging shafts can be inverted to accommodate disc contacts or perpendicular style contacts



*\*Note: Gage pictured is LDB-14-CB-DI with an optional 1" travel digital indicator part #FV54520777*

PART #	ID/OD INCH	ID/OD METRIC (mm)
	RANGE	RANGE
LDB-14	6.5 to 14	165 to 355
LDB-24	14 to 24	355 to 610
LDB-36	24 to 36	640 to 915
LDB-48	36 to 48	915 to 1220
LDB-60	48 to 60	1220 to 1525
7533	.625" Dia. Steel Disc Contact (Each)	
7530	.625" Dia. Carbide Disc Contact (Each)	
4082-B1875	.1875" Dia. Carbide Ball Contacts (Each)	

■ Contact Choices: Steel Disc (-SD), Carbide Disc (-CD) or Carbide Ball (-CB).

■ LDB gages are available with a choice of any of Dorsey's "High Amplification", "Traditional", digital indicators or less indicator.



See page D-14 for SMA series companion setmasters  
**Note:** specify .18" restrictor for CB contacts, specify .62" restrictor for SD and CD contacts

For gage less indicator, add -NI to the end of the part #

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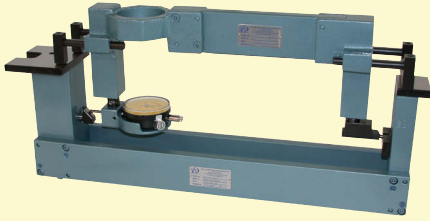


# SPECIAL FRAME CONFIGURATIONS

When using large diameter gages, the part configuration, tooling or fixturing can present obstacles that make part inspection impossible with standard frame gages. Below we have listed some typical frame configurations to help overcome these obstacles. Contact us for further details.

## HUMP FRAME (-HF)

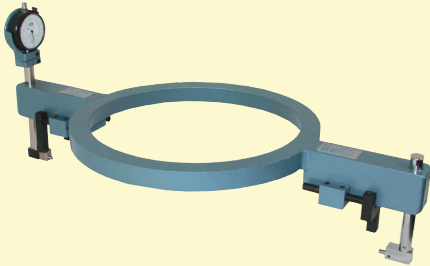
*\*Note: Gage pictured to the left is an LDDF-12-CB-HF-002MM and the setmaster is SMF-12-GD6*



The gage shown here is a LDDF with a Hump frame design. This design can be used on the LDF, LDDF or the LDLTF to increase the rigidity of the vertical gaging shafts by extending the support castings up to 5.5" deeper. It is generally recommended to use this type of frame design if the gaging depth exceeds 6". Add "-HF" to the part # of the basic gage to select this option.

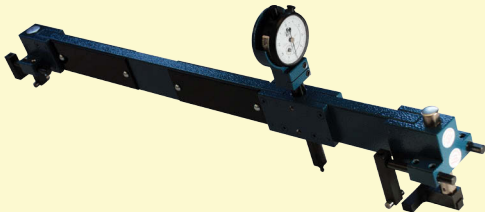
## DONUT FRAME (-DF)

*\*Note: Gage pictured to the left is an LDF-24-DF-CB-01*



The gage shown here is a LDF with donut frame design. This design can be used on LDF, LDDF or LDLTF. The donut design permits the gage to completely encircle a large obstruction such as the part's hub, case, clamp or fixture setup. We offer standard castings with 7", 9" or 11" ID. Add "-DF7", "-DF9" or "-DF11" to the part # of the basic gage to select this option. Special size donut frames are also available. Prices are quoted upon request.

## EXTENDED END BLOCK FRAME (-EEB)



Due to part configuration, it is sometimes necessary for the gage frame to rest internal or external to the check dimension. Holding fixtures used during the machining operations can introduce further restrictions that may require gages to rest on fixture pads located outside or inside the part.

## BRIDGE FRAME (-BF)

*\*Note: Gage pictured to the left is an LDDF-18-BF-SP-01*



The gage shown here is a LDDF with a bridge frame design. This design permits the gage frame to bridge over short center obstructions such as posts, clamps or raised contours. These castings extend and support gaging extension shafts in order to gain measuring rigidity. This raises the frame 2.75". Add "-BF" to the part # of the basic gage for this option.

## "C" FRAME (-CF)

*\*Note: LDC Series gages are designed for a specific application. Contact us for specific details.*



LDC series "C" frame gages are used for applications where the gage cannot be placed directly over the part. The frame is intended to partially encircle the part and is "side loaded" during use. The "C" frame can be made from contoured aluminum, a lightweight honeycomb composite or it can be a weldment depending on the requirements of the application. Cam style (LDF), lever style (LDLT) or direct read type (LDD) transfer mechanisms can be used on this frame. General measurements for standard configurations is as follows: 0-16" diameter, 16"-24" diameter, 24"-36" diameter. Contact the factory for details including pricing.

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# DIAL PIN TYPE DIAL BORE

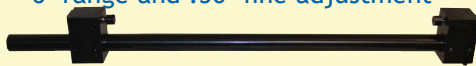
Pin type dial bore gages are an accurate, economical and versatile alternative to the ID micrometer. These gages do not reference or rest on a datum surface and are therefore ideally suited for applications such as ID splines, gears or threads.

How to order DS-B4 Pin gage assembly: select gage dial unit which includes gaging contacts, and then select spacer or adapter as required.

GAGE (INCLUDING DIAL UNIT AND GAGING CONTACTS)		
PART #	GRAD	RANGE
DS-B4-219-01	.0001"	.009"
DS-B4-2DM025-01	.0001"	.025"
DS-B4-2I50-01	.0001"	.050"
DS-B4-2I100-025	.00025"	.100"
DS-B4-2I100-05	.005"	.100"
DS-B4-2I40-05	.005"	.040"
DS-B4-2I4-10	.001"	.040"
DS-B4-S2I/M	.0001"/0.0025mm	.010"/.25mm
DS-B4-2I02-002mm	0.002mm	0.2mm
DS-B4-2I10-002mm	0.002mm	1.0mm
DS-B4-2I25-005mm	0.005mm	2.5mm
DS-B4-2I10-01mm	0.010mm	1.0mm

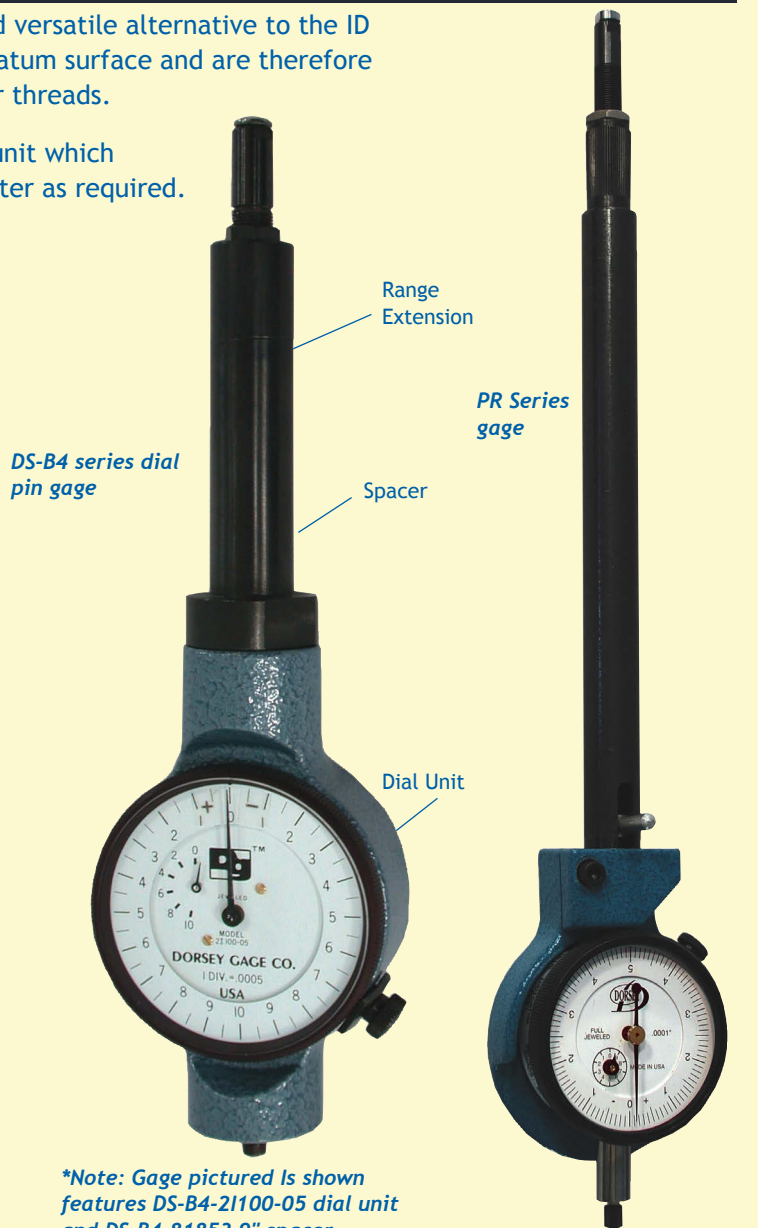
PART #	SPACER LENGTH	RANGE	
		INCHES	METRIC
DS-B4-85140	Adapter	4.5 - 7	114 - 178
DS-B4-81845	3"	7 - 10	178 - 254
DS-B4-81849	6"	10 - 13	254 - 330
DS-B4-81853	9"	13 - 16	330 - 406
DS-B4-81857	12"	16 - 19	406 - 483
DS-B4-81861	15"	19 - 22	483 - 559
DS-B4-81865	18"	22 - 25	559 - 635
DS-B4-81869	21"	25 - 28	635 - 711
DS-B4-81873	24"	28 - 31	711 - 787
DS-B4-81877	27"	31 - 34	787 - 864
DS-B4-81881	30"	34 - 37	864 - 940
DS-B4-81885	33"	37 - 40	940 - 1016
DS-B4-81886	Full Set	4.5 - 40	114 - 1016

**PMA Series adjustable setmaster**  
6" range and .50" fine adjustment



PIN GAGE MASTERS "PM SERIES"		
PART #	RANGE	
	INCHES	METRIC
PM-6	6 - 12"	150 to 300
PM-12	12 - 18"	300 to 450
PM-18	18 - 24"	450 to 600
PM-24	24 - 30"	600 to 750
PM-30	30 - 36"	750 to 900

- DS-B4 series pin gages are available with a choice of any of Dorsey's #2 "High Amplification" dial indicator movements. See catalog page A-7 for dial selections.
- PR series pin gages are available with a choice of any of Dorsey's #2 "High Amplification" or "Traditional" dial indicators and digital indicators.



\*Note: Gage pictured is shown features DS-B4-21100-05 dial unit and DS-B4-81853 9" spacer

\*See page D-13 for further details of PR retractable pin gage.

RETRACTABLE PIN GAGE "PR SERIES"		
PR6	6 - 12"	150 to 300
PR12	12 - 18"	300 to 450
PR18	18 - 24"	450 to 600
PR24	24 - 30"	600 to 750
PR30	30 - 36"	750 to 900

- Gage kits include .0005" graduation dial indicator.
- Ball contacts available to measure pitch diameters.
- Available as a complete set or as an individual gage with a 3" range of adjustment.

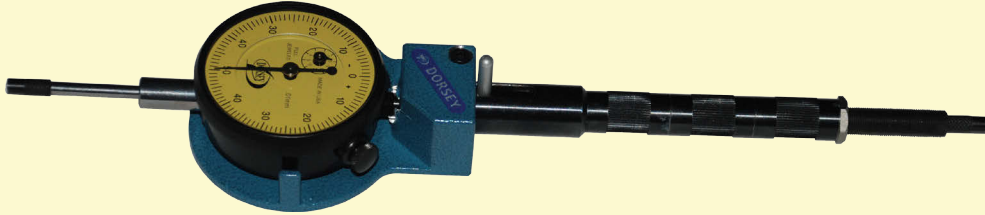
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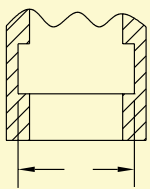
# RETRACTABLE PIN GAGES

## RETRACTABLE PIN GAGES

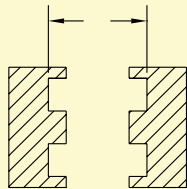
Adjustable inside diameter pin gages are used to check straight bores, grooves, spherical radiuses, and spline and gear pitch diameters. A variety of interchangeable threaded contacts allows the gage to be altered to suit the application. The gage utilizes the principle and portability of an inside micrometer with the accuracy, speed and total retraction of the dial indicator range. The displays can be balanced, continuous dial or digital indicators.



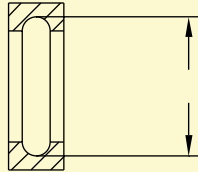
## TYPICAL APPLICATIONS



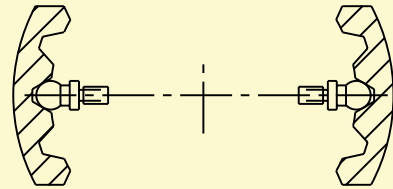
Bore



Groove Diameter



Ball Race Radius Grooves

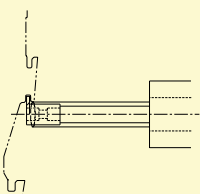
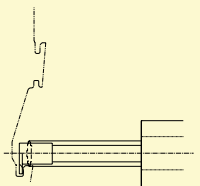
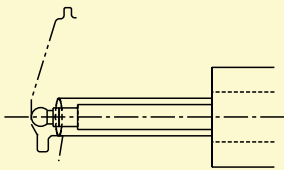


Pitch Diameter of Gears and Splines

## SPECIAL RETRACTABLE PIN AND REST GAGES:

Retractable pin gages special designed to application for entry into hard to reach areas and for checking a variety measurement features. These gages require rests to locate on a datum face. In most cases, both the rest and movement require total retraction beyond the range of the readout to enter into recess areas such as; under flange faces, spool cavities or within deep grooves. These gages are used to check upper and lower "L" grooves, retaining grooves, and basic angular diameter from the datum surface, spherical radiuses and other configurations. Companion part simulating setting masters are also supplied upon request.

## TYPICAL APPLICATIONS



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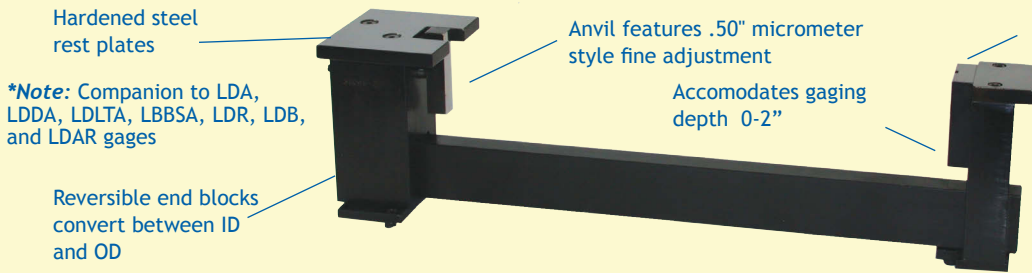


D-13



# SMA SERIES - ADJUSTABLE DIAMETER SETMASTER

SMA Series setmasters feature a precision ground steel rail as the rigid foundation for adjustability. These masters can be continuously reset for various dimensions or they can be set, sealed and pinned to a specific size.



\*Note: Companion to LDA, LDDA, LDLTA, LBBSA, LDR, LDB, and LDAR gages

Reference restrictor nests gage contact for setting alignment, .18" wide restrictor is standard

MODEL #	RANGE
SMA-12	6 to 12
SMA-18	12 to 18
SMA-24	18 to 24
SMA-30	24 to 30
SMA-36	30 to 36
SMA-42	36 to 42
SMA-48	42 to 48
SMA-54	48 to 54
SMA-60	54 to 60

■ To order setmasters, use:

**Model Number - Rail Size - Gaging Depth - Restrictor Width - Other Options**

For example: SMA-24-R25 is a setmaster with 18-24" of adjustment, with .25" wide restrictor.

■ Optional restrictors:

For .253" wide restrictor add R25 to part # (Used with LDR or other gages with .25" contacts).

For .628" wide restrictor add R62 to part # (Used with LDAR, LDB or other gages with .62" contacts).

■ Reversible 2" long angular anvil and restrictor set for cone and inverted cone, specify "-AA" to part #.

■ Roller rest guides for anvil rest plate, specify "-RR".

■ Special anvil restrictor set for gage height, specify "-GH".

■ Set and sealed to a specific size with NIST traceable certification, order part #SETCERT.

■ Set and sealed to ISO 17025 compliant certification, order part #ISO17025. **NOTE:** Set and seal masters should be purchased with Fitted Storage Case.

## SMRA SERIES SETMASTER

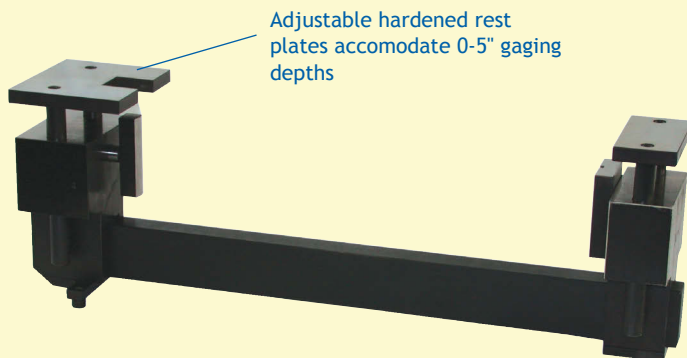


MODEL #	INCH	METRIC (mm)
	RANGE	RANGE
SMRA	4 to 12	100 to 300

This setmaster has the same features and capabilities as the SMA but accommodates 4-12" of overall diameter 0-1" depth adjustment to accommodate LDRA series gages.

# SMVA SERIES- ADJUSTABLE DIAMETER/DEPTH

SMVA setmasters offer the same features as the SMA Series setmasters except that they allow for vertical adjustment to accommodate various gaging depths.



Adjustable hardened rest plates accommodate 0-5" gaging depths

\*Note: Companion to LDVA or other adjustable gages with gaging depths between 0-5". Both SMA and SMVA Series are available with storage case. Add -CASE to part number.

MODEL #	RANGE
SMVA-12	6 to 12
SMVA-18	12 to 18
SMVA-24	18 to 24
SMVA-30	24 to 30
SMVA-36	30 to 36
SMVA-42	36 to 42
SMVA-48	42 to 48
SMVA-54	48 to 54
SMVA-60	54 to 60

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# SMF SERIES FIXED FRAME SETMASTERS

SMF Series setmasters are designed to be used in a production environment where a specific set size is required. These masters use solid steel rails with precision ground end blocks bolted and doweled in place. A hardened steel restrictor is fixed to one side, while the adjustable anvil features .50" of micrometer style fine adjustment. The anvil can be continuously reset within its .5" range for various dimensions or it can be set, sealed and pinned to a specific size.



*\*Note: Setmaster pictured is part #SMF-18-GD1 set for an OD application.*

*\*Note: Companion to LDF, LDA, LDD, LDLT, LDR, LDRA, LDB, LBBS Series Gages*

MODEL #	RANGE
SMF-12	0 to 12
SMF-18	12 to 18
SMF-24	18 to 24
SMF-30	24 to 30
SMF-36	30 to 36
SMF-42	36 to 42
SMF-48	42 to 48
SMF-54	48 to 54
SMF-60	54 to 60

- To order setmasters, use:

**Model Number - Rail Size - Gaging Depth - Restrictor Width - Other Options**

For example: SMF-24-GD2-R25 is a setmaster with 18-24" of adjustment, 1-2" gaging depth, and .25" wide restrictor.

- Optional restrictors:

For .253" wide restrictor add R25 to part # (Used with LDR or other gages with .25" contacts).

For .628" wide restrictor add R62 to part # (Used with LDAR, LDB or other gages with .62" contacts).

- Angular anvil and restrictor set, 1" long for cone or inverted cone, specify "-ARS".
- Intermediate rest surfaces, add "-IRS".
- Special anvil and restrictor for gage height more than .5", specify "-GH".
- Roller rest guides for anvil rest plate, specify "-RR".
- Set and sealed to a specific size with NIST traceable certification, order part #SETCERT.
- Set and sealed to ISO 17025 compliant certification, order part #ISO17025.
- Set, sealed and pinned to size with ISO 17025 compliant certification, order part SETPINNED-ISO17025.

**NOTE:** Set and seal masters should be purchased with Fitted Storage Case.

## SMF-CF SERIES SETMASTER



Outrigger assembly for SMF or SSM series masters, add "-C" to the part # (ex: SMF-12-CF)

## VERTICAL SETMASTER STANDS

Recommended if gage is used in vertical position



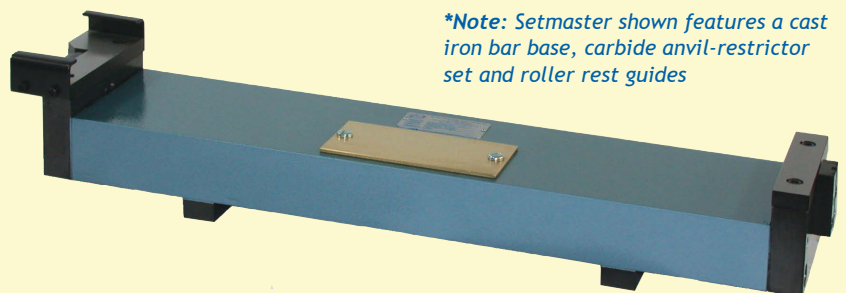
Part# 4350 (used on SMF)



Part# 4395-A (used on SMA)  
Part# 4395 (used on SSM)  
Up to 36"

# SSM SERIES SOLID FRAME SETMASTER

Solid setmasters are ground to a specific fixed size and are not adjustable. This setmaster is recommended for close tolerances and dedicated gages. The base can be made from tubular or solid steel, cast iron or aluminum to better match the coefficient of thermal expansion of the part being machined. Anvils made from either hardened steel or carbide are available in a flat and parallel configuration or angular configuration.



*\*Note: Setmaster shown features a cast iron bar base, carbide anvil-restrictor set and roller rest guides*

Setting options:

- Set and sealed to a specific size with NIST traceable certification, order part #SETCERT.
- Set and sealed to ISO 17025 compliant certification, order part #ISO17025.

Proudly made in the USA



D-15



Dorsey Metrology International  
Website: [www.dorseymetrology.com](http://www.dorseymetrology.com)

Tel: (845) 454-3111 Fax: (845) 454-3888  
53 Oakley Street, Poughkeepsie, NY 12601

# ULTRA LARGE DIAMETER GAGES

Gaging used for solving your largest, accuracy measurement problems!

This "ultra large diameter gage and setting master series" was developed to measure part sizes beyond those of the Dorsey Metrology traditional large diameter gage family. The ultra large series measures large parts in the range from 60", 1500mm to 240", 6000mm. These instruments are designed to be accurate, rigid, stable, lightweight and durable.



Dorsey has built a reputation as a leader in the field of large component measurement. Our experience brings together the largest selection of precise linear measurement movements, frame configurations, materials, contact point shapes, rest designs and other accessories; all with the knowledge of how to apply them to any large part inspection requirement. With our modular design, it is possible to solve the inspection of almost any part configuration such as; inside/outside diameters, I.D./O.D. grooves, bearing raceways, conical and angular shapes. Applications for these instruments include inspection of large elements used in generators, turbines: aircraft engine housings, windmill parts, large bearings, large gears, large shaft lengths and ship building apparatus.



Carbon fiber gage  
Measurement range 12" - 132" (3048 - 3353mm)  
Weight 10.5lbs/4.76kg  
Carbon fiber diameter gages are lighter weight,  
more thermally stable and structurally stronger.

Proudly made in the USA



D-16



Dorsey Metrology International  
Website: [www.dorseymetrology.com](http://www.dorseymetrology.com)

Tel: (845) 454-3111 Fax: (845) 454-3888  
53 Oakley Street, Poughkeepsie, NY 12601

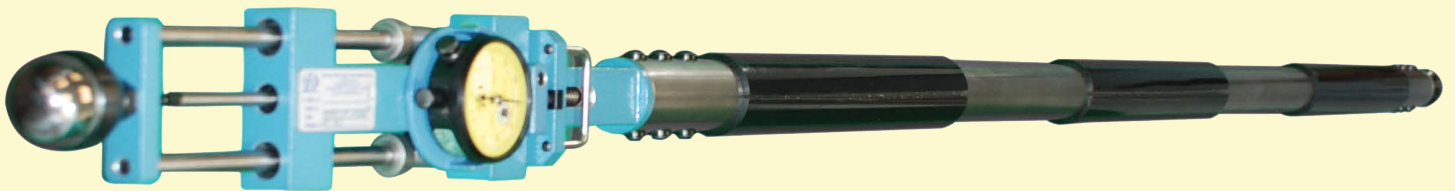
# ULTRA LARGE DIAMETER GAGES



ADJUSTABLE INSIDE/OUTSIDE PITCH DIAMETER GAGE



ADJUSTABLE ID/OD DIAMETER



INTERNAL BEARING RACEWAY GAGE



EXTERNAL BEARING RACEWAY GAGE



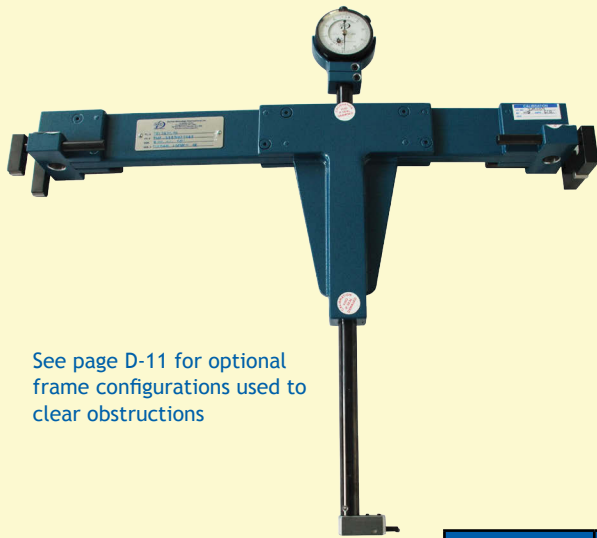
SETTING MASTER

Proudly made in the USA

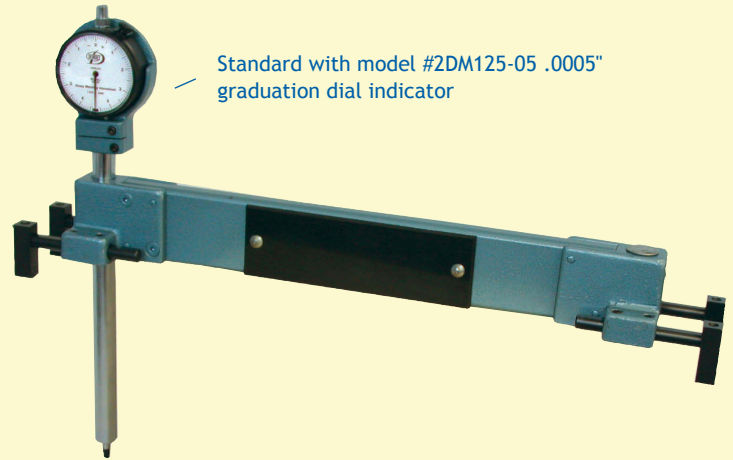


D-17

# DDG SERIES - DEPTH/HEIGHT GAGE



See page D-11 for optional frame configurations used to clear obstructions



Standard with model #2DM125-05 .0005" graduation dial indicator

Dorsey DDG style Depth or Height gages are used to measure distances from one surface to another or from one surface to a machine/tool fixture. They are generally designed for a specific application. Depth units can be lever transfer type or direct reading. Gaging travel resolutions are per application requirements.

PART #	INCH	METRIC (mm)
	RANGE	RANGE
DDG-12	6 to 12	150 to 300
DDG-18	12 to 18	301 to 460
DDG-24	18 to 24	461 to 610
DDG-30	24 to 30	611 to 760
DDG-36	30 to 36	761 to 915
DDG-42	36 to 42	916 to 1070
DDG-48	42 to 48	1071 to 1220
DDG-54	48 to 54	1221 to 1370
DDG-60	54 to 60	1371 to 1525

Depth gages are available with a choice of any of Dorsey's "High Amplification", "Traditional" or digital indicators.

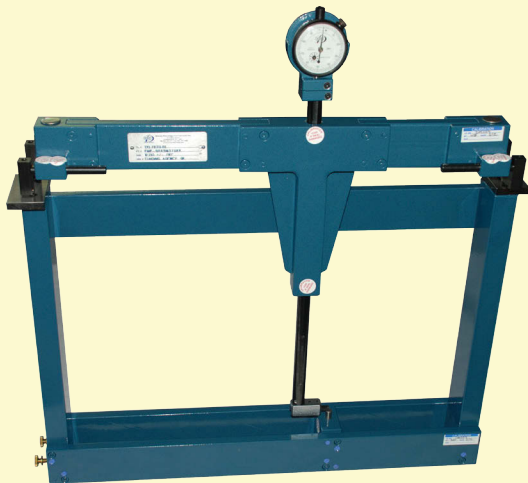


Optional perpendicular indicator unit

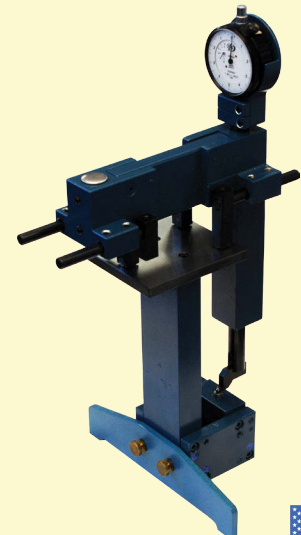
- To order this large diameter gage, use:  
*Model Number - Frame Size - Contact Type - Gaging depth - Other Options*  
or supply part print for Dorsey quotation.

# DDGM SETMASTER

DDGM setmasters is the companion to DDG series depth gages. They feature solid steel precision ground base, hardened rest plates and .25" of adjustment.



MODEL #	DIAMETER RANGE
DDGM-12	0 to 12
DDGM-18	12 to 18
DDGM-24	18 to 24
DDGM-30	24 to 30
DDGM-36	30 to 36
DDGM-42	36 to 42
DDGM-48	42 to 48
DDGM-54	48 to 54
DDGM-60	54 to 60



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# MDG SERIES - MODULAR DEPTH GAGES

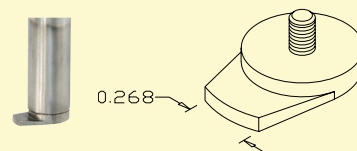
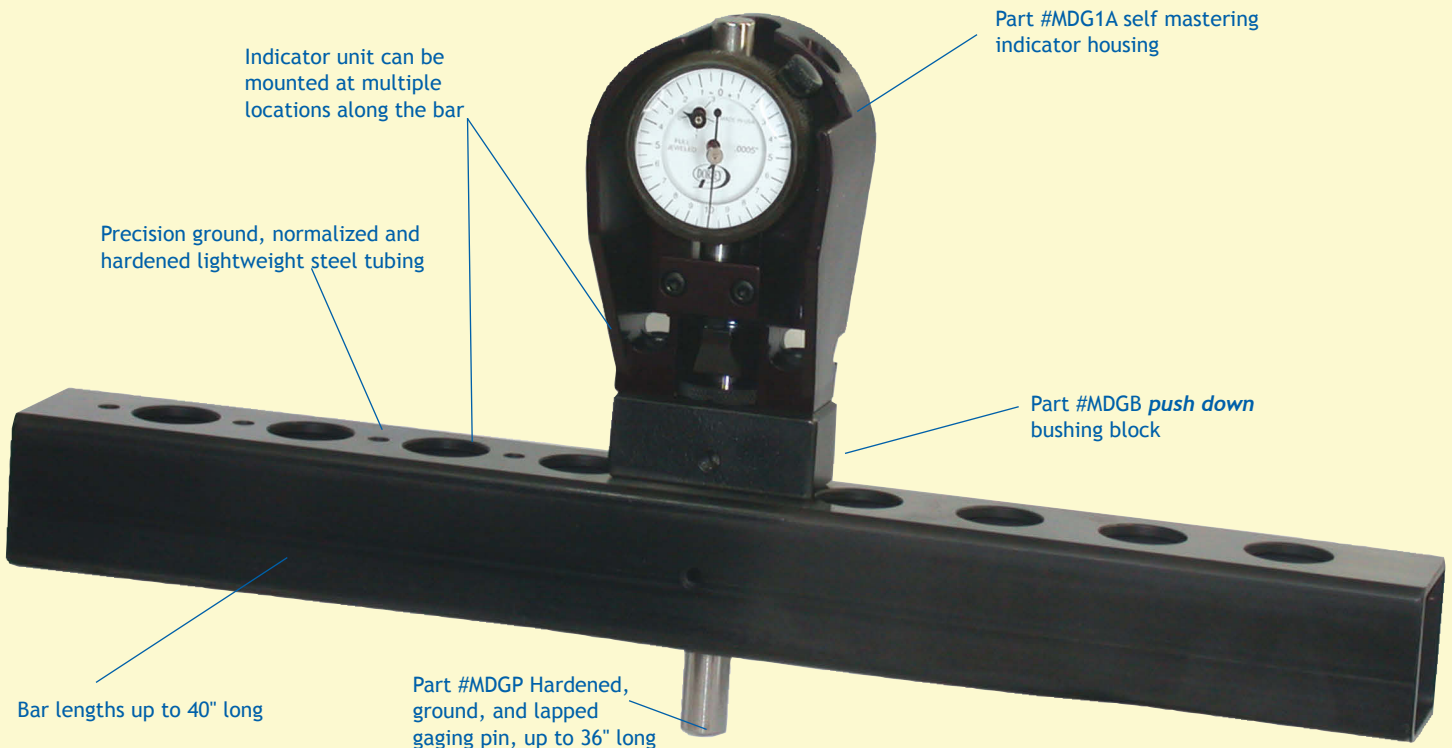
The MDG series of modular indicating depth gages are available as fixed or adjustable models. This versatile design allows the mixing and matching of components to build a gage which can suit any application. Designed to replace many dedicated flush pin gages, these gages feature a unique self mastering mechanism further eliminating the requirement for a setmaster. Offset contact can be used to check groove depths or locations.

## FEATURES

- Modular design offers maximum versatility.
- 2 frame styles suit any application.
- Light weight or heavy duty tube.
- Self mastering adjustable and fixed models.
- A single gage can replace many flush pin gages.
- Accommodates ANSI AGD #1, #2 dial or digital indicators.
- Precision ground stress relieved and hardened frames and pins.
- Indicator is sold separately.

## To order MDG series depth gages:

1. Specify frame part # / bar length.
2. Specify pin length by solid pin part # or threaded pin part #.
3. Specify choice of indicator housing: #1 or #2 adjustable self-mastering housing - pull down, #1 or #2 adjustable self-mastering housing - pull up, #1 or #2 fixed series self-mastering housing.
4. Add desired options: extended rest sets, reversible thread-in contact, choice of any #2 "High Amplification", #1 or #2 "Traditional" dial indicators or digital indicator.



Part #5616 offset rest foot

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# MDG SERIES -MODULAR DEPTH GAGE

1.5" x 1.5" Lightweight tube 2.1 lbs per ft.



1.5" x 1.5" Heavy Duty tube 3.5 lbs per ft.



BAR LENGTH	LIGHTWEIGHT FRAME	HEAVY DUTY FRAME
	PART #	PART #
13.25"	MDGLT13	MDGHT13
15.75"	MDGLT15	MDGHT15
18.38"	MDGLT18	MDGHT18
21"	MDGLT21	MDGHT21
26.25"	MDGLT30	MDGHT30
31.50"	MDGLT40	MDGHT40
39.36"	MDGLT47	MDGHT47
47.23"	MDGLT49	MDGHT49



Gaging pins 7/16" Dia.

## EXTENDED REST KITS



MDG series depth gage with optional extended rest kit used to provide additional frame clearance

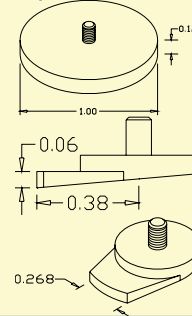
Part # MDGRK2  
Rest kit, 2" Tall

FRAME CLEARANCE	PART #
1.5"	MDGRK1
2"	MDGRK2
2.5"	MDGRK3

MAX GAGING DEPTH	PIN LENGTH	SOLID PIN PART #	THREADED PIN PART #
2"	5.5"	MDGP2	MDGPT2
4"	7.5"	MDGP4	MDGPT4
6"	9.5"	MDGP4	MDGPT6
10"	13.5"	MDGP10	MDGPT10
12"	15.5"	MDGP12	MDGPT12
16"	19.5"	MDGP16	MDGPT16
20"	23.5"	MDGP20	MDGPT20
24"	27.5"	MDGP24	MDGPT24
30"	33.5"	MDGP30	MDGPT30
36"	39.5"	MDGP36	MDGPT36

## REVERSIBLE THREAD IN CONTACT

Requires MGPT series threaded pin



PART #	DESCRIPTION
5615	1" Disc Contact
5616	.75" Reversible Contact

See page A20 for additional contacts

## INDICATOR HOUSING ASSEMBLIES

Adjustable self mastering indicator housing assembly  
*push down*

(Indicator not included)  
AGD 1 Part #MDGPD1  
AGD 2 Part #MDGPD2



Adjustable self mastering indicator housing assembly  
*push up*

(Indicator not included)  
AGD 1 Part #MDGPU1  
AGD 2 Part #MDPU2



Fixed series self mastering indicator housing assembly for AGD # 1, #2 or digital indicators

(Indicator not included)  
Part #MDGF

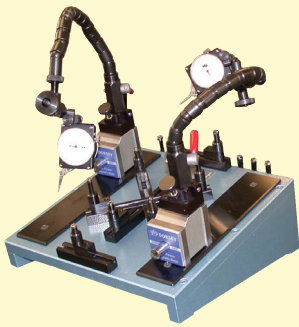


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# ROTO ROUND CONCENTRICITY FIXTURE

The rotoround is an adjustable fixture used to check concentricities, runout and/or TIR of one or more surfaces to a basic diameter. Three precision bearings set the primary datum plane and support the weight of the part while 2 roller bearings mounted on the angled base define the circular datum. Indicators then contact the part as it is being rotated to determine various parameters.



## PART# CPF

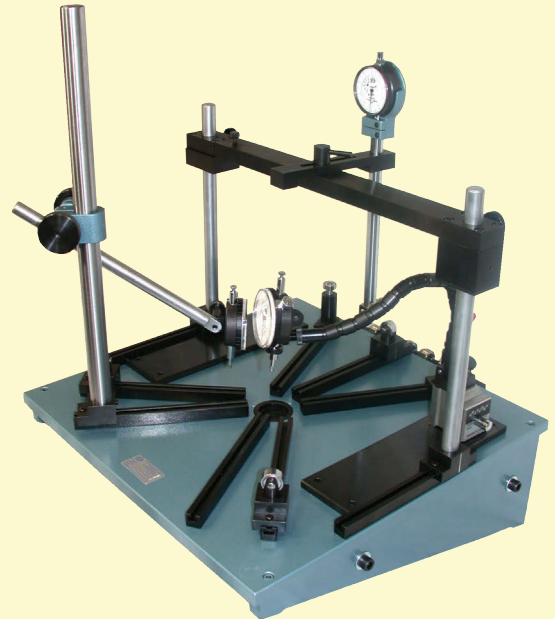
For parts 1-5" (25mm-130mm) in diameter. Fixture includes:

- .0001" grad. large format double dial test indicator.
- .00005" grad. large format double dial test indicator.
- Two sets of adjustable load bearings (3 each).
- Two sets of banking bearings (2 each) bearing number 9028 .25" OD x .12" thick bearing number 2426 .312" OD x .12" thick.
- 15 degree angled base plate.
- Tool set with holder .
- Wooden storage box.

## PART# CPF-1

For parts 3-12" (75mm-300mm) in diameter with maximum weight of 150 lbs. (70Kg.). Fixture includes:

- One .0005" grad. AGD group 2 dial indicator.
- Two .0001" grad. AGD group 2 dial indicator.
- One magnetic base stand.
- One indicating unit with right angle transfer.
- One adjustable height stand.
- Three sets of adjustable load bearings in .50" increments (3 each) bearing number 9020 .866 OD x .406" thick.
- One set of banking bearings (2 each) bearing number 9018 .75" OD x .281" thick.
- 15 degree angled base plate with adjustable bridge gantry.
- Tool set with holder.
- Wooden shipping/storage case.



## PART# CPF-2

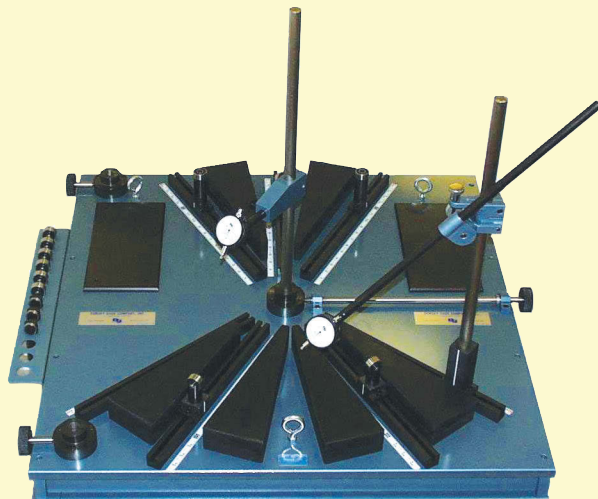
For parts 10-30" (250mm-760mm) in diameter with maximum weight up to 1000 lbs. (450Kg.). Fixture includes:

- Two .0005" grad. AGD group 2 dial indicator.
- One magnetic base stand.
- One adjustable pole stand.
- Three sets of adjustable load bearings in .50" increments (3 each).
- One set of banking bearings (2 each) bearing number 9029 1.10" OD x .562" thick.
- 15 degree angled base plate.
- Tool set with holder.
- Wooden shipping/storage crate.

## PART# P-CPF-33824

As described in Pratt & Whitney overhaul manual, similar to CPF-2 but features:

- Canted base.
- Rubber bumpers.
- Special bearing set.
- Additional post location.



Dorsey also manufactures a line of portable concentricity fixtures for use if your part cannot be placed on a CPF fixture. Contact us for details.

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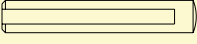
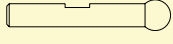

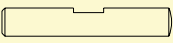
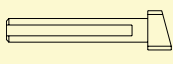

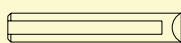
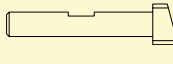
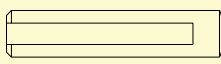
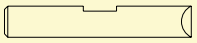
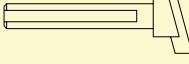
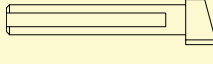
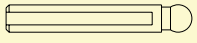
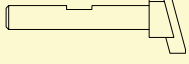
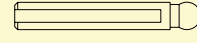
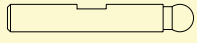
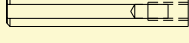
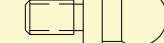
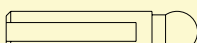
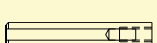


# ABBREVIATIONS FOR OPTIONS

DESCRIPTION	
AA	Angular Anvil, SMF or SSM
ARS	Angular Anvil Reversible, SMA or SMVA
BF	Bridge Frame, Gage
CB	Carbide Ball Contact, Gage
CD	Carbide Disc .50" or .62 Dia., Gage
CF	C Frame, Gage
CF	C Frame Outrigger, Set Master
CS	Carbide Shovel Contact, Gage
DF-11	Donut Frame, 11" ID
DF-7	Donut Frame, 7" ID
DF-9	Donut Frame, 9" ID
DFS	Donut Frame, Special
ES	Extended Shovel, Carbide, Gage
FC	Frame Clearance, Adjustable Gage
FC125	Frame Clearance 1.25", Fixed Gage
FC175	Frame Clearance 1.75", Fixed Gage
GC025	Gaging Contact Travel .025"
GC050	Gaging Contact Travel .050"
DDR	Double Depth Rest

DESCRIPTION	
GC075	Gaging Contact Travel .075"
GD3	Gaging Depth 3", Gage
GD4	Gaging Depth 4", Gage
GD5	Gaging Depth 5", Gage
GH	Gaging Height .5", Set Master
GH5	Gaging Height .5", Set Master
HCB	Half Carbide Ball, Gage
HF	Hump Frame, Gage
HRL	Heavy Duty Reverse Reference Head, LDLTf
IRS	Intermediate Rest Surfaces, Set Master
NI	No Indicator, Gage
R25	Restrictor Width .25", Set Master
R62	Restrictor Width .62", Set Master
RL	Reverse Action Lever
RR	Roller Rests
SD	Steel Disc .44" or .62" Dia.
SP	Steel Pin Contact, Gage

# REPLACEMENT CONTACTS

CONTACTS	PART #	MATERIAL	CONTACTS	PART #	MATERIAL	CONTACTS	PART #	MATERIAL
Pin (Reference) 	4060-P	Steel	.250" Dia. Ball (Gaging) 	4030-250-B	Carbide	LDAR 6.50" Dia. Contact Disc 	DX5-70943	Steel
	4060-PC	Carbide					7062-C	Carbide
Pin (Gaging) 	4030-P	Steel	Shovel (Reference) 	4060-S	Steel	LDAR .63" Dia. Disc 	7533	Steel
	4030-PC	Carbide					4060-SC	Carbide
One Way Radius (Reference) 	4060-OWR-S	Steel	Shovel (Gaging) 	4030-S	Steel	LDAR Pin 	7534-P	Steel
	4060-OWR-C	Carbide					4030-SC	Carbide
One Way Radius (Gaging) 	4030-OWR-S	Steel	Extended Shovel (Reference) 	4060-ES	Carbide	LDAR Shovel 	7534-SC	Carbide
	4030-OWR-C	Carbide					4030-ES	Carbide
.187" Dia. Ball (Reference) 	4060-187-B	Carbide	Extended Shovel (Gaging) 	4060-M	Steel	LDAR .187" Dia. Ball 	4082-187B	Steel
.187" Dia. Ball (Gaging) 	4030-187-B	Carbide	Threaded (Reference) 	4030-M	Steel	Thread in Ball Contact 		
.250" Dia. Ball (Reference) 	4060-250-B	Carbide	Threaded (Gage) 					

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# DISCOVER THE DORSEY DIFFERENCE!

14HE



16H CNC



16H



In the optical field, Dorsey is one of the few remaining domestically manufactured optical comparator product lines. Dorsey happily acknowledges that we have learned from our customers that quality and attention to detail does matter. Dorsey optical comparators are manufactured on the foundation of rigidity and accuracy. We manufacture both horizontal and vertical comparators from 14" up to 32" screen sizes with choices of table travel and weight capacity. Standard features include cast iron, nickel coated stages, linear cross roller bearings in all axis, helix adjustment, internal edge detection and a variety of readouts from simple X-Y to motorized and complete CNC format. While Dorsey is not currently the most well-known comparator brand, when customers compare our models, feature for feature, to the competition, most realize that our comparators are simply the best!

16VS



24P



32P



For the full Optical Division catalog, contact your Dorsey Representative, call 1-800-549-GAGE or visit

[www.dorseymetrology.com](http://www.dorseymetrology.com)

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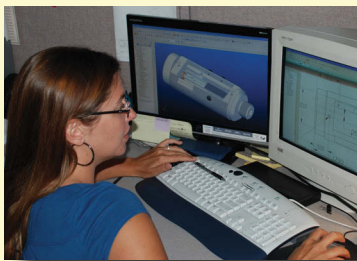


# ABOUT OUR COMPANY

The precision gage making legacy of Dorsey Gage Company founded in 1955 by Theodore F. Luty Sr., continues in the third generation as Dorsey Metrology International. We are committed to excellence in every aspect of our organization from outstanding customer relations to the highest quality product, service and support. The privilege of allowing Dorsey to service your company and win your good will is our most effective advertisement and proudest achievement.

As further commitment to the quality of our products and services to our customers, Dorsey Metrology Calibration Laboratory was formed in 2010. The laboratory was accredited by A2LA on October 14, 2010 to ISO 17025 General Requirements for the Competence of Testing and Calibration. Having this accreditation has allowed Dorsey to remain highly competitive in the ever-changing manufacturing sector and encourages even further confidence in the quality of our products.

Dorsey management has planned a strategy for expansion. We have purchased additional space to increase our manufacturing capacity and allow the purchase of additional equipment. The key to this growth will be achieved with a professional marketing plan and expanding our marketing presence by increasing our direct sales and distribution network globally. This expansion also includes, increasing our corporate efficiency, engineering, assembly capacity and product development.



Dorsey is proud of its diverse assortment of precision handheld and bench top dimensional measurement instruments. In addition to the Dorsey / Standard dial bore gages and snap gages that are the benchmark for gage inspection in America, all our products are designed with features that make them superior to the competition. Any of these instruments can be used with the Dorsey family of "High Amplification" and "Traditional" dial indicators or digital indicating devices.

Dorsey also continues to build its reputation as a leader in the field of large component dimensional measurement. Dorsey's expertise brings together the largest selection of measurement movements, frame configurations, sizes, materials, contact points, rests and accessories: all with the knowledge of how to apply them to any large part inspection requirement.

In the optical field, Dorsey is one of the few remaining domestically manufactured optical comparator product lines. Dorsey optical comparators are manufactured on the foundation of rigidity and accuracy. Dorsey has tightened manufacturing tolerances to maintain uncompensated absolute inherent accuracy.

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Catalog 01/2013

Printed in U.S.A.

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