D

Special Application Gages

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255 SERIES
GROOVE WIDTHS/DEPTHS/SPACINGS
UNDERCUT WIDTHS/SPACINGS

Maximum Measuring Accuracy
Linear ± 0.00005" (0.0013 mm)
at range 0.020" (0.5 mm)
Repeatability ≤ 0.000040" (0.001 mm)

Notable Features

- Accuracy, precision ball bearing probe shaft.
- Easy to use, light weight, 24-7 shop rugged.
- Contact point can be positioned in any 360° location.
- Spring-loaded contact point in or out, specify when ordering.
- Unlimited specials for your application. Contact Dyer.

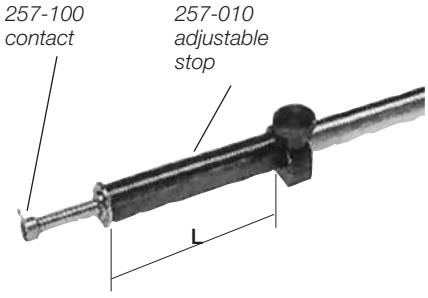
Build Your Own Gage

How to Order

1. Select one basic gage unit 255-001, -002
2. Select adjustable depth stop
3. Select contact point
4. Select electronic or dial indicator.

Optional

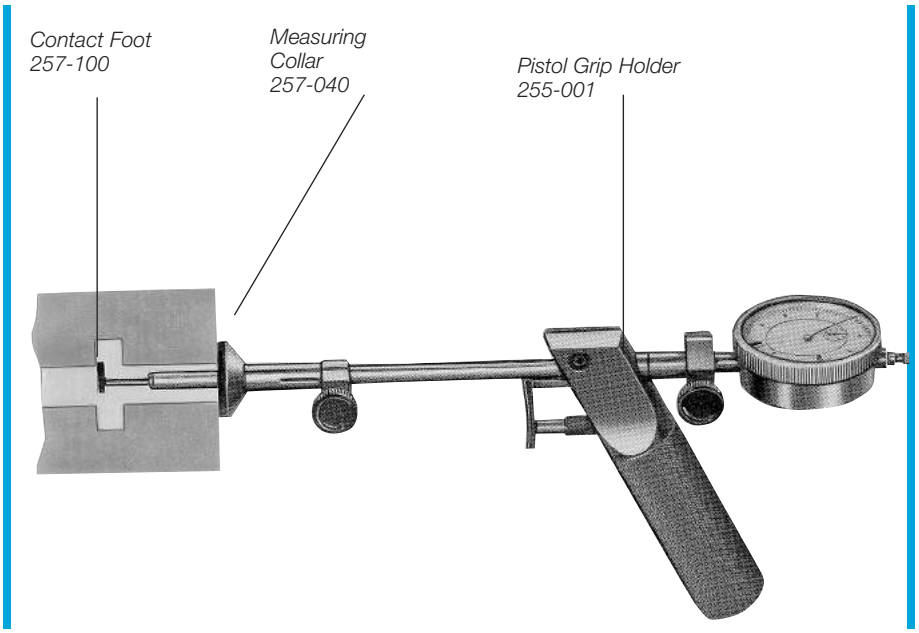
5. Select set master
6. Select additional contact points and adjustable depth stop
7. Wooden storage box included



257-010 Adjustable Collar Stop

Adjustable Collar Stop for Series 256

Description	Length	Order No.
Measuring Collar Ø (0.465" dia.) for groove spacings — minimum upper groove width 0.04"	1.97"	**257-010**
	3.94"	**257-020**
	5.91"	**257-030**

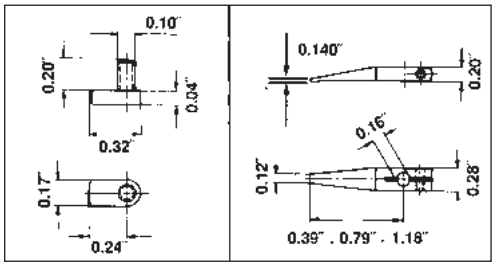


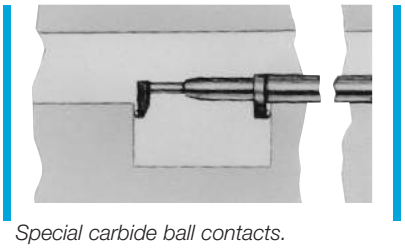
Measure a groove width, Series 255 pistol grip handle with optional indicator.

255 Series Basic Gage, Pistol Grip Handle

Pistol Grip Handle Order No.	Measuring Depth		Maximum Travel
	Inch	mm	
255-001	4.375"	111	0.5"

Contacts



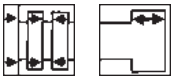


Special carbide ball contacts. Contact Dyer with your requirements.

Contact Foot (flat) Series 255

Length	Order No.
0.24"	**257-100**
0.39"	**257-101**
0.79"	**257-102**
1.18"	**257-103**

256 SERIES
GROOVE WIDTHS/DEPTHS/SPACINGS
UNDERCUT WIDTHS/SPACINGS



256 Series with moveable slide contact arm

- Precision ball bearing probe shaft.
- Rotatable (360°) contact point.
- Inch or metric. Easily convert to electronics.

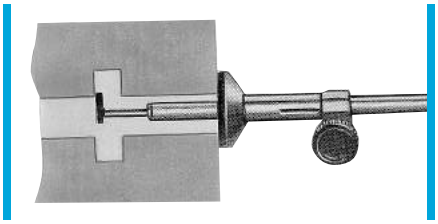
How to Order

Series 256 Components. Order the following:

1. Ball bearing guided probe shaft with moveable collar: Order No. 256-010.
2. Measuring bridge or measuring collar.
3. Contact foot.
4. Indicator.
5. Depth extension.
6. Wooden box.

Series 256 Basic Set

Gage with ball bearing guided probe shaft, 255-010 measuring bridge, 257-200 contact point and moveable collar, in box. Order indicator separately.



257-100 Contact

256 Series Basic Gage

Measuring Depth		Maximum Travel	Straight Handle Order No.
Inch	mm		
6.89"	175	0.5"	**256-001**
12.80"	325	0.5"	**256-002**

Contact Foot Series 256

Length	Order No.
0.24"	**257-100**
0.39"	**257-101**
0.79"	**257-102**
1.18"	**257-103**

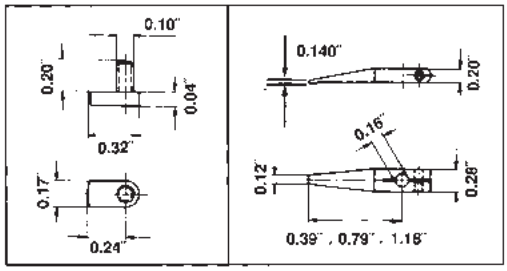
Measuring Bridge Series 256 Handle Only

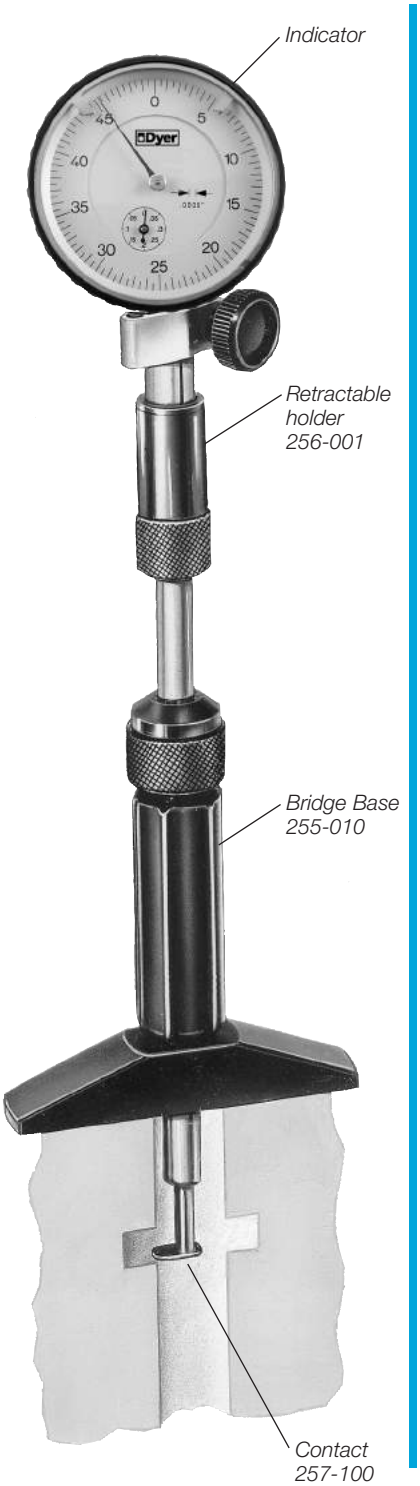
Length	Order No.
3.15"	**255-010**
4.72"	**255-011**
7.09"	**255-012**

Indicators

Grad.	Order No.
0.0001"	**458-001**
0.0005"	**458-002**
0.0005"/0.010 mm	**900-101**

See Section E for complete list and specifications.





902 SERIES
GROOVE WIDTHS/DEPTHS/SPACINGS
UNDERCUT WIDTHS/SPACINGS

Special gage

Special gage with part

Outside shoulder/groove height. Measure bottom surface of part to top of groove.

Digital Indicator with standard depth gage bases

Standard Gage Bases and Accessories

Order No.	Description
902-411	2" depth gage base for ind. 1" & less
902-412	4" depth gage base for ind. 1" & less
902-413	6" depth gage base for ind. 1" & less
902-414	8" depth gage base for ind. 1" & less

Special depth gage to measure depth of key slot

Special depth gage to measure dimple indentation on part surface. Gage's base modified to set correctly on part

Special depth gage to measure over part obstruction

side view

Special fixture to measure multiple bore depths at one time on a machined casting

Dyer can design a special depth gage based on your specific application. Please contact Dyer with your needs.

550 SERIES
INSIDE DIAMETERS
RIGID, FLEXIBLE PARTS

Notable Features

- Fast, easy way to measure inside diameters of fixed, flexible and soft walled parts.
- Actual diameter is read at the ring and vernier scale in the handle.
- Measuring depth range is 15-50 mm.
- Laser marked scales and stainless steel tapes.

Model 550-003

Models & Specifications

Range	Graduation	Width × Thickness	Order No.
14–24mm	0.1mm	10 × 0.08mm	**550-001**
22–40mm	0.1mm	10 × 0.08mm	**550-002**
35–60mm	0.1mm	10 × 0.08mm	**550-003**
55–100mm	0.1mm	10 × 0.08mm	**550-004**
95–180mm	0.1mm	10 × 0.08mm	**550-005**
170–255mm	0.1mm	10 × 0.08mm	**550-006**
245–330mm	0.1mm	10 × 0.08mm	**550-007**

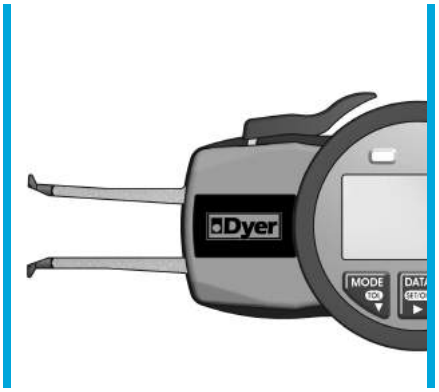
Inch models available upon request.

303 SERIES
AEROSOL GAGES FOR CRIMP DIAMETER

Notable Features

- Fast and accurate method to measure crimp diameters.
- Dial and digital options available.
- Fine steel alloyed arms shop-rugged.
- Light weight and ergonomically shaped.
- Spring loaded arms with form-fitting half-moon contact tips make this gage easy to use.

Model 303-008



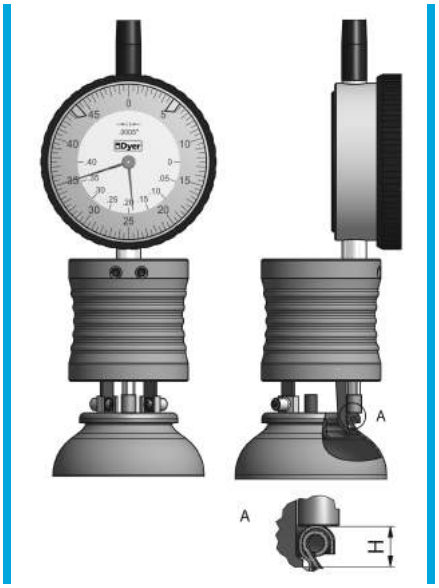
Model 303-093

303 Series
Aerosol Gages for Crimp Height

Notable Features

- Fast and accurate method to measure crimp heights on aerosol containers with a crimp seal of 1.0".
- Dial and digital options available.
- New body design with three centering feet lock gage into position.
- Light weight and ergonomically shaped.

Model 303-080



Model 303-010

Model 303-000
Dial Setting Master for both diameter and height.

303 Series for Crimp Diameter

Indicator Type	Measuring Range	Graduation	Order No.
Dial	1.0"–1.15"	0.0005"	**303-008**
Dial	25–29mm	0.010mm	**303-007**
Electronic	1.0"–1.15" 25–29mm	0.0005" 0.010mm	**303-093**

303 Series for Crimp Height

Indicator Type	Measuring Range	Graduation	Order No.
Dial	0.17"–0.22"	0.0005"	**303-010**
Dial	4.4–5.6mm	0.010mm	**303-011**
Electronic	0.17"–0.22" 4.4–5.6mm	0.0005" 0.010mm	**303-080**

303 SERIES
AEROSOL GAGES

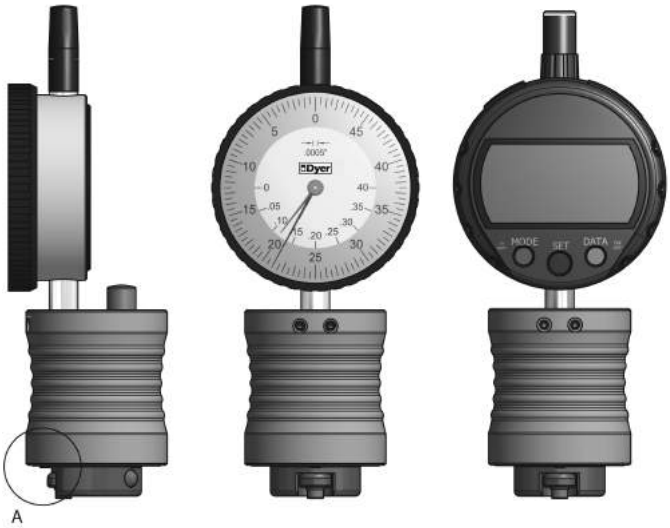
MEASURE CRIMP DEPTH

Model 303-013
in part

Model 303-005
with master

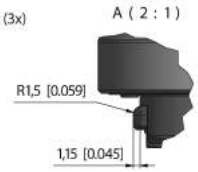
Model 303-013

MEASURE BEAD HEIGHT

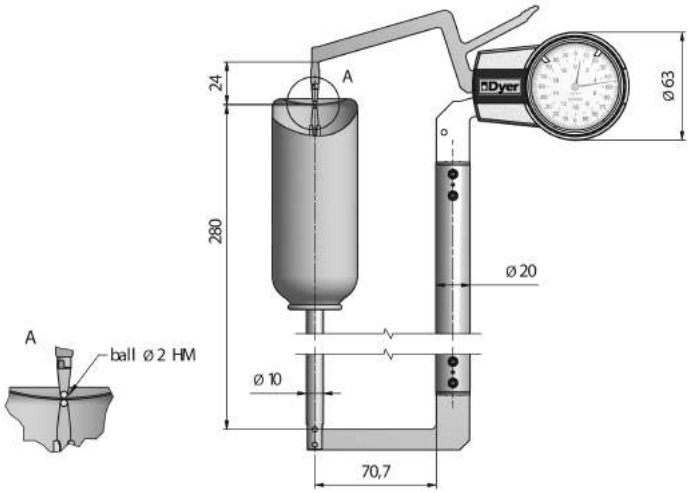


Model 303-020

Model 303-220

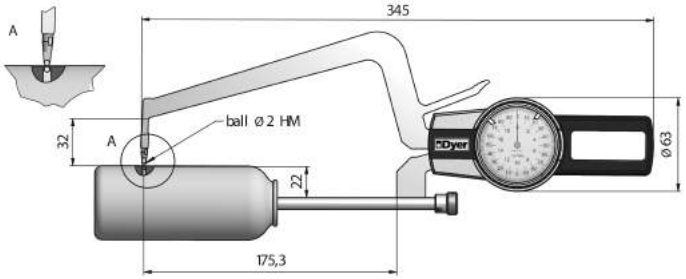


MEASURE BOTTOM THICKNESS

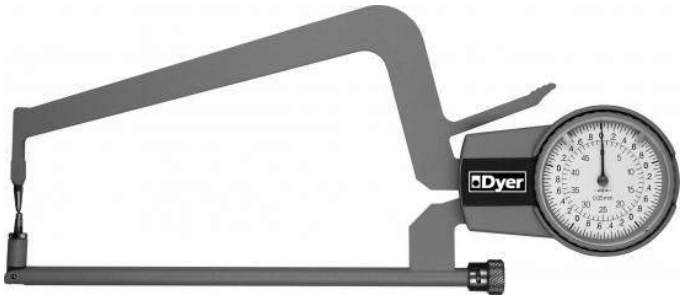


Model 303-101

MEASURE WALL THICKNESS



Model 303-040
with part



Model 303-040

420/421 SERIES
OUTSIDE CIRCUMFERENCE & DIAMETER OF CYLINDRICAL PARTS

Notable Features

- Fast, easy way to measure outside circumference and diameters of fixed, flexible and soft walled parts.
- Laser scaled tapes with 1mm/0.040" graduations and with 0.1mm or 0.005" graduations on vernier reading handle.
- Standard tape width of 16mm. Tape thickness of 0.2mm.
- Special tape width of 6/35/60mm and 0.05mm graduations vernier reading handle available upon request.

Model 420-105

420 Series Inch Outside Diameter Measuring Tapes

Circumference Range (inch)	Diamter Range (Inch)	Order No. Stainless Steel	Order No. Black
2"–38"	0.8"–12"	**420-105**	**420-205**
37"–87"	11.8"–27.7"	**420-110**	**420-210**
86"–136"	27.4"–43.3"	**420-115**	**420-215**
136"–186"	43.3"–59.2"	**420-120**	**420-220**
186"–236"	59.2"–75.1"	**420-125**	**420-225**
235"–285"	74.8"–90.7"	**420-130**	**420-230**
284"–334"	90.5"–106.4"	**420-135**	**420-235**
334"–384"	106.3"–122.3"	**420-140**	**420-240**
383"–433"	122.0"–138.0"	**420-145**	**420-245**

420 Series Metric Outside Diameter Measuring Tapes

Circumference Range (mm)	Diamter Range (mm)	Order No. Stainless Steel	Order No. Black
60–950	20–300	**420-405**	**420-505**
940–2200	300–700	**420-410**	**420-510**
2190–3460	700–1100	**420-415**	**420-515**
3450–4720	1100–1500	**420-420**	**420-520**
4710–5980	1500–1900	**420-425**	**420-525**
5970–7230	1900–2300	**420-430**	**420-530**
7220–8500	2300–2700	**420-435**	**420-535**
8490–9760	2700–3100	**420-440**	**420-540**
9730–11010	3100–3500	**420-445**	**420-545**

421 Series

- 421 Series measuring tapes are designed to measure outside diameters of fixed, flexible and soft walled parts.
- Laser scaled tapes with 1mm or 0.040" graduations and with 0.050mm or 0.002" graduations on vernier reading handle.
- Standard tape width of 16mm tape thickness of 0.2mm.
- Special tape width of 12mm. Tape thickness of 0.12mm.

421 Series Tapes

Model 421-505

421 Series Inch Outside Diameter Measuring Tapes

Diamter Range (Inch)	Order No. Stainless Steel	Order No. Black
0.6"–4.6"	**421-105**	**421-205**
4.0"–9.0"	**421-110**	**421-210**
27.4"–43.3"	**421-115**	**421-215**
43.3"–59.2"	**421-120**	**421-220**

421 Series Metric Outside Diameter Measuring Tapes

Diamter Range (mm)	Order No. Stainless Steel	Order No. Black
15–115	**421-405**	**421-505**
100–230	**421-410**	**421-510**
200–330	**421-415**	**421-515**
300–620	**421-420**	**421-520**

422/423/424 SERIES MEASURING TAPES

422 Series
Notable Features

- 422 Series measure plane parallel distances.
- Laser scaled tapes with 1mm graduations and with 0.1mm or 0.005" graduations on vernier reading handle.
- Standard tape width of 16mm. Tape thickness of 0.2mm.
- Special measuring ranges available upon request.

422 Length Measuring Tape

422 Series Inch
Length Measuring Tapes

Measuring Length (inch)	Order No. Stainless Steel	Order No. Black
2.4"–37.4"	**422-105**	**422-205**
35"–85"	**422-110**	**422-210**
85"–135"	**422-115**	**422-215**
135"–185"	**422-120**	**422-220**
185"–235"	**422-125**	**422-225**

422 Series Metric
Length Measuring Tapes

Measuring Length (mm)	Order No. Stainless Steel	Order No. Black
60–950	**422-405**	**422-505**
900–2200	**422-410**	**422-510**
2200–3460	**422-415**	**422-515**
34500–4720	**422-420**	**422-520**
4700–6000	**422-425**	**422-525**

423 Series
Notable Features

- 423 Series are designed to measure the inside circumference and average diameter of round and oval bores.
- Laser scaled tapes with 1mm graduations and with 0.1mm or 0.005" graduations on vernier reading handle.
- Standard tape width of 20mm.
- Fast and easy use with the help of clamping handle mechanism.

423 ID Measuring Tape

423 Series Inch
Inside Diameter Measuring Tapes

Circumference Range (inch)	Diamter Range (Inch)	Order No. Stainless Steel	Order No. Black
28"–60"	9.0"–19"	**423-105**	**423-205**
37"–87"	11.8"–27.7"	**423-110**	**423-210**
86"–136"	27.4"–43.3"	**423-115**	**423-215**
136"–186"	43.3"–59.2"	**423-120**	**423-220**
186"–236"	59.2"–75.1"	**423-125**	**423-225**
235"–285"	74.8"–90.7"	**423-130**	**423-230**
284"–334"	90.5"–106.4"	**423-135**	**423-235**

423 Series Metric
Inside Diameter Measuring Tapes

Circumference Range (mm)	Diamter Range (mm)	Order No. Stainless Steel	Order No. Black
720–1550	20–300	**423-405**	**423-505**
940–2200	300–700	**423-410**	**423-510**
2190–3460	700–1100	**423-415**	**423-515**
3450–4720	1100–1500	**423-420**	**423-520**
4710–5980	1500–1900	**423-425**	**423-525**
5970–7230	1900–2300	**423-430**	**423-530**
7220–8500	2300–2700	**423-435**	**423-535**

Clamping Holder for all 423 Series Measuring Tapes (needed only once)	**423-000**

424 Series
Notable Features

- 424 Series measuring tapes are designed to measure inside circumference of fixed, flexible and soft walled parts.
- Laser scaled tapes with 1mm or 0.040" graduations and with 0.05mm or 0.002" graduations on vernier reading handle.
- Standard tape width of 12mm. Tape thickness of 0.12mm.

424 Series Tape

Model 424-505

422 Series Inch
Length Measuring Tapes

Measuring Length (inch)	Order No. Stainless Steel	Order No. Black
2.4"–37.4"	**422-105**	**422-205**
35"–85"	**422-110**	**422-210**
85"–135"	**422-115**	**422-215**

422 Series Metric
Length Measuring Tapes

Measuring Length (mm)	Order No. Stainless Steel	Order No. Black
60–950	**422-405**	**422-505**
900–2200	**422-410**	**422-510**
2200–3460	**422-415**	**422-515**

454 SERIES
COAXIALITY OF TWO BORE AXIS "ON ONE LINE"

A low cost way to measure the center line of two bores "on one line" at the machine.

The gage is centered in both bores using fixed and spring loaded balls. After zeroing the gage, the floating contact is rotated 360°, storing MIN and MAX dimensions.

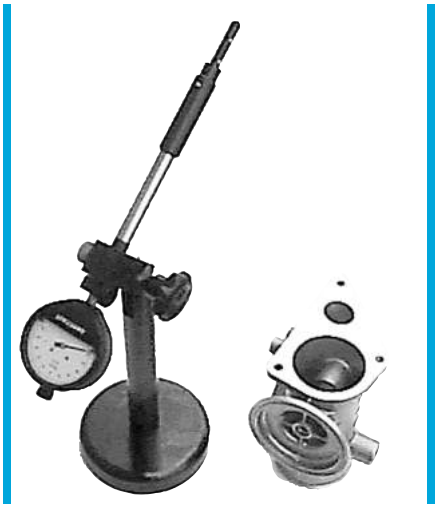
A stepped bore with one reference bore and a second bore used as a bearing surface is a typical application.

Benefits of knowing your parts coaxiality
- Easy, time-saving, parts assembly
- Minimal friction
- Reduced service wear and silent running
- Longer part life

454 Series Coax Mandrel
Measure center line alignment errors between two bores

454 Series

454 Coax Mandrel
Measures valve shaft of a cylinder head



454 Series

454 Series Measuring contact is between two centers

454 Series specials

Measures the bearing bore of an electrical motor