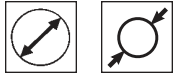
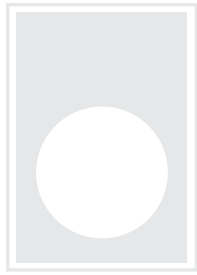


# D

## Special Application Gages

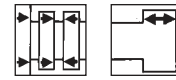


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and find Dyer's interactive  
catalog, gaging solutions  
by application and industry!

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



**Maximum Measuring Accuracy**  
 Linear  $\pm 0.00005"$  (0.0013 mm)  
 at range 0.020" (0.5 mm)  
 Repeatability  $\leq 0.000040"$  (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.

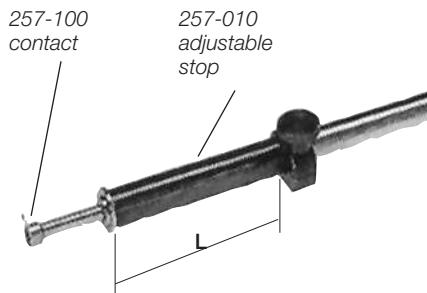


### How to Order

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

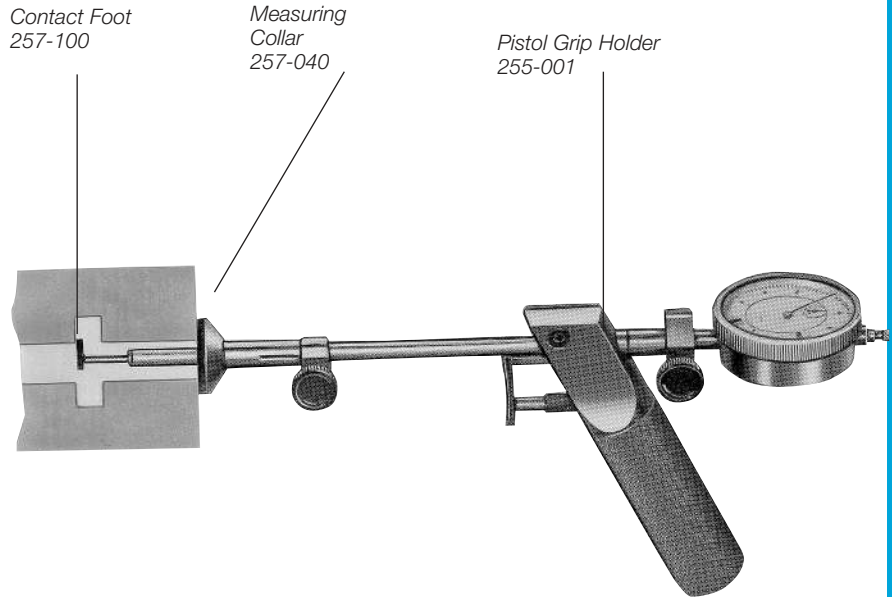
5. Select set master
6. Select additional contact points and adjustable depth stop
7. Wooden storage box included



257-010 Adjustable Collar Stop

### Adjustable Collar Stop for Series 256

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

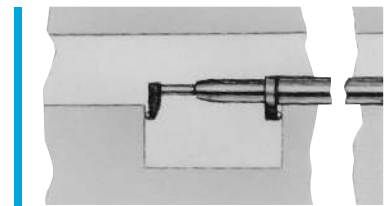
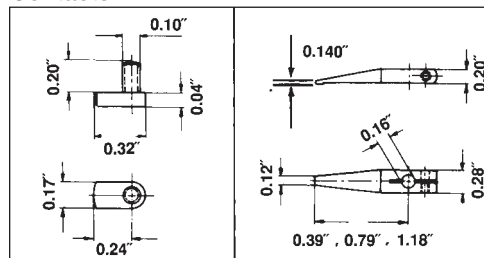


Measure a groove width, Series 255 pistol grip handle with optional indicator.

### 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

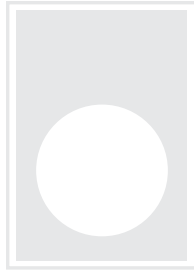
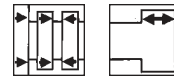


Special carbide ball contacts. Contact Dyer with your requirements.

### 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

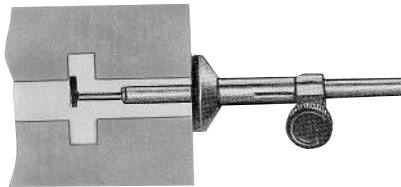
### Series 256 Components.

#### 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

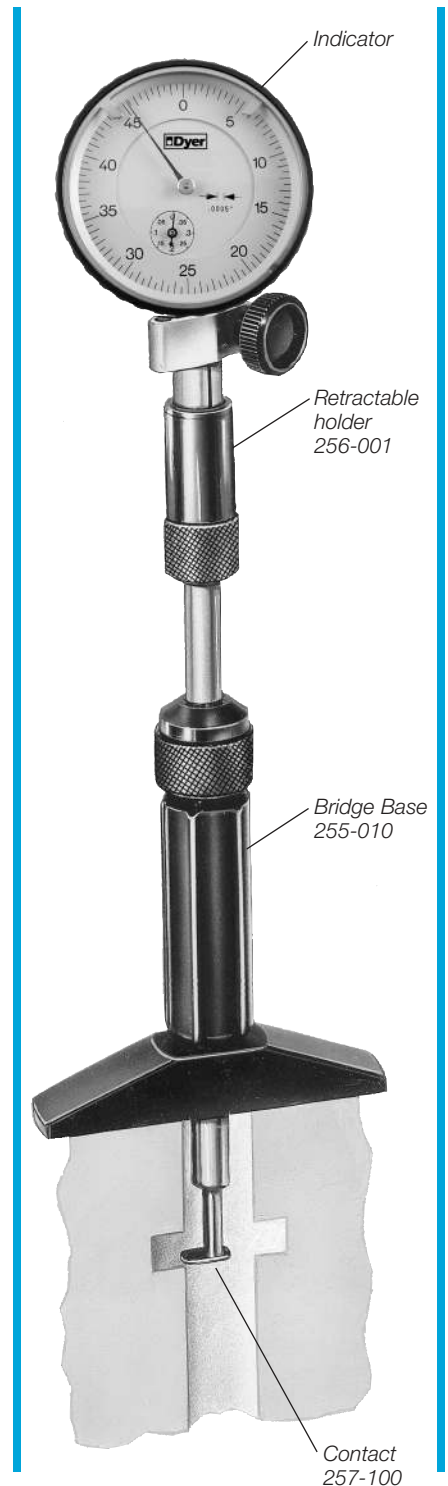
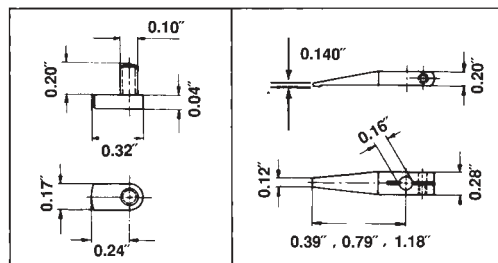
### Series 256 Handle Only

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

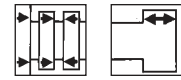
## Indicators

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



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

Special gage with part



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

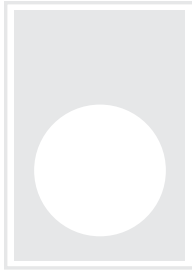
side view



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	<b>550-001</b>
22–40mm	0.1mm	10 × 0.08mm	<b>550-002</b>
35–60mm	0.1mm	10 × 0.08mm	<b>550-003</b>
55–100mm	0.1mm	10 × 0.08mm	<b>550-004</b>
95–180mm	0.1mm	10 × 0.08mm	<b>550-005</b>
170–255mm	0.1mm	10 × 0.08mm	<b>550-006</b>
245–330mm	0.1mm	10 × 0.08mm	<b>550-007</b>

*Inch models available upon request.*

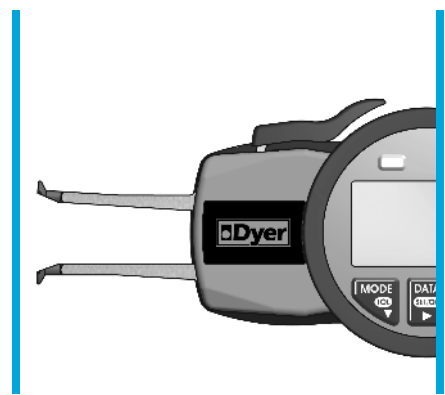
# 303 SERIES AEROSOL GAGES FOR CRIMP DIAMETER

## 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

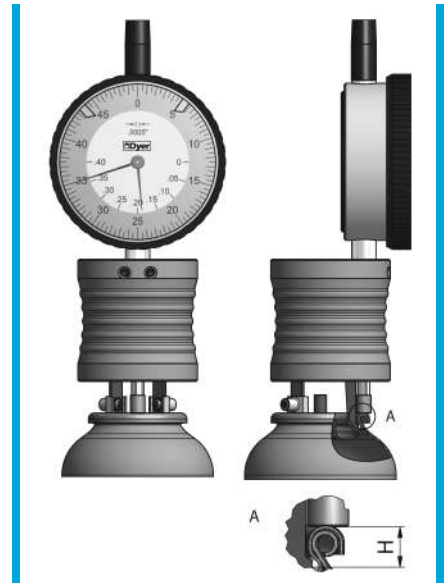
## 303 Series Aerosol Gages for Crimp Height

### 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



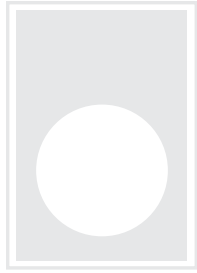
Model 303-000  
Dial Setting Master for both  
diameter and height.

### 303 Series for Crimp Diameter

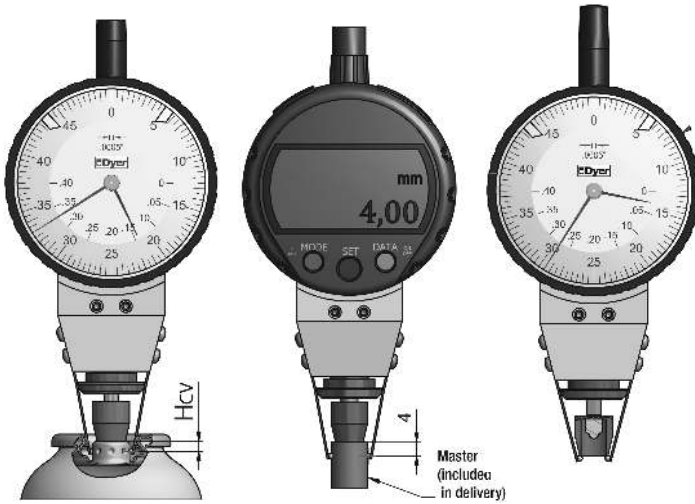
Indicator Type	Measuring Range	Graduation	Order No.
Dial	1.0"-1.15"	0.0005"	<b>303-008</b>
Dial	25-29mm	0.010mm	<b>303-007</b>
Electronic	1.0"-1.15" 25-29mm	0.0005" 0.010mm	<b>303-093</b>

### 303 Series for Crimp Height

Indicator Type	Measuring Range	Graduation	Order No.
Dial	0.17"-0.22"	0.0005"	<b>303-010</b>
Dial	4.4-5.6mm	0.010mm	<b>303-011</b>
Electronic	0.17"-0.22" 4.4-5.6mm	0.0005" 0.010mm	<b>303-080</b>



## MEASURE CRIMP DEPTH

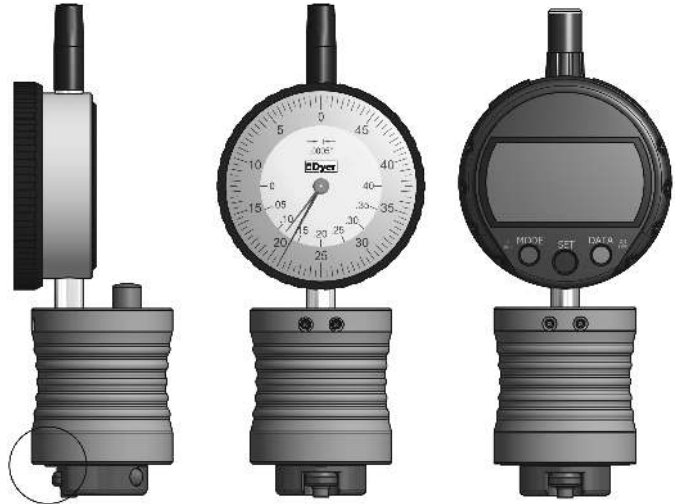


Model 303-013  
in part

Model 303-005  
with master

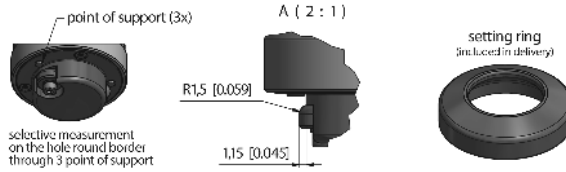
Model 303-013

## MEASURE BEAD HEIGHT

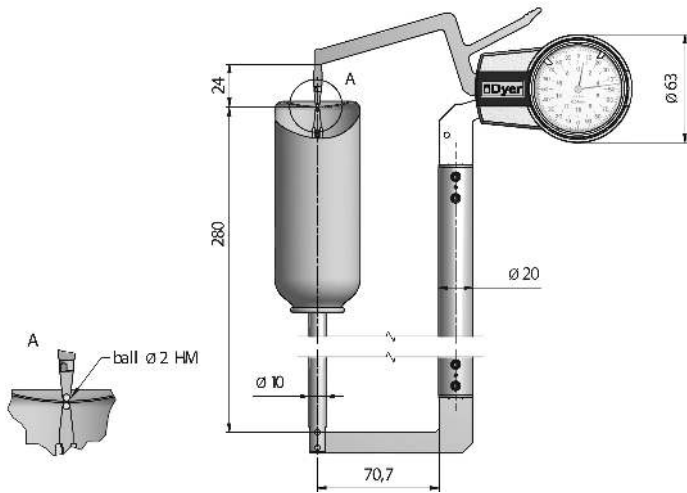


Model 303-020

Model 303-220

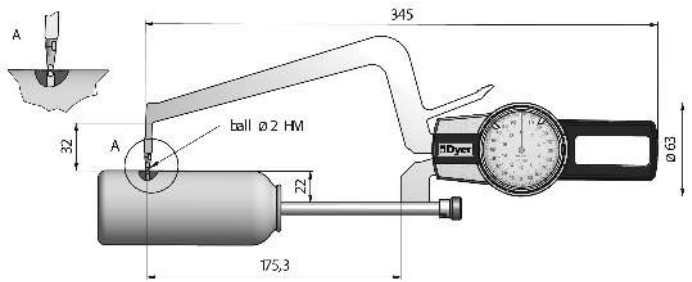


## MEASURE BOTTOM THICKNESS

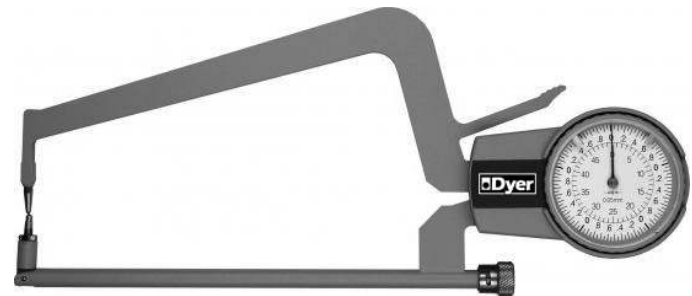


Model 303-101

## 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)	Diameter 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)	Diameter 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

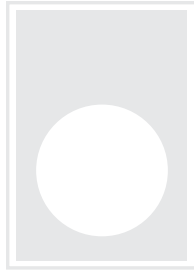
Diameter Range (Inch)	Order No. Stainless Steel	Order No. Black
0.6"-4.6"	421-105	421-205
4.0"-9.0"	421-110	421-210
27.4"-43.3"	421-115	421-215
43.3"-59.2"	421-120	421-220

## 421 Series Metric Outside Diameter Measuring Tapes

Diameter 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)	Diameter 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)	Diameter 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
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## 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.

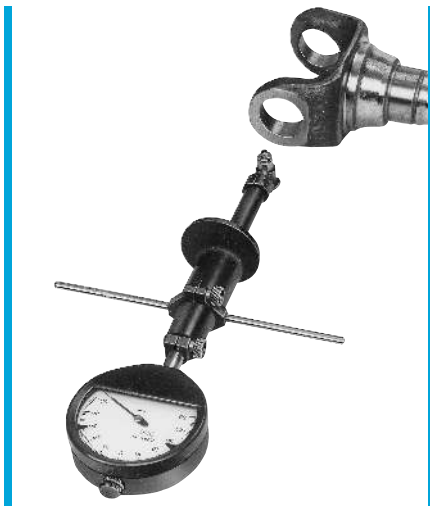
A stepped bore with one reference bore and a second bore used as a bearing surface is a typical application.

### 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

