

C

Min-Wall/Thickness Gages, Precision Outside Diameters, Special Application Measuring Solutions

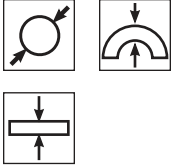
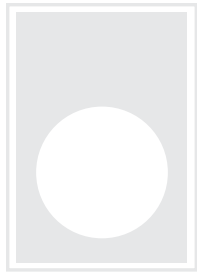
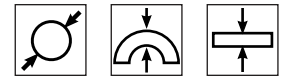


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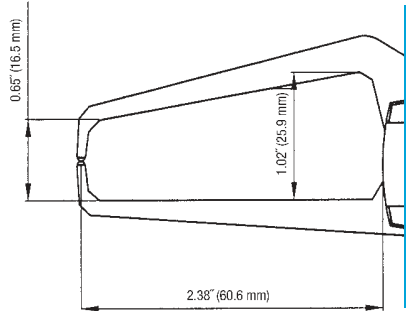
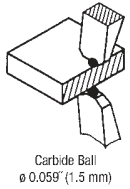
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find Dyer's interactive
catalog, gaging solutions
by application and industry!

313 SERIES "CLASSIC" MIN-WALL/ THICKNESS GAGES

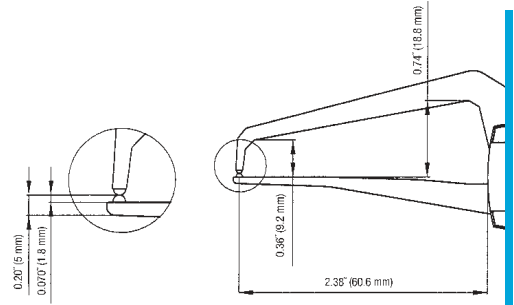
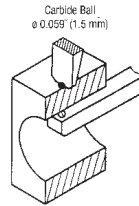


"C" Contacts



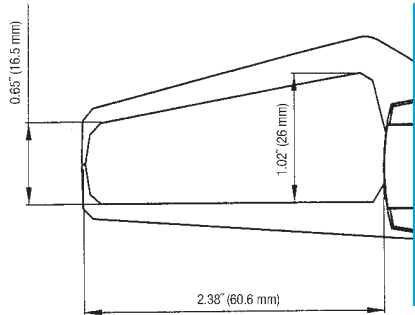
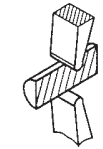
313-302

"E" Contacts



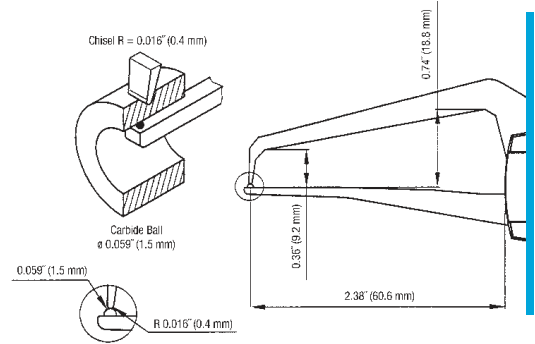
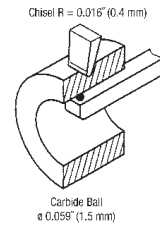
313-304

"B" Contacts



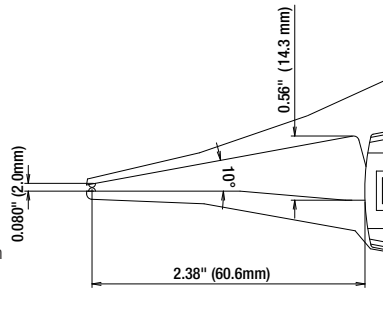
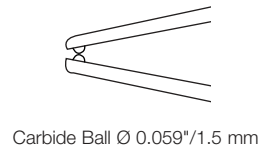
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"D" Contacts



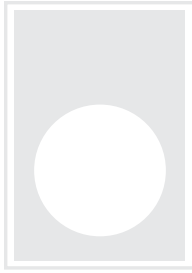
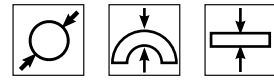
313-305

"F" Contacts



313-306

313 SERIES 2.4" (61mm) REACH, DIRECT READING, MIN-WALL THICKNESS GAGES



Maximum Measuring Accuracy

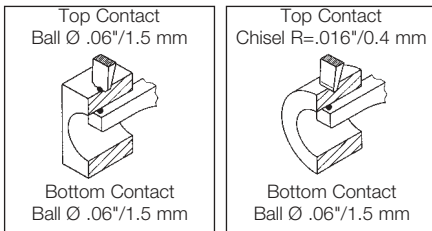
Linear Accuracy at 0.100" Travel
 $\pm 0.0005"$ (± 0.010 mm)
 Full Range $\pm 0.001"$ (± 0.020 mm)
 Repeatability $\leq 0.0005"/0.010$ mm

Notable Features

Fast, accurate, repeatable measurements.

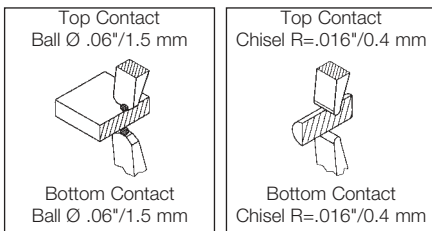
- Large easy to read graduations in 0.0005"/0.01 mm.
- Rack gear movement increases accuracy and repeatability. Oil and corrosion resistant.
- Fine steel alloyed arms, special machined case, light-weight, easy-to-use, 24-7 durable, shop-rugged gage.
- Spring-loaded arms, eliminate operator "hand-touch" variances.
- Gages reach over flanges, around curved surfaces, and reach hard to get to measurements. Special arm designs available quickly.

Standard Contact Types



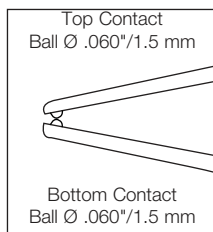
"E" Contacts

"D" Contacts

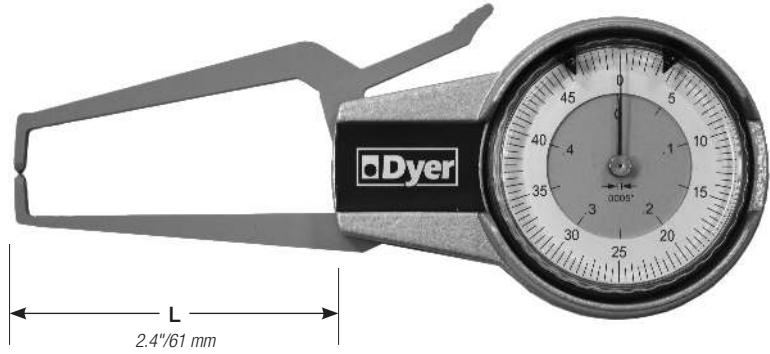


"C" Contacts

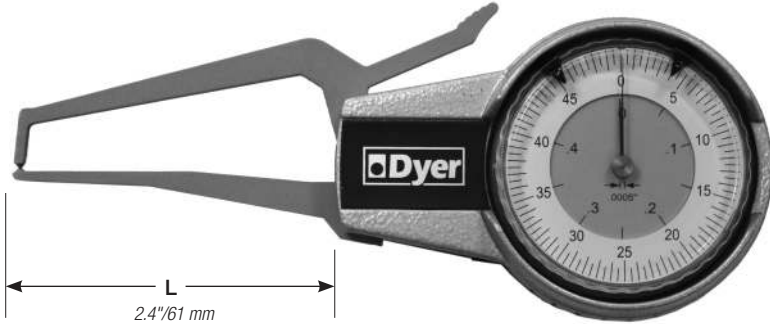
"B" Contacts



"F" Contacts



313-302

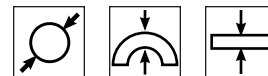


313-304

Models and Specifications

Range	L Dim Reach of Arms	Contact Type	Graduation	Range Model Number
Inch Specifications				
0-0.4"	2.4"	C	0.0005"	313-302
0-0.4"	2.4"	B	0.0005"	313-303
0-0.4"	2.4"	E	0.0005"	313-304
0-0.4"	2.4"	D	0.0005"	313-305
0-0.4"	2.4"	F	0.0005"	313-306
Metric Specifications				
0-10 mm	61 mm	C	0.010 mm	313-402
0-10 mm	61 mm	B	0.010 mm	313-403
0-10 mm	61 mm	E	0.010 mm	313-404
0-10 mm	61 mm	D	0.010 mm	313-405
0-10 mm	61 mm	F	0.010 mm	313-406

313 SERIES DIRECT READING SPECIAL ARM DESIGNS

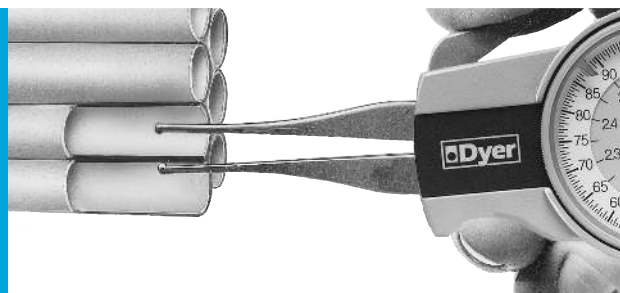


Maximum Measuring Accuracy

313 Series with 2.4"/61 mm reach
 Linear $\leq \pm 0.0005"/0.01$ mm
 Repeatability $\leq 0.0005"/0.01$ mm

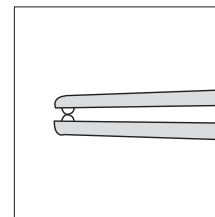
Notable Features

- Fast, accurate, repeatable.
- Direct reading.
- Spring-loaded contact arms.
- Needle and ball contacts also available.
- Soft materials, medical field, many applications.



Model 313-360 Special

The 313-360 has special straight arms that measures thickness of parallel surfaces or web designs. Arms are set parallel to your part application specifications. Contact Dyer with your requirements.



C Ball contact
upper and lower

Customized Gages from Standard Gage Models

Dyer will customize a standard "in-stock gage" to meet your part measuring needs. We can change ranges, arm sizes and lengths, add depth stops and modify contact point tips, ball sizes and types.

Special Gage Designs (No Minimum Quantities)

Dyer will make a single gage to meet your requirements. We have a large number of special designs/gage solutions in our files. Contact our applications engineers and show us your application requirements. *We can help you!*

Special Carbide Ball Contacts

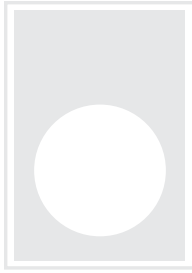
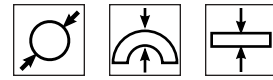
The carbide ball sizes shown at right are in stock for immediate delivery. We also offer different types of material, i.e., chrome, ruby, ceramic, teflon. Additional customized sizes are available. Contact us with your application requirements.

Inch	mm
0.031 = 1/32	0.5
0.063 = 1/16	1.0
0.078 = 5/64	1.5
0.098 = 3/32	2.0
0.125 = 1/8	2.5
0.156 = 5/32	3.0
0.188 = 3/16	3.5
0.250 = 1/4	4.5
0.312 = 5/16	5.0
0.438 = 7/16	5.5
0.500 = 1/2	6.0
0.625 = 5/8	7.0



This special 313 model has thinned arms that can fit into hard-to-reach areas on a part.

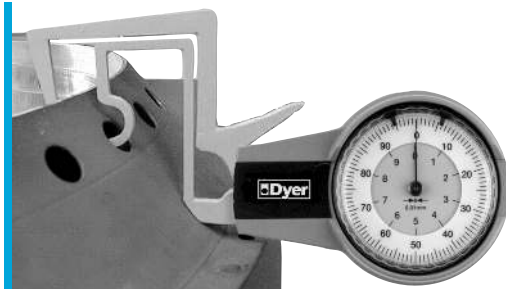
APPLICATION IDEAS CUSTOM HAND GAGES FAST SERVICE ON SPECIAL DESIGNS



SHOW DYER YOUR APPLICATION. WE WILL HELP YOU SELECT THE RIGHT GAGE.



*313 Series Special
Gage in position to measure 2 offset locations within a part.
One gage saves cost and time.*



*313 Series Special with modified arms and contacts measure
(2) two-step thickness that are offset at hard to reach locations
on an aerospace part.*



*Special lower arm can be modified to enter holes
as small as 0.040".*



*313 Special
Model 313-405 modified to measure wall thickness of nozzle
partition for turbine engines.*



*313 Series
Special lower arm.*



*313 Series Special
Arm design to customer's drawing.*

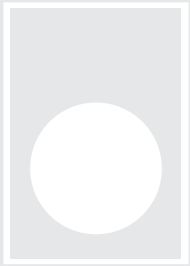


*313 Series Special
Modified lower arm that will clear an obstruction on the part.*

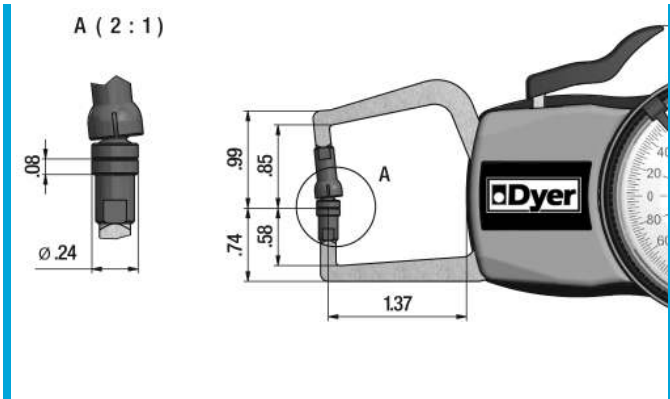
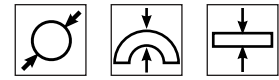


*313 Series Special
Special lower arms with adjustable depth stop.*

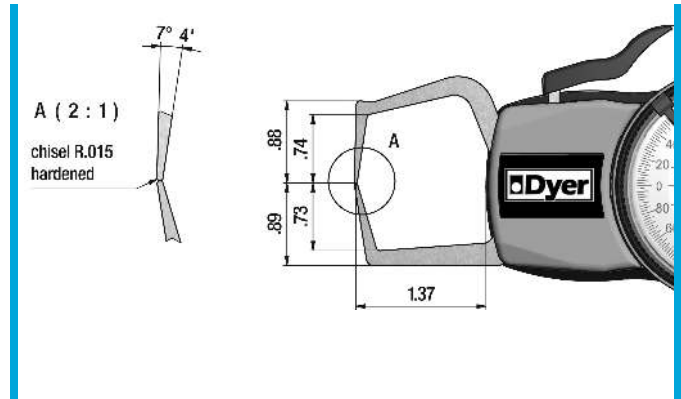




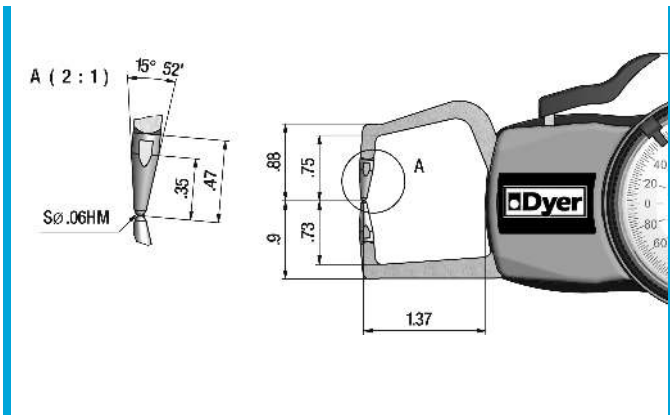
301 SERIES SHORT REACH DIRECT READING MIN-WALL/THICKNESS GAGES



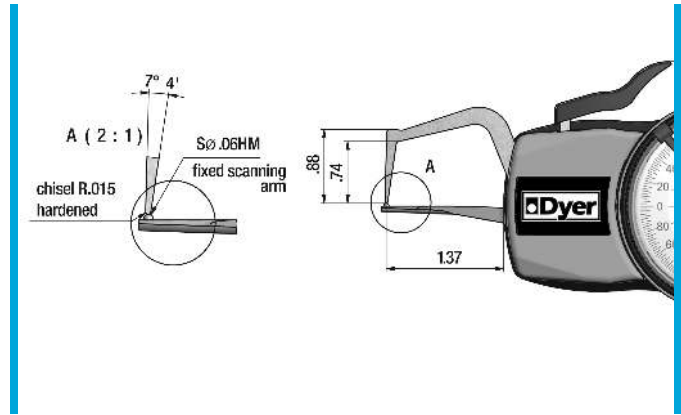
301-502



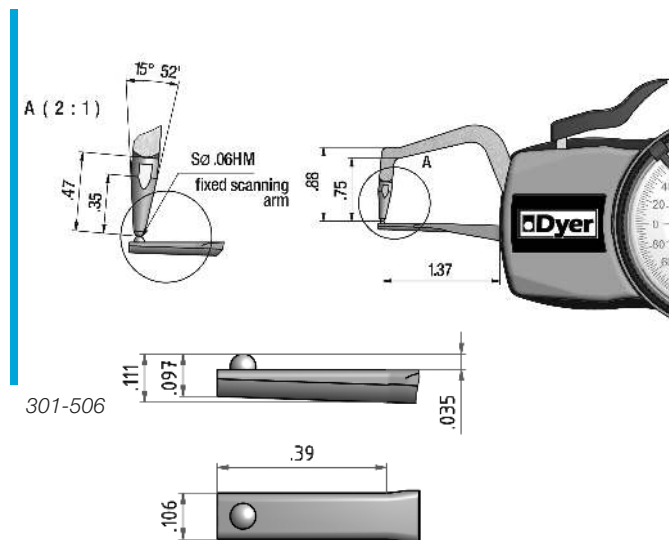
301-503



301-504

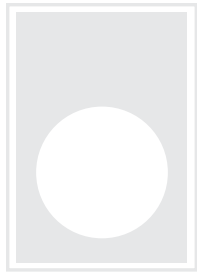
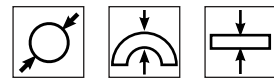


301-505



301-506

301 SERIES SHORT REACH DIRECT READING MIN-WALL/THICKNESS GAGES



Maximum Measuring Accuracy

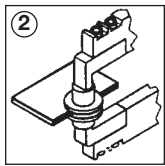
301 Series with 1.37" reach
Linear Accuracy at 0.0004"
Repeatability ± 0.0002 "

Five different contact tip sets available as standard. Fast service on custom arms and contact tips. Contact Dyer office.

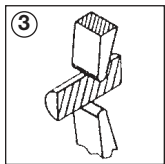
Notable Features

- Operator friendly, no operator error.
- Fast, accurate, repeatable and shop-rugged.
- Gage will reach over flanges and measure hard-to-reach thicknesses on castings and aircraft parts.
- 1-5 day service on custom arms and contacts.
- Easy to read dial.

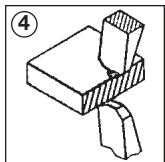
We will customize special arms, contact and carbide ball sizes to meet your applications needs.



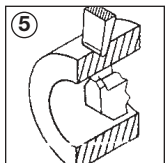
② $\varnothing 6.0$ mm (0.24") dia.
flat upper and lower
upper contact swivels
lower contact fixed



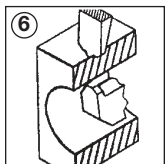
③ R 0.4 mm (0.015")
chisel upper and lower



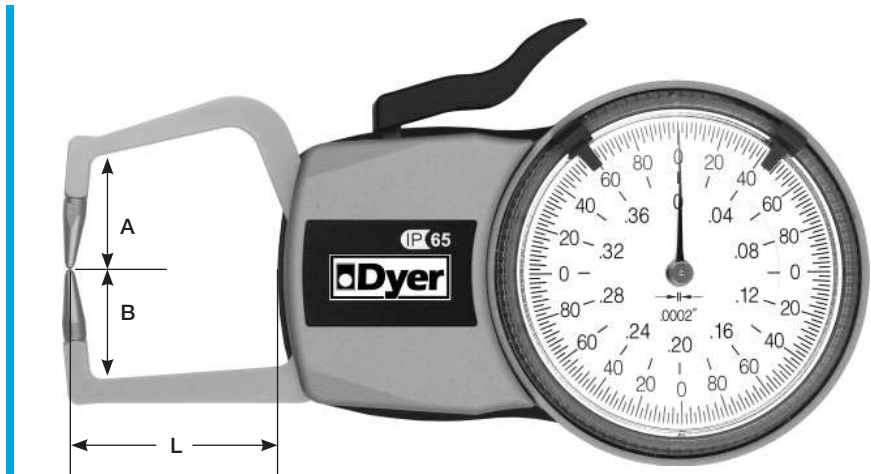
④ $\varnothing 1.5$ mm (0.06")
ball upper and lower



⑤ R 0.4 mm (0.015")
chisel upper arm
 $\varnothing 1.5$ (0.06") dia.
ball lower arm
straight lower arm



⑥ $\varnothing 1.5$ mm (0.060")
C. ball upper and lower
straight lower arm

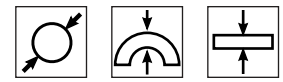


Model 301-504

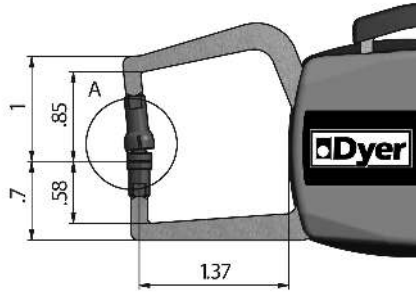
Models and Specifications

Application Range	Length L	Dim A	Dim B	Contact Point Type	Graduation	Order Number
Inch Specifications						
0-0.4"	1.37"	0.85"	0.58"	2	0.0002"	301-502
0-0.4"	1.37"	0.74"	0.73"	3	0.0002"	301-503
0-0.4"	1.37"	0.75"	0.73"	4	0.0002"	301-504
0-0.4"	1.37"	0.74"	0.035"	5	0.0002"	301-505
0-0.4"	1.37"	0.75"	0.035"	6	0.0002"	301-506
Metric Specifications (mm)						
0-10 mm	35 mm	28.2 mm	20.7 mm	2	0.005 mm	301-502
0-10 mm	35 mm	19 mm	19 mm	3	0.005 mm	301-503
0-10 mm	35 mm	19 mm	19 mm	4	0.005 mm	301-504
0-10 mm	35 mm	19 mm	0.9 mm	5	0.005 mm	301-505
0-10 mm	35 mm	19 mm	0.9 mm	6	0.005 mm	301-506

653 SERIES SHORT REACH ELECTRONIC THICKNESS GAGES

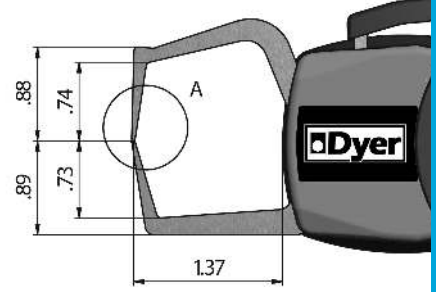
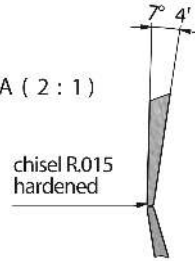


A (2:1)



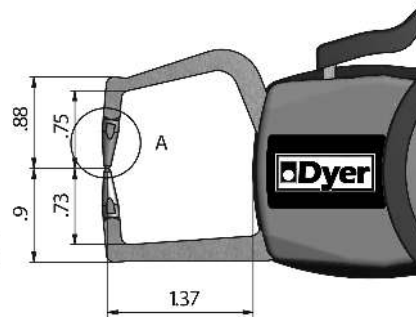
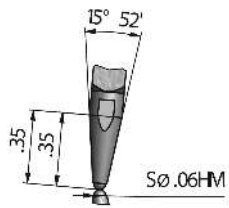
653-502

A (2:1)



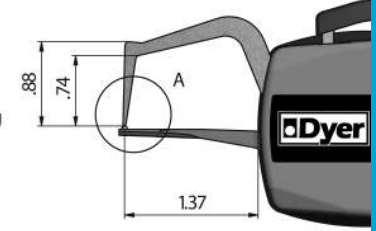
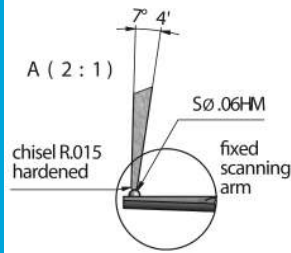
653-503

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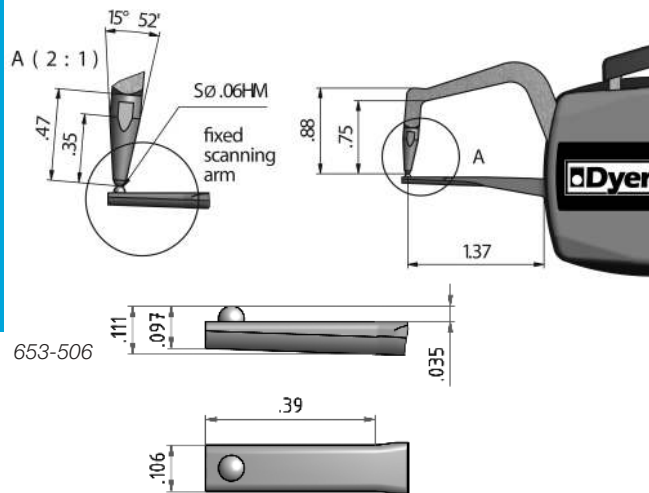


653-504

A (2:1)

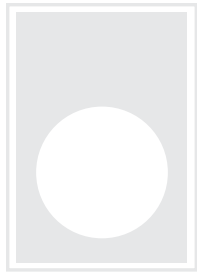
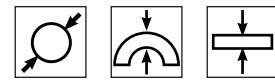


653-505



653-506

653 SERIES SHORT REACH ELECTRONIC THICKNESS GAGES



Maximum Measuring Accuracy

Linear Accuracy at $\pm 0.0004"$
Repeatability $\pm 0.0002"$

Notable Features

- Fast, accurate, repeatable.
- Light weight.
- SPC output for USB or Mitutoyo devices. Cables offered separately.
- Absolute and Relative modes with Min, Max and Hold programs.
- Tolerance limit markers with Green/Red LED for visual operator judgement.
- Internal memory that holds a maximum of 80 measured values.
- Programmable auto shut off for battery savings.
- IP 67. Gages are shop rugged.
- Analog segment (fan) display.
- Keypad lock.
- Wireless data option. Contact us with your requirement.

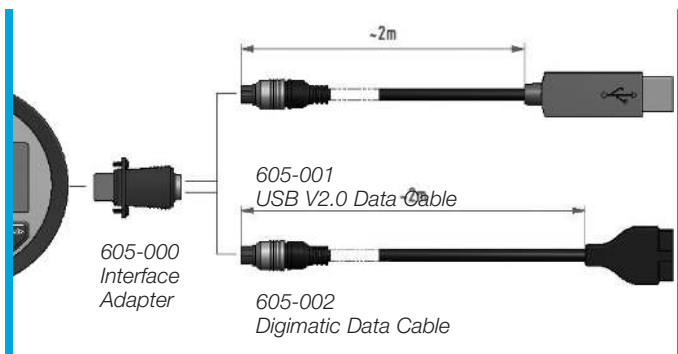
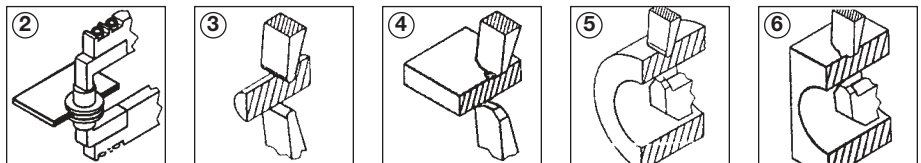
Special customized arms, ball sizes and/or ball material are also available. Dyer is dedicated to solving your special measuring applications. Contact Dyer Applications Engineering with your specific gage requirement.



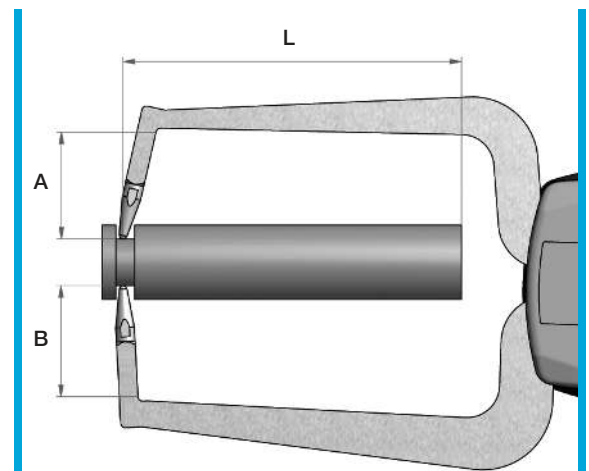
653-504

653 Series Models and Specifications

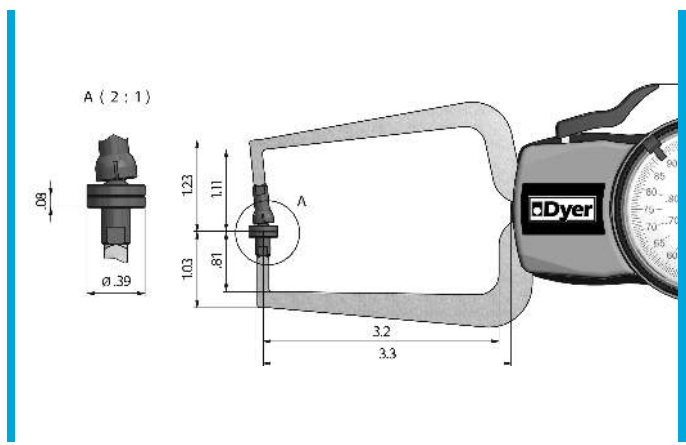
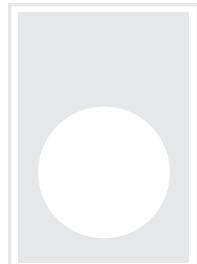
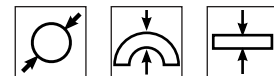
Application Range	Length L	Dim A*	Dim B*	Contact Point Type ¹	Graduation	Order Number
0-0.39" 0-10 mm	1.37" 35 mm	0.85" 28.2 mm	0.58" 20.7 mm	2	0.0002" 0.005 mm	653-502
0-0.39" 0-10 mm	1.37" 35 mm	0.74" 19 mm	0.73" 19 mm	3	0.0002" 0.005 mm	653-503
0-0.39" 0-10 mm	1.37" 35 mm	0.75" 19 mm	0.73" 19 mm	4	0.0002" 0.005 mm	653-504
0-0.39" 0-10 mm	1.37" 35 mm	0.74" 19 mm	0.035" 0.9 mm	5	0.0002" 0.005 mm	653-505
0-0.39" 0-10 mm	1.37" 35 mm	0.75" 19 mm	0.035" 0.9 mm	6	0.0002" 0.005 mm	653-506



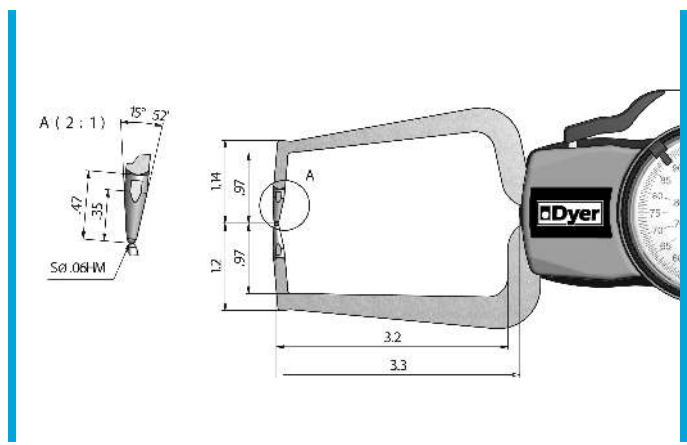
SPC Cables



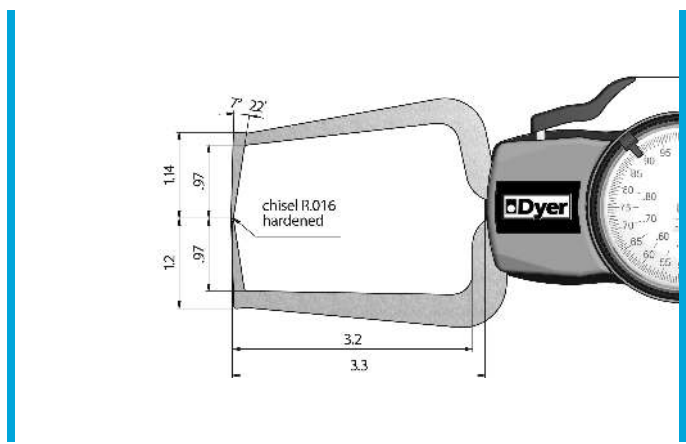
301 SERIES DIRECT READING MIN-WALL/THICKNESS GAGES



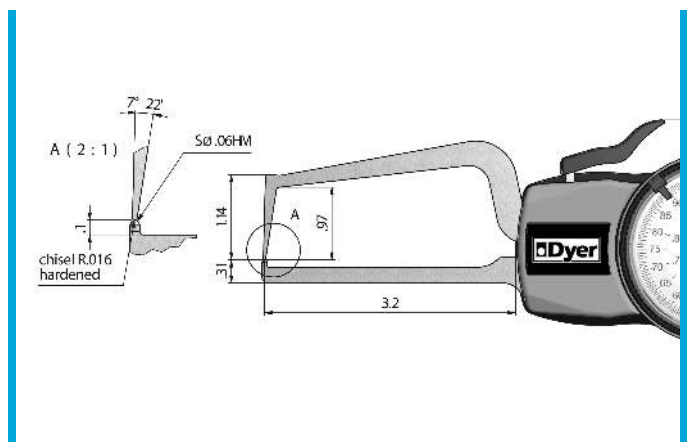
301-302



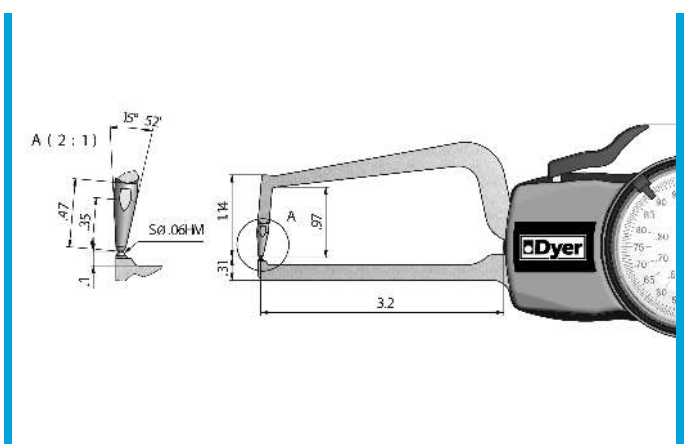
301-304



301-303

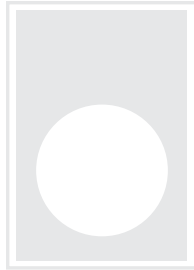
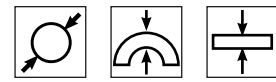


301-305



301-306

301 SERIES DIRECT READING MIN-WALL/THICKNESS GAGES



Maximum Measuring Accuracy

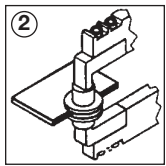
301 Series with 3.15" reach
Linear Accuracy at 0.040" Travel
 $\leq 0.0005"/0.010$ mm
Repeatability $\leq 0.0004"$ (0.010 mm)

Five different contact tip sets available as standard. Fast service on custom arms and contact tips. Contact Dyer office.

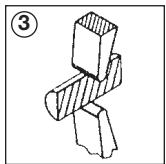
Notable Features

- Operator friendly, no operator error.
- Fast, accurate, repeatable and shop-rugged.
- Gage will reach over flanges and measure hard-to-reach thicknesses on castings and aircraft parts.
- 1-5 day service on custom arms and contacts.
- Easy to read dial.

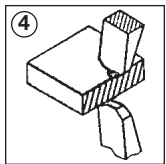
We will customize special arms, contact and carbide ball sizes to meet your applications needs.



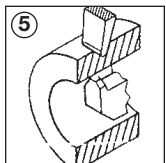
② $\varnothing 10.0$ mm (0.394") dia.
flat upper and lower
upper contact swivels
lower contact fixed



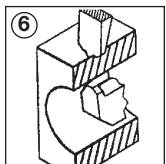
③ R 0.4 mm (0.016")
chisel upper and lower



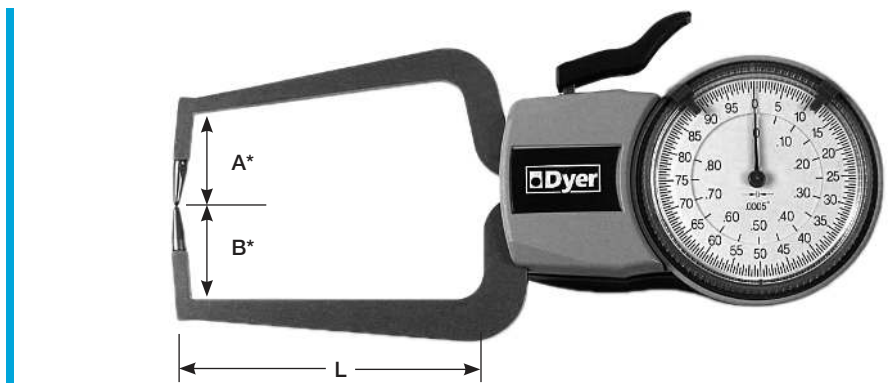
④ $\varnothing 1.5$ mm (0.06")
ball upper and lower



⑤ R 0.4 mm (0.016")
chisel upper arm
 $\varnothing 1.5$ (0.059") dia.
ball lower arm
straight lower arm



⑥ $\varnothing 1.5$ mm (0.06")
C. ball upper and lower
straight lower arm



Model 301-304

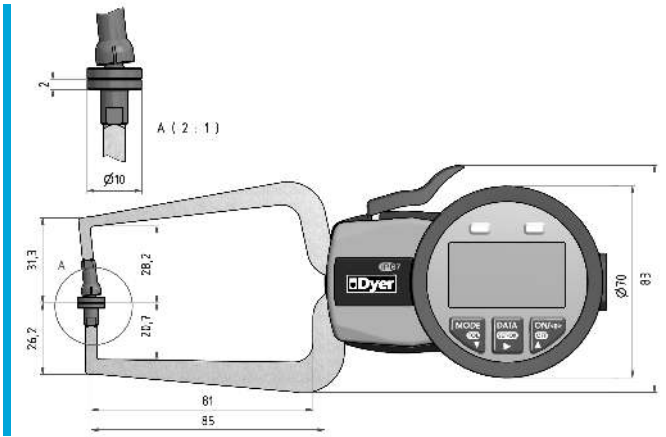
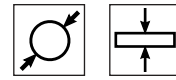


Model 301-306

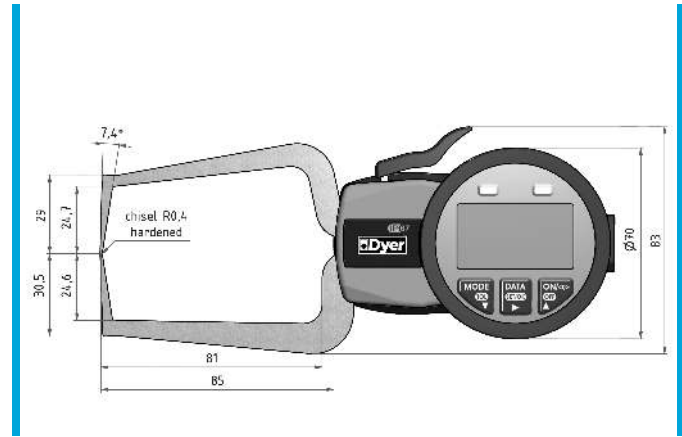
Models and Specifications

Application Range	Length L	Dim A	Dim B	Contact Point Type	Graduation	Order Number
Inch Specifications						
0-0.8"	3.15"	1.11"	0.81"	2	0.0005"	301-302
0-0.8"	3.15"	0.97"	0.97"	3	0.0005"	301-303
0-0.8"	3.15"	0.97"	0.97"	4	0.0005"	301-304
0-0.8"	3.15"	0.97"	0.1"	5	0.0005"	301-305
0-0.8"	3.15"	0.97"	0.1"	6	0.0005"	301-306
Metric Specifications (mm)						
0-20 mm	80 mm	28.2 mm	20.7 mm	2	0.010	301-402
0-20 mm	80 mm	24.6 mm	24.6 mm	3	0.010	301-403
0-20 mm	80 mm	24.6 mm	24.6 mm	4	0.010	301-404
0-20 mm	80 mm	24.6 mm	2.5 mm	5	0.010	301-405
0-20 mm	80 mm	24.6 mm	2.5 mm	6	0.010	301-406

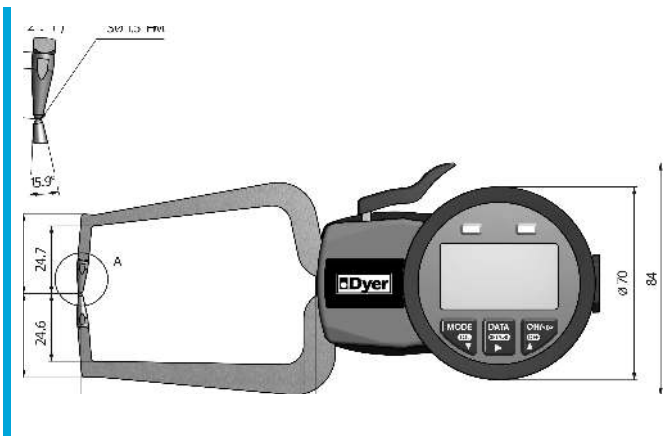
653 SERIES ELECTRONIC THICKNESS GAGES



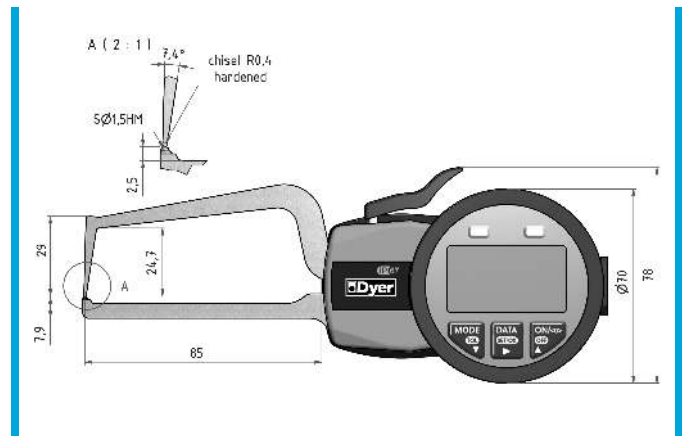
653-002



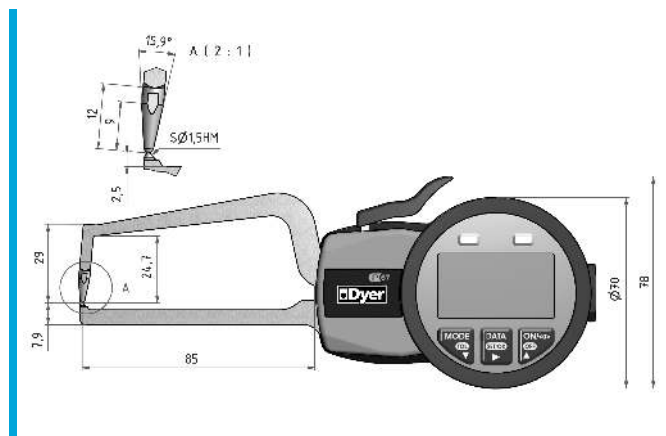
653-003



653-004

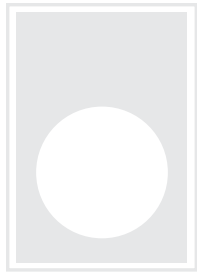
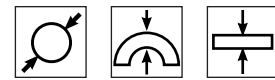


653-005



653-006

653 SERIES ELECTRONIC THICKNESS GAGES



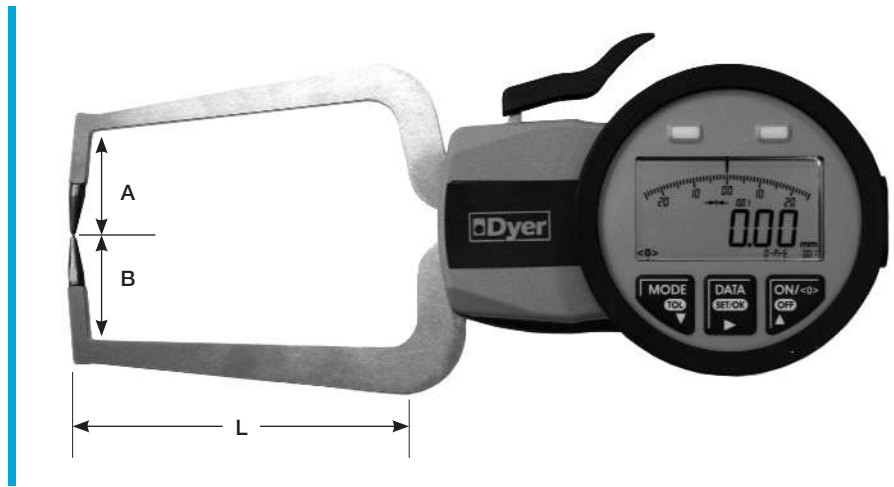
Maximum Measuring Accuracy

Linear Accuracy at $\pm 0.001''$
Repeatability $\pm 0.0005''/0.010$ mm

Notable Features

- Fast, accurate, repeatable.
- Light weight.
- SPC output for USB or Mitutoyo devices. Cables offered separately.
- Absolute and Relative modes with Min, Max and Hold programs.
- Tolerance limit markers with Green/Red LED for visual operator judgement.
- Internal memory that holds a maximum of 80 measured values.
- Programmable auto shut off for battery savings.
- IP 67. Gages are shop rugged.
- Analog segment (fan) display.
- Keypad lock.
- Wireless data option. Contact us with your requirement.

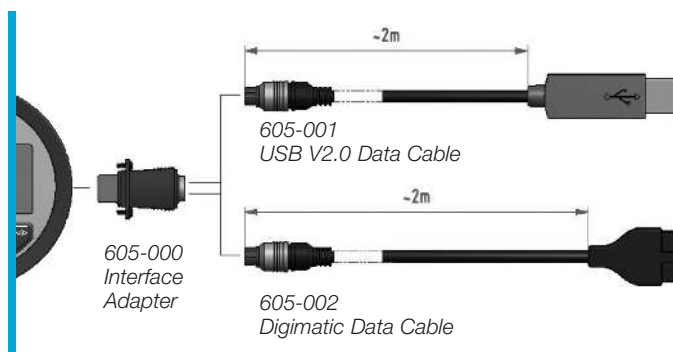
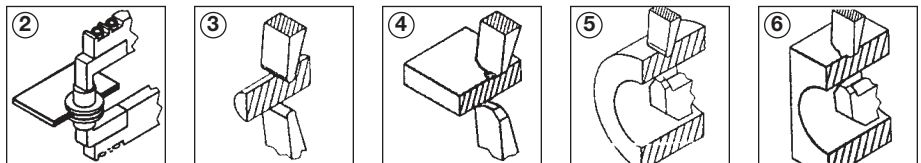
Special customized arms, ball sizes and/or ball material are also available. Dyer is dedicated to solving your special measuring applications. Contact Dyer Applications Engineering with your specific gage requirement.



653-004

653 Series Models and Specifications

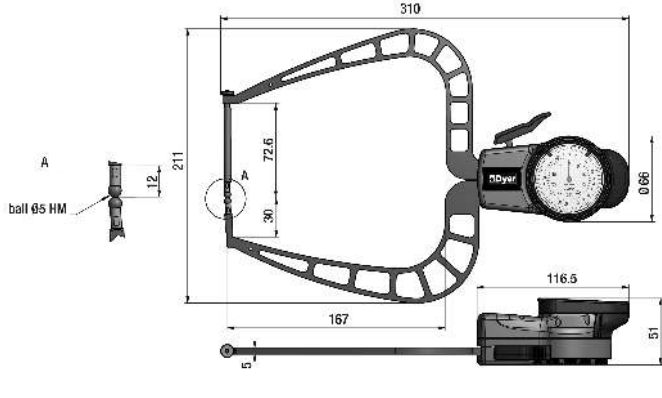
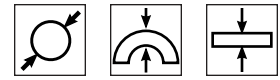
Application Range	Length L	Dim A	Dim B	Contact Point Type	Graduation	Order Number
0-0.8" 0-20 mm	3.15" 80 mm	1.11" 28.2 mm	0.81" 20.7 mm	2	0.0005" 0.010 mm	653-002
0-0.8" 0-20 mm	3.15" 80 mm	0.97" 24.6 mm	0.97" 24.6 mm	3	0.0005" 0.010 mm	653-003
0-0.8" 0-20 mm	3.15" 80 mm	0.97" 24.6 mm	0.97" 24.6 mm	4	0.0005" 0.010 mm	653-004
0-0.8" 0-20 mm	3.15" 80 mm	0.97" 24.6 mm	0.1" 2.5 mm	5	0.0005" 0.010 mm	653-005
0-0.8" 0-20 mm	3.15" 80 mm	0.97" 24.6 mm	0.1" 2.5 mm	6	0.0005" 0.010 mm	653-006



SPC Cables



304 SERIES GAGES FOR LONGER REACH OVER OBSTRUCTIONS



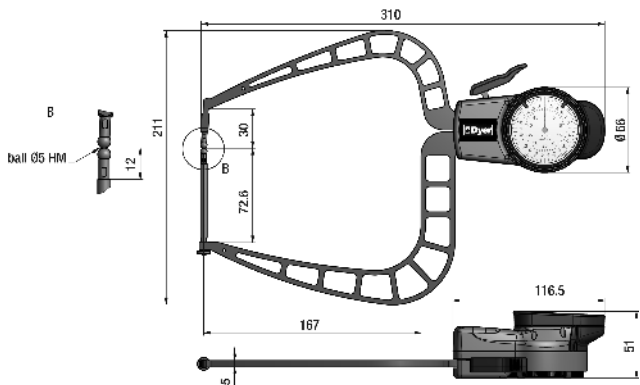
Model 304-234

304 Series Tall Top Contact Inch Models and Specifications

Range	Length L	Dim A	Dim B	Contact Point Type	Graduation Resolution	Order Number
0-2.0"	6.5"	2.83"	1.18"	4	0.001"	304-134
0-2.0"	6.5"	2.83"	0.18"	7	0.001"	304-137
0-2.0"	6.5"	2.83"	0.18"	8	0.001"	304-138

304 Series Tall Top Contact Metric Models and Specifications

Range	Length L	Dim A	Dim B	Contact Point Type	Graduation Resolution	Order Number
0-50 mm	167 mm	72 mm	30 mm	4	0.050 mm	304-234
0-50 mm	167 mm	72 mm	4.6 mm	7	0.050 mm	304-237
0-50 mm	167 mm	72 mm	4.6 mm	8	0.050 mm	304-238



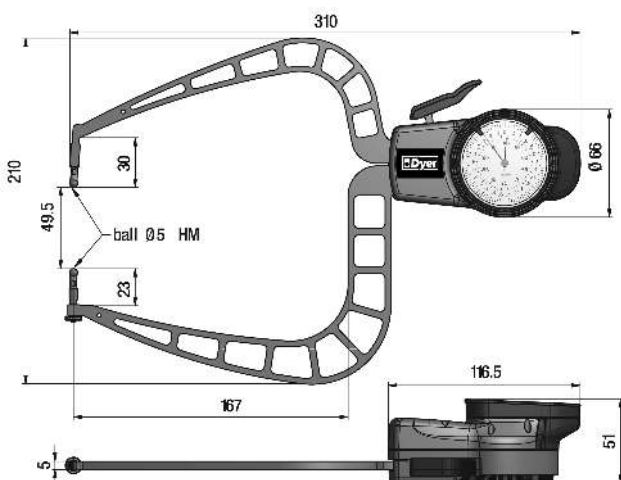
Model 304-804

304 Series Tall Bottom Contact Inch Models and Specifications

Range	Length L	Dim A	Dim B	Contact Point Type	Graduation Resolution	Order Number
0-2.0"	6.5"	1.18"	2.83"	4	0.001"	304-704

304 Series Tall Bottom Contact Metric Models and Specifications

Range	Length L	Dim A	Dim B	Contact Point Type	Graduation Resolution	Order Number
0-50 mm	167 mm	30 mm	72 mm	4	0.050 mm	304-804



Model 304-924

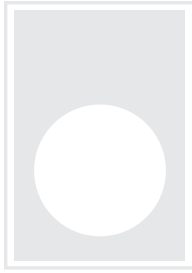
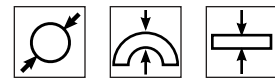
304 Series Large Diameter Inch Models and Specifications

Range	Length L	Dim A	Dim B	Contact Point Type	Graduation Resolution	Order Number
2.0-4.0"	6.5"	1.18"	0.90"	4	0.001"	304-904
4.0-6.0"	6.5"	1.18"	0.90"	4	0.001"	304-914

304 Series Large Diameter Metric Models and Specifications

Range	Length L	Dim A	Dim B	Contact Point Type	Graduation Resolution	Order Number
50-100 mm	167 mm	30 mm	23 mm	4	0.050 mm	304-924
100-150 mm	167 mm	30 mm	23 mm	4	0.050 mm	304-934

302 SERIES LONGER REACH OVER FLANGES

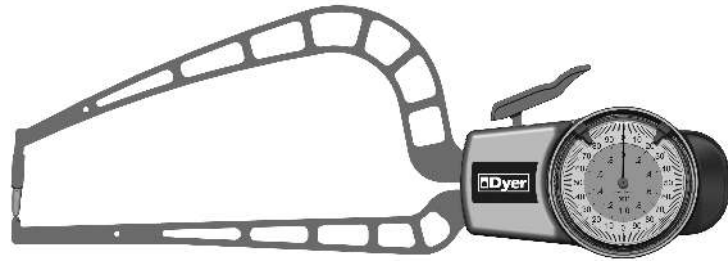


Maximum Measuring Accuracy

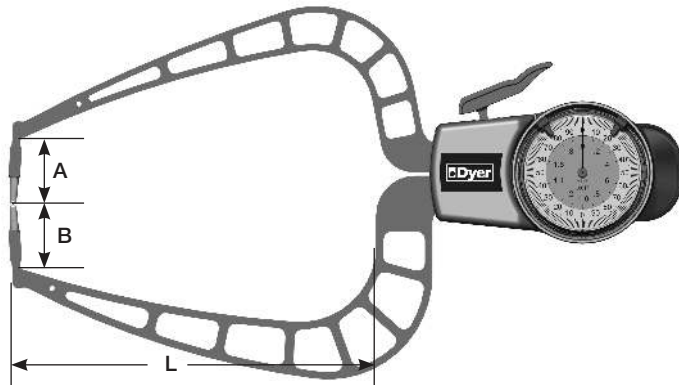
Linear $\pm 0.002'' / \pm 0.1 \text{ mm}$
 Repeatability $\pm 0.001'' / \pm 0.050 \text{ mm}$

Notable Features

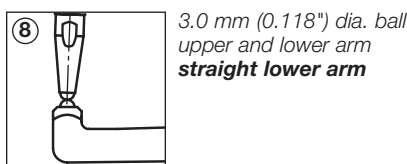
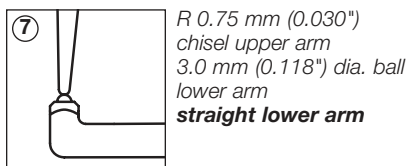
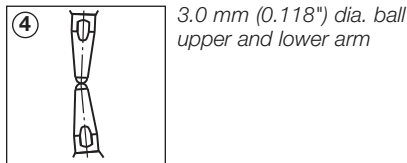
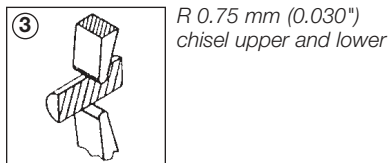
- Ease of use, operator-friendly.
- Direct reading.
- Fast, accurate, 24-7 shop-rugged.
- Gage reaches over flanges for hard-to-reach measurements.



Model 302-108



Model 302-104 with ball contact tips



302 Series Inch Models and Specifications

Range	Max Contact Travel	L Dim Reach of Arms	Dim A	Dim B	Contact Point Type	Graduation	Order Number
0-2.0"	2.0"	6.5"	1.18"	1.18"	3	0.001"	302-103
0-2.0"	2.0"	6.5"	1.18"	1.18"	4	0.001"	302-104
0-2.0"	2.0"	6.5"	1.18"	0.18"	7	0.001"	302-107
0-2.0"	2.0"	6.5"	1.18"	0.18"	8	0.001"	302-108

302 Series Metric Models and Specifications

Range	Max Contact Travel	L Dim Reach of Arms	Dim A	Dim B	Contact Point Type	Graduation	Order Number
0-50 mm	50.0 mm	167.0 mm	30.0 mm	30.0 mm	3	0.050 mm	302-203
0-50 mm	50.0 mm	167.0 mm	30.0 mm	30.0 mm	4	0.050 mm	302-204
0-50 mm	50.0 mm	167.0 mm	30.0 mm	4.6 mm	7	0.050 mm	302-207
0-50 mm	50.0 mm	167.0 mm	30.0 mm	4.6 mm	8	0.050 mm	302-208

SPECIAL APPLICATIONS CUSTOM DESIGNS



SHOW DYER YOUR APPLICATION. WE WILL HELP YOU SELECT THE RIGHT GAGE.

Customized Gages from Standard Gage Models

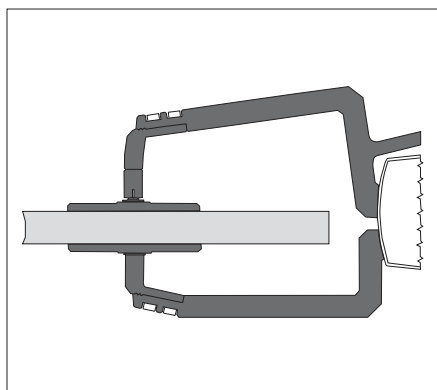
Dyer will customize a standard “in-stock gage” to meet your part measuring needs. We can change ranges, arm sizes and lengths, add depth stops and modify contact point tips, ball sizes and types.

Standard “Off-The-Shelf” Gages

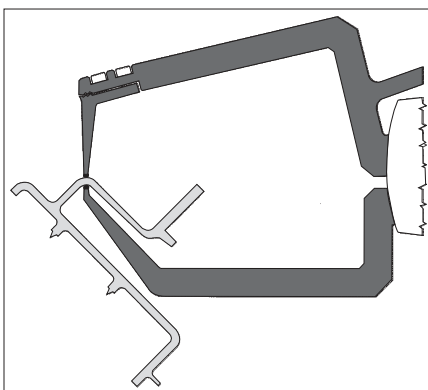
Many Dyer standard models will work in your measuring applications. Contact our gage application engineers and we’ll help you choose the right gage.

Special Gage Designs (No Minimum Quantities)

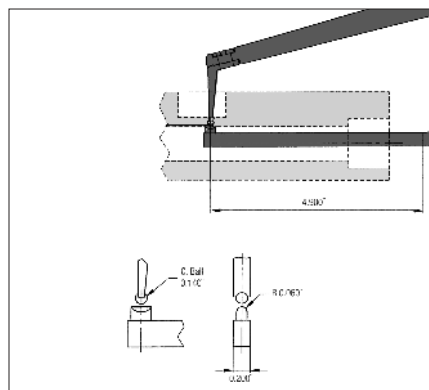
Dyer will make a single gage to meet your requirements. We have a large number of special designs/gage solutions in our files. Contact our application engineers and show us your application requirements. *We can help you!*



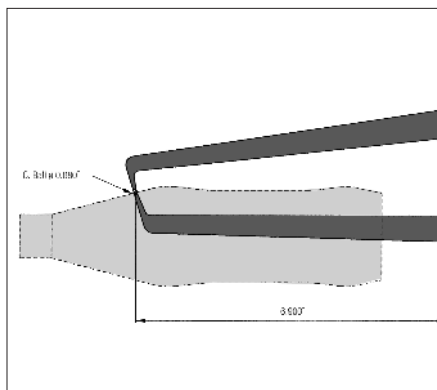
Repeatable foam thickness measurements



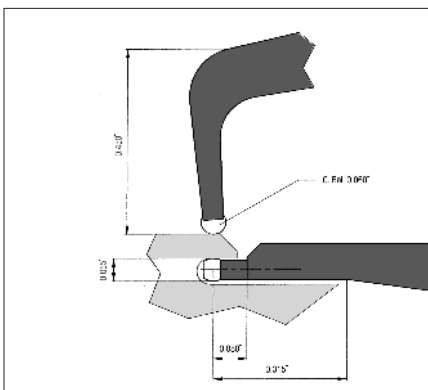
Hard-to-reach wall thickness



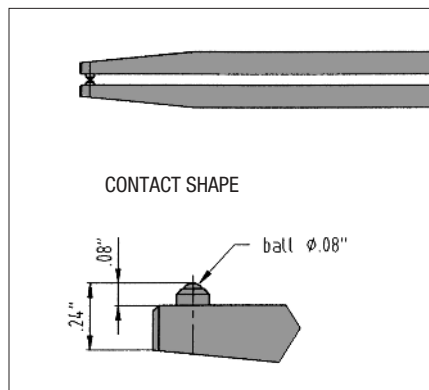
Measure Min-Wall over flange in recess



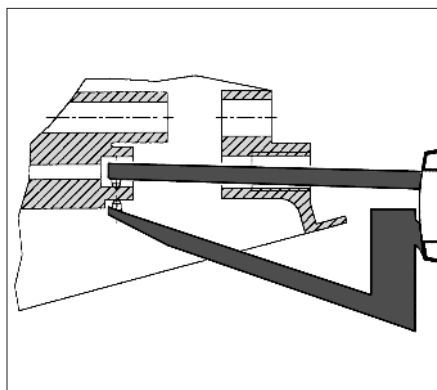
Awkwardly positioned Min-Wall is measured with angled contacts



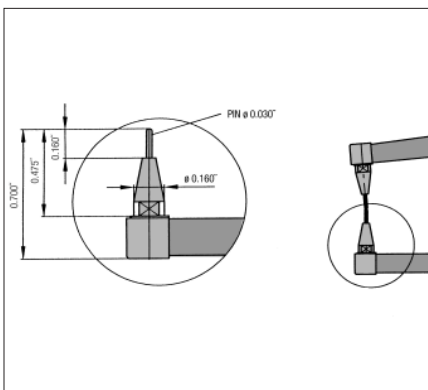
Modified contact points to measure hard-to-reach wall thickness



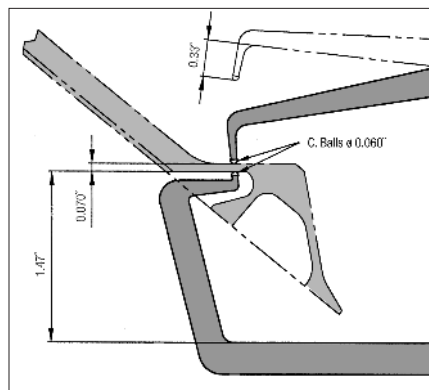
Measure thickness between ribbed material



Special arms

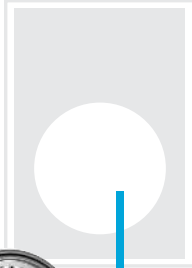
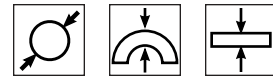


Special needle contacts



Hard-to-reach Min-Wall

SPECIAL APPLICATIONS CUSTOM DESIGNS



Measure bottom wall thickness of container.



302 Modified
Arms notched to clear part obstruction.



302 Special
Measure bottom wall thickness of flower vase.



302 Special
Parallel arms to measure thickness of walls in a web part 7" deep.



302 Special
Custom arms to reach over fixture and measure leading edge thickness of a turbine blade.



302 Special
Long reach thin arms to reach deep into part.



301 Special
Modified lower arm to reach into small diameter recess.



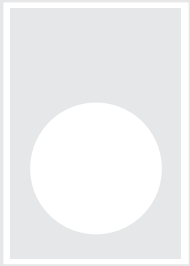
302 Special
Gage with radius arms.



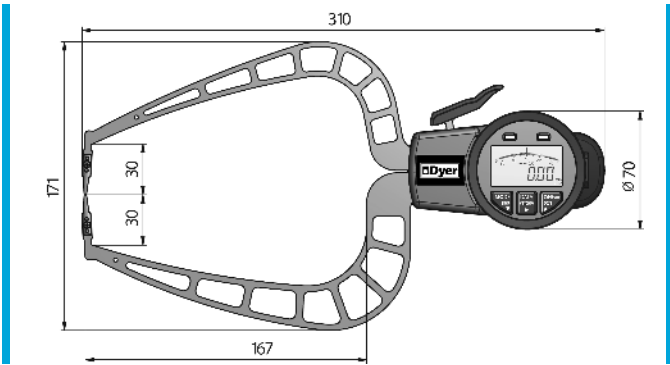
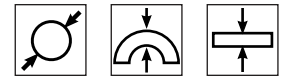
302 Special
Modified upper arm to reach deep into part.



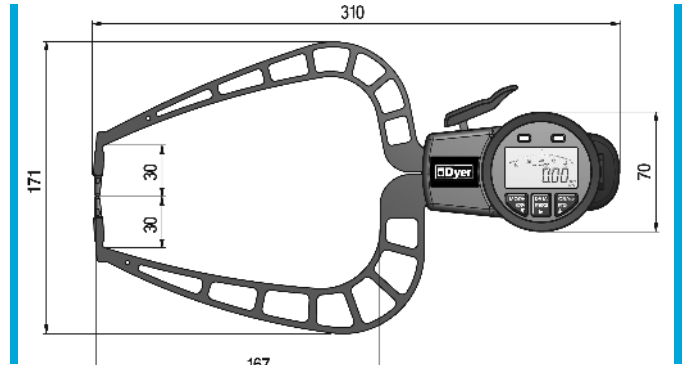
302 Special
Extra long lower contact to clear part range.



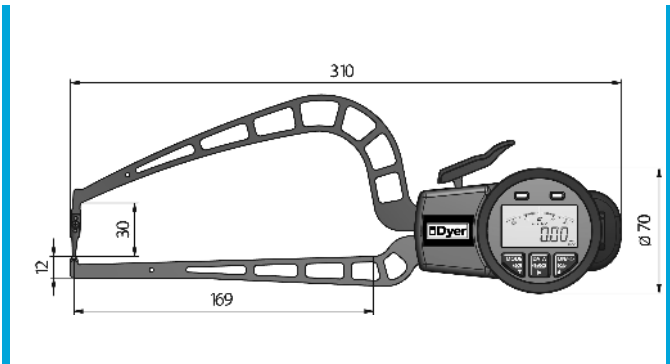
656 SERIES



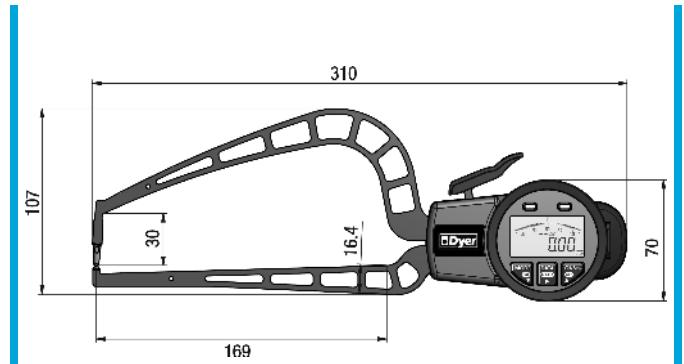
656-103



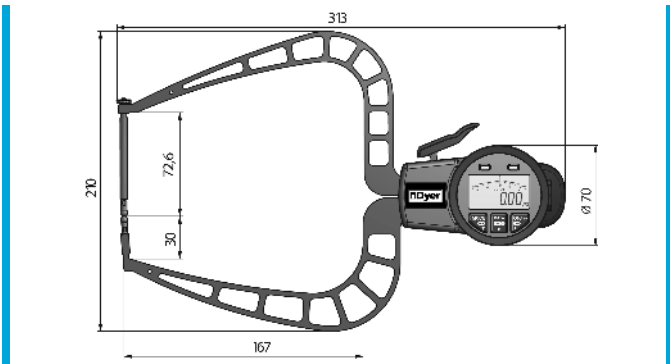
656-104



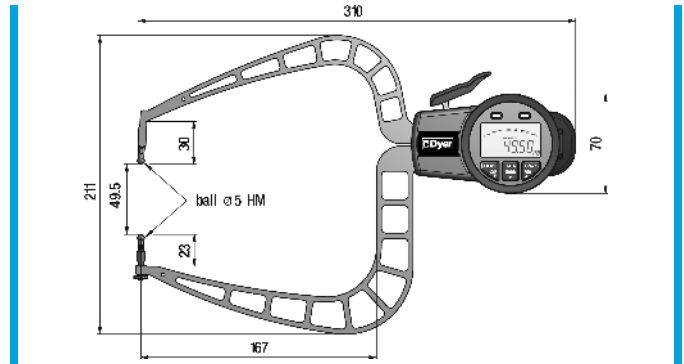
656-107



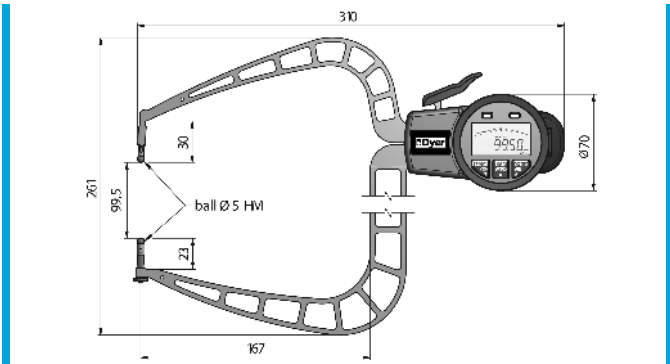
656-108



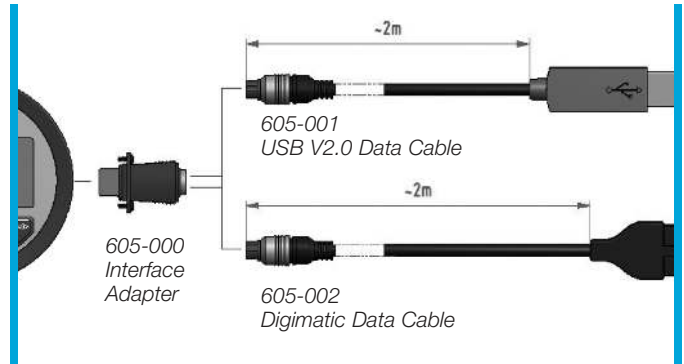
656-134



656-204

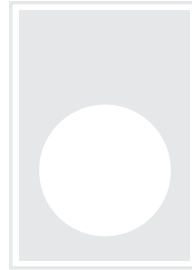
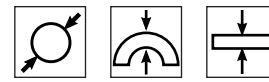


656-304



SPC Cables

656 SERIES ELECTRONIC "LONGER REACH" DIRECT READING THICKNESS GAGES



Maximum Measuring Accuracy

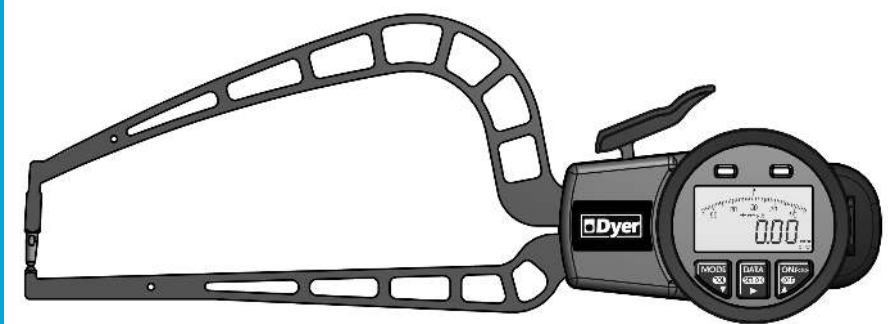
656 Series with 6.5" reach
Linear Accuracy $\pm 0.002"$ (0.050 mm)
Repeatability $\pm 0.001"$ (0.025 mm)
Gage R & R capable

Notable Features

- Fast, accurate, repeatable.
- Light weight.
- SPC output for USB or Mitutoyo devices. Cables offered separately.
- Absolute and Relative modes with Min, Max and Hold programs.
- Tolerance limit markers with Green/Red LED for visual operator judgement.
- Internal memory that holds a maximum of 80 measured values.
- Programmable auto shut off for battery savings.
- IP 67. Gages are shop rugged.
- Analog segment (fan) display.
- Keypad lock.
- Wireless data option. Contact us with your requirement.

Special Carbide Ball Contacts

The carbide ball sizes shown below are in stock for immediate delivery. We also offer different types of material, i.e., chrome, ruby, ceramic, teflon. Additional customized sizes are available. Contact us with your application requirements.



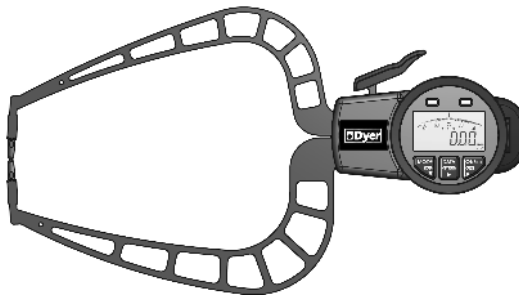
656-108

656 Series Digital Models and Specifications

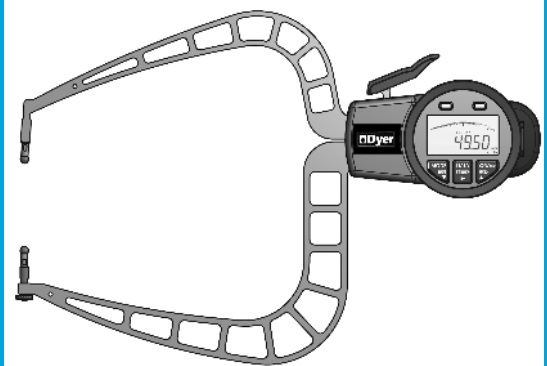
Application Range	Length L	Dim A	Dim B	Contact Point Type	Graduation Resolution	Order Number
0.0–2.0" 0.0–50 mm	6.5" 167 mm	1.18" 30 mm	1.18" 30 mm	R0.030" Chisel R0.75 Chisel	0.001" 0.020 mm	656-103
0.0–2.0" 0.0–50 mm	6.5" 167 mm	1.18" 30 mm	1.18" 30 mm	0.118" Ball 3 mm Ball	0.001" 0.020 mm	656-104
0.0–2.0" 0.0–50 mm	6.5" 167 mm	1.18" 30 mm	0.18" 4.6 mm	Top Chisel Bottom Ball	0.001" 0.020 mm	656-107
0.0–2.0" 0.0–50 mm	6.5" 167 mm	1.18" 30 mm	0.18" 4.6 mm	Top Chisel Bottom Ball	0.001" 0.020 mm	656-108
0.0–2.0" 0.0–50 mm	6.5" 167 mm	2.83" 72 mm	1.18" 30 mm	0.196" Ball 5 mm Ball	0.001" 0.020 mm	656-134
2.0–4.0" 50–100 mm	6.5" 167 mm	1.18" 30 mm	0.90" 23 mm	0.196" Ball 5 mm Ball	0.001" 0.020 mm	656-204
4.0–6.0" 100–150 mm	6.5" 167 mm	1.18" 30 mm	0.90" 23 mm	0.196" Ball 5 mm Ball	0.001" 0.020 mm	656-304

Carbide Ball Contacts

Inch	mm
0.031 = 1/32	0.5
0.063 = 1/16	1.0
0.078 = 5/64	1.5
0.098 = 3/32	2.0
0.125 = 1/8	2.5
0.156 = 5/32	3.0
0.188 = 3/16	3.5
0.250 = 1/4	4.5
0.312 = 5/16	5.0
0.438 = 7/16	5.5
0.500 = 1/2	6.0
0.625 = 5/8	7.0

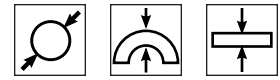


Model 656-104



Model 656-204

306 SERIES GAGES FOR THICK MATERIALS, SOFT OR HONEYCOMB MATERIALS



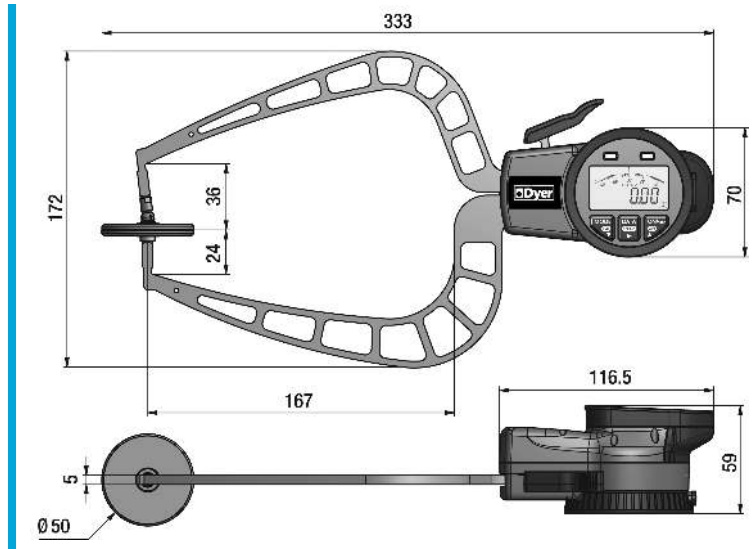
Maximum Measuring Accuracy

Linear $\pm 0.002"/\pm 0.1$ mm
Repeatability $\pm 0.001"/\pm 0.05$ mm

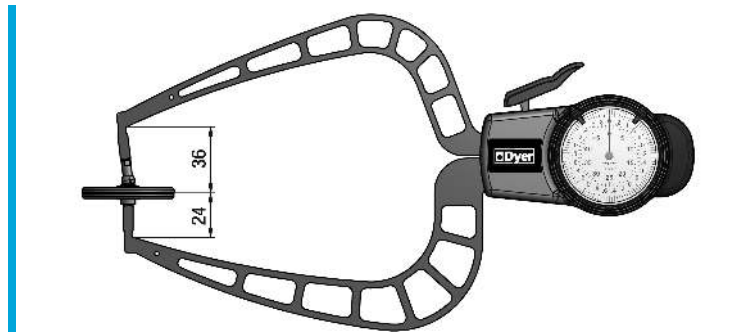
Soft Materials Thickness Gages

Features

- Measure foam, insulation, honey comb, rubber, etc.
- $\varnothing 2.0$ " (50 mm) diameter flat aluminum contacts
- Reduced spring tension no operator "hand touch"
- Special reduced weight measuring arms



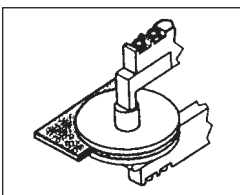
Electronic Model 306-851



Mechanical Model 306-821

Special Flat Contacts

Dyer offers 0.39"/10 mm and 1.97"/50 mm flat contacts as standard. We will custom make flat contacts to your requirements. Contact Dyer Applications Engineering.



$\varnothing 50.0$ mm (2.0") dia. flat upper and lower top swivels, bottom fixed

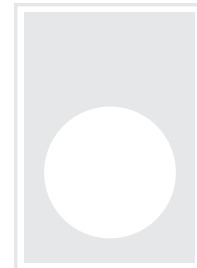
306 Series Electronic Models and Specifications

Range	Length "L"	Dim A	Dim B	Contact Point Type	Graduation Resolution	Order Number
0-2.0"	6.5"	1.41"	0.94"	1	0.001"	306-851
0-50.0	167 mm	36 mm	24 mm		0.020 mm	
2.0-4.0"	6.5"	1.41"	0.94"	1	0.001"	306-852
50.0-100.0	167 mm	36 mm	24 mm		0.020 mm	
4.0-6.0"	6.5"	1.41"	0.94"	1	0.001"	306-853
100.0-150.0	167 mm	36 mm	24 mm		0.020 mm	

306 Series Mechanical Models and Specifications

Range	Length "L"	Dim A	Dim B	Contact Point Type	Graduation Resolution	Order Number
Inch Specifications						
0-2.0"	6.5"	1.41"	0.94"	1	0.001"	306-801
2.0-4.0"	6.5"	1.41"	0.94"	1	0.001"	306-802
4.0-6.0"	6.5"	1.41"	0.94"	1	0.001"	306-803
Metric Specifications (mm)						
0-50.0	167 mm	36 mm	24 mm	1	0.050 mm	306-821
50.0-100.0	167 mm	36 mm	24 mm	1	0.050 mm	306-822
100.0-150.0	167 mm	36 mm	24 mm	1	0.050 mm	306-823

334 SERIES LONG REACH GAGES



Notable Features

- Dust and splash proof
- Damped movement with steel string transmission for higher precision
- Two tolerance marks easy to adjust
- Scales are well arranged and easy to read
- Gauge for absolute measurement



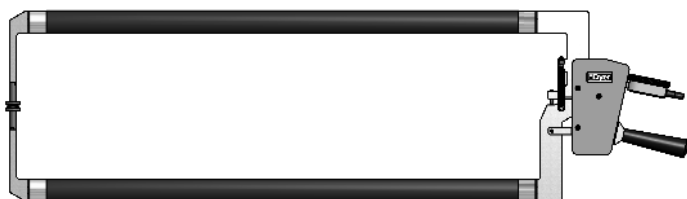
Model 334-201



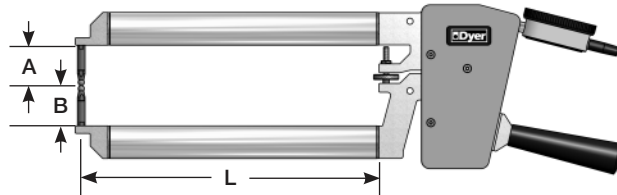
Model 334-202



Model 334-203



Model 334-207



Model 334-200



Model 334-204



Model 334-206

Models and Specifications

Range	Length L	Dim A	Dim B	Contact Point Type	Graduation Resolution	Order Number
Inch Specifications						
0-2.0"	9.05"	1.26"	1.26"	0.196" Ball	0.004"	334-000
0-4.0"	15"	1.37"	1.37"	0.196" Ball	0.004"	334-001
0-4.0"	15"	1.61"	0.35"	2" Flat	0.004"	334-002
0-4.0"	15"	1.37"	0.59"	0.196" Ball	0.004"	334-003
0-4.0"	21"	1.26"	1.26"	0.196" Ball	0.004"	334-004
0-4.0"	21"	1.81"	1.02"	2" Flat	0.004"	334-005
0-4.0"	21"	5.19"	1.26"	0.196" Ball	0.004"	334-006
0-8.0"	28.5"	3.94"	3.94"	SR 0.79"	0.008"	334-007
Metric Specifications (mm)						
0-50	232	32	32	5 mm Ball	0.100	334-200
0-100	382	35	35	5 mm Ball	0.100	334-201
0-100	382	41	9	50 mm Flat	0.100	334-202
0-100	382	35	15	5 mm Ball	0.100	334-203
0-100	532	32	32	5 mm Ball	0.100	334-204
0-100	532	46	26	50 mm Flat	0.100	334-205
0-100	532	132	32	5 mm Ball	0.100	334-206
0-200	725	100	100	SR 20 mm	0.200	334-207

337 SERIES DEDICATED HIGH ACCURACY INDICATING OD RING GAGES



Maximum Measuring Accuracy

Linear $\leq \pm 0.000040"/\leq \pm 0.001$ mm
Repeatability $< 0.000040"/< 0.001$ mm

Fast, Accurate and Repeatable Measurements

Dyer's 337 Series indicating OD ring gages are used for repetitive bore measurement applications or dedicated high volume production runs.

This rugged and dependable 24-7 bore gage was designed with the operator in mind. Fast, easy to use and no operator error.

Best in Gage R & R performance with an impressive $\leq 10\%$ capability, even during high tolerance applications and when measuring small or large bores.

Automatic Centering and No Operator Error

In achieving the highest accuracies, a special centering sleeve is made to guide the gage onto the part. The carbide ball contact points housed in the centering sleeve along with the free floating movement permit the highest measuring accuracy. The measurement is "locked in" and no operator error is possible.

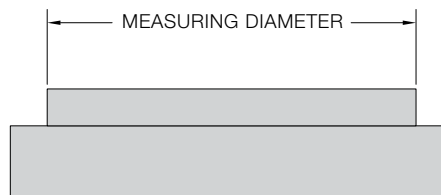
The spring-loaded outward contact pressure along with automatic centering and non tipping means no operator error when measuring bores.

Two-Point Floating Contact Measuring System

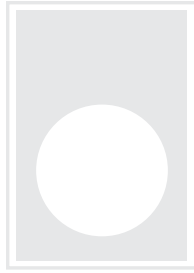
Positive two-point outward contact pressure and continuous on-line indication of the measured value permits the operator to see the bore's profile. The following geometry can be measured.



337 Series Dedicated High Accuracy Indicating OD Ring Gages



336 SERIES LARGE RANGE HIGH ACCURACY INDICATING SNAP GAGES



Maximum Measuring Accuracy

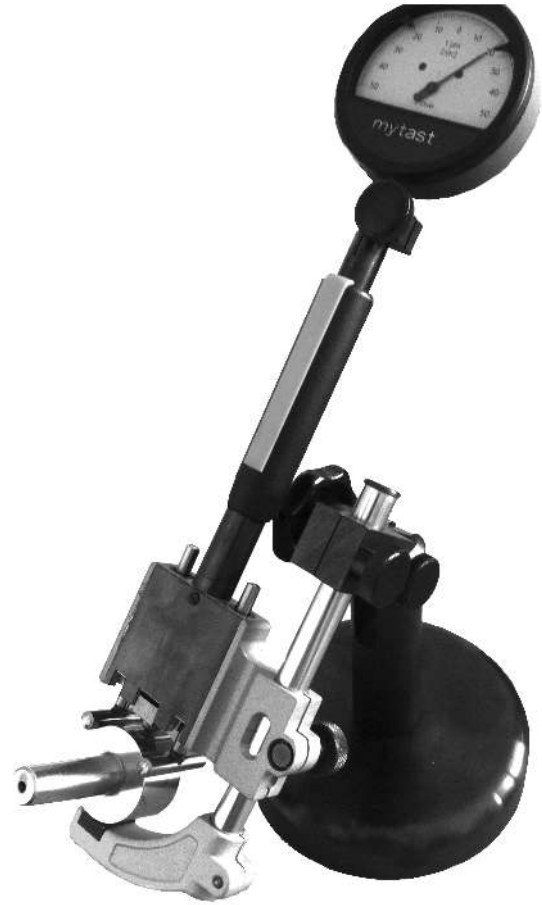
Linear Accuracy at $\pm 0.0001"/\pm 0.002$ mm
 Repeatability $\pm 0.000050"/\pm 0.001$ mm
 Gage R & R $\leq 10\%$ on high tolerance parts

Notable Features

- Extra large measuring range.
- Direct measuring axis design allows for maximum accuracy.
- Can be hand held or used in a stand.
- Self-centering for fast repeatable measurements.
- Accepts any style indicator.
- Special anvils are available. Fax or e-mail your specifications to us.

336 Series Models and Specifications

Application Range	Order Number
0.79–1.77" 20–45 mm	336-001
1.37–2.75" 35–70 mm	336-002
2.36–5.11" 60–130 mm	336-003
4.72–8.66" 120–220 mm	336-004



336-002
with optional stand



336-002



336-002
with sample part

335 SERIES LARGE RANGE HIGH ACCURACY INDICATING SNAP GAGES



Dyer's 335 Series indicating snap gages are light weight and easy to use. These easily adjusted gages offer precision, repeatable measurements. They are 24/7 shop-rugged and perform $\leq 10\%$ on Gage R & R studies in high-tolerance applications.

Notable Features

- Fast size changes within the gage's 1.0"/25 mm range
- Contact travel 0.060"/1.5 mm standard, optional 0.100"/5 mm travel available. Contact Dyer.
- Gaging pressure easily adjustable
- Square 0.625"/16 mm carbide anvils are ground and lapped. The large lead-in radius allows for easy part loading and unloading
- Easily adjusted back stop is available in different types materials. i.e., steel, carbide, nylon. A nylon stop will protect parts during loading
- Available with optional bench stand.
- The indicating accepting collet accepts most all indicators and allows a 360° rotation
- Special anvils are available. Fax or e-mail us a part sketch of your application

Special contact designs available, contact Dyer.

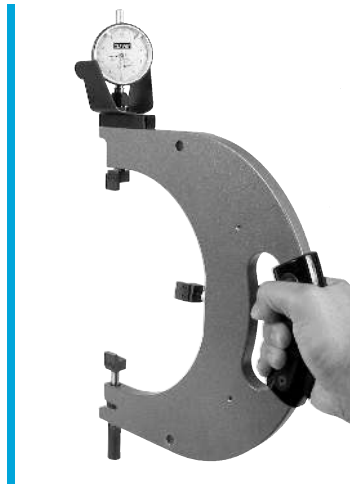


How to Order

1. Select model range
2. Select an indicator

Optional

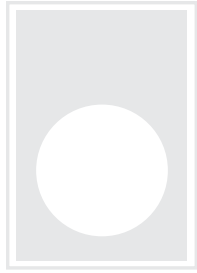
3. Select set master
4. Select a gage stand (335-400)



Special blade anvils

1 SPECIAL ANV. 	2 SPECIAL ANV. 	3 THIN ANVIL 	4 THIN ANVIL 	5 ONE 45° ANGLE
6 90° INCLUDED 	7 THIN W/ANGLE 	8 FULL RADIUS 	9 1 CORNER RAD. 	10 2 CORNER RADS.
11 FULL RAD. TAN. TO 1 ANGLE 	12 SPHERICAL RAD. 	13 STEP RAD. .010 OR LESS 	14 GAGING SURFACE AND RELIEF 	15 FULL RAD. TAN. TO 2 ANGLES
16 1 CORNER RAD. TAN. TO 1 ANGLE 	17 2 CORNER RADS. TAN. TO 2 ANGLES 	18 3 DIFFERENT ANG. 	19 INTERNAL ANGLE 	20 CONCAVE RADIUS
21 EXTRA-LONG ANV. 	22 EXTRA-WIDE ANV. 	23 "L" ANVIL 	24 "T" ANVIL 	25 OFF-SET ANVIL
26 SPECIFIC TOLER. UNDER .005 	27 2 SIDES STEPPED 	28 BALL LOCATORS 	29 CARBIDE BRAZED 	

335 SERIES ORDERING INFORMATION



Maximum Measuring Accuracy

Linear $\pm 0.0001"$ / ± 0.002 mm
 Repeatability $\pm 0.000050"$ / ± 0.001 mm
 Gage R & R $\leq 10\%$ on high tolerance parts



335 Series with standard square anvils



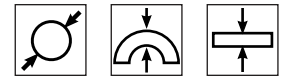
335-001 Series gage with optional transducer probe and 335-400 Gage Stand

Range ¹		Flat & Parallel	Square Anvils ²	Order Number	Changeable Blade Anvils	Order Number
Inch	Metric					
0.0–1.0"	0–25 mm	0.00015"/0.004 mm	0.625"/16 mm	335-001	0.125"/3.2 mm	335-201
1.0–2.0"	25–51 mm	0.00015"/0.004 mm	0.625"/16 mm	335-002	0.125"/3.2 mm	335-202
2.0–3.0"	51–76 mm	0.00015"/0.004 mm	0.625"/16 mm	335-003	0.125"/3.2 mm	335-203
3.0–4.0"	76–102 mm	0.00015"/0.004 mm	0.625"/16 mm	335-004	0.125"/3.2 mm	335-204
4.0–5.0"	102–127 mm	0.0002"/0.005 mm	0.625"/16 mm	335-005	0.125"/3.2 mm	335-205
5.0–6.0"	127–152 mm	0.0002"/0.005 mm	0.625"/16 mm	335-006	0.125"/3.2 mm	335-206
6.0–7.0"	152–178 mm	0.0002"/0.005 mm	0.625"/16 mm	335-007	0.125"/3.2 mm	335-207
7.0–8.0"	178–203 mm	0.0002"/0.005 mm	0.625"/16 mm	335-008	0.125"/3.2 mm	335-208
8.0–9.0"	203–229 mm	0.00025"/0.006 mm	0.625"/16 mm	335-009	0.125"/3.2 mm	335-209
9.0–10.0"	229–254 mm	0.00025"/0.006 mm	0.625"/16 mm	335-010	0.125"/3.2 mm	335-210
10.0–11.0"	254–279 mm	0.00025"/0.006 mm	0.625"/16 mm	335-011	0.125"/3.2 mm	335-211
11.0–12.0"	279–305 mm	0.00025"/0.006 mm	0.625"/16 mm	335-012	0.125"/3.2 mm	335-212
12.0–13.0"	305–330 mm	0.0003"/0.0076 mm	0.625"/16 mm	335-013	0.125"/3.2 mm	335-213
13.0–14.0"	330–356 mm	0.0003"/0.0076 mm	0.625"/16 mm	335-014	0.125"/3.2 mm	335-214
14.0–15.0"	356–381 mm	0.0003"/0.0076 mm	0.625"/16 mm	335-015	0.125"/3.2 mm	335-215
15.0–16.0"	381–406 mm	0.0003"/0.0076 mm	0.625"/16 mm	335-016	0.125"/3.2 mm	335-216
16.0–17.0"	406–432 mm	0.0003"/0.0076 mm	0.625"/16 mm	335-017	0.125"/3.2 mm	335-217
17.0–18.0"	432–458 mm	0.0003"/0.0076 mm	0.625"/16 mm	335-018	0.125"/3.2 mm	335-218
18.0–19.0"	458–483 mm	0.0003"/0.0076 mm	0.625"/16 mm	335-019	0.125"/3.2 mm	335-219
19.0–20.0"	483–508 mm	0.0003"/0.0076 mm	0.625"/16 mm	335-020	0.125"/3.2 mm	335-220
20.0–21.0"	508–533 mm	0.0003"/0.0076 mm	0.625"/16 mm	335-021	0.125"/3.2 mm	335-221
21.0–22.0"	533–559 mm	0.0003"/0.0076 mm	0.625"/16 mm	335-022	0.125"/3.2 mm	335-222
22.0–23.0"	559–584 mm	0.0003"/0.0076 mm	0.625"/16 mm	335-023	0.125"/3.2 mm	335-223
23.0–24.0"	584–610 mm	0.0003"/0.0076 mm	0.625"/16 mm	335-024	0.125"/3.2 mm	335-224

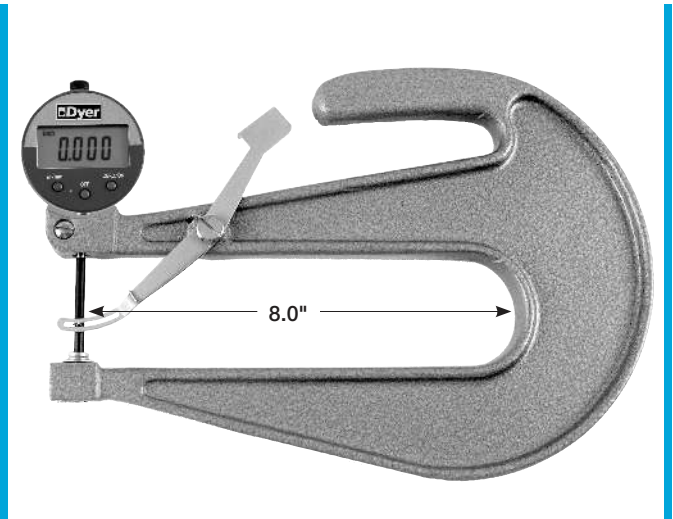
¹ Standard contact travel 0.060"/1.5 mm optional 0.100"/2.5 mm

² Standard contacts carbide, ground and lapped. Large lead-in radius protects parts for fast, easy measurement.

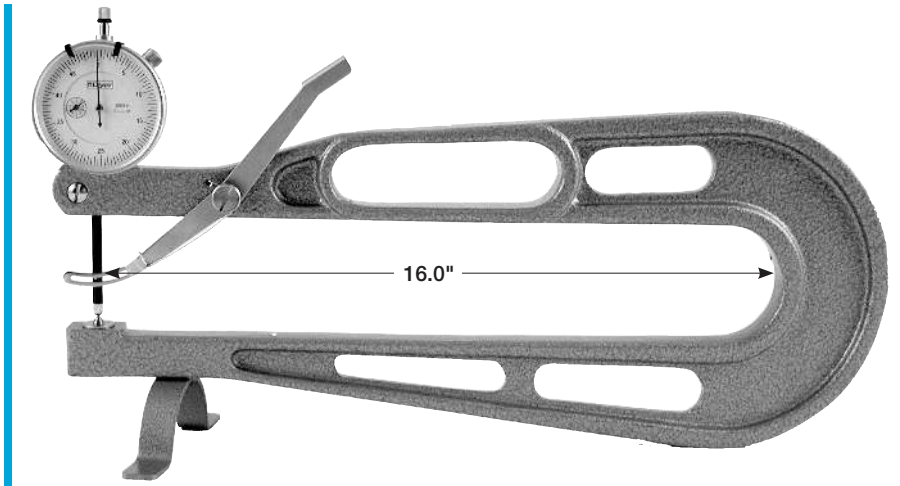
309 SERIES DIAL THICKNESS GAGES STANDARD AND SPECIAL APPLICATIONS



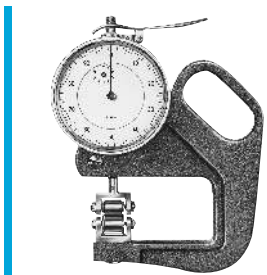
309-240 with electronic indicator



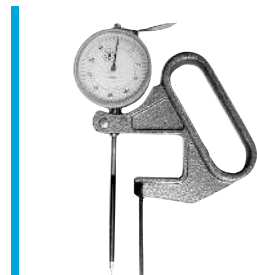
309-265 with electronic indicator



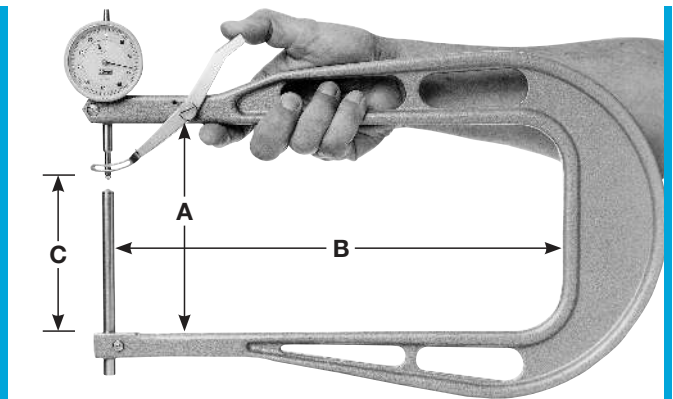
309-125



305-555
Thickness Gage, Roller Contacts
Range: 0-0.2"
Grad: 0.001"
Width of roller = 0.34"
Measuring force = 120 gm.



309 Special
Custom lower arm enters
small ID and measures step
thickness.

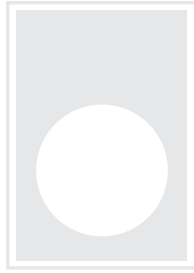
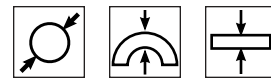


Series 308

Gage with adjustable lower contact and indicator.

Order No.	Travel	Graduation	Dist. A	Dist. B	Dist. C
308-002	0.400"	0.0005"	5.98"	12.50"	4.00"

309 SERIES DIAL THICKNESS GAGES STANDARD AND SPECIAL APPLICATIONS



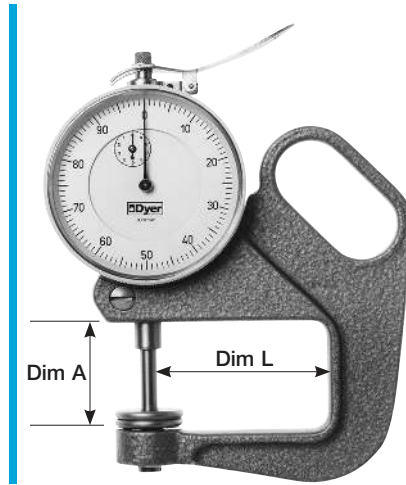
Notable Features

- Fast, repeatable measurements.
- Cast aluminum design, light-weight, easy "one-hand" operation.
- Spring-loaded contact, no operator influence on measurement.
- Lower contact sits on a tripod for easy adjustment and alignment.
- Rugged for shop-use.
- Large selection of indicators and frames.

Custom and Special Models

We will modify the arms and contacts to meet your special applications.

Send your present gage to Dyer's repair center and we will upgrade it to electronic indication.



309-010 gage with dial indicator



309-210 with digital indicator

Standard contact point options

All lower contacts are set on a 3-screw tripod in a fixed position. They adjust easily to keep the lower contact in the fixed position.



Lower contact positioned on three adjustment screws. Easy-to-square contacts.

Includes Mechanical Dial Indicator, Contacts and Lifting Lever.

Models 12.00" and 16.00" have mounting base for tabletop.

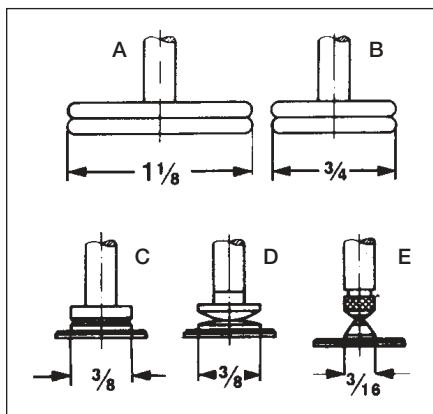
Range*	"L" Dim Reach	"A" Dim	Graduation	Order No. With "A" Contacts	Order No. With "B" Contacts	Order No. With "C" Contacts	Order No. With "D" Contacts	Order No. With "E" Contacts
0-0.400"	2.0"	2.6"	0.0005"	309-005	309-010	309-015	309-020	309-025
0-0.400"	4.0"	1.4"	0.0005"	309-030	309-035	309-040	309-045	309-050
0-0.400"	8.0"	1.9"	0.0005"	309-055	309-060	309-065	309-070	309-075
0-0.400"	12.0"	1.9"	0.0005"	309-080	309-085	309-090	309-095	309-100
0-0.400"	16.0"	1.9"	0.0005"	309-105	309-110	309-115	309-120	309-125

Includes Electronic Digital Indicator, Contacts and Lifting Lever.

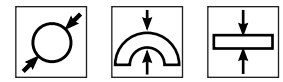
Models 12.00" and 16.00" have mounting base for tabletop.

Range*	"L" Dim Reach	"A" Dim	Graduation	Order No. With "A" Contacts	Order No. With "B" Contacts	Order No. With "C" Contacts	Order No. With "D" Contacts	Order No. With "E" Contacts
0-1.0"	2.0"	2.6"	0.0005"	309-205	309-210	309-215	309-220	309-225
0-1.0"	4.0"	1.4"	0.0005"	309-230	309-235	309-240	309-245	309-250
0-1.0"	8.0"	1.9"	0.0005"	309-255	309-260	309-265	309-270	309-275
0-1.0"	12.0"	1.9"	0.0005"	309-280	309-285	309-290	309-295	309-300
0-1.0"	16.0"	1.9"	0.0005"	309-305	309-310	309-315	309-320	309-325

* Range will change depending on indicator selection



310 SERIES POCKET THICKNESS GAGES



Maximum Measuring Accuracy

Linear Accuracy at $\pm 0.005"/0.1 \text{ mm}$
Repeatability $\leq 0.005"/0.1 \text{ mm}$

Notable Features

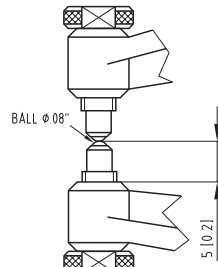
- Light weight pocket gages for fast inspection.
- Handy, durable, easy to calibrate.
- Measure bottle necks, paper, small castings, sheet metal, piping, wire, tubing, wall thickness
- Available with various contacts. Contact us with your requirement.



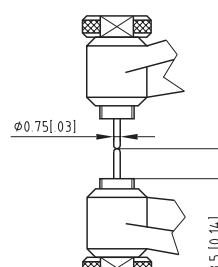
Model 310-105



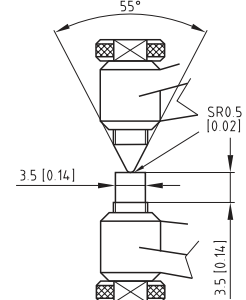
Model 310-119



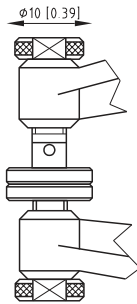
Contact Point Type 2



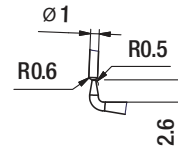
Contact Point Type 3



Contact Point Type 4



Contact Point Type 5



Contact Point Type 6

310 Series Models and Specifications

Application Range	Length L	Contact Point Type	Graduation	Order Number
Inch Specifications				
0-0.5"	1.5"	2	0.005"	310-105
0-0.5"	1.5"	3	0.005"	310-106
0-0.5"	1.5"	4	0.005"	310-107
0-0.5"	1.5"	5	0.005"	310-108
0-0.5"	1.5"	6	0.005"	310-109
Metric Specifications (mm)				
0-10 mm	35 mm	2	0.1 mm	310-112
0-10 mm	35 mm	3	0.1 mm	310-113
0-10 mm	35 mm	4	0.1 mm	310-114
0-10 mm	35 mm	5	0.1 mm	310-115
0-10 mm	35 mm	6	0.1 mm	310-119