



Carbon Fiber Comparison Gages
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Comparison Gages
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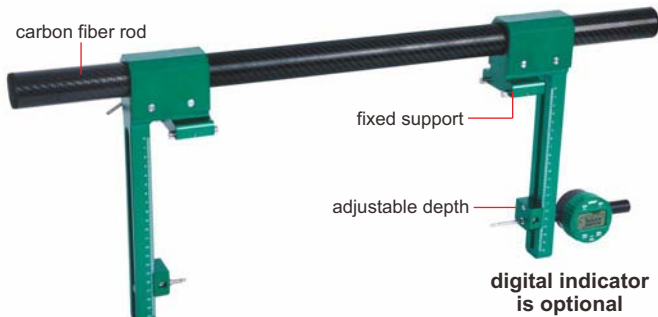
**Internal And External Diameter
Comparison Instruments**
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Outside Diameter Measuring Stands
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CARBON FIBER COMPARISON GAGES

CARBON FIBER RODS, LIGHT WEIGHT, NOT EASY TO DEFORM, NO TEMPERATURE EXPAND, SUITABLE FOR THIN-WALL WORKPIECES AND LARGE-SIZE WORKPIECES



measure outer diameter



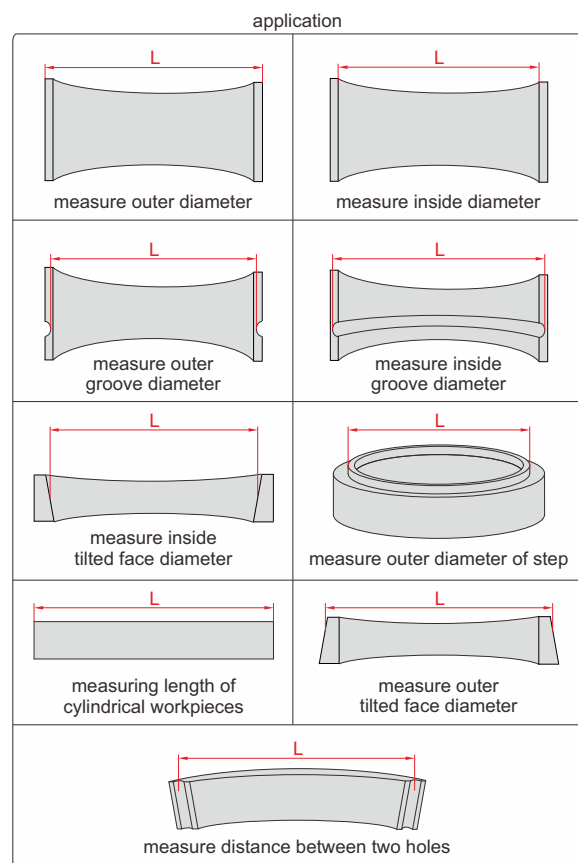
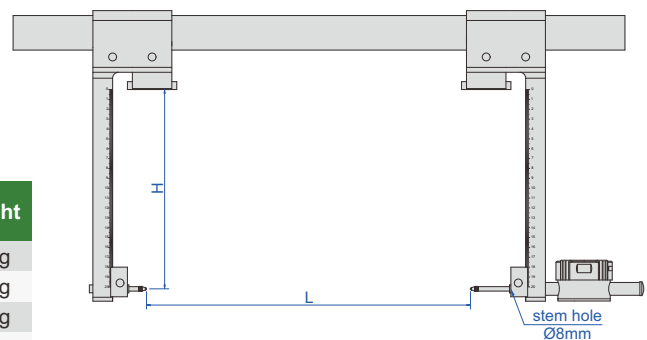
measure inside diameter, minimum diameter is 220mm

2931-D1000B



- Measure outer diameter, inside diameter, holes distance and cylindrical workpiece length
- Carbon fiber rods, light weight, not easy to deform, no temperature expand
- Optional accessory: cylinder gage blocks (code 4001), digital indicators (code 2138-25SP/2139-25SP/2103-25SP/2104-25SP)

Code	Maximum measuring range (L)	Measuring depth (H)	Repeatability	Weight
2931-D1000A	1000mm	0-100mm	5μm	2.0kg
2931-D1000B	1000mm	0-200mm	10μm	2.3kg
2931-D1000C	1000mm	0-300mm	25μm	2.6kg
2931-D1500A	1500mm	0-100mm	8μm	2.3kg
2931-D1500B	1500mm	0-200mm	15μm	2.6kg
2931-D1500C	1500mm	0-300mm	30μm	2.9kg
2931-D2000A	2000mm	0-100mm	10μm	2.6kg
2931-D2000B	2000mm	0-200mm	20μm	2.9kg
2931-D2000C	2000mm	0-300mm	35μm	3.2kg
2931-D2500A	2500mm	0-100mm	12μm	2.9kg
2931-D2500B	2500mm	0-200mm	25μm	3.2kg
2931-D2500C	2500mm	0-300mm	50μm	3.5kg
2931-D3000A	3000mm	0-100mm	14μm	3.2kg
2931-D3000B	3000mm	0-200mm	30μm	3.5kg
2931-D3000C	3000mm	0-300mm	60μm	3.8kg
2931-D4000A	4000mm	0-100mm	16μm	3.8kg
2931-D4000B	4000mm	0-200mm	35μm	4.1kg
2931-D4000C	4000mm	0-300mm	65μm	4.4kg
2931-D5000A	5000mm	0-100mm	25μm	4.4kg
2931-D5000B	5000mm	0-200mm	40μm	4.7kg
2931-D5000C	5000mm	0-300mm	70μm	5.0kg
2931-D6000A	6000mm	0-100mm	28μm	8.4kg
2931-D6000B	6000mm	0-200mm	50μm	8.8kg
2931-D6000C	6000mm	0-300mm	80μm	9.2kg
2931-D7000A	7000mm	0-100mm	30μm	9.2kg
2931-D7000B	7000mm	0-200mm	55μm	9.6kg
2931-D7000C	7000mm	0-300mm	100μm	10kg
2931-D8000A	8000mm	0-100mm	32μm	10kg
2931-D8000B	8000mm	0-200mm	60μm	10.4kg
2931-D8000C	8000mm	0-300mm	110μm	10.8kg
2931-D9000A	9000mm	0-100mm	35μm	10.7kg
2931-D9000B	9000mm	0-200mm	70μm	11.1kg
2931-D9000C	9000mm	0-300mm	120μm	11.5kg



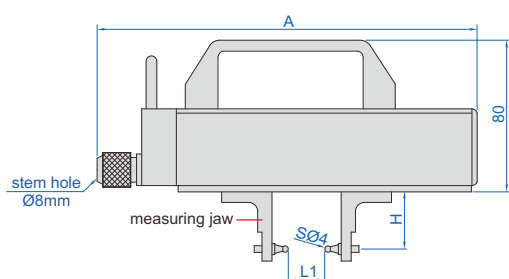
CUSTOMIZABLE MEASURING JAWS AND POINTS

COMPARISON GAGES



digital indicator is optional

measure external diameter
2252-110

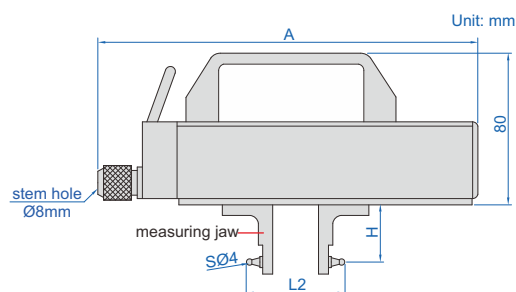


2252-101, 2252-102, 2252-110 and 2252-120



digital indicator is optional

measure internal diameter
2252-220



2252-201, 2252-202, 2252-210 and 2252-220

- Measure external diameter, internal diameter and over-pin diameter of gears
- Total range of movable point: 8mm, effective range of movable point: ± 2 mm
- Optional accessory: digital indicator (code **2138-10F**), gage block grade 1 (**4101-B** series)

Measure external diameter

Code	Range of external diameter (L1)	Accuracy*	Repeatability	A	H
2252-101	0-100mm/0-4"	$\pm 5\mu\text{m}$	$1\mu\text{m}$	245mm	40mm
2252-102	0-170mm/0-6.6"	$\pm 5\mu\text{m}$	$1\mu\text{m}$	315mm	40mm
2252-110	0-100mm/0-4"	$\pm 5\mu\text{m}$	$2\mu\text{m}$	245mm	60mm
2252-120	0-170mm/0-6.6"	$\pm 5\mu\text{m}$	$2\mu\text{m}$	315mm	60mm

Measure internal diameter

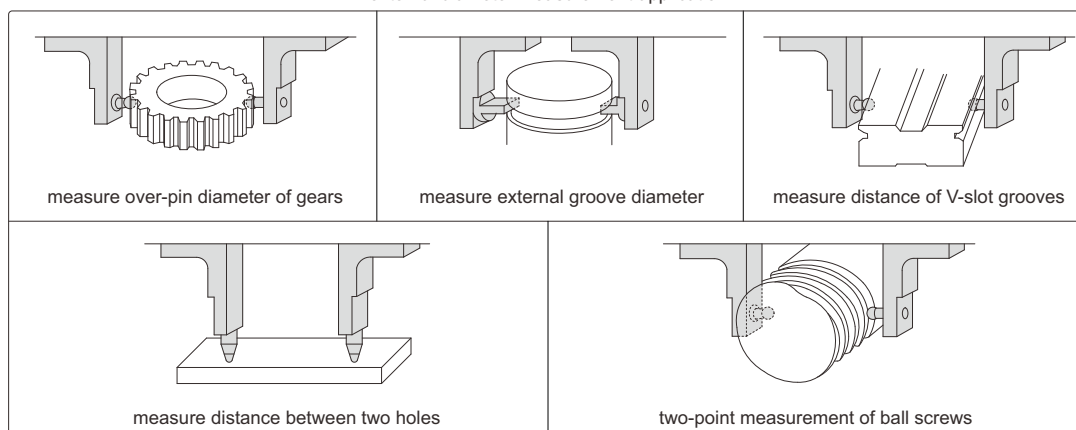
Code	Range of external diameter (L2)	Accuracy*	Repeatability	A	H
2252-201	20-130mm/0.8-5.1"	$\pm 5\mu\text{m}$	$1\mu\text{m}$	195mm	40mm
2252-202	20-200mm/0.8-7.8"	$\pm 5\mu\text{m}$	$1\mu\text{m}$	265mm	40mm
2252-210	20-130mm/0.8-5.1"	$\pm 5\mu\text{m}$	$2\mu\text{m}$	195mm	60mm
2252-220	20-200mm/0.8-7.8"	$\pm 5\mu\text{m}$	$2\mu\text{m}$	265mm	60mm

*Within ± 2 mm effective range



VIDEO

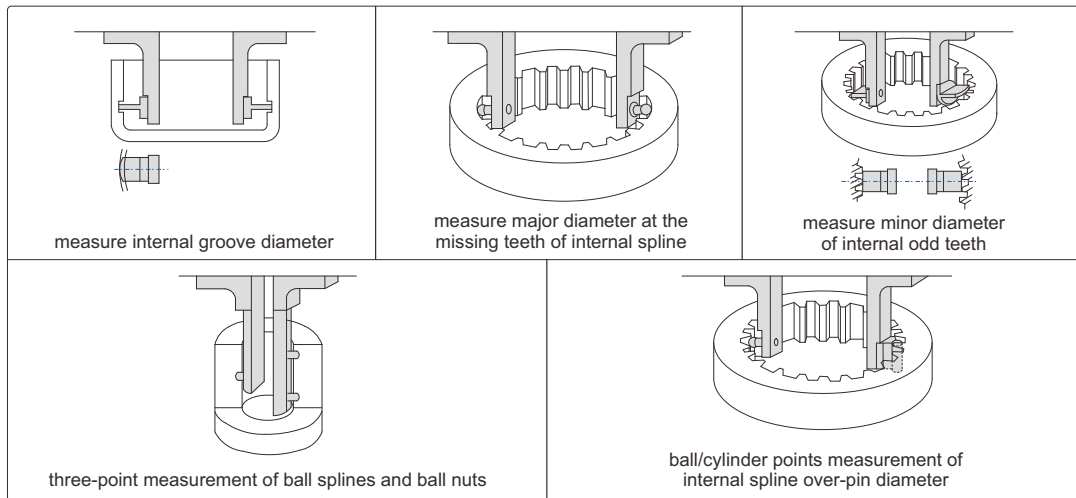
external diameter measurement application



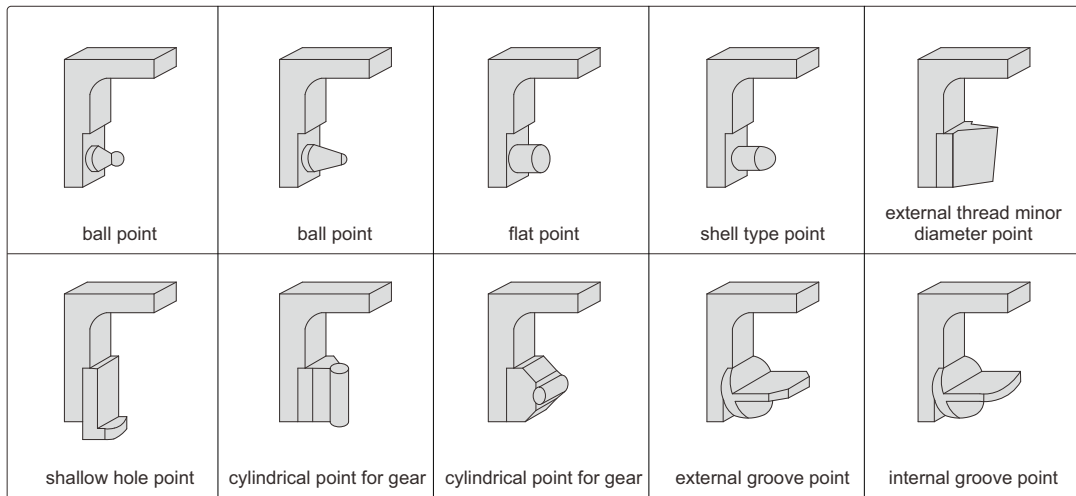
To be continued

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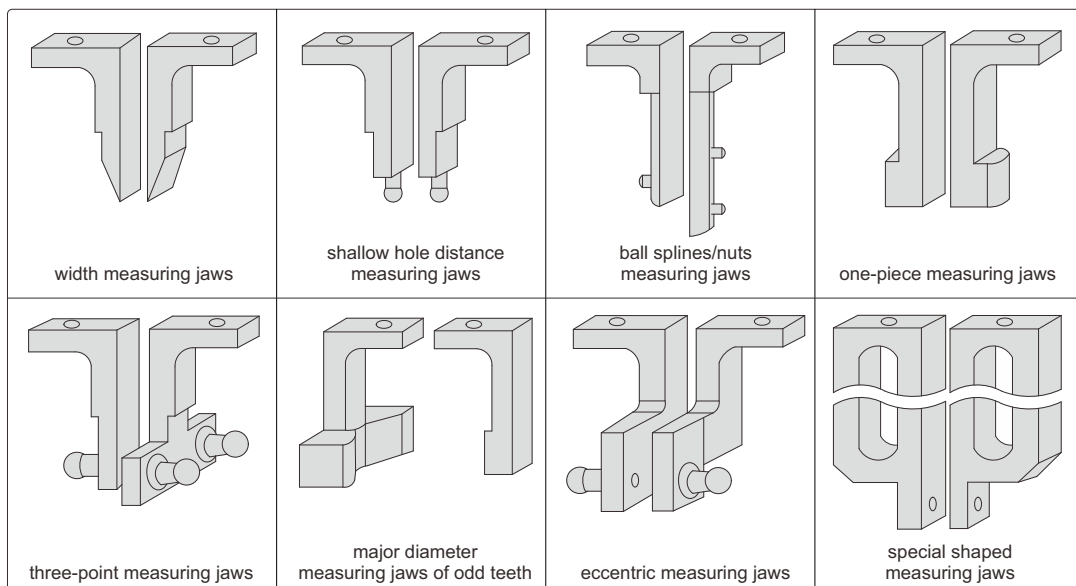
internal diameter measurement application



customizable points

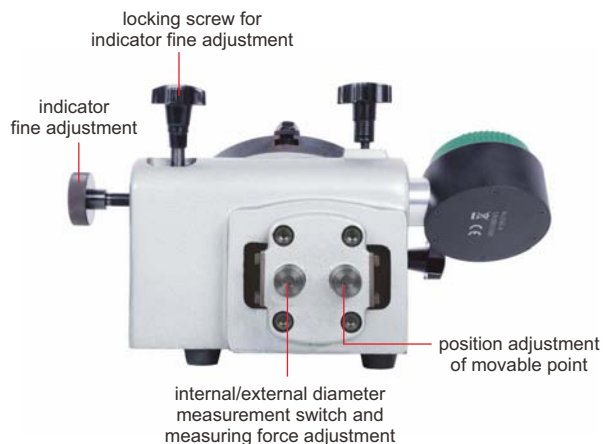


customizable measuring jaws

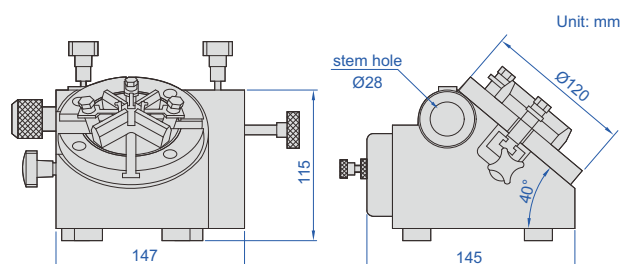




INTERNAL AND EXTERNAL DIAMETER COMPARISON INSTRUMENT

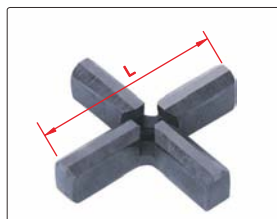


- Measure internal/external diameter, variation and taper
- Total range of movable point: 2mm, effective range of movable point: $\pm 0.1\text{mm}$
- Groove probes and disc probes are included
- Optional accessory: $\varnothing 28\text{mm}/\varnothing 8\text{mm}$ bush (code 6843-B8), cross table, 0.001mm digital/dial indicators, high precision digital indicators (code 2140-6, 2140-6WL)



Code	Applicable holding stem	Range of internal diameter	Range of external diameter	Accuracy	Repeatability
6844-100	$\varnothing 28\text{mm}$	20-100mm/0.8-3.9"	15-80mm/0.6-3.1"	$\pm 0.001\text{mm}$	0.001mm

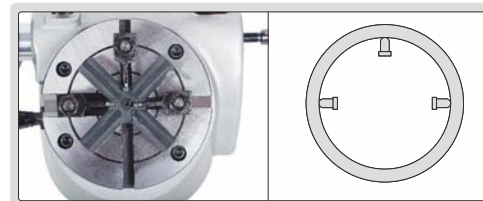
cross table (working with groove probes)



disc probes (included)



groove probes to measure small internal diameter and internal groove diameter



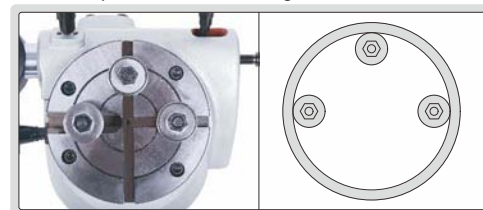
Cross table

Code	L	Remark
6844-T40	40mm	included
6844-T80	80mm	optional
6844-T100	100mm	optional

groove probe (included)



disc probes to measure large internal diameter



$\varnothing 28\text{mm}/\varnothing 8\text{mm}$ bush (optional)

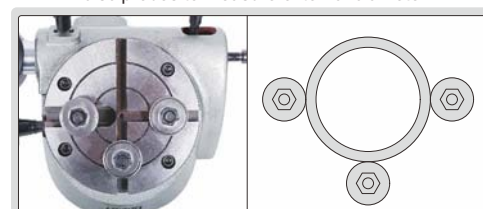


Code
6843-B8

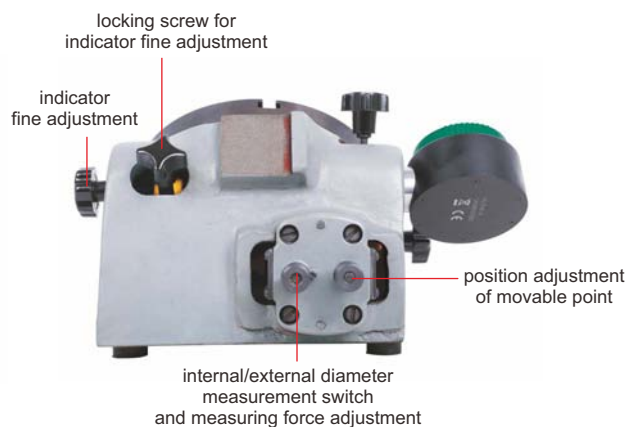
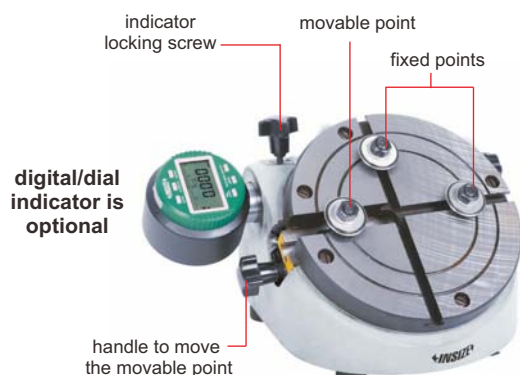
application



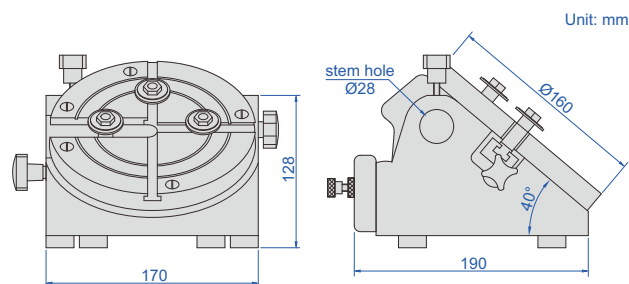
disc probes to measure external diameter



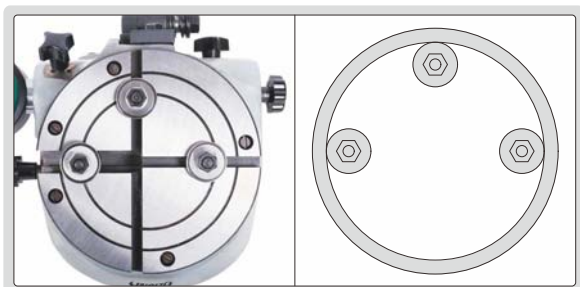
INTERNAL AND EXTERNAL DIAMETER COMPARISON INSTRUMENT



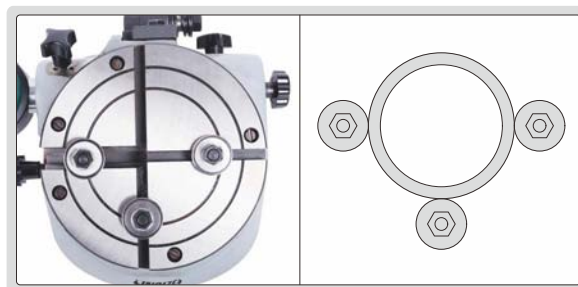
- Measure internal/external diameter, variation and taper
- Total range of movable point: 2mm, effective range of movable point: $\pm 0.1\text{mm}$
- Optional accessory: $\varnothing 28\text{mm}/\varnothing 8\text{mm}$ bush (code **6843-B8**), 0.001mm digital/dial indicators, high precision digital indicators (code **2140-6**, **2140-6WL**)



internal diameter measurement



external diameter measurement



Code	Applicable holding stem	Range of internal diameter	Range of external diameter	Accuracy	Repeatability
6843-140	$\varnothing 28\text{mm}$	50-140mm/2-5.5"	30-120mm/1.2-4.7"	$\pm 0.001\text{mm}$	0.001mm

$\varnothing 28\text{mm}/\varnothing 8\text{mm}$ bush (optional)



Code

6843-B8

application

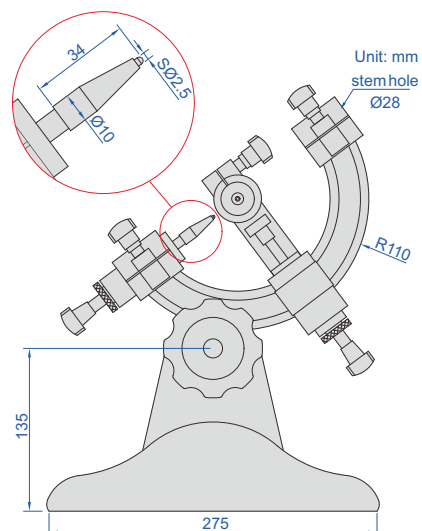




OUTSIDE DIAMETER MEASURING STAND



6847-50



- To measure diameter and roundness of cylinders and steel balls
- Supplied with measuring base (code **6847-A100**)
- Optional accessory: Ø28mm/Ø8mm bush (code **6843-B8**), 0.001mm digital/dial indicators, high precision digital indicators (code **2140-6**, **2140-6WL**), gage blocks (**4101** series, for zero setting of cylinders), custom plug gages (for zero setting of cylinders), ceramic standard balls (**4190** series, for zero setting of steel balls)

Code	Range of outside diameter	Accuracy	Repeatability
6847-50	1.5-50mm/0.06-2"	±0.001mm	0.0005mm

Measuring base

Code	Diameter	Remark
6847-A10	10mm	optional
6847-A20	20mm	optional
6847-A30	30mm	optional
6847-A40	40mm	optional
6847-A50	50mm	optional
6847-A60	60mm	optional
6847-A70	70mm	optional
6847-A75	75mm	optional
6847-A80	80mm	optional
6847-A90	90mm	optional
6847-A100	100mm	included

Ø28mm/Ø8mm bush (optional)



Code
6843-B8

application

