

ATTENTION: NOT SUITABLE FOR DIAL INDICATORS WITH GRADUATION 0.001MM



DIAL INDICATOR TESTER CODE 2396-25A

- To calibrate dial indicators, test indicators and dial bore gages
- Dimension: 270x210x205mm
- Weight: 11kg

Micrometer head

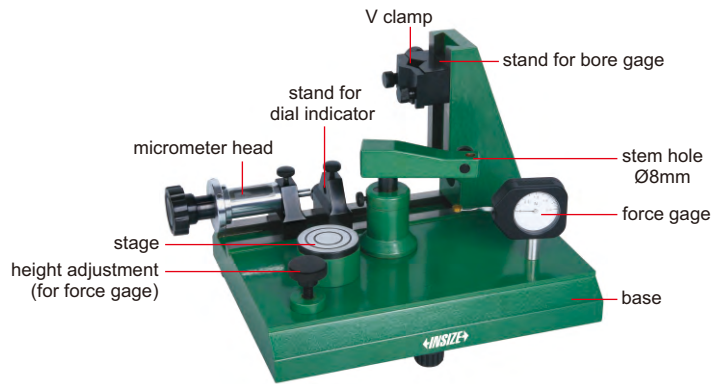
Range	Sampling interval	Accuracy	Hysteresis
0-25mm	0.1mm	4µm (0-25mm), 3µm (0-10mm), 2µm (0-1mm)	1µm

Force gage

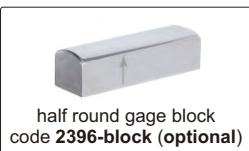
Range	Graduation	Accuracy
0-1.6N	0.05N	±5% (of load capacity)

Stage

Diameter	Flatness	Roughness
50mm	1µm	0.05µm

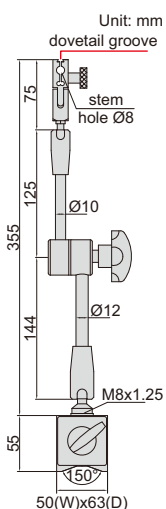
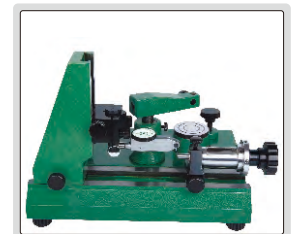


2396-25A



Half round gage block (optional)

Code	Parallelism
2396-block	1µm



6208-80A

UNIVERSAL MAGNETIC STAND (ECONOMIC TYPE)

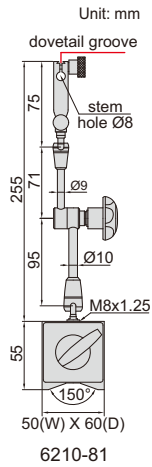
ATTENTION: LOW LOCKING FORCE

- For digital/dial indicators and dial test indicators

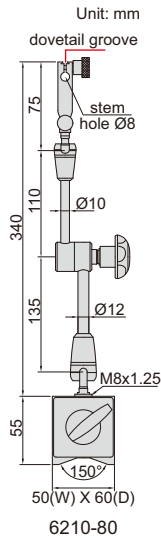
Code	Magnetic force	Applicable holding stem	Remark
6208-80A	80kgf	Ø8mm	with fine adjustment and dovetail groove

UNIVERSAL MAGNETIC STANDS

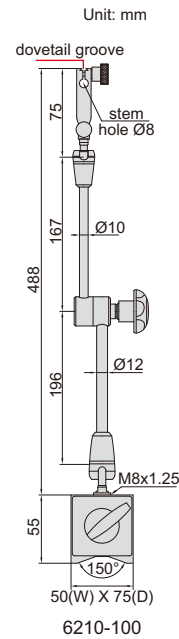
7



6210-81



6210-80

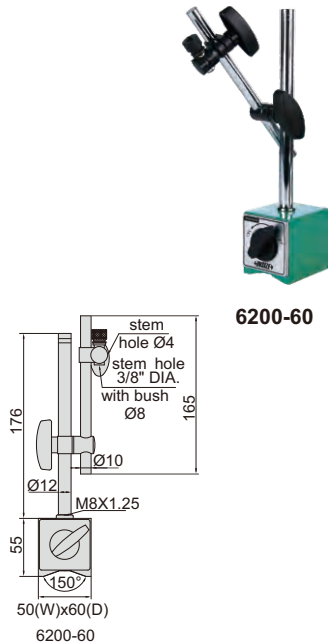


6210-100

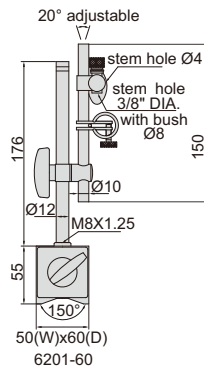
■ For digital/dial indicators and dial test indicators

Code	Magnetic force	Applicable holding stem	Remark
6210-81	80kgf	Ø8mm	with fine adjustment and dovetail groove
6210-80	80kgf	Ø8mm	with fine adjustment and dovetail groove
6210-100	100kgf	Ø8mm	with fine adjustment and dovetail groove

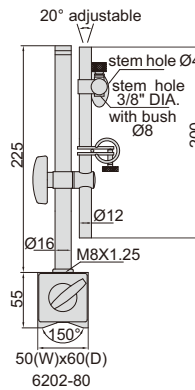
MAGNETIC STANDS



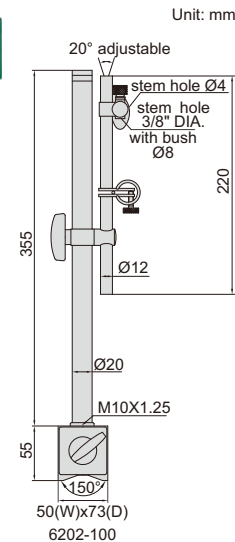
6200-60



6201-60



6202-80

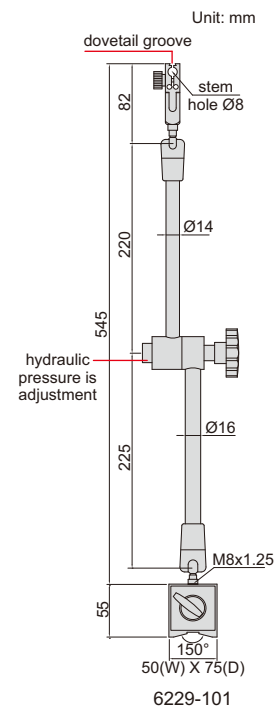
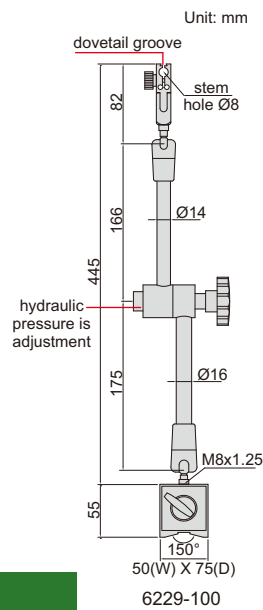
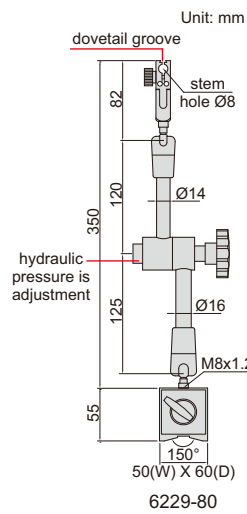
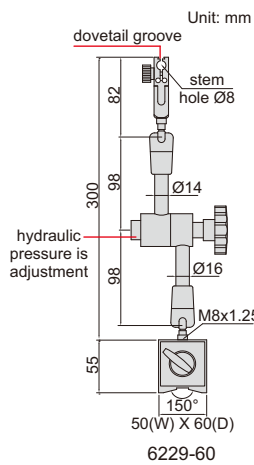


6202-100

■ For digital/dial indicators and dial test indicators

Code	Magnetic force	Applicable holding stem	Remark
6200-60	60kgf	Ø8mm, Ø4mm, 3/8" DIA.	without fine adjustment
6201-60	60kgf	Ø8mm, Ø4mm, 3/8" DIA.	with fine adjustment
6202-80	80kgf	Ø8mm, Ø4mm, 3/8" DIA.	with fine adjustment
6202-100	100kgf	Ø8mm, Ø4mm, 3/8" DIA.	with fine adjustment

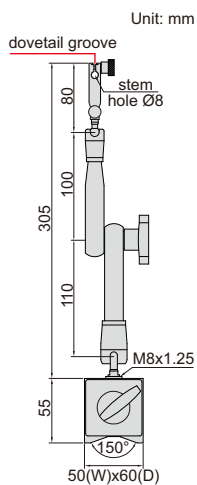
HYDRAULIC UNIVERSAL MAGNETIC STANDS



- Hydraulic pressure is adjustment
- For digital/dial indicators and dial test indicators

Code	Magnetic force	Applicable holding stem	Remark
6229-60	60kgf	Ø8mm	with fine adjustment and dovetail groove
6229-80	80kgf	Ø8mm	with fine adjustment and dovetail groove
6229-100	100kgf	Ø8mm	with fine adjustment and dovetail groove
6229-101	100kgf	Ø8mm	with fine adjustment and dovetail groove

LARGE LOCKING FORCE MAGNETIC STAND



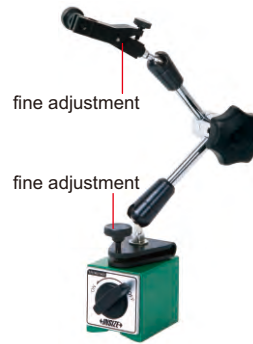
6219-80

- For digital/dial indicators and dial test indicators

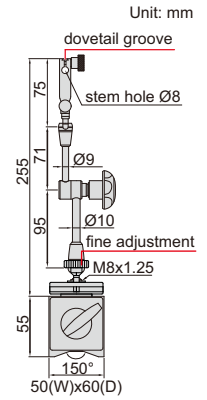
Code	Magnetic force	Applicable holding stem	Remark
6219-80	80kgf	Ø8mm	with fine adjustment and dovetail groove

MAGNETIC STAND WITH TWO FINE ADJUSTMENTS

- With two fine adjustments on the head and on the base
- For digital/dial indicators and dial test indicators



6272-80



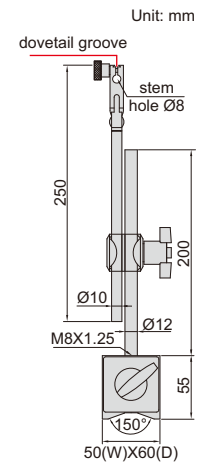
Code	Magnetic force	Applicable holding stem	Remark
6272-80	80kgf	Ø8mm	with two fine adjustments and dovetail groove

MAGNETIC STAND

- For digital/dial indicators and dial test indicators



6216-80



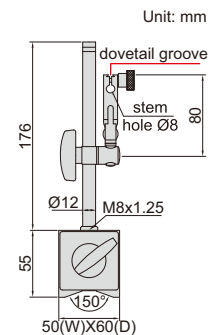
Code	Magnetic force	Applicable holding stem	Remark
6216-80	80kgf	Ø8mm	with fine adjustment and dovetail groove

MAGNETIC STAND (FOR 0.001MM DIAL AND DIAL TEST INDICATORS)

- For 0.001mm and 0.01mm dial and dial test indicators



6221-80

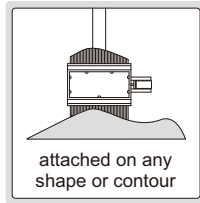


Code	Magnetic force	Applicable holding stem	Remark
6221-80	80kgf	Ø8mm	with fine adjustment and dovetail groove

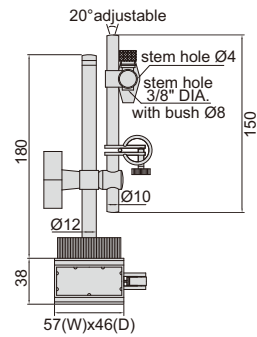
MAGNETIC STAND FOR UNEVEN SURFACE

Unit: mm

- For digital/dial indicators and dial test indicators
- With fine adjustment



6215-60



Code	Magnetic force	Applicable holding stem
6215-60	60kgf	$\varnothing 8$ mm, $\varnothing 4$ mm, 3/8" DIA.

ATTENTION: FOR DIAL TEST INDICATORS ONLY

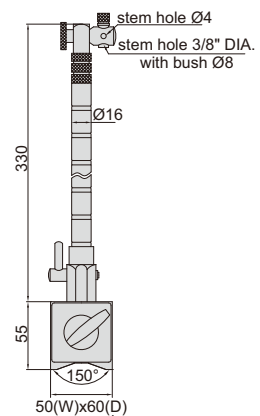
FLEX ARM MAGNETIC STAND

Unit: mm

- For dial test indicators



6207-80A



Code	Magnetic force	Applicable holding stem
6207-80A	80kgf	$\varnothing 8$ mm, $\varnothing 4$ mm, 3/8" DIA.

ATTENTION: FOR DIAL TEST INDICATORS ONLY

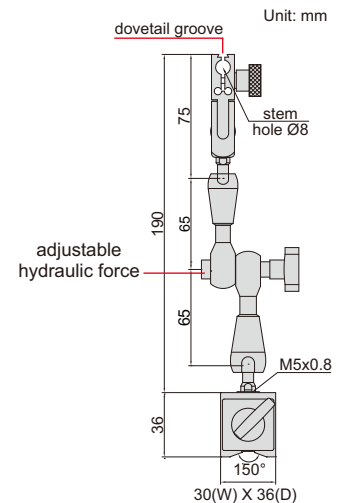
HYDRAULIC MINI MAGNETIC STAND

Unit: mm

- For dial test indicators
- With fine adjustment and dovetail groove
- Adjustable hydraulic force



6228-40



Code	Magnetic force	Applicable holding stem
6228-40	40kgf	$\varnothing 8$ mm

MINI MAGNETIC STAND

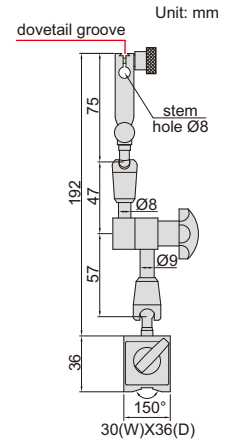
ATTENTION: FOR DIAL TEST INDICATORS ONLY

- For dial test indicators
- With fine adjustment and dovetail groove

7



6224-40



Code	Magnetic force	Applicable holding stem
6224-40	40kgf	Ø8mm

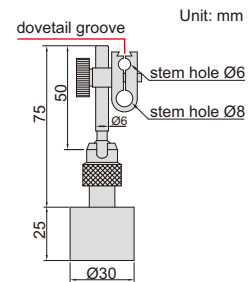
MINI MAGNETIC STAND

ATTENTION: FOR DIAL TEST INDICATORS ONLY

- For dial test indicators
- With dovetail groove



6211-10

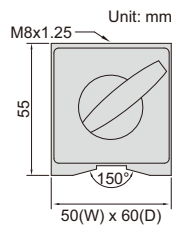


Code	Magnetic force	Applicable holding stem
6211-10	10kgf	Ø6mm, Ø8mm

MAGNETIC BASES



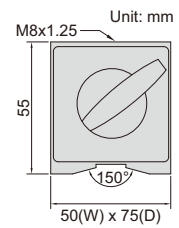
6212-80



6212-80



6212-100

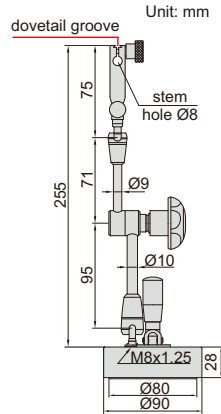


6212-100

Code	Magnetic force
6212-80	80kgf
6212-100	100kgf

VACUUM STAND

- Suitable for granite surface plates or cast iron surface plates
- For digital/dial indicators and dial test indicators



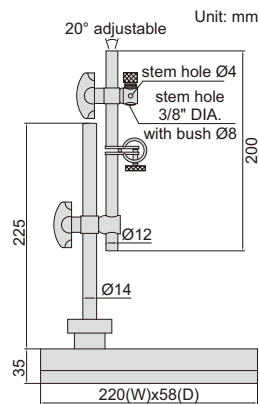
6217-B

Code	Diameter of vacuum disc	Vacuum force	Applicable holding stem	Remark
6217-B	Ø80mm	80kgf	Ø8mm	with fine adjustment and dovetail groove

7

UNIVERSAL STAND

- For digital/dial indicators and dial test indicators
- With fine adjustment



6214-A

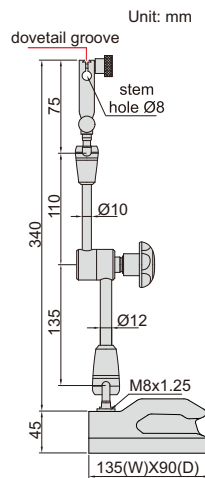
Code	Applicable holding stem
6214-A	Ø8mm, Ø4mm, 3/8" DIA.

UNIVERSAL DIAL INDICATOR STANDS (NON-MAGNETIC)

- Hardened base
- Suitable for granite surface plates and cast iron surface plates
- For digital/dial indicators and dial test indicators



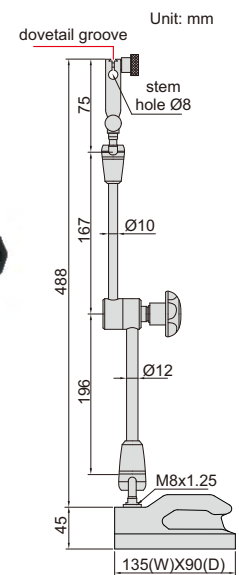
6225-80



6225-80



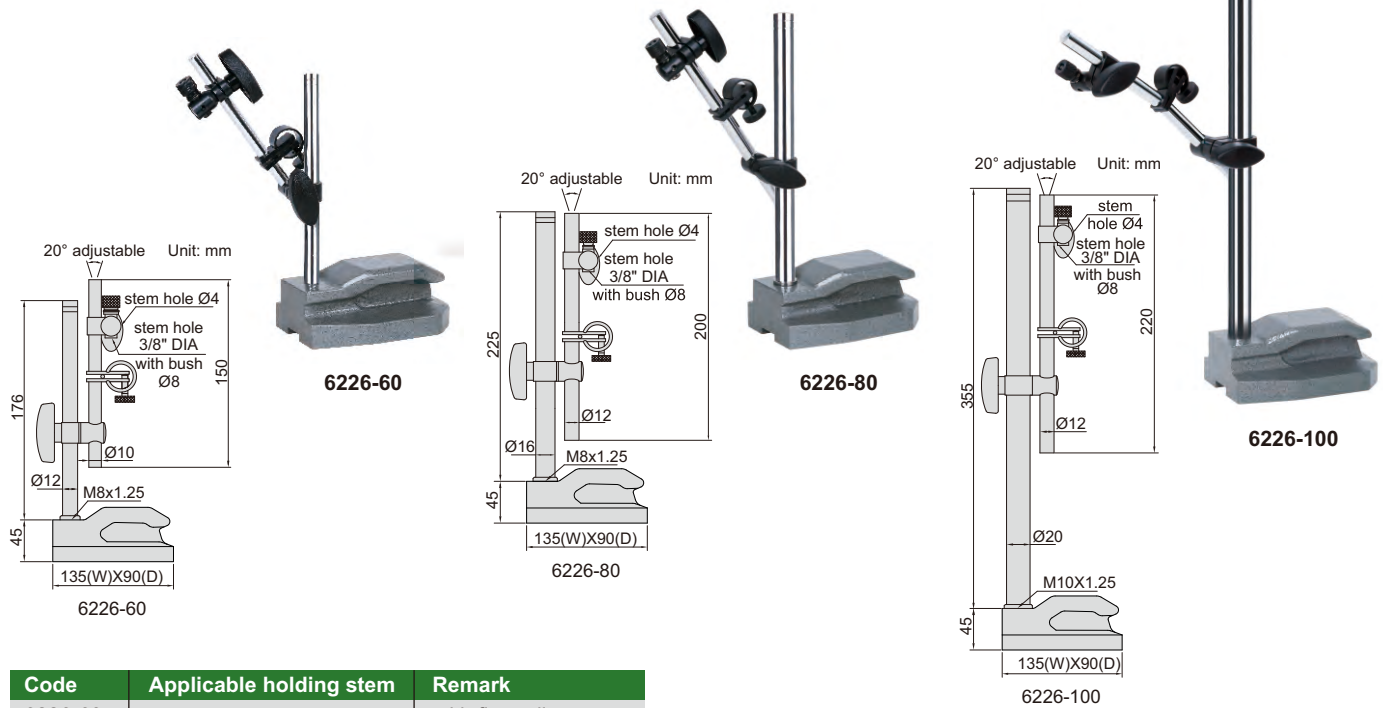
6225-100



6225-100

Code	Applicable holding stem	Remark
6225-80	Ø8mm	with fine adjustment and dovetail groove
6225-100	Ø8mm	with fine adjustment and dovetail groove

DIAL INDICATOR STANDS (NON-MAGNETIC)



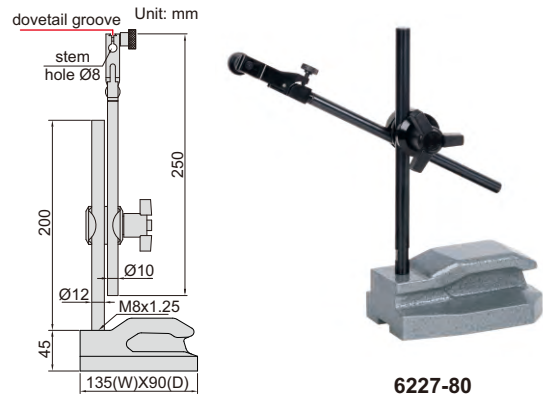
Code	Applicable holding stem	Remark
6226-60	Ø8mm, Ø4mm, 3/8" DIA	with fine adjustment
6226-80	Ø8mm, Ø4mm, 3/8" DIA	with fine adjustment
6226-100	Ø8mm, Ø4mm, 3/8" DIA	with fine adjustment

- Hardend base
- Suitable for granite surface plates and cast iron surface plates
- For digital/dial indicators and dial test indicators

DIAL INDICATOR STAND (NON-MAGNETIC)

- Hardend base
- Suitable for granite surface plates and cast iron surface plates
- For digital/dial indicators and dial test indicators

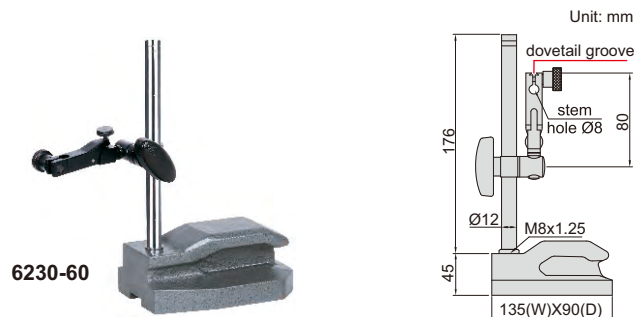
Code	Applicable holding stem	Remark
6227-80	Ø8mm	with fine adjustment and dovetail groove



DIAL INDICATOR STAND (FOR 0.001MM DIAL AND DIAL TEST INDICATORS)

- Hardend base
- Suitable for granite surface plates or cast iron surface plates
- For 0.001mm and 0.01mm dial and dial test indicators

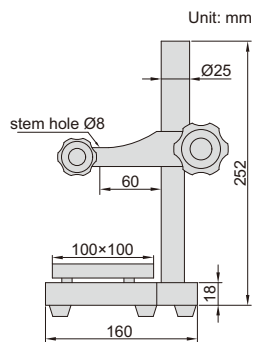
Code	Applicable holding stem	Remark
6230-60	Ø8mm	with fine adjustment and dovetail groove



ATTENTION: WITHOUT FINE ADJUSTMENT

DIAL INDICATOR STAND

- Vertical travel of holder: 150mm
- Ceramic anvil
- Supplied with dust cover



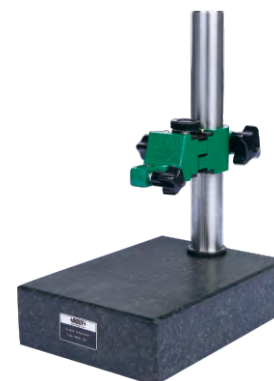
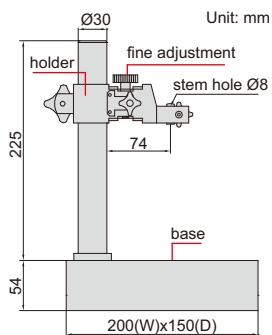
6876-150

Code	Applicable holding stem	Anvil
6876-150	Ø8mm	ceramic, plain, flatness 1.5µm

7

GRANITE DIAL INDICATOR STAND

- Vertical travel of holder: 150mm
- Fine adjustment range: 2mm
- Supplied with dust cover



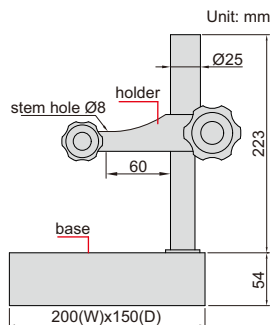
6866-150

Code	Applicable holding stem	Base
6866-150	Ø8mm	flatness 2.5µm

ATTENTION: WITHOUT FINE ADJUSTMENT

GRANITE DIAL INDICATOR STAND (BASIC TYPE)

- Vertical travel of holder: 170mm
- Supplied with dust cover

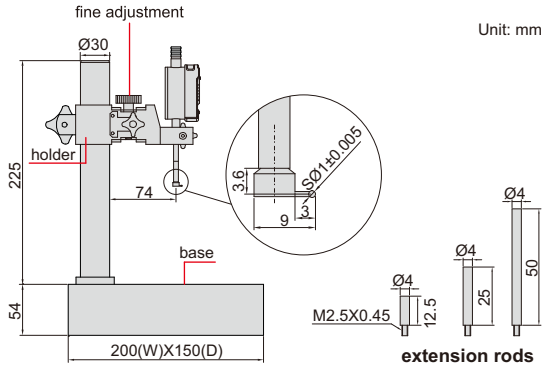


6841-170

Code	Applicable holding stem	Base
6841-170	Ø8mm	flatness 2.5µm

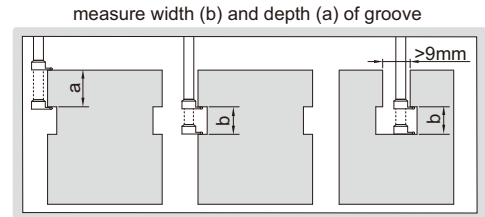
DIGITAL GROOVE MEASUREMENT STANDS

DATA OUTPUT



6870-150

- Button function: on/off, zero, mm/inch, measuring direction change, data preset, absolute/incremental measurement
- Vertical travel of holder: 150mm
- Fine adjustment range: 2mm
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Supplied with extension rods: 12.5mm (1 pc), 25mm (1 pc), 50mm (1 pc)
- Supplied with groove point and dust cover
- Optional accessory: data output cable (code 7315-50M, 7302-40M, 7305-40M)



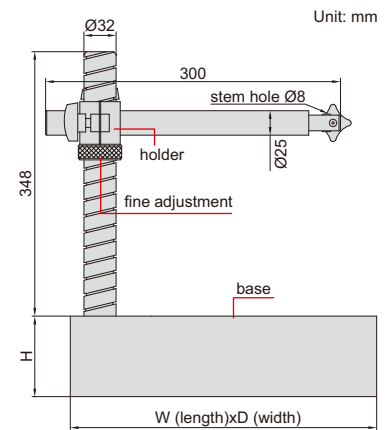
Code	Digital indicator stroke	Digital indicator resolution	Accuracy	Applicable holding stem	Base
6870-150	12.7mm/0.5"	0.01mm/0.0005"	±20µm	Ø8mm	flatness 2.5µm
6870-1501	12.7mm/0.5"	0.001mm/0.00005"	±5µm	Ø8mm	flatness 2.5µm

GRANITE DIAL INDICATOR STANDS

- Vertical travel of holder: 250mm
- Fine adjustment range: entire stroke
- Supplied with dust cover

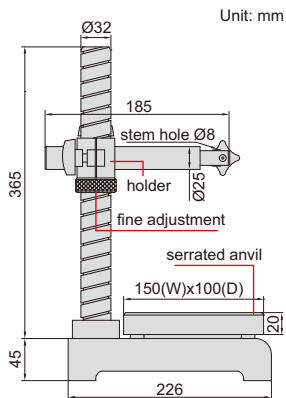


6867-250

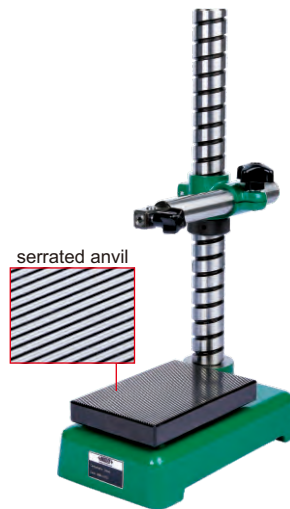


Code	Applicable holding stem	W	D	H	Base
6867-250	Ø8mm	300mm	300mm	75mm	flatness 2.8µm
6867-400	Ø8mm	400mm	300mm	100mm	flatness 3µm

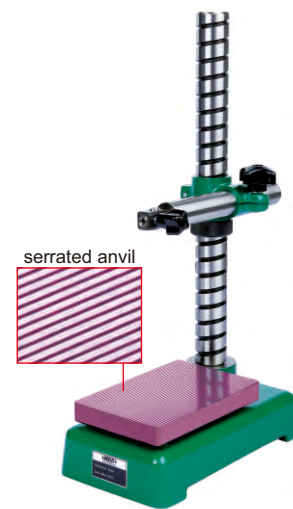
DIAL INDICATOR STANDS



- Vertical travel of holder: 250mm
- Fine adjustment range: entire stroke
- Supplied with dust cover



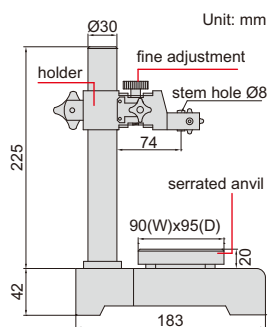
6864-250



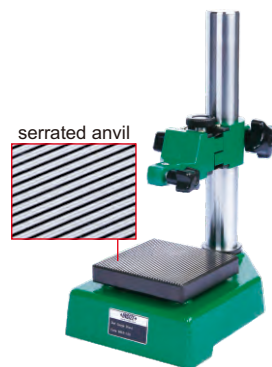
6864-250T

Code	Applicable holding stem	Anvil
6864-250	Ø8mm	steel (hardness HRC60±2), serrated, flatness 1.5µm
6864-250T	Ø8mm	ceramic, serrated, flatness 1.5µm

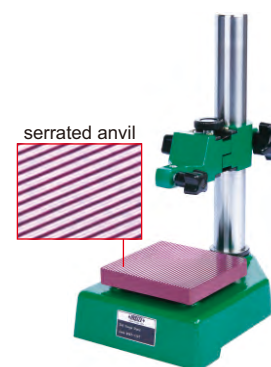
DIAL INDICATOR STANDS



- Vertical travel of holder: 150mm
- Fine adjustment range: 2mm
- Supplied with dust cover



6863-150



6863-150T

Code	Applicable holding stem	Anvil
6863-150	Ø8mm	steel (hardness HRC60±2), serrated, flatness 1.5µm
6863-150T	Ø8mm	ceramic, serrated, flatness 1.5µm

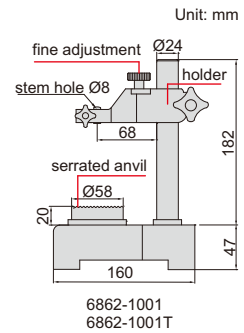
DIAL INDICATOR STANDS



6862-1001



6862-1002



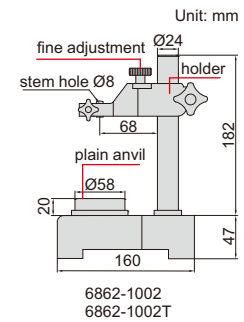
6862-1001
6862-1001T



6862-1001T



6862-1002T



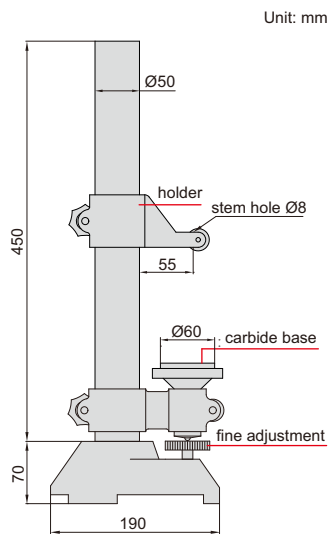
6862-1002
6862-1002T

Code	Applicable holding stem	Anvil
6862-1001	Ø8mm	steel (hardness HRC60±2), serrated, flatness 1.5µm
6862-1002	Ø8mm	steel (hardness HRC60±2), plain, flatness 1.5µm
6862-1001T	Ø8mm	ceramic, serrated, flatness 1.5µm
6862-1002T	Ø8mm	ceramic, plain, flatness 1.5µm

- Vertical travel of holder: 100mm
- Fine adjustment range: 2mm
- Supplied with dust cover

HEAVY DUTY DIAL INDICATOR STAND

- Vertical travel of holder: 300mm
- Fine adjustment range: 5mm
- Carbide base
- Supplied with dust cover
- Optional accessory:
holder with stem hole Ø28 (code 6869-D28)



6869-300

Code	Applicable holding stem	Base
6869-300	Ø8mm	plain, flatness 1µm, carbide

TRANSFER STANDS

application



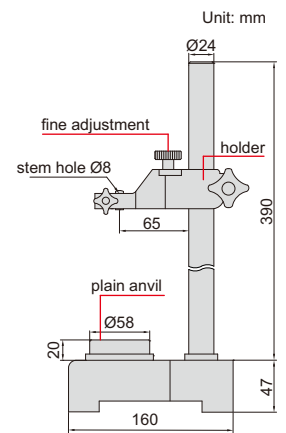
rigid construction, designed to make comparison height measurement (set zero with gage block then measure height of workpiece) with dial indicators or digital indicators (variation of measuring force is high)



6865-300



6865-300T



- Vertical travel of holder: 335mm
- Fine adjustment range: 2mm
- Supplied with dust cover

Code	Applicable holding stem	Anvil
6865-300	Ø8mm	steel (hardness HRC60±2), plain, flatness 1.5µm
6865-300T	Ø8mm	ceramic, plain, flatness 1.5µm

REFER TO PAGE 67-68 FOR DETAILS

DIGITAL HEIGHT GAGES



1155-505



1157-501



1157-502



1158-100

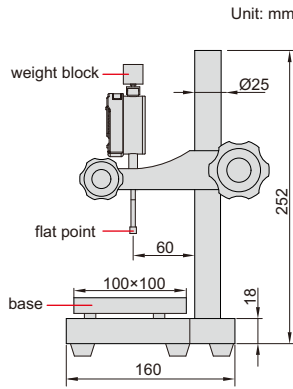
DIGITAL RUBBER THICKNESS GAGES

DATA OUTPUT

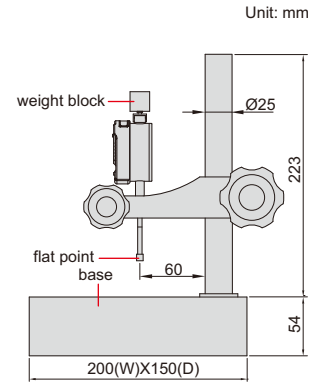
7



2878-6B



2878-71B

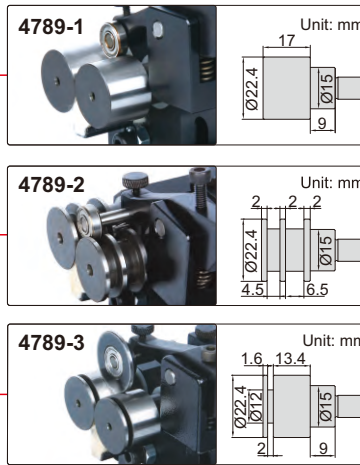
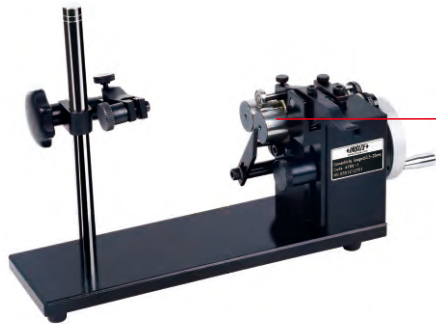


- Measure thickness of vulcanized rubber and plastic products
- Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- CR2032 battery, automatic power off (time is adjustable)
- Supplied with dust cover
- Optional accessory: data output cable (code 7315-50M, 7302-50M, 7305-50M), flat points, weight blocks

Code	Range	Resolution	Accuracy	Flat point diameter	Pressure	Base
2878-6A	12.7mm/0.5"	0.01mm/0.0005"	20µm	6mm	22KPa±5KPa	ceramic, plain, flatness 1.5µm
2878-6B	12.7mm/0.5"	0.001mm/0.00005"	5µm	6mm	22KPa±5KPa	ceramic, plain, flatness 1.5µm
2878-71A	12.7mm/0.5"	0.01mm/0.0005"	20µm	6mm	22KPa±5KPa	granite, plain, flatness 2.5µm
2878-71B	12.7mm/0.5"	0.001mm/0.00005"	5µm	6mm	22KPa±5KPa	granite, plain, flatness 2.5µm

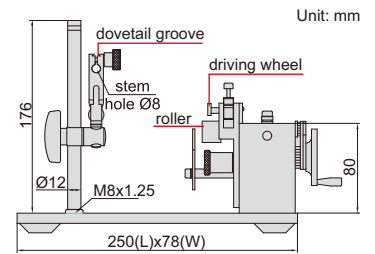
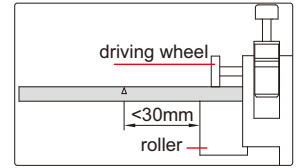
Flat points and weight blocks (optional)

Flat point	Flat point code	Pressure				
		10KPa±2KPa	22KPa±5KPa	20KPa±3KPa	70KPa±5KPa	1.6KPa±0.1KPa
		Weight block code	Weight block code	Weight block code	Weight block code	Weight block code
Ø4mm	2878-P4	—	2878-W4B	—	—	—
Ø5mm	2878-P5	2878-W5A	2878-W5B	2878-W5C	2878-W5D	—
Ø6mm	2878-P6	2878-W6A	2878-W6B	—	—	—
Ø8mm	2878-P8	2878-W8A	2878-W8B	—	—	—
Ø10mm	2878-P10	2878-W10A	2878-W10B	2878-W10C	—	—
Ø25mm	2878-P25	—	—	—	—	2878-W25E
1x4mm (rectangle)	2878-P14	—	—	—	2878-W14D	—



CONCENTRICITY GAGES

to ensure the accuracy 2 μ m, the distance between measuring point and roller should be <30mm



Code	Applicable diameter
4789-1	Ø3.5mm-25mm
4789-2	Ø1mm-25mm
4789-3	Ø1mm-25mm

- Accuracy 2 μ m
- Optional accessory: dial test indicator

HIGH STABILITY,
LONG WORKING LIFE

CONCENTRICITY GAGES

dial test indicator is optional



4725-45

dial test indicator is optional

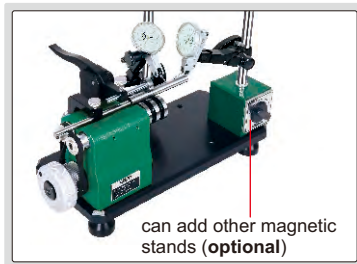


4725-60

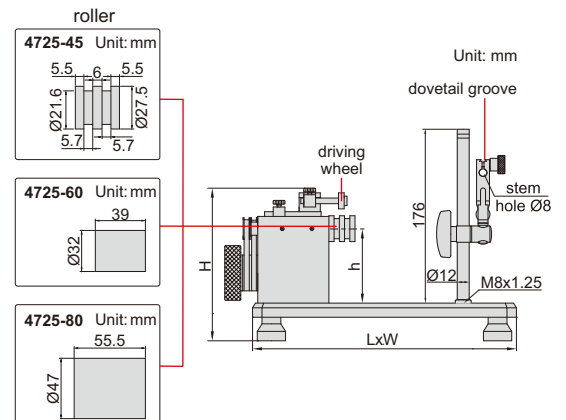
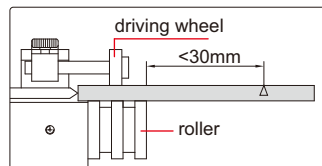
dial test indicator is optional



4725-80



to ensure the accuracy 2 μ m, the distance between measuring point and roller should be <30mm

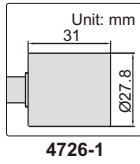


Code	Diameter range	Center height (h)	LxWxH	Weight
4725-45	3-45mm	80mm	280x130x170mm	6kg
4725-60	8-60mm	90mm	350x160x190mm	15.6kg
4725-80	8-80mm	130mm	400x200x250mm	25kg

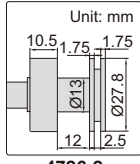
- With ball bearing, high stability, long working life
- Accuracy 2 μ m
- Optional accessory: dial test indicator

CONCENTRICITY GAGES

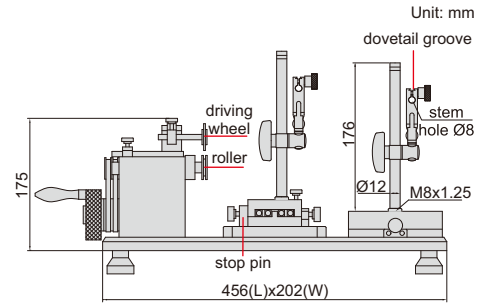
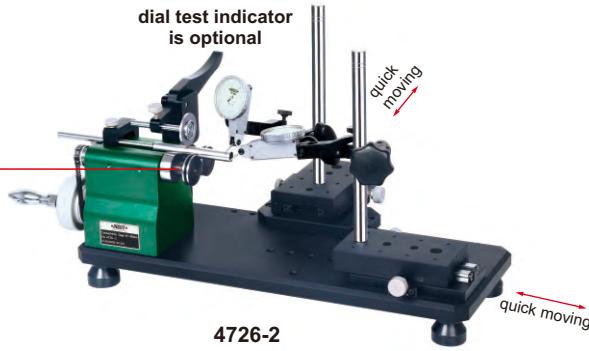
QUICK-POSITIONING, SUITABLE FOR MASS MEASUREMENT



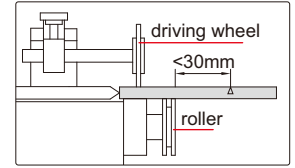
4726-1



4726-2



to ensure the accuracy 2µm, the distance between measuring point and roller should be <30mm

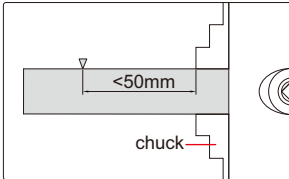


Code	Applicable diameter
4726-1	Ø4-40mm
4726-2	Ø2-40mm

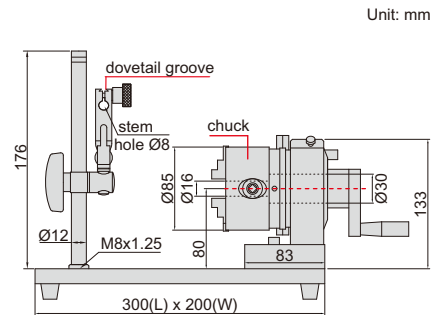
- With ball bearing, high stability, long working life
- Accuracy: 2µm
- Optional accessory: dial test indicator

CONCENTRICITY GAGE

to ensure the accuracy 3µm, the distance between measuring point and roller should be <50mm



4786-1



- Accuracy: 3µm
- Ø50mm setting ring and Ø55mm calibration cylinder are included
- Optional accessory: dial test indicator

Code	Applicable inside diameter	Applicable outside diameter
4786-1	Ø24-64mm	Ø2-70mm

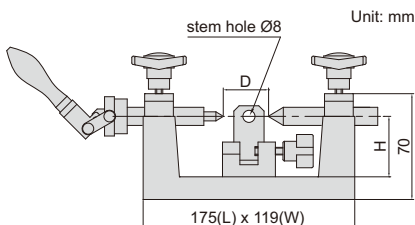
for cylinder



for tube



MINI BENCH CENTER



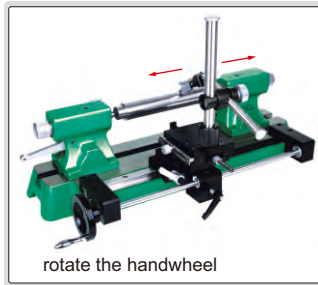
4721-75A

Code	Runout accuracy	Center height (H)	Distance between two centers (D)	Diameter of center (Ød)	Taper of center	Weight	Load
4721-75A	2µm	40mm	35-100mm	6mm	MT1	4.5kg	4kg

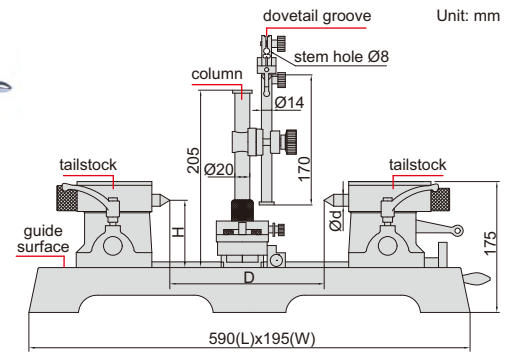
BENCH CENTER WITH STRAIGHTNESS MEASUREMENT



straightness measurement



4723-300



- Hardened cast-iron guide surface

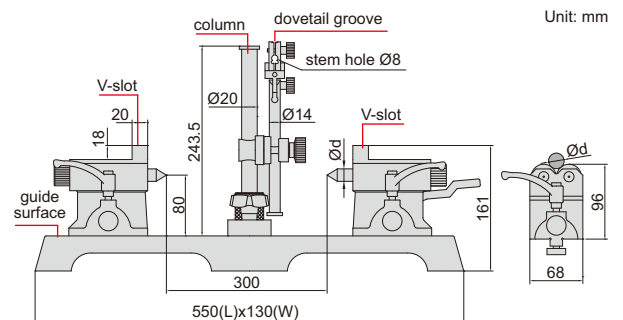
Code	Parallelism*	Runout accuracy	Accuracy of straightness measurement	Center height (H)	Distance between two centers (D)	Diameter of center (Ød)	Taper of center	Weight	Load
4723-300	4µm	2µm	0.02mm	90mm	300mm	18mm	MT2	38kg	25kg

*Parallelism of two centers to the guide surface

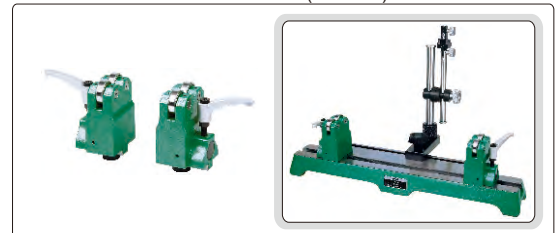
BENCH CENTER WITH ROLLER TAILSTOCKS



4720-300



roller tailstocks (included)

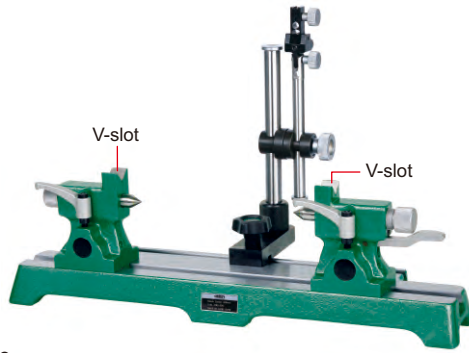


- Hardened cast-iron guide surface
- Supplied with V-slot/center tailstocks and roller tailstocks
- V-slot for cylinder Ø4~22mm
- Roller for cylinder Ø5~100mm

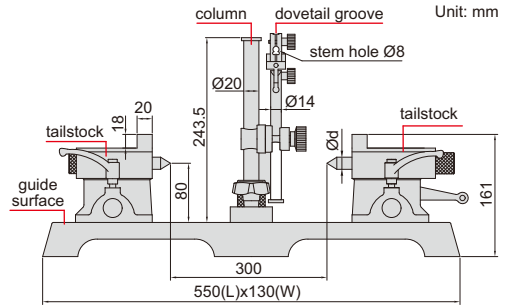
Code	Parallelism*	Runout accuracy	Center height	Distance between two centers	Diameter of center (Ød)	Taper of center	Load
4720-300	0.01mm	2µm	80mm	300mm	16mm	MT1	25kg (40kg for roller tailstocks)

*Parallelism of two centers to the guide surface

BENCH CENTER



4782-300



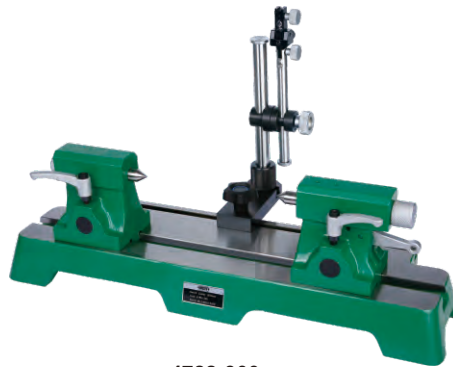
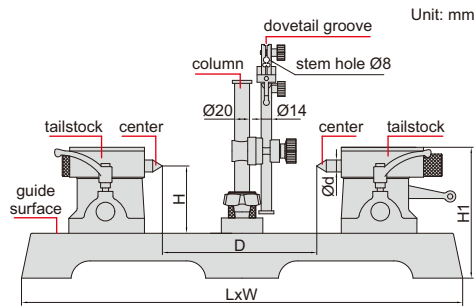
- Hardened cast-iron guide surface
- Movable column
- V-slot for cylinder Ø4~Ø22mm

7

Code	Parallelism*	Runout accuracy	Center height	Distance between two centers	Taper of center	Diameter of center (Ød)	Load
4782-300	0.01mm	2µm	80mm	300mm	MT1	Ø16mm	25kg

*Parallelism of two centers to the guide surface

BENCH CENTERS



4788-300

- Movable column
- Optional accessory: umbrella centers, rotary centers



High accuracy

Code	Parallelism*	Runout accuracy	Center height (H)	Distance between two centers(D)	L	W	H1	Diameter of center (Ød)	Taper of center	Weight	Load
4788-300	0.010mm	2µm	90	300	590	192	175	18.0	MT2	34kg	25kg
4788-400	0.010mm	2µm	130	400	770	206	241	24.1	MT3	66kg	60kg
4788-600	0.010mm	2µm	130	600	930	220	250	24.1	MT3	90kg	60kg
4788-600H2	0.010mm	2µm	200	600	930	220	325	24.1	MT3	105kg	60kg
4788-1000	0.010mm	3µm	130	1000	1330	220	262	24.1	MT3	112kg	60kg
4788-1000H2	0.010mm	3µm	200	1000	1330	220	337	24.1	MT3	125kg	85kg
4788-1000H3	0.010mm	3µm	300	1000	1330	220	442	31.6	MT4	165kg	85kg

(mm)

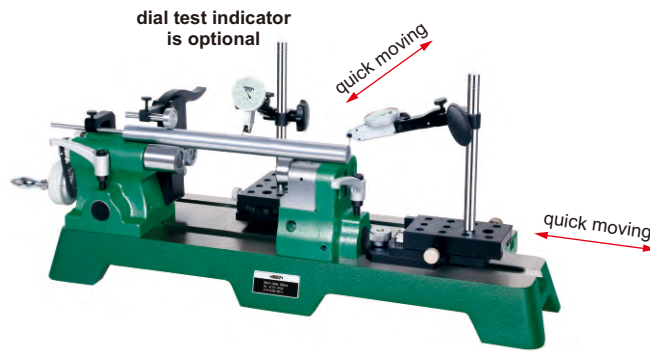
Low accuracy

Code	Parallelism*	Runout accuracy	Center height (H)	Distance between two centers(D)	L	W	H1	Diameter of center (Ød)	Taper of center	Weight	Load
4788-D2	0.010mm	3µm	90	200	490	180	175	20.0	MT2	27kg	25kg
4788-D3	0.010mm	3µm	90	300	590	195	175	20.0	MT2	36kg	25kg
4788-D4	0.012mm	3µm	130	400	730	205	241	28.0	MT3	68kg	60kg
4788-D6	0.015mm	3µm	130	600	930	220	250	28.0	MT3	91kg	60kg
4788-D8	0.015mm	3µm	130	800	1130	220	250	28.0	MT3	99kg	60kg
4788-D10	0.015mm	3µm	130	1000	1330	220	262	28.0	MT3	116kg	60kg

(mm)

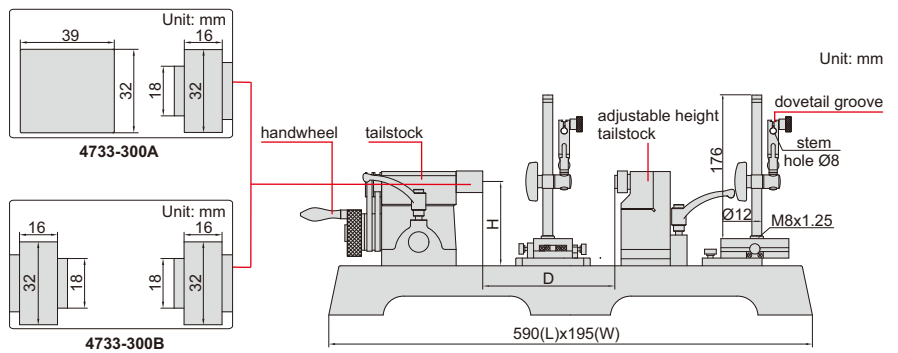
*Parallelism of two centers to the guide surface

BENCH CENTERS



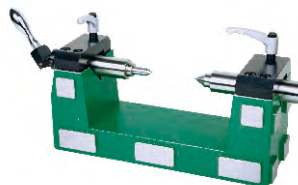
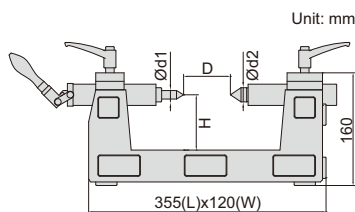
4733-300A

- Hardened cast-iron guide surface
- Quick moving is suitable for mass production inspection
- Adjustable height tailstock: 0-15mm, suitable for inspecting workpieces with different diameters
- Optional accessory: dial test indicator



Code	Runout accuracy	Center height (H)	Distance between two centers (D)	Applicable diameter	Adjustable height	Remarks
4733-300A	2 μ m	90mm	300mm	Ø8-60mm	0-15mm	with handwheel
4733-300B	2 μ m	90mm	300mm	Ø8-60mm	0-15mm	without handwheel

VERTICAL AND HORIZONTAL BENCH CENTER



horizontal use



side use



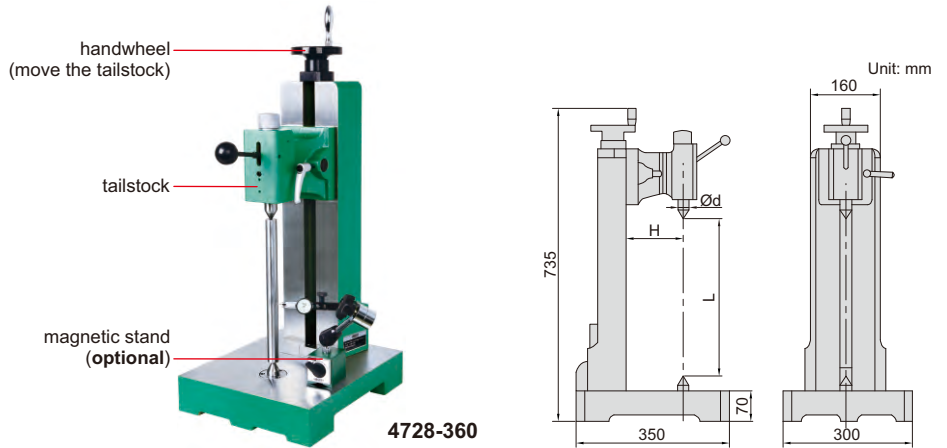
vertical use

- For vertical, side and horizontal use

Code	Runout accuracy	Center height (H)	Distance between two centers (D)	Diameter of center (Ød1/Ød2)	Taper of center	Weight	Load
4722-200	2 μ m	80mm	200mm	12mm/20.2mm	MT1/MT3	22kg	25kg

VERTICAL BENCH CENTER

- Distance between two centers (L): 360mm
- Hardened cast-iron guide surface
- Use handwheel to move the tailstock
- Optional accessory: magnetic stands, dial test indicators



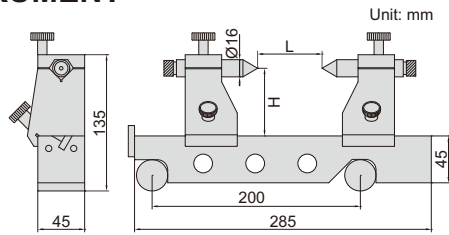
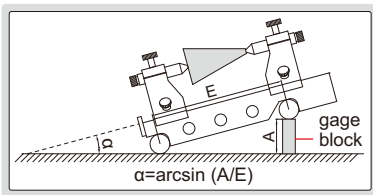
4728-360

Code	Parallelism*	Runout accuracy	Center height (H)	Diameter of center (Ød)	Taper of center	Weight	Load
4728-360	0.01mm	2µm	130mm	24.1mm	MT3	85kg	80kg

*Parallelism of two centers to the guide surface

7

TAPER INSPECTION INSTRUMENT



CAN BE CUSTOMIZED

4157-200

- Check the taper angle of taper bar/taper plug gages /Morse taper/ISO taper etc. The run out can be checked as well
- Sine bar accuracy (when $\alpha=30^\circ$): ± 5 seconds

Code	Center height (H)	Center distance (L)
4157-200	65mm	200mm

SHANK RUNOUT TESTERS



4771-30

standard shank (included)



- Measure the radial runout of shanks, collets and cutting tools
- Optional accessory: dial test indicators, magnetic stands

Code	Taper	Accuracy
4771-30	BT30	1µm
4771-40	BT40	1µm
4771-50	BT50	1µm

