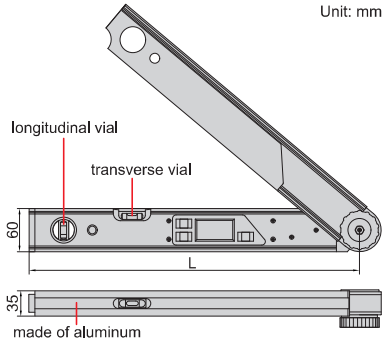


**AUTOMATIC  
BACKLIGHT**

**ABSOLUTE  
LEVEL**

**IP54  
WATERPROOF**

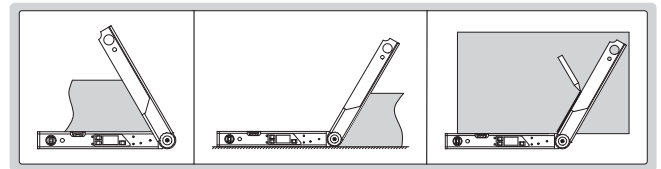
## WATERPROOF DIGITAL PROTRACTOR (HEAVY DUTY)



2174-225

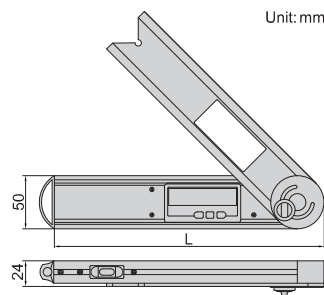
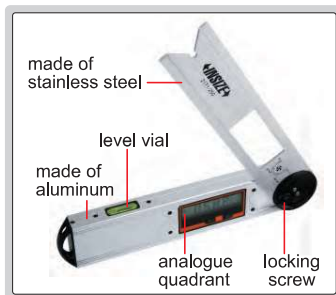
- Suitable for setting horizontal and vertical mitre angles of cutting machines
- Buttons: ON/OFF, HOLD/SUP, SPR/CNR/MTR/BVL
- IP54 dust/waterproof
- With transverse and longitudinal vials
- 2xAAA batteries
- Absolute level, zero setting is not needed when batteries are replaced
- Backlight turns off in one minute after reading is stable, automatic power off in 5 minutes

| Code     | Size (L) | Range  | Resolution | Accuracy |
|----------|----------|--------|------------|----------|
| 2174-225 | 460mm    | 0-225° | 0.05°      | ±0.10°   |



10

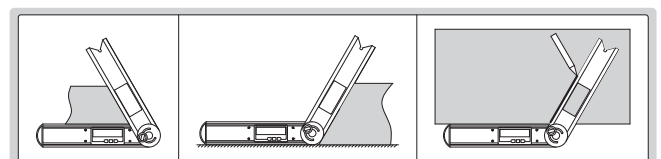
## DIGITAL PROTRACTOR



2171-250

- Buttons: on/off, hold (keep the reading), zero, ABS (absolute and incremental measurement)
- Fix the locking screw at 4 positions for different measuring ranges: 0°~225°, -225°~0°, -45°~180°, -180°~45°
- Remove the locking screw for 360° range
- With level vial
- Battery CR2032, automatic power off

| Code     | Size (L) | Range    | Resolution | Accuracy |
|----------|----------|----------|------------|----------|
| 2171-250 | 250mm    | 0 - 360° | 0.05°      | ±0.15°   |

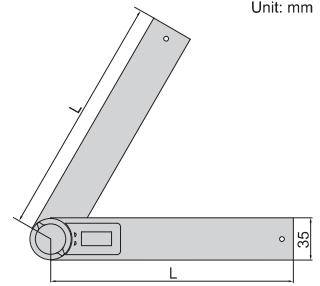


## DIGITAL PROTRACTORS

- Buttons: on/off, zero
- With clamping screw to lock the blades
- Graduation of blade: 1mm and 1/32"
- Made of stainless steel
- CR2032 battery
- Automatic power off

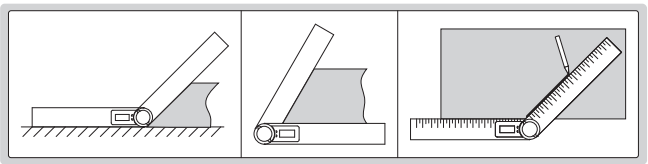


2176-200



Unit: mm

| Code     | Size (L) | Range  | Resolution | Accuracy |
|----------|----------|--------|------------|----------|
| 2176-200 | 200mm    | 0-360° | 0.1°       | ±0.3°    |
| 2176-300 | 300mm    | 0-360° | 0.1°       | ±0.3°    |



10

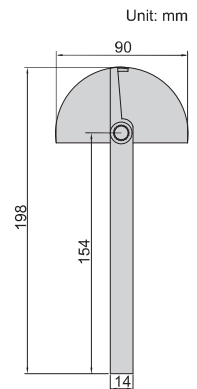
## PROTRACTOR (ECONOMIC TYPE)

- Graduation: 1°
- Made of stainless steel
- With clamping screw



4780-85A

| Code     | Size     | Range  | Accuracy |
|----------|----------|--------|----------|
| 4780-85A | 90x154mm | 0-180° | ±0.5°    |



Unit: mm

## DIGITAL PROTRACTORS

ATTENTION:  
NO DATA OUTPUT

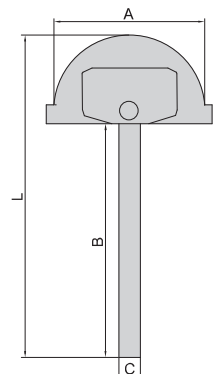
- Range: 0-180°
- Buttons: on/off, zero, hold/turn
- Made of stainless steel
- With clamping screw



4779-120

| Code     | Size (AxB) | Resolution | Accuracy | L     | C    |
|----------|------------|------------|----------|-------|------|
| 4779-120 | 120x150mm  | 0.05°      | ±0.3°    | 221mm | 22mm |
| 4779-150 | 150x200mm  | 0.05°      | ±0.3°    | 286mm | 22mm |
| 4779-200 | 200x300mm  | 0.05°      | ±0.3°    | 409mm | 22mm |

the reading can turn over

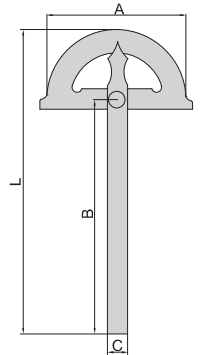


## PROTRACTORS

- Graduation: 1°
- Made of stainless steel  
(4799-1300 is made of carbon steel)
- Satin chrome plated scale
- With clamping screw



4799-180



| Code      | Size (AxB) | Range  | Accuracy | L     | C    |
|-----------|------------|--------|----------|-------|------|
| 4799-180  | 80x120mm   | 0-180° | ±0.3°    | 168mm | 11mm |
| 4799-1120 | 120x150mm  | 0-180° | ±0.3°    | 220mm | 14mm |
| 4799-1150 | 150x200mm  | 0-180° | ±0.3°    | 285mm | 16mm |
| 4799-1200 | 200x300mm  | 0-180° | ±0.3°    | 413mm | 20mm |
| 4799-1300 | 300x500mm  | 0-180° | ±0.3°    | 675mm | 30mm |

**ATTENTION:**  
NO DATA OUTPUT

## DIGITAL PROTRACTORS

10

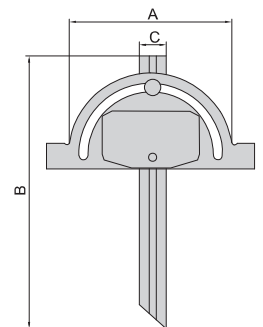
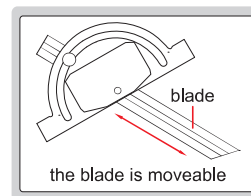
the reading can turn over



4778-100

- Range: 0-180°
- Buttons: on/off, zero, hold/turn
- Made of stainless steel
- With clamping screw
- The blade is moveable

| Code     | Size (AxB) | Resolution | Accuracy | C    |
|----------|------------|------------|----------|------|
| 4778-100 | 126x150mm  | 0.05°      | ±0.3°    | 22mm |
| 4778-150 | 150x300mm  | 0.05°      | ±0.3°    | 22mm |
| 4778-200 | 200x400mm  | 0.05°      | ±0.3°    | 24mm |



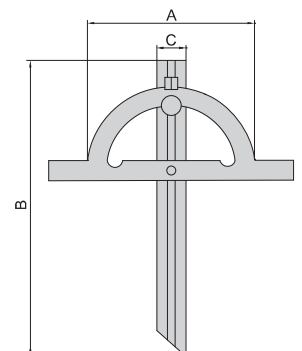
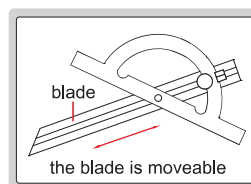
## PROTRACTORS

- Graduation: 1°
- Made of carbon steel
- Satin chrome plated
- With clamping screw
- The blade is moveable



4797-100

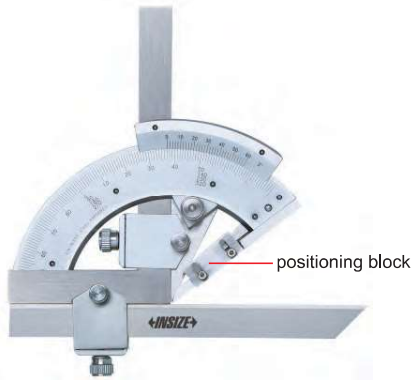
| Code     | Size (AxB) | Range   | Accuracy | C    |
|----------|------------|---------|----------|------|
| 4797-100 | 100x150mm  | 10-170° | ±0.3°    | 18mm |
| 4797-150 | 150x300mm  | 10-170° | ±0.3°    | 22mm |
| 4797-200 | 200x400mm  | 10-170° | ±0.3°    | 24mm |
| 4797-250 | 250x500mm  | 10-170° | ±0.3°    | 28mm |
| 4797-300 | 300x600mm  | 10-170° | ±0.3°    | 32mm |



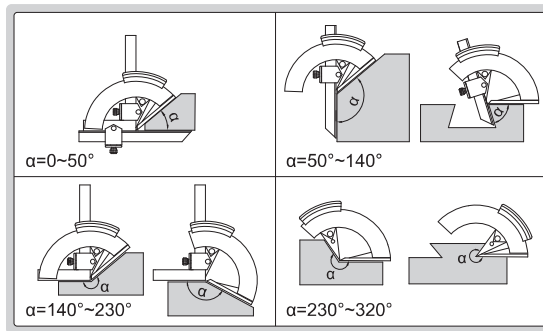
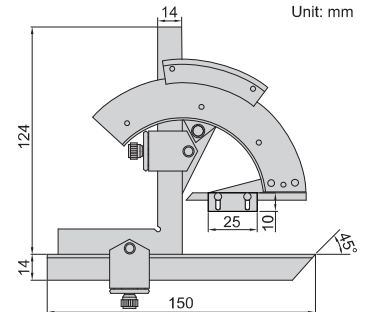
## PROTRACTORS



2374-320



2374-320D



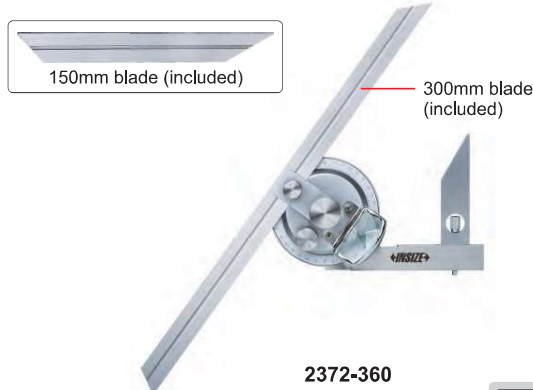
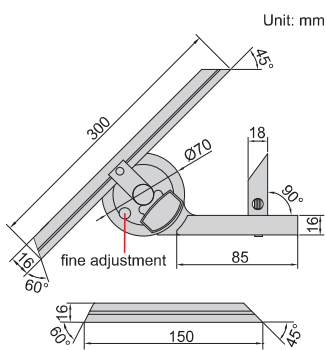
- Made of stainless steel
- Satin chrome plated scale



The positioning block can be moved down for positioning, and moved up when not in use

| Code      | Range  | Graduation | Accuracy | Remark                    |
|-----------|--------|------------|----------|---------------------------|
| 2374-320  | 0-320° | 2'         | ±2'      | without positioning block |
| 2374-320D | 0-320° | 2'         | ±2'      | with positioning block    |

## UNIVERSAL PROTRACTOR

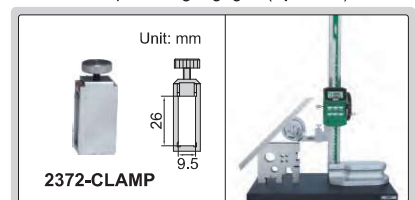


2372-360

- Parallax-free reading
- Made of stainless steel
- Optional accessory: clamp (code 2372-CLAMP), suitable for height gages 1156, 1351 and 1250

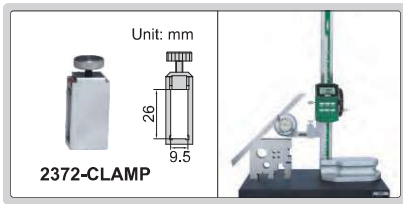
| Code     | Range  | Graduation | Accuracy |
|----------|--------|------------|----------|
| 2372-360 | 0-360° | 5'         | ±5'      |

clamp for height gages (optional)



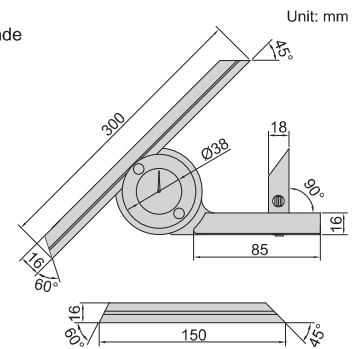
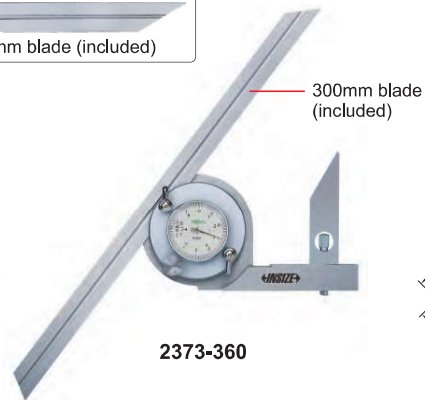
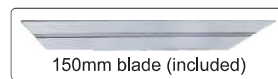
## DIAL PROTRACTOR

clamp for height gages (optional)



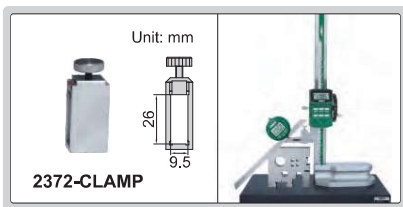
- Made of stainless steel
- Optional accessory: clamp (code **2372-CLAMP**), suitable for height gages **1156**, **1351** and **1250**

| Code            | Range  | Graduation | Accuracy |
|-----------------|--------|------------|----------|
| <b>2373-360</b> | 0-360° | 5'         | ±5'      |



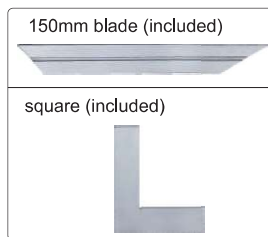
## DIGITAL PROTRACTOR

clamp for height gages (optional)



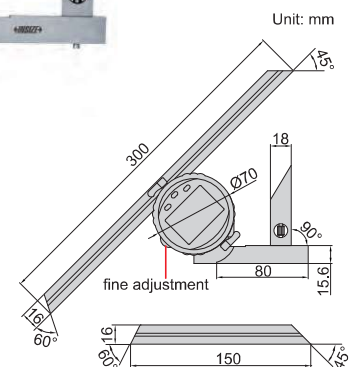
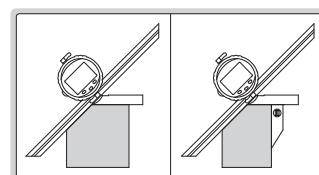
- Display in degree (for example 32.655°) and degree/minute/second (for example 32°39'30")
- SET button: preset the reading, change measuring direction
- MODE button: choose 0-90°, 0-180° or 0-360° display
- ZERO/ON/OFF button: zero and power on/off
- Battery CR2032, automatic power off
- Data output
- Supplied with square to set 90°
- Made of stainless steel
- Optional accessory: data output cable (code **7315-50**, **7302-SPC3B**), clamp (code **2372-CLAMP**), suitable for height gages **1156**, **1351** and **1250**

| Code             | Range  | Resolution | Accuracy |
|------------------|--------|------------|----------|
| <b>2172-360A</b> | 0-360° | 10"/0.005° | ±5'      |



DATA OUTPUT

10



## CYLINDER SQUARES

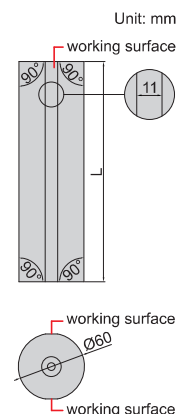
- Made of special alloy steel, hardness HRC58-60
- The handle can be removed

| Code             | Length (L) | Squareness |
|------------------|------------|------------|
| <b>4710-200*</b> | 200mm      | 1µm        |
| <b>4710-300*</b> | 300mm      | 2µm        |

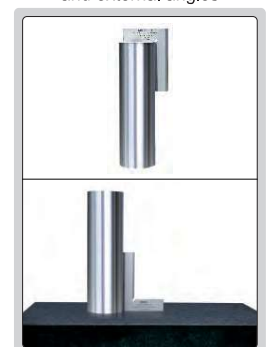
\* Supplied with manufacturer inspection certificate



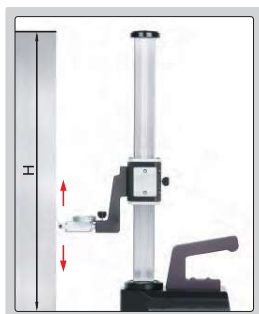
**4710-200**



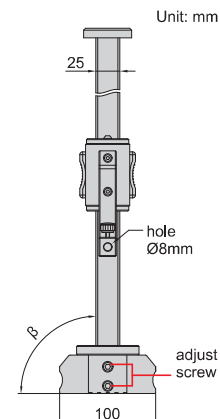
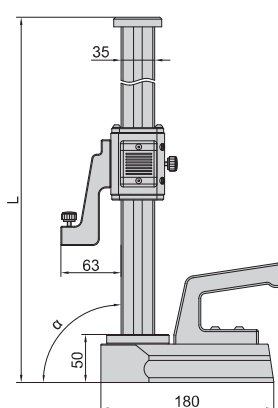
inspect 90° internal and external angles



## PERPENDICULARITY TESTERS



dial test indicator is optional



Unit: mm

- Optional accessory:  
dial test indicators (graduation: 1μm or 2μm)

4770-300

| Code     | Range (H) | Perpendicularity (α) | Side perpendicularity (β) | L     |
|----------|-----------|----------------------|---------------------------|-------|
| 4770-300 | 0-300mm   | 3μm                  | 10μm                      | 460mm |
| 4770-600 | 0-600mm   | 5μm                  | 20μm                      | 760mm |

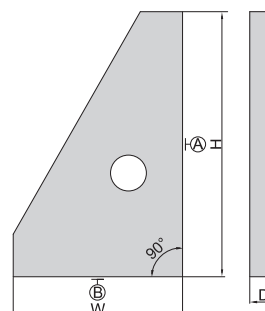
10

## GRANITE SQUARES

CUSTOM-MADE  
SUPPLY SPECIAL SIZES ACCORDING  
TO CUSTOMER'S REQUEST



4141-250



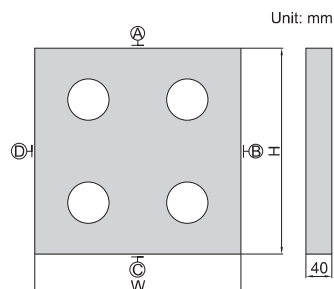
| Code     | Size (HxW) | Flatness of A | Flatness of B | Squareness of A to B | D    |
|----------|------------|---------------|---------------|----------------------|------|
| 4141-250 | 250x160mm  | 1μm           | 1μm           | 2μm                  | 25mm |
| 4141-400 | 400x250mm  | 1.5μm         | 1μm           | 3μm                  | 40mm |
| 4141-630 | 630x400mm  | 2μm           | 1.5μm         | 4μm                  | 63mm |

## GRANITE SQUARE

CUSTOM-MADE  
SUPPLY SPECIAL SIZES ACCORDING  
TO CUSTOMER'S REQUEST



4144-315



Unit: mm

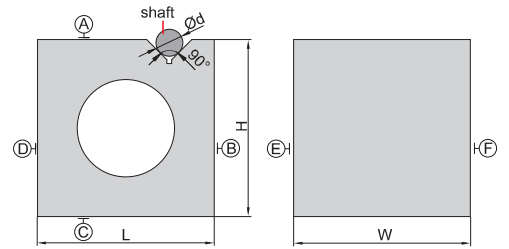
| Code     | Size (HxW) | Flatness of A, B, C and D | Squareness and parallelism between A, B, C and D |
|----------|------------|---------------------------|--|
| 4144-315 | 315x315mm  | 1.1μm                     | 2.6μm  |

## GRANITE SQUARE WITH V GROOVE

- Parallelism and squareness of A, B, C, D, E and F: 6µm
- Parallelism and squareness of V groove to A, B, C, D, E and F: 6µm



4142-200



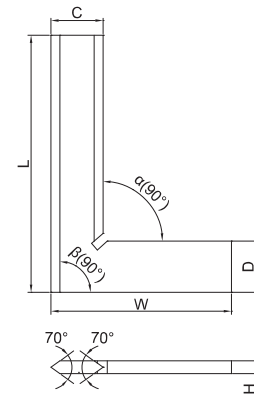
| Code     | Size (LxWxH)  | Range of shaft (Ød) |
|----------|---------------|---------------------|
| 4142-200 | 200x200x200mm | 9~70mm              |

## 90° BEVELED EDGE SQUARES

- Satin chrome plating
- Beveled edges for inside and outside measurements
- Made of hardened stainless steel



4790-0100



### DIN875 grade 00 (mm)

| Code      | Size (LxW) | Squareness |             | C  | D  | H |
|-----------|------------|------------|-------------|----|----|---|
|           |            | Inside (α) | Outside (β) |    |    |   |
| 4790-050  | 50x40mm    | 2.4µm      | 2.5µm       | 13 | 13 | 4 |
| 4790-075  | 75x50mm    | 2.6µm      | 2.8µm       | 15 | 15 | 4 |
| 4790-0100 | 100x70mm   | 2.8µm      | 3.0µm       | 20 | 20 | 5 |
| 4790-0150 | 150x100mm  | 3.2µm      | 3.5µm       | 30 | 30 | 6 |
| 4790-0200 | 200x130mm  | 3.7µm      | 4.0µm       | 34 | 34 | 7 |
| 4790-0250 | 250x165mm  | 4.2µm      | 4.5µm       | 35 | 35 | 7 |
| 4790-0300 | 300x200mm  | 4.6µm      | 5.0µm       | 40 | 40 | 8 |

### DIN875 grade 0 (mm)

| Code      | Size (LxW) | Squareness |             | C  | D  | H |
|-----------|------------|------------|-------------|----|----|---|
|           |            | Inside (α) | Outside (β) |    |    |   |
| 4790-500  | 50x40mm    | 6µm        | 6µm         | 13 | 13 | 4 |
| 4790-750  | 75x50mm    | 6µm        | 7µm         | 15 | 15 | 4 |
| 4790-1000 | 100x70mm   | 7µm        | 7µm         | 20 | 20 | 5 |
| 4790-1500 | 150x100mm  | 7µm        | 8µm         | 30 | 30 | 6 |
| 4790-2000 | 200x130mm  | 8µm        | 9µm         | 34 | 34 | 7 |
| 4790-2500 | 250x165mm  | 9µm        | 10µm        | 35 | 35 | 7 |
| 4790-3000 | 300x200mm  | 10µm       | 11µm        | 40 | 40 | 8 |

## 90° TOOL MAKER SQUARES

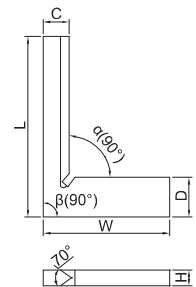
- DIN875 grade 00
- Beveled edge for inside measurement
- Made of hardened stainless steel

(mm)

| Code     | Size (LxW) | Squareness |             | C   | D   | H   |
|----------|------------|------------|-------------|-----|-----|-----|
|          |            | Inside (α) | Outside (β) |     |     |     |
| 4794-025 | 25x20mm    | 2.2µm      | 2.3µm       | 4   | 6.5 | 3.5 |
| 4794-040 | 40x28mm    | 2.3µm      | 2.4µm       | 5.5 | 8.5 | 3.5 |



4794-040



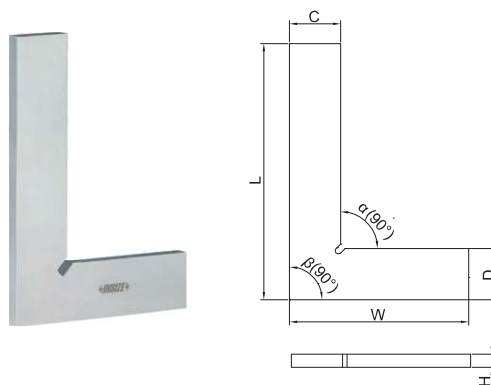
## 90° FLAT EDGE SQUARES

DIN875 grade 0 (mm)

| Code     | Size (LxW) | Squareness          |                     | C  | D  | H |
|----------|------------|---------------------|---------------------|----|----|---|
|          |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |    |    |   |
| 4791-50  | 50x40mm    | 6 $\mu$ m           | 6 $\mu$ m           | 15 | 15 | 4 |
| 4791-75  | 75x50mm    | 6 $\mu$ m           | 7 $\mu$ m           | 15 | 15 | 4 |
| 4791-100 | 100x70mm   | 7 $\mu$ m           | 7 $\mu$ m           | 20 | 20 | 5 |
| 4791-150 | 150x100mm  | 7 $\mu$ m           | 8 $\mu$ m           | 30 | 30 | 6 |
| 4791-200 | 200x130mm  | 8 $\mu$ m           | 9 $\mu$ m           | 30 | 30 | 7 |
| 4791-250 | 250x165mm  | 9 $\mu$ m           | 10 $\mu$ m          | 35 | 35 | 7 |
| 4791-300 | 300x200mm  | 10 $\mu$ m          | 11 $\mu$ m          | 40 | 40 | 8 |

DIN875 grade 1 (mm)

| Code      | Size (LxW) | Squareness          |                     | C  | D  | H |
|-----------|------------|---------------------|---------------------|----|----|---|
|           |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |    |    |   |
| 4791-501  | 50x40mm    | 12 $\mu$ m          | 13 $\mu$ m          | 15 | 15 | 4 |
| 4791-751  | 75x50mm    | 13 $\mu$ m          | 14 $\mu$ m          | 15 | 15 | 4 |
| 4791-1001 | 100x70mm   | 14 $\mu$ m          | 15 $\mu$ m          | 20 | 20 | 5 |
| 4791-1501 | 150x100mm  | 16 $\mu$ m          | 18 $\mu$ m          | 30 | 30 | 6 |
| 4791-2001 | 200x130mm  | 19 $\mu$ m          | 20 $\mu$ m          | 30 | 30 | 6 |



4791-100

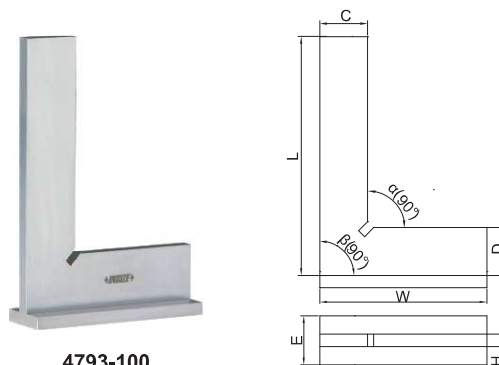
- Made of hardened stainless steel

## 90° FLAT EDGE SQUARES WITH WIDE BASE

- DIN875 grade 0
- Made of hardened stainless steel

(mm)

| Code     | Size (LxW) | Squareness          |                     | C  | D  | H | E  |
|----------|------------|---------------------|---------------------|----|----|---|----|
|          |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |    |    |   |    |
| 4793-50  | 50x40mm    | 6 $\mu$ m           | 6 $\mu$ m           | 13 | 13 | 4 | 13 |
| 4793-75  | 75x50mm    | 6 $\mu$ m           | 7 $\mu$ m           | 15 | 15 | 4 | 15 |
| 4793-100 | 100x70mm   | 7 $\mu$ m           | 7 $\mu$ m           | 20 | 20 | 5 | 20 |
| 4793-150 | 150x100mm  | 7 $\mu$ m           | 8 $\mu$ m           | 30 | 30 | 6 | 30 |
| 4793-200 | 200x130mm  | 8 $\mu$ m           | 9 $\mu$ m           | 30 | 30 | 7 | 30 |
| 4793-250 | 250x165mm  | 9 $\mu$ m           | 10 $\mu$ m          | 35 | 35 | 7 | 35 |
| 4793-300 | 300x200mm  | 10 $\mu$ m          | 11 $\mu$ m          | 40 | 40 | 8 | 40 |



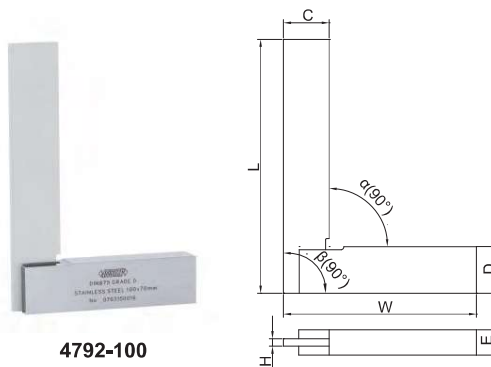
4793-100

## 90° FLAT EDGE SQUARES WITH WIDE BASE

- DIN875 grade 0
- Made of hardened stainless steel

(mm)

| Code     | Size (LxW) | Squareness          |                     | C  | D  | H | E  |
|----------|------------|---------------------|---------------------|----|----|---|----|
|          |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |    |    |   |    |
| 4792-50  | 50x40mm    | 6 $\mu$ m           | 6 $\mu$ m           | 12 | 12 | 3 | 10 |
| 4792-75  | 75x50mm    | 6 $\mu$ m           | 7 $\mu$ m           | 14 | 14 | 3 | 10 |
| 4792-100 | 100x70mm   | 7 $\mu$ m           | 7 $\mu$ m           | 18 | 18 | 3 | 10 |
| 4792-150 | 150x100mm  | 8 $\mu$ m           | 8 $\mu$ m           | 22 | 22 | 4 | 12 |
| 4792-200 | 200x130mm  | 9 $\mu$ m           | 9 $\mu$ m           | 25 | 25 | 4 | 12 |



4792-100



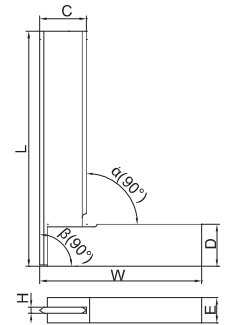
## 90° BEVELED EDGE SQUARES WITH WIDE BASE

- DIN875 grade 0
- Beveled edges for inside and outside measurements
- Made of hardened stainless steel

| Code     | Size (LxW) | Squareness          |                     | C  | D  | H | E  |
|----------|------------|---------------------|---------------------|----|----|---|----|
|          |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |    |    |   |    |
| 4795-50  | 50x40mm    | 6 $\mu$ m           | 6 $\mu$ m           | 12 | 12 | 3 | 10 |
| 4795-75  | 75x50mm    | 6 $\mu$ m           | 7 $\mu$ m           | 14 | 14 | 3 | 10 |
| 4795-100 | 100x70mm   | 7 $\mu$ m           | 7 $\mu$ m           | 18 | 18 | 3 | 10 |
| 4795-150 | 150x100mm  | 8 $\mu$ m           | 8 $\mu$ m           | 22 | 22 | 4 | 12 |
| 4795-200 | 200x130mm  | 9 $\mu$ m           | 9 $\mu$ m           | 25 | 25 | 4 | 12 |



4795-100



ATTENTION: NO ANTI-RUST TREATMENT, NOT HARDEND

ATTENTION: LOW ACCURACY

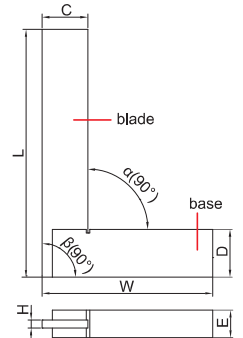
## MACHINIST SQUARES WITH WIDE BASE (ECONOMIC TYPE)

- DIN875 grade 2
- Made of carbon steel, no anti-rust treatment, not hardened

| Code      | Size (LxW) | Squareness          |                     | C  | D  | H | E  |
|-----------|------------|---------------------|---------------------|----|----|---|----|
|           |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |    |    |   |    |
| 4707-50   | 50x40mm    | 24 $\mu$ m          | 25 $\mu$ m          | 16 | 12 | 3 | 9  |
| 4707-75   | 75x50mm    | 26 $\mu$ m          | 28 $\mu$ m          | 16 | 16 | 3 | 9  |
| 4707-100  | 100x70mm   | 28 $\mu$ m          | 30 $\mu$ m          | 19 | 19 | 3 | 12 |
| 4707-150  | 150x100mm  | 33 $\mu$ m          | 35 $\mu$ m          | 25 | 25 | 3 | 16 |
| 4707-200  | 200x130mm  | 37 $\mu$ m          | 40 $\mu$ m          | 30 | 32 | 4 | 16 |
| 4707-250  | 250x165mm  | 42 $\mu$ m          | 45 $\mu$ m          | 30 | 32 | 4 | 19 |
| 4707-300  | 300x200mm  | 47 $\mu$ m          | 50 $\mu$ m          | 32 | 32 | 4 | 19 |
| 4707-400  | 400x250mm  | 56 $\mu$ m          | 60 $\mu$ m          | 38 | 38 | 5 | 22 |
| 4707-500  | 500x300mm  | 65 $\mu$ m          | 70 $\mu$ m          | 45 | 50 | 6 | 25 |
| 4707-600  | 600x350mm  | 75 $\mu$ m          | 80 $\mu$ m          | 50 | 50 | 6 | 30 |
| 4707-750  | 750x400mm  | 90 $\mu$ m          | 95 $\mu$ m          | 55 | 55 | 6 | 50 |
| 4707-900  | 900x500mm  | 103 $\mu$ m         | 110 $\mu$ m         | 65 | 75 | 9 | 50 |
| 4707-1000 | 1000x550mm | 113 $\mu$ m         | 120 $\mu$ m         | 65 | 75 | 9 | 50 |



4707-100



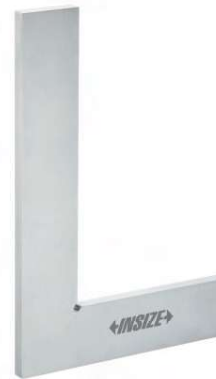
ATTENTION: NO ANTI-RUST TREATMENT, NOT HARDEND

ATTENTION: LOW ACCURACY

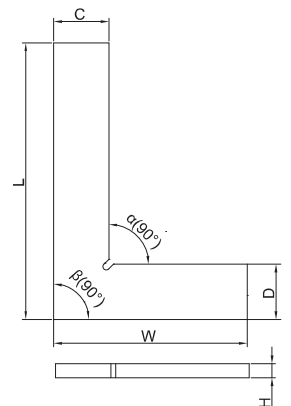
## MACHINIST SQUARES (ECONOMIC TYPE)

- DIN875 grade 2
- Made of carbon steel, no anti-rust treatment, not hardened

| Code     | Size (LxW) | Squareness          |                     | C  | D  | H |
|----------|------------|---------------------|---------------------|----|----|---|
|          |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |    |    |   |
| 4796-50  | 50x30mm    | 24 $\mu$ m          | 25 $\mu$ m          | 12 | 12 | 3 |
| 4796-75  | 75x50mm    | 26 $\mu$ m          | 28 $\mu$ m          | 16 | 16 | 3 |
| 4796-100 | 100x70mm   | 28 $\mu$ m          | 30 $\mu$ m          | 19 | 19 | 5 |
| 4796-125 | 125x80mm   | 30 $\mu$ m          | 33 $\mu$ m          | 22 | 22 | 5 |
| 4796-150 | 150x100mm  | 33 $\mu$ m          | 35 $\mu$ m          | 25 | 25 | 6 |
| 4796-200 | 200x130mm  | 38 $\mu$ m          | 40 $\mu$ m          | 25 | 25 | 6 |
| 4796-250 | 250x165mm  | 43 $\mu$ m          | 45 $\mu$ m          | 25 | 25 | 6 |
| 4796-300 | 300x200mm  | 47 $\mu$ m          | 50 $\mu$ m          | 30 | 30 | 6 |
| 4796-350 | 350x200mm  | 51 $\mu$ m          | 55 $\mu$ m          | 38 | 38 | 6 |
| 4796-400 | 400x200mm  | 56 $\mu$ m          | 60 $\mu$ m          | 38 | 38 | 9 |
| 4796-450 | 450x250mm  | 58 $\mu$ m          | 65 $\mu$ m          | 38 | 38 | 9 |
| 4796-500 | 500x300mm  | 69 $\mu$ m          | 70 $\mu$ m          | 38 | 38 | 9 |



4796-150



## MACHINIST SQUARES WITH WIDE BASE AND SCALE (ECONOMIC TYPE)

ATTENTION: NO ANTI-RUST TREATMENT, NOT HARDENED

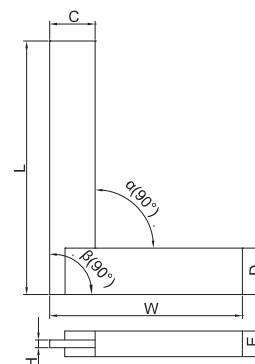
ATTENTION: LOW ACCURACY

- DIN875 grade 2
- Made of carbon steel, no anti-rust treatment, not hardened

| Code     | Size (LxW) | Squareness          |                     | C  | D  | H   | E  |
|----------|------------|---------------------|---------------------|----|----|-----|----|
|          |            | (mm)                |                     |    |    |     |    |
|          |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |    |    |     |    |
| 4711-50  | 50x30mm    | 24 $\mu$ m          | 25 $\mu$ m          | 16 | 12 | 2.5 | 9  |
| 4711-75  | 75x50mm    | 26 $\mu$ m          | 28 $\mu$ m          | 16 | 16 | 2.5 | 9  |
| 4711-100 | 100x70mm   | 28 $\mu$ m          | 30 $\mu$ m          | 19 | 19 | 3   | 12 |
| 4711-150 | 150x100mm  | 33 $\mu$ m          | 35 $\mu$ m          | 25 | 25 | 3   | 16 |
| 4711-200 | 200x130mm  | 37 $\mu$ m          | 40 $\mu$ m          | 30 | 32 | 3   | 16 |
| 4711-250 | 250x165mm  | 42 $\mu$ m          | 45 $\mu$ m          | 30 | 32 | 3   | 19 |
| 4711-300 | 300x200mm  | 47 $\mu$ m          | 50 $\mu$ m          | 32 | 32 | 3   | 19 |
| 4711-400 | 400x200mm  | 56 $\mu$ m          | 60 $\mu$ m          | 38 | 38 | 4.5 | 22 |
| 4711-500 | 500x300mm  | 65 $\mu$ m          | 70 $\mu$ m          | 44 | 50 | 6   | 25 |
| 4711-600 | 600x350mm  | 75 $\mu$ m          | 80 $\mu$ m          | 50 | 50 | 6   | 30 |
| 4711-750 | 750x400mm  | 90 $\mu$ m          | 95 $\mu$ m          | 55 | 55 | 6   | 50 |



4711-100



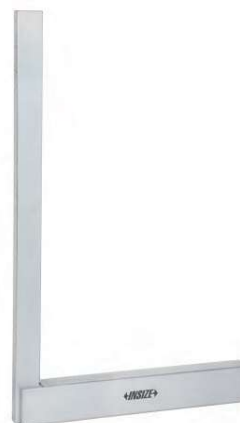
10

## MAGNALIUM 90° FLAT EDGE SQUARES WITH WIDE BASE

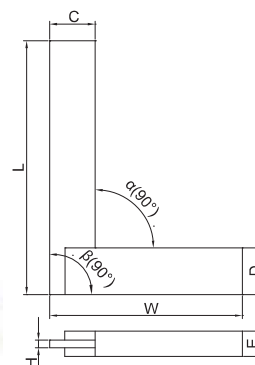
ATTENTION: LOW ACCURACY

- Made of magnalium, light weight, non-deform, no rusty

| Code      | Size (LxW)  | Squareness          |                     | C  | D  | H  | E  | Weight |
|-----------|-------------|---------------------|---------------------|----|----|----|----|--------|
|           |             | (mm)                |                     |    |    |    |    |        |
|           |             | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |    |    |    |    |        |
| 4705-630  | 630x400mm   | 107 $\mu$ m         | 113 $\mu$ m         | 40 | 60 | 18 | 40 | 5kg    |
| 4705-800  | 800x500mm   | 123 $\mu$ m         | 130 $\mu$ m         | 50 | 70 | 25 | 50 | 7kg    |
| 4705-1000 | 1000x630mm  | 143 $\mu$ m         | 150 $\mu$ m         | 50 | 70 | 25 | 50 | 9kg    |
| 4705-1250 | 1250x800mm  | 168 $\mu$ m         | 175 $\mu$ m         | 50 | 70 | 25 | 50 | 11kg   |
| 4705-1600 | 1600x1000mm | 203 $\mu$ m         | 210 $\mu$ m         | 50 | 70 | 25 | 50 | 13kg   |
| 4705-2000 | 2000x1250mm | 243 $\mu$ m         | 250 $\mu$ m         | 50 | 70 | 25 | 50 | 15kg   |
| 4705-2600 | 2600x1500mm | 303 $\mu$ m         | 310 $\mu$ m         | 50 | 70 | 25 | 50 | 20kg   |



4705-630



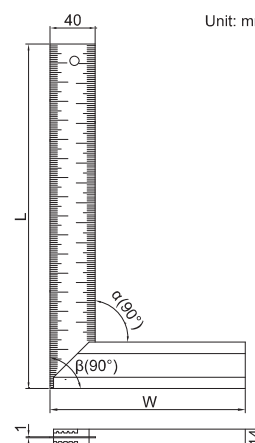
## TRY SQUARE

- Graduation: 1mm
- Stainless steel blade, aluminum base

| Code     | Size (LxW) | Squareness          |                     |
|----------|------------|---------------------|---------------------|
|          |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |
| 2275-300 | 300x170mm  | 0.5mm               | 0.5mm               |



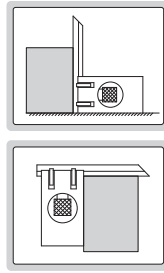
2275-300



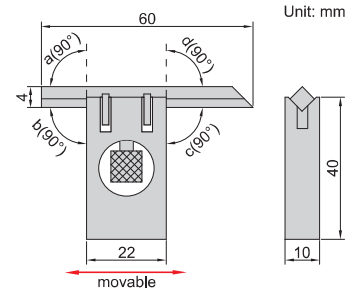
## ADJUSTABLE SQUARE

- The straight edge can move and can be locked by the clamping screw
- Made of hardened stainless steel

| Code   | Squareness (a, b, c, d) |
|--------|-------------------------|
| 4701-1 | 7 $\mu$ m               |



4701-1

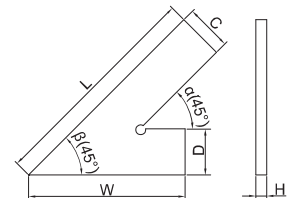


- Made of hardened stainless steel

| Code      | Size (LxW) | Accuracy            |                     | (mm) |    |   |
|-----------|------------|---------------------|---------------------|------|----|---|
|           |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) | C    | D  | H |
| 4745-1120 | 120x80mm   | 29 $\mu$ m          | 32 $\mu$ m          | 20   | 20 | 5 |
| 4745-1150 | 150x100mm  | 32 $\mu$ m          | 35 $\mu$ m          | 20   | 20 | 5 |
| 4745-1200 | 200x130mm  | 36 $\mu$ m          | 40 $\mu$ m          | 25   | 25 | 5 |



4745-1120



10

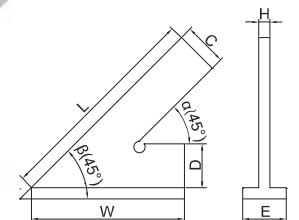
## 45° SQUARES WITH WIDE BASE

- Made of hardened stainless steel

| Code      | Size (LxW) | Accuracy            |                     | (mm) |    |   |    |
|-----------|------------|---------------------|---------------------|------|----|---|----|
|           |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) | C    | D  | H | E  |
| 4747-120  | 120x80mm   | 29 $\mu$ m          | 33 $\mu$ m          | 20   | 20 | 5 | 20 |
| 4747-1150 | 150x100mm  | 32 $\mu$ m          | 36 $\mu$ m          | 20   | 20 | 5 | 20 |
| 4747-200  | 200x130mm  | 36 $\mu$ m          | 41 $\mu$ m          | 25   | 25 | 5 | 25 |



4747-120



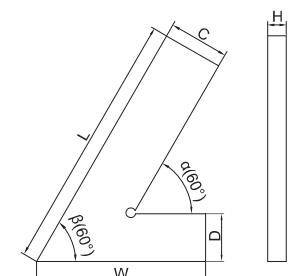
## 60° SQUARES

- Made of hardened stainless steel

| Code      | Size (LxW) | Accuracy            |                     | (mm) |    |   |
|-----------|------------|---------------------|---------------------|------|----|---|
|           |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) | C    | D  | H |
| 4760-1120 | 120x80mm   | 30 $\mu$ m          | 32 $\mu$ m          | 20   | 20 | 5 |
| 4760-1150 | 150x100mm  | 32 $\mu$ m          | 35 $\mu$ m          | 20   | 20 | 5 |
| 4760-1200 | 200x130mm  | 37 $\mu$ m          | 40 $\mu$ m          | 25   | 25 | 5 |

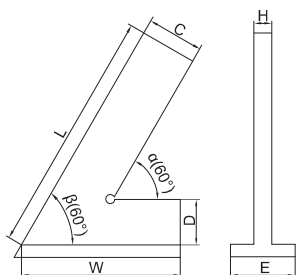


4760-1120



## 60° SQUARES WITH WIDE BASE

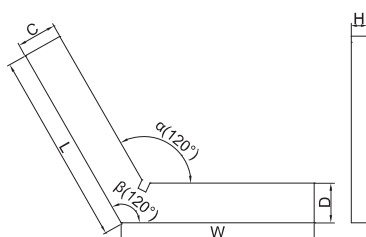
■ Made of hardened stainless steel



4762-120

| Code     | Size (LxW) | Accuracy            |                     | C  | D  | H | E  |
|----------|------------|---------------------|---------------------|----|----|---|----|
|          |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |    |    |   |    |
| 4762-120 | 120x80mm   | 30 $\mu$ m          | 33 $\mu$ m          | 20 | 20 | 5 | 20 |
| 4762-150 | 150x100mm  | 33 $\mu$ m          | 36 $\mu$ m          | 20 | 20 | 5 | 20 |
| 4762-200 | 200x130mm  | 37 $\mu$ m          | 41 $\mu$ m          | 25 | 25 | 5 | 25 |

## 10 120° SQUARES

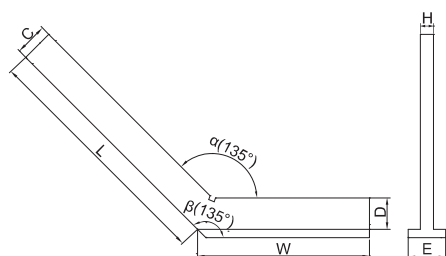


4706-1100

| Code      | Size (LxW) | Accuracy            |                     | C  | D  | H |
|-----------|------------|---------------------|---------------------|----|----|---|
|           |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |    |    |   |
| 4706-150  | 50x50mm    | 24 $\mu$ m          | 25 $\mu$ m          | 15 | 15 | 5 |
| 4706-175  | 75x75mm    | 26 $\mu$ m          | 28 $\mu$ m          | 20 | 20 | 5 |
| 4706-1100 | 100x100mm  | 29 $\mu$ m          | 30 $\mu$ m          | 20 | 20 | 5 |
| 4706-1150 | 150x150mm  | 34 $\mu$ m          | 35 $\mu$ m          | 25 | 25 | 5 |
| 4706-1200 | 200x200mm  | 38 $\mu$ m          | 40 $\mu$ m          | 30 | 30 | 7 |

■ Made of hardened stainless steel

## 135° SQUARES WITH WIDE BASE



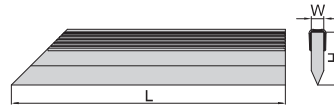
4754-3120

| Code      | Size (LxW) | Accuracy            |                     | C  | D  | H | E  |
|-----------|------------|---------------------|---------------------|----|----|---|----|
|           |            | Inside ( $\alpha$ ) | Outside ( $\beta$ ) |    |    |   |    |
| 4754-3120 | 120x80mm   | 31 $\mu$ m          | 33 $\mu$ m          | 20 | 20 | 5 | 20 |
| 4754-3150 | 150x100mm  | 34 $\mu$ m          | 36 $\mu$ m          | 20 | 20 | 5 | 20 |
| 4754-3200 | 200x130mm  | 39 $\mu$ m          | 41 $\mu$ m          | 30 | 30 | 7 | 30 |

■ Made of hardened stainless steel

## STRAIGHT EDGES

| Code     | Size (L) | Straightness | W    | H    |
|----------|----------|--------------|------|------|
| 4700-50  | 50mm     | 2.2µm        | 5mm  | 20mm |
| 4700-75  | 75mm     | 2.3µm        | 5mm  | 25mm |
| 4700-100 | 100mm    | 2.4µm        | 5mm  | 25mm |
| 4700-125 | 125mm    | 2.5µm        | 6mm  | 30mm |
| 4700-150 | 150mm    | 2.6µm        | 6mm  | 30mm |
| 4700-200 | 200mm    | 2.8µm        | 6mm  | 30mm |
| 4700-250 | 250mm    | 3.0µm        | 8mm  | 40mm |
| 4700-300 | 300mm    | 3.2µm        | 8mm  | 40mm |
| 4700-400 | 400mm    | 3.6µm        | 10mm | 50mm |
| 4700-500 | 500mm    | 4.0µm        | 10mm | 50mm |

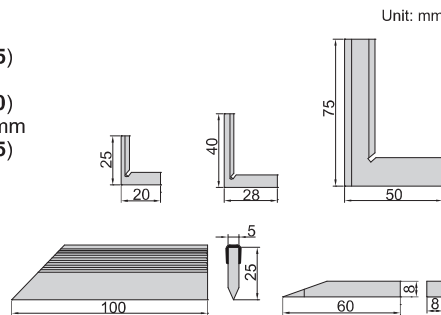


4700-100

- DIN874
- Beveled edge
- Made of hardened stainless steel
- Satin chrome plating

## SQUARE SET

- Includes:
  - 90° tool maker square 25x20mm DIN875 grade 00 (code **4794-025**)
  - 90° tool maker square 40x28mm DIN875 grade 00 (code **4794-040**)
  - 90° beveled edge square 75x50mm DIN875 grade 00 (code **4790-075**)
  - straight edge 100mm DIN874 (code **4700-100**)
  - scriber
- Made of hardened stainless steel



4702-1

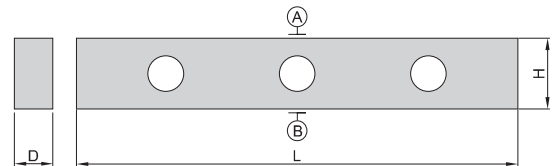
| Code   |
|--------|
| 4702-1 |

10

## GRANITE STRAIGHT EDGES



4147-500A



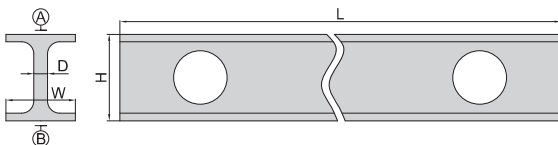
| Code       | Length (L) | Flatness of A and B | Parallelism between A and B | D    | H     |
|------------|------------|---------------------|-----------------------------|------|-------|
| 4147-500A  | 500mm      | 2.1µm               | 3.2µm                       | 50mm | 80mm  |
| 4147-1000A | 1000mm     | 3.0µm               | 4.5µm                       | 60mm | 120mm |

## MAGNALIUM STRAIGHT EDGES

- Made of magnalium, light weight, non-deform, no rusty



4180-1500



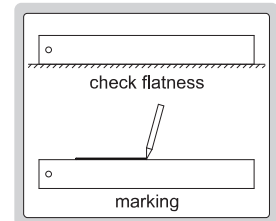
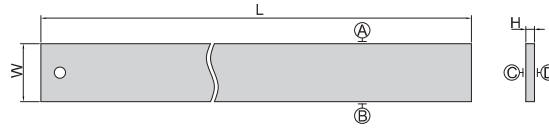
| Code      | Length (L) | Flatness of A and B | Parallelism between A and B | H     | W    | D   | Weight |
|-----------|------------|---------------------|-----------------------------|-------|------|-----|--------|
| 4180-500  | 500mm      | 3µm                 | 4µm                         | 60mm  | 30mm | 5mm | 0.8kg  |
| 4180-1000 | 1000mm     | 5µm                 | 8µm                         | 60mm  | 30mm | 5mm | 1.5kg  |
| 4180-1500 | 1500mm     | 15µm                | 22µm                        | 100mm | 40mm | 7mm | 2.3kg  |
| 4180-2000 | 2000mm     | 18µm                | 27µm                        | 100mm | 40mm | 7mm | 6kg    |
| 4180-2500 | 2500mm     | 22µm                | 33µm                        | 100mm | 40mm | 7mm | 7.5kg  |
| 4180-3000 | 3000mm     | 48µm                | 72µm                        | 150mm | 80mm | 8mm | 21kg   |

## PRECISION STRAIGHT EDGES



7117-300

- Check flatness and for marking
- Made of tool steel



| Code     | Range (L) | Flatness of A and B | Flatness of C and D | W    | H     |
|----------|-----------|---------------------|---------------------|------|-------|
| 7117-300 | 305mm     | 0.005mm             | 0.05mm              | 41mm | 6.3mm |
| 7117-600 | 610mm     | 0.006mm             | 0.06mm              | 51mm | 7.9mm |
| 7117-900 | 914mm     | 0.007mm             | 0.06mm              | 64mm | 9.5mm |

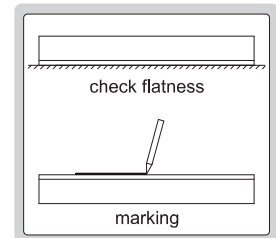
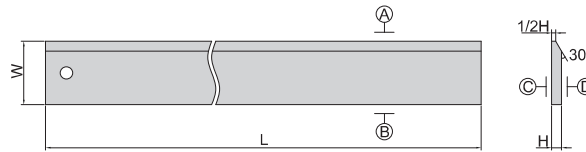
## PRECISION STRAIGHT EDGES WITH BEVELED EDGE

10



7118-300

- Check flatness and for marking
- Made of tool steel



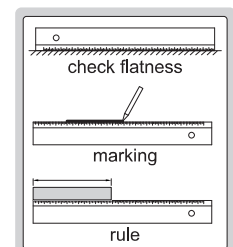
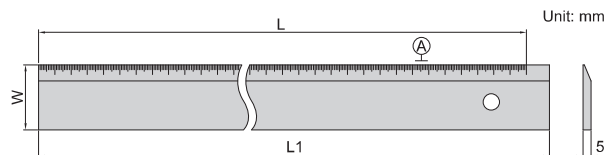
| Code     | Range (L) | Flatness of A and B | Flatness of C and D | W    | H     |
|----------|-----------|---------------------|---------------------|------|-------|
| 7118-300 | 305mm     | 0.005mm             | 0.05mm              | 41mm | 6.3mm |
| 7118-600 | 610mm     | 0.006mm             | 0.06mm              | 51mm | 7.9mm |
| 7118-900 | 914mm     | 0.007mm             | 0.06mm              | 64mm | 9.5mm |

## STRAIGHT EDGES



7111-300A

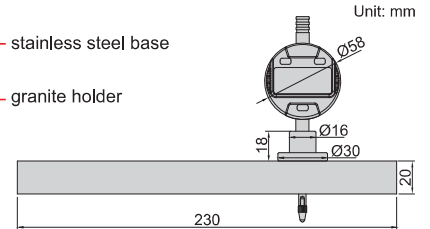
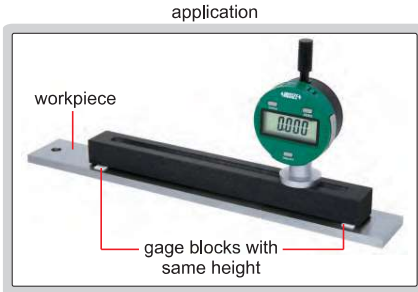
- Check flatness and straightness, as well as for marking
- Graduation on the beveled edge
- Made of hardened tool steel
- Chrome plated



| Code       | Range (L) | Straightness of A | L1     | W    |
|------------|-----------|-------------------|--------|------|
| 7111-300A  | 300mm     | 0.02mm            | 310mm  | 40mm |
| 7111-500A  | 500mm     | 0.03mm            | 510mm  | 40mm |
| 7111-1000A | 1000mm    | 0.04mm            | 1010mm | 50mm |

GRANITE HODLER CAN BE CUSTOMIZED ACCORDING TO WORKPIECES

## STRAIGHTNESS/FLATNESS GAGE

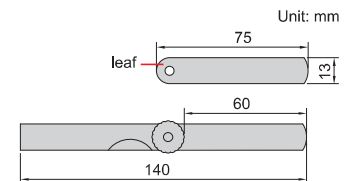


| Code     | Range | Digital indicator resolution | Straightness measurement accuracy | Parallelism of top and bottom surfaces of granite holder | Flatness of top and bottom surfaces of granite holder |
|----------|-------|------------------------------|-----------------------------------|--|---|
| 2144-200 | 200mm | 0.001mm/0.00005"             | 3µm                               | 2µm  | 1.5µm   |

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## FEELER GAGE

- Made of hardened alloy steel
- Meet DIN2275
- Accuracy:  $\pm(3+T/80)$  µm, 'T' is the thickness of leaves in µm

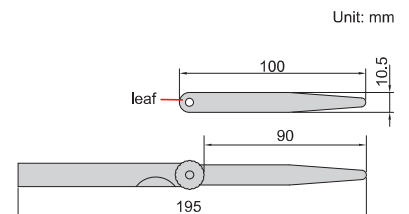


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| Code    | Range       | Thickness of leaves included (mm)  | Quantity of leaves |
|---------|-------------|--|--------------------|
| 4601-25 | 0.04-1.00mm | 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00 | 25                 |

## FEELER GAGES

- Made of hardened alloy steel
- Meet DIN2275
- Accuracy:  $\pm(3+T/80)$  µm, 'T' is the thickness of leaves in µm



| Code     | Range       | Thickness of leaves included (mm)  | Quantity of leaves |
|----------|-------------|--|--------------------|
| 4602-13A | 0.03-0.50mm | 0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.30, 0.40, 0.50   | 13                 |
| 4602-13  | 0.05-1.00mm | 0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.60, 0.70, 0.80, 0.90, 1.00   | 13                 |
| 4602-17  | 0.02-1.00mm | 0.02, 0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.75, 1.00   | 17                 |
| 4602-20  | 0.05-1.00mm | 0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00   | 20                 |
| 4602-28  | 0.05-1.00mm | 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.11, 0.12, 0.13, 0.14, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00                         | 28                 |
| 4602-32  | 0.03-1.00mm | 0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.13, 0.15, 0.18, 0.20, 0.23, 0.25, 0.28, 0.30, 0.33, 0.35, 0.38, 0.40, 0.45, 0.50, 0.55, 0.60, 0.63, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 1.00 | 32                 |