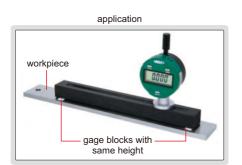
## STRAIGHTNESS/FLATNESS GAGE

GRANITE HODLER CAN BE CUSTOMIZED ACCORDING TO WORKPIECES





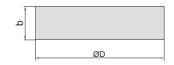


Code	Range	Digital indicator resolution	Straightness measurement accuracy	Parallelism of top and botton surfaces of granite holder	Flatness of top and botton surfaces of granite holder
2144-200	<b>200</b> 200mm 0.001mm/0.00005" 3μm		2µm	1.5µm	

### **OPTICAL FLATS**

- Check flatness
- Single working face, the arrow indicates the working face





4191-45B

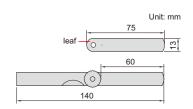
Code	b	ØD	Flatness
4191-45A	12mm	45mm	0.03µm
4191-60A	15mm	60mm	0.03µm

## **FEELER GAGE**

- Made of hardened alloy steelMeet DIN2275/grade TC1
- Accuracy: ±(3+T/80) µm, 'T' is the thickness of leaves in µm



4601-25



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

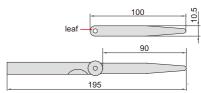


# **FEELER GAGES**

Unit: mm



4602-20



Made of hardened alloy steel
 Meet DIN2275/grade TC1
 Accuracy: ±(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	$\begin{array}{l} 0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.13, 0.15, 0.18, 0.20, 0.23, 0.25, 0.28, 0.30, 0.33, \\ 0.35, 0.38, 0.40, 0.45, 0.50, 0.55, 0.60, 0.63, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 1.00 \end{array}$	32

# **LONG FEELER GAGES**



4605-20

Unit: mm

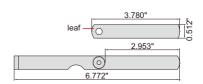
•	Made of hardened alloy steel
	Moot DIN2275/grade TC1

Meet DIN2275/grade TC1
 Accuracy: ±(3+T/80) μm,
 'T' is the thickness of leaves in μm

Code	Range	Thickness of leaves included (mm)	Quantity of leaves	L	Α	В
4605-13	0.05-1.00mm		13	150mm	135mm	295mm
4605-131	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	200mm	185mm	395mm
4605-132	0.05-1.00mm	0.30, 0.00, 0.70, 0.00, 0.30, 1.00	13	300mm	285mm	590mm
4605-20	0.05-1.00mm	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35,	20	150mm	135mm	295mm
4605-201	0.05-1.00mm	0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70,	20	200mm	185mm	395mm
4605-202	0.05-1.00mm	0.75, 0.80, 0.85, 0.90, 0.95, 1.00	20	300mm	285mm	590mm

## **INCH FEELER GAGE**





4608-31

- 0.010" is made of brass, others are made of hardened alloy steel
- Each blade is marked with inch/metric size

Thickness of leaves included	Accuracy
0.010" (brass)	±0.00039"
0.0015", 0.002"	±0.0002"
0.0025", 0.003", 0.004", 0.005", 0.006", 0.007"	±0.00028"
0.008", 0.009"	±0.00035"
0.010", 0.011"	±0.00039"
0.012", 0.013"	±0.00047"
0.014", 0.015"	±0.00051"

	ness of included	Accuracy
0.016"	, 0.017"	±0.00055"
0.018"	, 0.019"	±0.00059"
0.020"	, 0.021"	±0.00067"
0.022"	, 0.023"	±0.00071"
0.024"	, 0.025", 0.026"	±0.00075"
0.028"		±0.00091"
0.030"		±0.00094"
0.032"	, 0.035"	±0.00102"

Code	Range	Quantity of Leaves
4608-31	0.0015"~0.035"	32

## **FEELER GAGE STOCKS**





- Used as shims to accurately set spacing
- Made of hardened alloy steel
  Length 300mm
  Width 13mm

- 10 pcs per package



Code	Thickness (T)	Accuracy
4622-02	0.02mm	±3µm
4622-03	0.03mm	±3µm
4622-04	0.04mm	±3µm
4622-05	0.05mm	±3µm
4622-06	0.06mm	±3µm
4622-07	0.07mm	±4µm
4622-08	0.08mm	±4µm
4622-09	0.09mm	±4µm
4622-10	0.10mm	±4µm
4622-12	0.12mm	±5µm

Code	Thickness (T)	Accuracy
4622-15	0.15mm	±5µm
4622-18	0.18mm	±6µm
4622-20	0.20mm	±6µm
4622-25	0.25mm	±6µm
4622-30	0.30mm	±7µm
4622-35	0.35mm	±7µm
4622-40	0.40mm	±8µm
4622-45	0.45mm	±8µm
4622-50	0.50mm	±9µm
4622-55	0.55mm	±9µm

Code	Thickness (T)	Accuracy
4622-60	0.60mm	±9µm
4622-65	0.65mm	±9µm
4622-70	0.70mm	±12µm
4622-75	0.75mm	±12μm
4622-80	0.80mm	±13µm
4622-85	0.85mm	±13µm
4622-90	0.90mm	±14µm
4622-95	0.95mm	±14µm
4622-100	1.00mm	±16µm

11



### **FEELER GAGE TAPES**

Code	Thickness (T)	Accuracy
4621-02	0.02mm	±4µm
4621-03	0.03mm	±4µm
4621-04	0.04mm	±4µm
4621-05	0.05mm	±4µm
4621-06	0.06mm	±4µm
4621-07	0.07mm	±5µm
4621-08	0.08mm	±5µm
4621-09	0.09mm	±5µm
4621-10	0.10mm	±5µm
4621-12	0.12mm	±5µm
4621-15	0.15mm	±6µm
4621-18	0.18mm	±7µm
4621-20	0.20mm	±8µm
4621-25	0.25mm	±9µm

Code	Thickness (T)	Accuracy
4621-30	0.30mm	±9µm
4621-35	0.35mm	±11µm
4621-40	0.40mm	±12µm
4621-45	0.45mm	±12µm
4621-50	0.50mm	±14µm
4621-55	0.55mm	±14µm
4621-60	0.60mm	±14µm
4621-65	0.65mm	±14µm
4621-70	0.70mm	±17µm
4621-75	0.75mm	±17µm
4621-80	0.80mm	±19µm
4621-85	0.85mm	±19µm
4621-90	0.90mm	±22µm
4621-95	0.95mm	±22µm
4621-100	1.00mm	±24µm



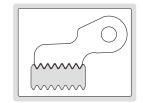
- Used as shims to accurately set spacingMade of hardened alloy steel

- Length 5mWidth 13mm

# **PITCH GAGES**







#### Metric 60° screw

Identify the pitch of screw threadMade of medium carbon steel

Code	Range	Pitch of leaves included (mm)	Quantity of leaves
4820-122	0.4-7.0mm	0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7	22
4820-124	0.25-7.0mm	0.25, 0.3, 0.35, 0.4, 0.5, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7	24
4820-1241	0.25-6.0mm	0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6	24

### Unified 60° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-230	4-42TPI	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42TPI	30

#### Whitworth 55° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-330	4-42TPI	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42TPI	30
4820-328	4-62TPI	4, 4-1/2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 36, 40, 48, 60, 62TPI	28

#### Metric 60° and Whitworth 55° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-452	0.25-6.0mm	0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6mm	- 52
	4-62TPI	4, 4-1/2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 36, 40, 48, 60, 62TPI	
4820-450	0.4-7.0mm	0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7mm	
	4-62TPI	4, 4-1/2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 36, 40, 48, 60, 62TPI	50

### Metric 60° and Unified 60° screw

Code	Range	Pitch of leaves included	Quantity of leaves
4820-552	0.4-7.0mm	0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7mm	
	4-42TPI	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42TPI	52