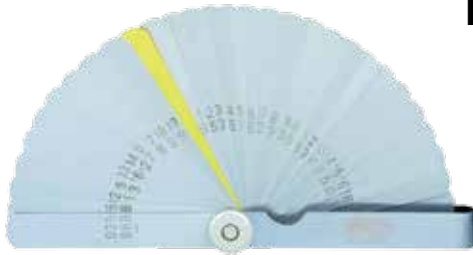




## Feeler Gages



- Hardened alloy steel (except 0.01" gage - brass)
- Blades individually marked with inch/metric measurements
- Supplied in storage pouch

Range (Inch)	Thickness of Leaves (Inch)	Accuracy (Inch)	No. of Leaves	INSIZE No.	Code
0.0015-0.035	0.010 (brass)	±0.00039	32	4608-31	283543
	0.0015, 0.002	±0.00020			
	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			
	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			

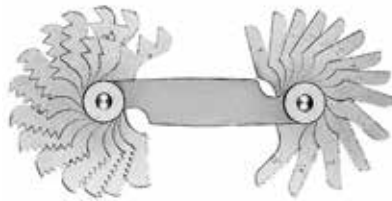
## Feeler Gages



Range (Inch)	No. of Leaves	Code
0.008-0.026	12	840391
0.002-0.025	15	840392
0.0015-0.025	26	840393
0.0015-0.035	32	840394

## Screw Pitch Gages

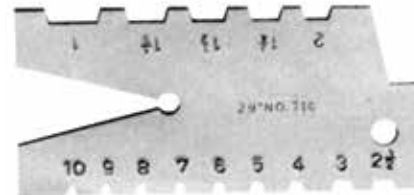
- Compact leaf style gage is used to measure the screw pitch of threads
- Pitch size marked on each leaf
- Leaves can be locked in position
- 60° threads



Range of Pitch	No. of Leaves	Code	Range of Pitch	No. of Leaves	Code
4-30	24	820231	0.25-6mm	24	820239
32-82	26	820232	0.25-6mm	48	820240
4-42	30	820233	6-30	20	820241
2-1/4 - 28	27	820234	0.25-7mm	24	820242
0.25-2.5mm	28	820235	0.4-7mm	51	820243
0.4-7mm	18	820236	4-84	51	820244
0.5-7mm	17	820237	6-60	30	820245
1-11.5mm	22	820238	4-80	28	820246
			3-1/2 - 32	26	820247

## ACME Screw Thread Cutting Gages

- Used to measure the edges of Acme thread cutting tools



Range, Pitch	Code
1-10TPI, 29°	820262
3-10mm, 30°	820263
3-10 mm, 30° Round	820264

GAGES

## Pitch Gages



- For measuring the pitch of screw threads
- Blades individually marked with pitch
- Supplied in storage pouch



Range	Accuracy (Inch)	Thread Type	Blade Pitch	No. of Blades	INSIZE No.	Code
1-12 TPI	±0.0028	ACME 29°	1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 7, 8, 9, 10, 12 TPI	16	4824-16	283549
2-20 mm	±0.0028	Tr 30°	2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 16, 20 mm	12	4824-12	283548

## Pitch Gages Metric & Unified



- For measuring the pitch of screw threads
- Blades individually marked with pitch
- Medium carbon steel
- Supplied in storage pouch

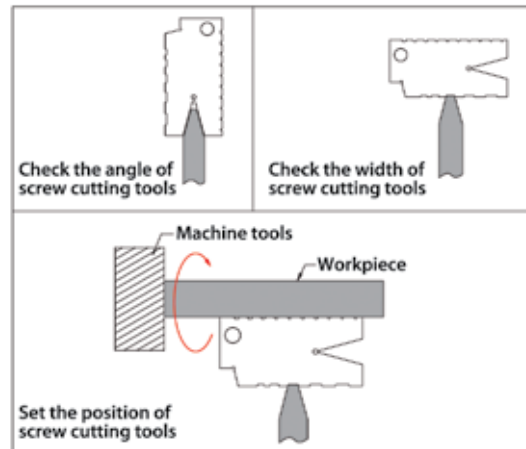
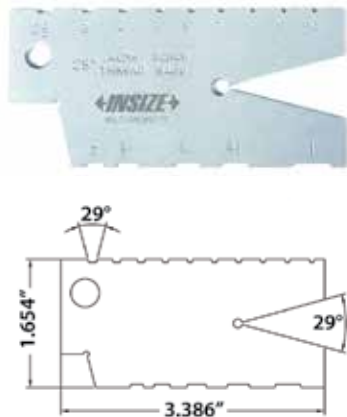


Range	Accuracy (Inch)	Thread Type	Blade Pitch	No. of Blades	INSIZE No.	Code
4-42TPI	±0.0028	Unified 60°	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42 TPI	30	4820-230	283552
0.25-7mm	±0.0028	Metric 60°	0.25, 0.3, 0.35, 0.4, 0.5, 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 mm	24	4820-124	283551
0.4-7mm	±0.0028	Metric 60°	0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.29, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7 mm	52	4820-552	816695
4-42TPI		Unified 60°	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, 42 TPI			

## Thread Gage



- Standard for grinding and setting tools when cutting ACME threads
- Supplied in storage pouch

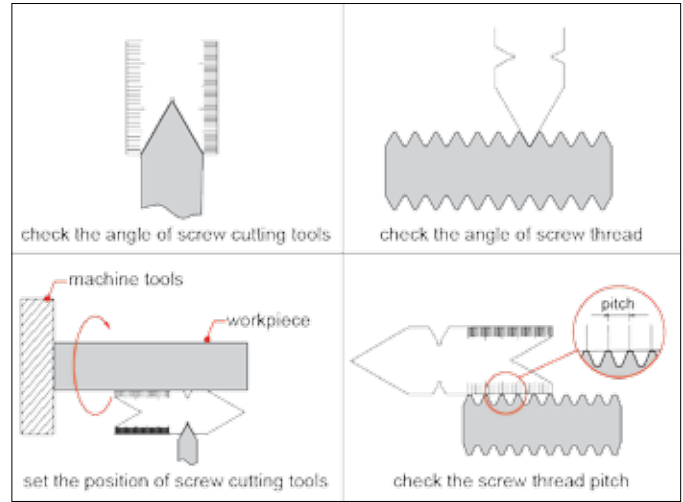
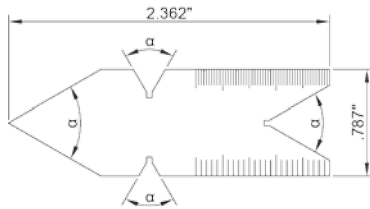
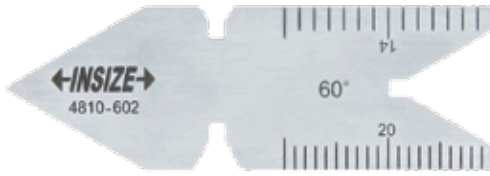


Range	Accuracy	Thread Type	Pitch	INSIZE No.	Code
1-10TPI	±10min.	ACME 29°	1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 4, 5, 6, 7, 8, 9, 10 TPI	4812-E	283557

## Center Gage

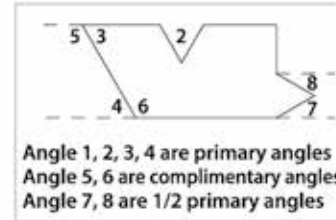
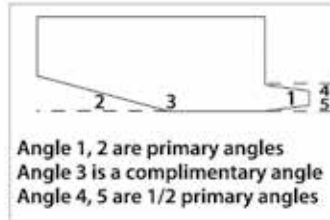


- To check and set screw cutting tools, and to check the angle and pitch of the screw thread
- Angle accuracy:  $\pm 30\text{min.}$
- Stainless steel



Thread	Angle	Graduations	INSIZE No.	Code
Unified 60°	60°	14ths and 20ths on one side, 24ths and 32nds on opposite side	4810-602	283560

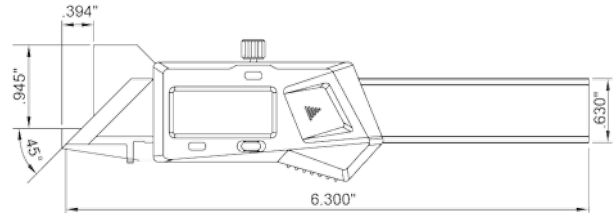
## Angle Gage Set



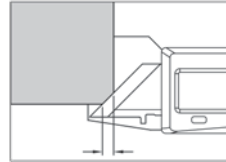
- Each blade checks primary, 1/2 primary and complimentary angles
- Blades individually marked with angles
- Medium carbon steel
- Supplied in storage pouch

Accuracy	Primary Angle	1/2 Primary Angle	Complimentary Angle	Type	No. of Blades	INSIZE No.	Code
±10min.	5°	2°30'	175°	A	18	4807	816602
	10°	5°	170°	A			
	15°	7°30'	165°	A			
	20°	10°	160°	B			
	25°	12°30'	155°	B			
	30°	15°	150°	B			
	35°	17°30'	145°	B			
	40°	20°	140°	B			
	45°	22°30'	135°	B			
	50°	25°	130°	B			
	55°	27°30'	125°	B			
	60°	30°	120°	B			
	65°	32°30'	115°	B			
	70°	35°	110°	B			
	75°	37°30'	105°	B			
	80°	40°	100°	B			
	85°	42°30'	95°	B			
	90°	45°	90°	B			

## Electronic Chamfer Gage



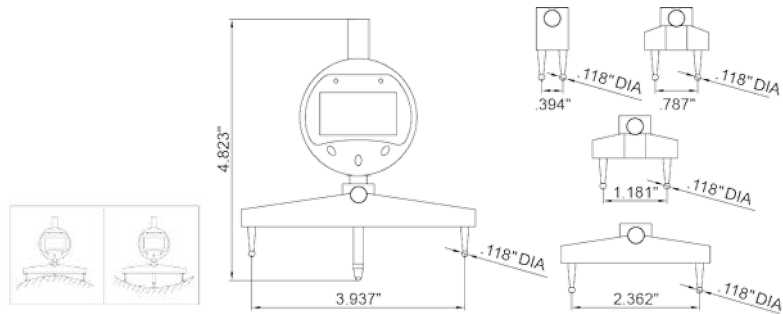
- Measure 45° chamfer dimension
- Resolution: 0.0005"/0.01mm
- Buttons: on/off, set, inch/mm, preset (+, -)
- Auto power off - move unit to turn power on
- Battery CR2032
- Data output
- Stainless steel



OPTIONAL ACCESSORY: SPC cable

Accuracy (Inch)	INSIZE No.	Code
±0.0025	1180-6	816370

## Electronic Radius Gage



- For measuring the radius of internal and external arcs
- Resolution: 0.00005"/0.005mm
- Supplied with 5 separate jaws for multiple arc sizes
- Battery CR2032
- Supplied in fitted storage case

R Range of Radius (Inch/mm)	Accuracy (Inch)	INSIZE No.	Code
0.2-27.5/5-700	*±0.01R	2183	283213

\*R is the radius to be measured (Inch)

## Radius Gages



- Supplied in storage pouch



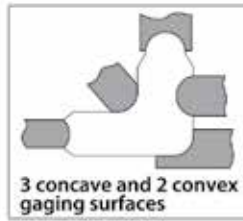
Range	Accuracy	Blade Size	Blade Quantity Internal + External	INSIZE No.	Code
1/32"-1/4"	±0.0012"	1/32, 3/64, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 11/64, 3/16, 13/64, 7/32, 15/64, 1/4"	15 + 15	4801-15E	283567
17/64"-1/2"	±0.0014"	17/64, 9/32, 19/64, 5/16, 21/64, 11/32, 23/64, 3/8, 25/64, 13/32, 27/64, 7/16, 29/64, 15/32, 31/64, 1/2"	16 + 16	4801-16E	283568



## Radius Gage Sets



816196



3 concave and 2 convex gaging surfaces

- Each piece has three concave and two convex gaging surfaces
- Medium carbon steel

Range	Accuracy	Blade Size	Blade Quantity	Handle	Storage Pouch	INSIZE No.	Code
1/64"-1/2"	±0.002"	1/64, 1/32, 3/64, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 11/64, 3/16, 13/64, 7/32, 15/64, 1/4, 17/64, 9/32, 5/16, 11/32, 3/8, 13/32, 7/16, 15/32, 1/2"	25	Included	Included	4804-25E	816198
9/16"-1"	±0.0025"	9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1"	8	-	-	4804-8E	816200
0.5mm-13mm	±0.05mm	0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13	26	Included	Included	4804-26	816196

## Edge & Corner Radii Gages



- Used to measure the radii of edges and corners (*Both sides of the leaf can be used*)
- 60° point

Range	No. of Leaves	Code
1/32" to 17/64" by 64ths	16	820218
9/32" to 33/64" by 64ths	16	820219
0.75 to 5mm by 0.25mm increments	18	820220
5.5 to 13mm by 0.5mm increments	16	820221

## Sheet Metal Gage



- US standard for gaging sheet metal, plate iron and steel
- Hardened steel with satin chrome finish
- Supplied in storage pouch

Range	Accuracy	INSIZE No.	Code
0-36 (0.3125-0.007")	+0.002/-0.0015"	4809	283575

No.	Width (Inch)	No.	Width (Inch)	No.	Width (Inch)	No.	Width (Inch)	No.	Width (Inch)	No.	Width (Inch)	No.	Width (Inch)	No.	Width (Inch)
0	0.3125	5	0.2187	10	0.140	15	0.070	20	0.0375	25	0.0218	29	0.014	33	0.0093
1	0.281	6	0.203	11	0.125	16	0.0625	21	0.0343	26	0.0187	30	0.0125	34	0.0085
2	0.265	7	0.1875	12	0.109	17	0.056	22	0.0312	27	0.017	31	0.0109	35	0.0076
3	0.250	8	0.172	13	0.0937	18	0.050	23	0.028	28	0.0156	32	0.010	36	0.007
4	0.234	9	0.156	14	0.078	19	0.0437	24	0.025						

## Wire Gage



- US standard for gaging non-ferrous wire and materials such as copper, brass and aluminum
- Hardened steel with satin chrome finish
- Supplied in storage pouch

Range	Accuracy	INSIZE No.	Code
0-36 (0.3125-0.007")	+0.002/-0.0015"	4808	283574

No.	Width (Inch)	No.	Width (Inch)	No.	Width (Inch)	No.	Width (Inch)	No.	Width (Inch)	No.	Width (Inch)	No.	Width (Inch)	No.	Width (Inch)
0	0.325	5	0.182	10	0.102	15	0.057	20	0.032	25	0.018	29	0.011	33	0.007
1	0.289	6	0.162	11	0.091	16	0.051	21	0.028	26	0.016	30	0.010	34	0.0063
2	0.257	7	0.144	12	0.081	17	0.045	22	0.025	27	0.014	31	0.009	35	0.0056
3	0.229	8	0.128	13	0.072	18	0.040	23	0.022	28	0.012	32	0.008	36	0.005
4	0.204	9	0.114	14	0.064	19	0.036	24	0.020						

## Drill Angle Gage



- For checking drills with 60°, 70°, 90°, 118°, 125°, 150°, or 160° angles
- Stainless steel
- Supplied in storage pouch



Accuracy	INSIZE No.	Code
±0.5°	4842-1	816683

## Drill Gages

## Twist Drill Gage



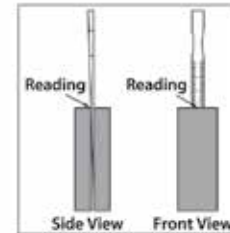
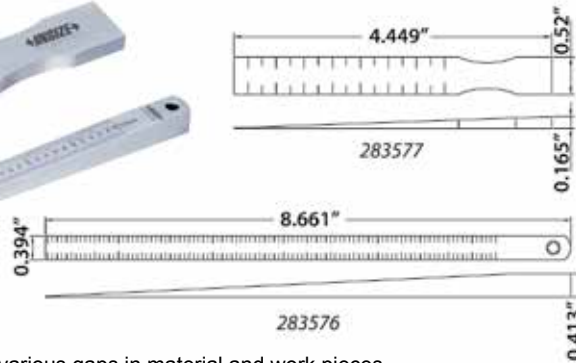
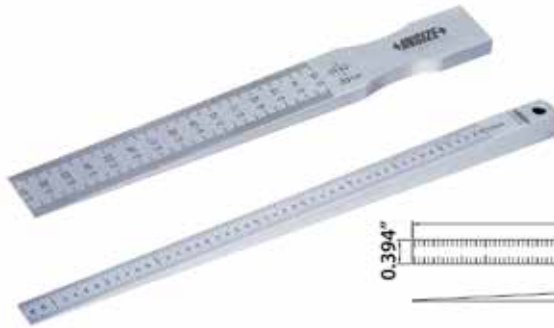
No. of Holes	Code
29	840605
60	840606

- Used to check the angles or twist drills with a 118° point and up to 2" in diameter
- Also used for checking the angle profile of drills after regrinding to ensure that the center of the tip is concentric with the drill body
- Stainless steel
- Polished finish
- All gaging surfaces are ground



Code
820257

## Taper Gages



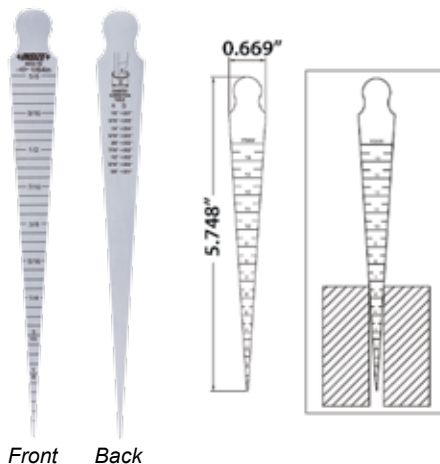
- For quick measuring of slot width and various gaps in material and work pieces
- Stainless steel with satin chrome plated reading surface
- Supplied in storage pouch

Range	Accuracy	Graduation	INSIZE No.	Code
0.01"-0.15"	±0.003"	0.001"	4630-1E	283577
0.5mm-10mm	±0.07mm	0.05mm	4630-1	283576

## Taper Gage



- Graduation: 1/64"
- Accuracy: ±0.0039"
- For quick measuring of slot width and various gaps in material and work pieces
- Diameter correction table on back
- Stainless steel
- Supplied in storage pouch



Range (Inch)	INSIZE No.	Code
1/32-5/8	4833-1E	285112

## Gear Tooth Gages With Ring Holder

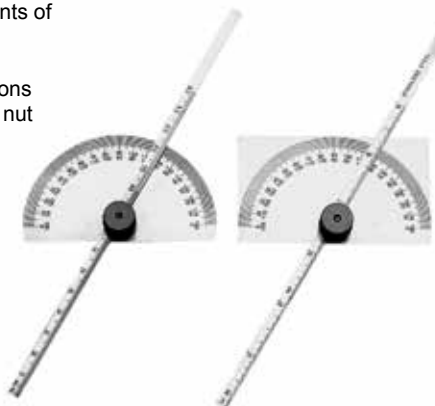


- Easy to determine diametral pitch of involute gears

Range of Pitch	No. of Leaves	Code
6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 36, 40, 48, 64, 80 per inch	14	820281
2, 2-1/2, 3, 3-1/2, 4, 4-1/2, 5 per inch	7	820282

## Depth Gages with Protractors

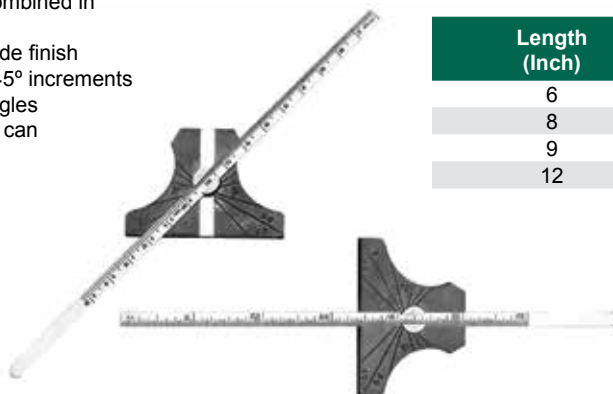
- A versatile tool which allows measurements of both angles and depths
- Stainless steel
- Graduated from 0° to 180° in both directions
- Adjustable rule locks with knurled thumb nut
- 6"/150mm rule
- Rule graduated in inches on one side and mm on the other
- Polished finish



Type	Code
Round	840579
Rectangular	840578

## Depth & Angle Gages

- The ability to measure depths and angles is combined in this versatile tool
- The head is made of tool steel with a black oxide finish
- Graduated both left and right in 15°, 30°, and 45° increments
- Rule can be quickly set to any of the above angles
- A 6"/150mm steel rule is fitted to the head and can be locked in position for depth or angular measurements by a knurled nut



Length (Inch)	Code
6	840585
8	840586
9	840587
12	840588

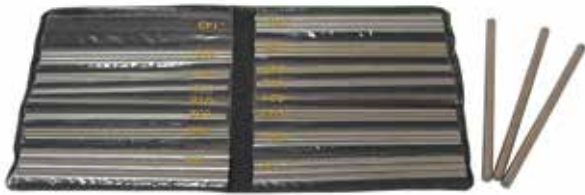
## Planer & Shaper Gage

- Beveled base and slide provide accurate alignment and parallelism
- Hardened base and slide
- Supplied with 1" and 3" extension posts
- Maximum Height 6-1/4"
- Precision level ensures accuracy
- Extra tapped holes in platform allow mounting of dial indicator posts and other accessories



Range (Inch)	Base Size (Inch)	Extension (Inch)	Code
1/4 - 6-1/4	9/16 x 5	1 and 3	820290

## Thread Measuring Wire Set



- 48 wires to measure all 60° threads from 3 to 48 threads per inch (0.5 to 6mm)
- Supplied in storage pouch with wire sizes marked on pockets

**Code**  
835315

## Thread Triangles

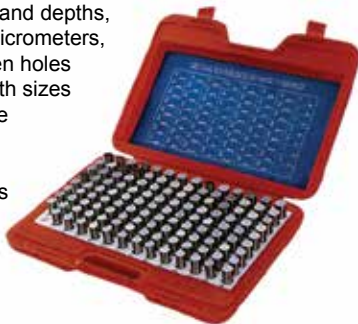
- Thread triangles quickly measure pitch diameter of all 60° threads from 4 to 80 pitch, standard and special
- Instantly classifies thread as 2, 2a, 3a
- No complicated formulas to figure. For any standard thread refer directly to chart (chart included). For special threads just add two numbers
- Convenient neoprene holders, fit any brand of micrometer spindle
- Thread triangles nest well into the "V" of the thread instead of just making point contact



**Code**  
805776

## Pin/Plug Gage Sets

- Used for measuring hole sizes and depths, go and no-go gaging, setting micrometers, and checking distances between holes
- Box and gages both marked with sizes
- Size laser etched on each piece (0.011" - 0.060" not etched)
- Centerless lapped
- Each gage is inspected and has a 10 micron finish or better
- Heat treated to 60 – 62 Rockwell C hardness
- All gages within 0.0002" limit
- Accuracy: -0.0002" +0.0000"
- Material: 52100 bearing steel
- Pieces 2" overall length
- Supplied in fitted case



### Minus Sets

Range (Inch)	No. of Pieces	Code
0.011-0.06	50	845150
0.061-0.25	190	845151
0.251-0.5	250	845152
0.501-0.625	125	845153
0.626-0.75	125	845154
0.751-0.832	82	845155
0.833-0.916	84	845156
0.917-1	84	845157

### Plus Sets

Range (Inch)	No. of Pieces	Code
0.011-0.06	50	845140
0.061-0.25	190	845141
0.251-0.5	250	845142
0.501-0.625	125	845143
0.626-0.75	125	845144
0.833-0.916	84	845146
0.917-1	84	845147

## Space Block Set

Inch

- 3/4" body diameter, 1/4 - 28 internal thread
- Accuracy: ±0.0005"
- Each block clearly marked for size
- Hardened and lapped
- Four connecting screws included to make up desired length
- Supplied in fitted case



Blocks Included	Code
0.05, 0.06, 0.062, 0.07, 0.08, 0.09, 0.1, 0.101, 0.102, 0.103, 0.104, 0.105, 0.106, 0.107, 0.108, 0.109, 0.11, 0.12, 0.125, 0.13, 0.14, 0.15, 0.16, 0.17, 0.18, 0.19, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1, 1	845210



## Thread Plug Gages



### American Standard

- Supplied with GO and NO-GO end
- Class 2B
- ANSI B1.2 standard
- Supplied with manufacturer inspection certificate



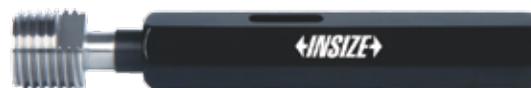
Size	INSIZE No.	Code
4-40UNC	4131-41	816651
6-32UNC	4131-61	816652
8-32UNC	4131-81	816653
10-32UNF	4131-102	816654
1/4-20UNC	4131-1B1	816655
1/4-28UNF	4131-1B2	816656

Size	INSIZE No.	Code
5/16-18UNC	4131-5D1	816657
5/16-24UNF	4131-5D2	816658
3/8-16UNC	4131-3C1	816659
3/8-24UNF	4131-3C2	816660
7/16-20UNF	4131-7D2	816661
1/2-13UNC	4131-1A1	816662

Size	INSIZE No.	Code
1/2-20UNF	4131-1A2	816663
9/16-18UNF	4131-9D2	816664
5/8-11UNC	4131-5C1	816665
5/8-18UNF	4131-5C2	816666
3/4-10UNC	4131-3B1	816667
3/4-16UNF	4131-3B2	816668

### NPT

- American tapered pipe thread for threads with sealant
- ANSI/ASME B1.20.1 standard
- Taper 1:16
- Material: OHNS (oil hardened non-shrinking steel)
- Stable dimension and wear resistance
- Hardness: 60-62 HRC
- Supplied with manufacturer inspection certificate



Size (NPT)	INSIZE No.	Code
1/16 x 27	4644-1D27	816669
1/8 x 27	4644-1C27	816670
1/4 x 18	4644-1B18	816671
3/8 x 18	4644-3C18	816672

Size (NPT)	INSIZE No.	Code
1/2 x 14	4644-1A14	816673
3/4 x 14	4644-3B14	816674
1 x 11	4644-112	816675
1/1/4 x 11.5	4644-1G12	816676

Size (NPT)	INSIZE No.	Code
1-1/2 x 11.5	4644-1H12	816677
2 x 11.5	4644-212	816678
2-1/2 x 8	4644-1J8	816679

### Metric

- Supplied with GO and NO-GO end
- Class 6H
- ISO1502 standard
- Supplied with manufacturer inspection certificate



Size (mm)	INSIZE No.	Code
M2 x 0.4	4130-2	284053
M2.2 x 0.45	4130-2D2	284054
M2.5 x 0.45	4130-2D5	284055
M3 x 0.5	4130-3	284056
M3.5 x 0.6	4130-3D5	284057
M4 x 0.7	4130-4	284058
M5 x 0.8	4130-5	284059
M6 x 1	4130-6	284060
M7 x 1	4130-7	816680
M8 x 1.25	4130-8	284061

Size (mm)	INSIZE No.	Code
M9 x 1.25	4130-9	816681
M10 x 1.5	4130-10	284062
M11 x 1.5	4130-11	816682
M12 x 1.75	4130-12	284063
M14 x 2	4130-14	284064
M16 x 2	4130-16	284065
M18 x 2.5	4130-18	284066
M20 x 2.5	4130-20	284067
M22 x 2.5	4130-22	284068
M24 x 3	4130-24	284069

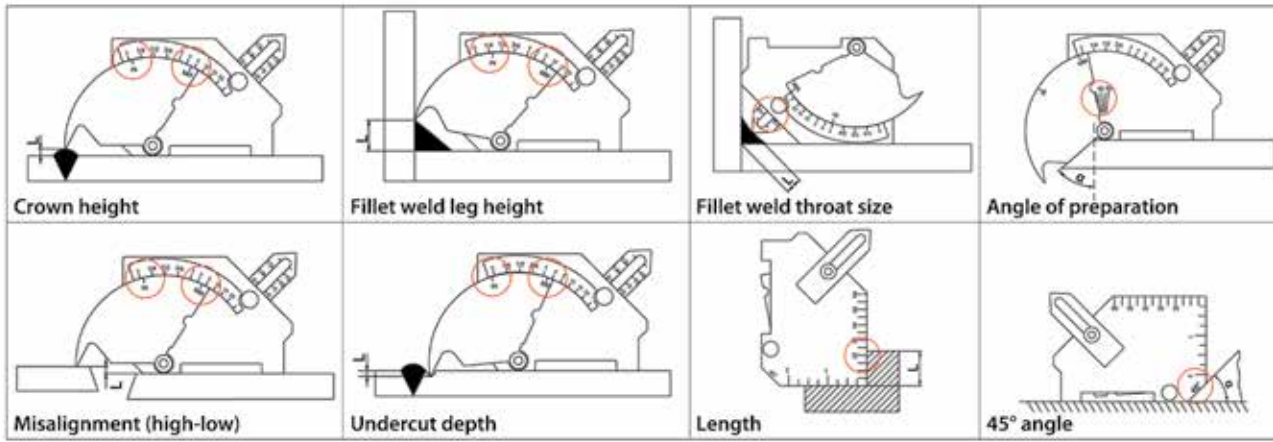
Size (mm)	INSIZE No.	Code
M27 x 3	4130-27	284070
M30 x 3.5	4130-30	284071
M33 x 3.5	4130-33	284072
M36 x 4	4130-36	284073
M39 x 4	4130-39	284074
M42 x 4.5	4130-42	284075
M45 x 4.5	4130-45	284076
M48 x 5	4130-48	284077
M52 x 5	4130-52	284078
M56 x 5.5	4130-56	284079
M60 x 5.5	4130-60	284080

GAGES

## Welding Gage Adjustable Scale



- Adjustable scale to compensate for pointer wear
- Stainless steel
- Supplied in storage pouch

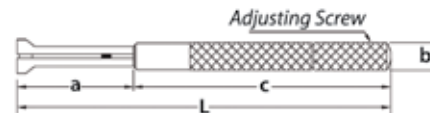
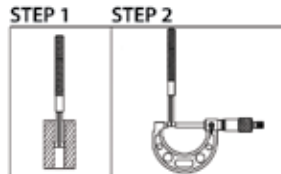


Measurement	Range	Accuracy	Graduation	INSIZE No.	Code
Crown height	0-1" (0-25mm)	±0.02"	1/16" (1mm)	4835-1	877031
Fillet weld leg height	0-1" (0-25mm)	±0.02"	1/16" (1mm)		
Misalignment (high-low)	0-1" (0-25mm)	±0.02"	1/16" (1mm)		
Undercut depth	0-1/8" (0-2mm)	±0.02"	1/16" (1mm)		
Fillet weld throat size	0-3/4" (0-20mm)	±0.02"	1/16" (1mm)		
Angle of preparation	0-60°	±1°	5°		
Length	0-2" (0-60mm)	±0.02"	1/16" (1mm)		
45° angle	-	±1°	-		

## Small Hole Gage Set



- For small holes, slots, grooves, etc.
- Ideal for blind holes
- Satin chrome finish
- Supplied in storage pouch



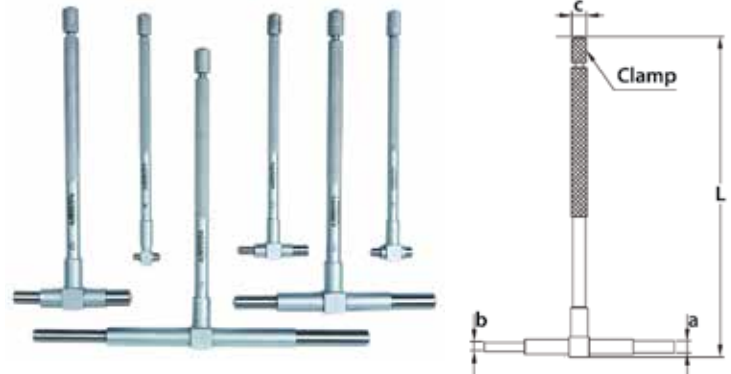
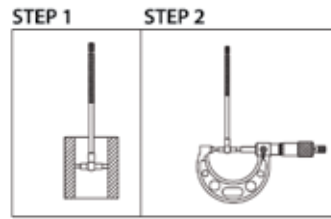
4 Gages per Set				
Range (Inch)	L (Inch)	a (Inch)	Øb (Inch)	c (Inch)
0.125-0.2	3.543	0.886	0.217	2.638
0.2-0.3	3.843	1.181	0.217	2.638
0.3-0.4	4.047	1.378	0.335	2.638
0.4-0.5	4.252	1.575	0.335	2.638

Range (Inch)	INSIZE No.	Code
0.125 to 0.5 (4pcs)	4208-1	816204

## Telescoping Gage Set



- For quick measurement of inside diameter of holes and width of slots
- Satin chrome finish
- Supplied in storage pouch



**6 Gages per Set**

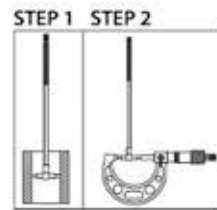
Range (Inch)	L (Inch)	Øa (Inch)	Øb (Inch)	Øc (Inch)
5/16 to 1/2	4.528	0.154	0.114	0.244
1/2 to 3/4	4.528	0.209	0.150	0.244
3/4 to 1-1/4	4.528	0.209	0.150	0.244
1-1/4 to 2-1/8	5.394	0.299	0.240	0.283
2-1/8 to 3-1/2	5.394	0.299	0.240	0.283
3-1/2 to 6	5.394	0.299	0.240	0.283

Range (Inch)	INSIZE No.	Code
5/16 to 6 (6pcs)	4206-1	816202

## Long Handle Telescoping Gages



- For quick measurement of inside diameter of deep holes and width of slots
- Satin chrome finish
- Supplied in storage pouch



Range (Inch)	L (Inch)	Øa (Inch)	Øb (Inch)	Øc (Inch)	INSIZE No.	Code
5/16 to 1/2	9.843	0.154	0.114	0.244	4209-1	283589
1/2 to 3/4	9.843	0.209	0.150	0.244	4209-2	283590
3/4 to 1-1/4	9.843	0.209	0.150	0.244	4209-3	283591
1-1/4 to 2-1/8	11.811	0.299	0.240	0.283	4209-4	283592
2-1/8 to 3-1/2	11.811	0.299	0.240	0.283	4209-5	283593
3-1/2 to 6	11.811	0.299	0.240	0.283	4209-6	283594