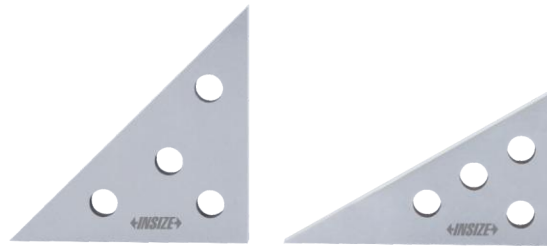


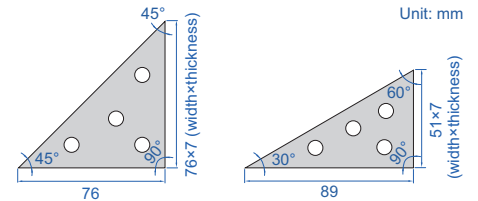
ANGLE BLOCK SET



6540-1

- For angle set-up in tooling, production and inspection
- Accuracy of angle: ± 9 seconds
- Made of alloy steel
- Hardness HRC60 ± 2

Code	Angle plates included	Angle
6540-1	2	45°, 45°, 90°
		30°, 60°, 90°



CARBIDE PIN GAUGE SETS

- Meet DIN2269, grade 1
- Made of carbide
- Hardness HRA90-90.5
- Diameter accuracy: $\pm 1\mu\text{m}$



4194-10D

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4194-1S	0.30, 0.31, 0.32, ..., 1.00	0.01mm	71
4194-2S	1.00, 1.01, 1.02, ..., 2.00	0.01mm	101
4194-3S	2.00, 2.01, 2.02, ..., 3.00	0.01mm	101
4194-4S	3.00, 3.01, 3.02, ..., 4.00	0.01mm	101
4194-5S	4.00, 4.01, 4.02, ..., 5.00	0.01mm	101
4194-6S	5.00, 5.01, 5.02, ..., 6.00	0.01mm	101
4194-7S	6.00, 6.01, 6.02, ..., 7.00	0.01mm	101
4194-8S	7.00, 7.01, 7.02, ..., 8.00	0.01mm	101
4194-9S	8.00, 8.01, 8.02, ..., 9.00	0.01mm	101
4194-10S	9.00, 9.01, 9.02, ..., 10.00	0.01mm	101
4194-10D	10.00, 10.01, 10.02, ..., 10.50	0.01mm	51
4194-11	10.50, 10.51, 10.52, ..., 11.00	0.01mm	51
4194-11D	11.00, 11.01, 11.02, ..., 11.50	0.01mm	51
4194-12	11.50, 11.51, 11.52, ..., 12.00	0.01mm	51
4194-12D	12.00, 12.01, 12.02, ..., 12.50	0.01mm	51
4194-13	12.50, 12.51, 12.52, ..., 13.00	0.01mm	51
4194-13D	13.00, 13.01, 13.02, ..., 13.50	0.01mm	51
4194-14	13.50, 13.51, 13.52, ..., 14.00	0.01mm	51
4194-14D	14.00, 14.01, 14.02, ..., 14.50	0.01mm	51
4194-15	14.50, 14.51, 14.52, ..., 15.00	0.01mm	51

Unit: mm

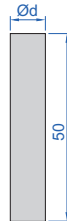


STEEL PIN GAUGE SETS

POPULAR MODEL

- Meet DIN2269, grade 1
- Made of alloy steel
- Hardness HRC62-65
- Diameter accuracy: $\pm 1\mu\text{m}$

Unit: mm



4166-10

Code	Diameter Ød (mm)	Step	Pin gauges per set
4166-2S	1.00, 1.01, 1.02, ... 2.00	0.01mm	101
4166-3S	2.00, 2.01, 2.02, ... 3.00	0.01mm	101
4166-4S	3.00, 3.01, 3.02, ... 4.00	0.01mm	101
4166-5S	4.00, 4.01, 4.02, ... 5.00	0.01mm	101
4166-6S	5.00, 5.01, 5.02, ... 6.00	0.01mm	101
4166-7S	6.00, 6.01, 6.02, ... 7.00	0.01mm	101
4166-8S	7.00, 7.01, 7.02, ... 8.00	0.01mm	101
4166-9S	8.00, 8.01, 8.02, ... 9.00	0.01mm	101
4166-10S	9.00, 9.01, 9.02, ... 10.00	0.01mm	101

Code	Diameter Ød (mm)	Step	Pin gauges per set
4166-411	1.0, 1.1, 1.2, ... 5.0	0.1mm	41
4166-511	5.0, 5.1, 5.2, ... 10.0	0.1mm	51
4166-512	10.0, 10.1, 10.2, ... 15.0	0.1mm	51
4166-513	15.0, 15.1, 15.2, ... 20.0	0.1mm	51

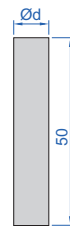
Code	Diameter Ød (mm)	Step	Pin gauges per set
4166-0D	0.20, 0.21, 0.22, ... 0.50	0.01mm	31
4166-1	0.50, 0.51, 0.52, ... 1.00	0.01mm	51
4166-1D	1.00, 1.01, 1.02, ... 1.50	0.01mm	51
4166-2	1.50, 1.51, 1.52, ... 2.00	0.01mm	51
4166-2D	2.00, 2.01, 2.02, ... 2.50	0.01mm	51
4166-3	2.50, 2.51, 2.52, ... 3.00	0.01mm	51
4166-3D	3.00, 3.01, 3.02, ... 3.50	0.01mm	51
4166-4	3.50, 3.51, 3.52, ... 4.00	0.01mm	51
4166-4D	4.00, 4.01, 4.02, ... 4.50	0.01mm	51
4166-5	4.50, 4.51, 4.52, ... 5.00	0.01mm	51
4166-5D	5.00, 5.01, 5.02, ... 5.50	0.01mm	51
4166-6	5.50, 5.51, 5.52, ... 6.00	0.01mm	51
4166-6D	6.00, 6.01, 6.02, ... 6.50	0.01mm	51
4166-7	6.50, 6.51, 6.52, ... 7.00	0.01mm	51
4166-7D	7.00, 7.01, 7.02, ... 7.50	0.01mm	51
4166-8	7.50, 7.51, 7.52, ... 8.00	0.01mm	51
4166-8D	8.00, 8.01, 8.02, ... 8.50	0.01mm	51
4166-9	8.50, 8.51, 8.52, ... 9.00	0.01mm	51
4166-9D	9.00, 9.01, 9.02, ... 9.50	0.01mm	51
4166-10	9.50, 9.51, 9.52, ... 10.00	0.01mm	51

Code	Diameter Ød (mm)	Step	Pin gauges per set
4166-10D	10.00, 10.01, 10.02, ... 10.50	0.01mm	51
4166-11	10.50, 10.51, 10.52, ... 11.00	0.01mm	51
4166-11D	11.00, 11.01, 11.02, ... 11.50	0.01mm	51
4166-12	11.50, 11.51, 11.52, ... 12.00	0.01mm	51
4166-12D	12.00, 12.01, 12.02, ... 12.50	0.01mm	51
4166-13	12.50, 12.51, 12.52, ... 13.00	0.01mm	51
4166-13D	13.00, 13.01, 13.02, ... 13.50	0.01mm	51
4166-14	13.50, 13.51, 13.52, ... 14.00	0.01mm	51
4166-14D	14.00, 14.01, 14.02, ... 14.50	0.01mm	51
4166-15	14.50, 14.51, 14.52, ... 15.00	0.01mm	51
4166-15D	15.00, 15.01, 15.02, ... 15.50	0.01mm	51
4166-16	15.50, 15.51, 15.52, ... 16.00	0.01mm	51
4166-16D	16.00, 16.01, 16.02, ... 16.50	0.01mm	51
4166-17	16.50, 16.51, 16.52, ... 17.00	0.01mm	51
4166-17D	17.00, 17.01, 17.02, ... 17.50	0.01mm	51
4166-18	17.50, 17.51, 17.52, ... 18.00	0.01mm	51
4166-18D	18.00, 18.01, 18.02, ... 18.50	0.01mm	51
4166-19	18.50, 18.51, 18.52, ... 19.00	0.01mm	51
4166-19D	19.00, 19.01, 19.02, ... 19.50	0.01mm	51
4166-20	19.50, 19.51, 19.52, ... 20.00	0.01mm	51

CERAMIC PIN GAUGE SETS



Unit: mm



- Meet DIN2269, grade 1
- Made of ceramic, extremely wear resistance, corrosion resistance and dimensional stability
- Diameter accuracy: $\pm 1\mu\text{m}$

4169-3

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4169-2S	1.00, 1.01, 1.02, ..., 2.00	0.01mm	101
4169-3S	2.00, 2.01, 2.02, ..., 3.00	0.01mm	101
4169-4S	3.00, 3.01, 3.02, ..., 4.00	0.01mm	101
4169-5S	4.00, 4.01, 4.02, ..., 5.00	0.01mm	101
4169-6S	5.00, 5.01, 5.02, ..., 6.00	0.01mm	101
4169-7S	6.00, 6.01, 6.02, ..., 7.00	0.01mm	101
4169-8S	7.00, 7.01, 7.02, ..., 8.00	0.01mm	101
4169-9S	8.00, 8.01, 8.02, ..., 9.00	0.01mm	101
4169-10S	9.00, 9.01, 9.02, ..., 10.00	0.01mm	101

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4169-411	1.0, 1.1, 1.2, ..., 5.0	0.1mm	41
4169-511	5.0, 5.1, 5.2, ..., 10.0	0.1mm	51
4169-512	10.0, 10.1, 10.2, ..., 15.0	0.1mm	51
4169-513	15.0, 15.1, 15.2, ..., 20.0	0.1mm	51

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4169-0D	0.30, 0.31, 0.32, ..., 0.50	0.01mm	21
4169-1	0.50, 0.51, 0.52, ..., 1.00	0.01mm	51
4169-1D	1.00, 1.01, 1.02, ..., 1.50	0.01mm	51
4169-2	1.50, 1.51, 1.52, ..., 2.00	0.01mm	51
4169-2D	2.00, 2.01, 2.02, ..., 2.50	0.01mm	51
4169-3	2.50, 2.51, 2.52, ..., 3.00	0.01mm	51
4169-3D	3.00, 3.01, 3.02, ..., 3.50	0.01mm	51
4169-4	3.50, 3.51, 3.52, ..., 4.00	0.01mm	51
4169-4D	4.00, 4.01, 4.02, ..., 4.50	0.01mm	51
4169-5	4.50, 4.51, 4.52, ..., 5.00	0.01mm	51
4169-5D	5.00, 5.01, 5.02, ..., 5.50	0.01mm	51
4169-6	5.50, 5.51, 5.52, ..., 6.00	0.01mm	51
4169-6D	6.00, 6.01, 6.02, ..., 6.50	0.01mm	51
4169-7	6.50, 6.51, 6.52, ..., 7.00	0.01mm	51
4169-7D	7.00, 7.01, 7.02, ..., 7.50	0.01mm	51
4169-8	7.50, 7.51, 7.52, ..., 8.00	0.01mm	51
4169-8D	8.00, 8.01, 8.02, ..., 8.50	0.01mm	51
4169-9	8.50, 8.51, 8.52, ..., 9.00	0.01mm	51
4169-9D	9.00, 9.01, 9.02, ..., 9.50	0.01mm	51
4169-10	9.50, 9.51, 9.52, ..., 10.00	0.01mm	51

Code	Diameter $\varnothing d$ (mm)	Step	Pin gauges per set
4169-10D	10.00, 10.01, 10.02, ..., 10.50	0.01mm	51
4169-11	10.50, 10.51, 10.52, ..., 11.00	0.01mm	51
4169-11D	11.00, 11.01, 11.02, ..., 11.50	0.01mm	51
4169-12	11.50, 11.51, 11.52, ..., 12.00	0.01mm	51
4169-12D	12.00, 12.01, 12.02, ..., 12.50	0.01mm	51
4169-13	12.50, 12.51, 12.52, ..., 13.00	0.01mm	51
4169-13D	13.00, 13.01, 13.02, ..., 13.50	0.01mm	51
4169-14	13.50, 13.51, 13.52, ..., 14.00	0.01mm	51
4169-14D	14.00, 14.01, 14.02, ..., 14.50	0.01mm	51
4169-15	14.50, 14.51, 14.52, ..., 15.00	0.01mm	51
4169-15D	15.00, 15.01, 15.02, ..., 15.50	0.01mm	51
4169-16	15.50, 15.51, 15.52, ..., 16.00	0.01mm	51
4169-16D	16.00, 16.01, 16.02, ..., 16.50	0.01mm	51
4169-17	16.50, 16.51, 16.52, ..., 17.00	0.01mm	51
4169-17D	17.00, 17.01, 17.02, ..., 17.50	0.01mm	51
4169-18	17.50, 17.51, 17.52, ..., 18.00	0.01mm	51
4169-18D	18.00, 18.01, 18.02, ..., 18.50	0.01mm	51
4169-19	18.50, 18.51, 18.52, ..., 19.00	0.01mm	51
4169-19D	19.00, 19.01, 19.02, ..., 19.50	0.01mm	51
4169-20	19.50, 19.51, 19.52, ..., 20.00	0.01mm	51

CARBIDE INDIVIDUAL PIN GAUGES



- Meet DIN2269, grade 1
- Diameter range: $\varnothing 0.300\text{--}\varnothing 30.000\text{mm}$ with three decimal, for example 0.311mm, 5.562mm, 16.298mm
- Diameter accuracy: $\pm 1\mu\text{m}$
- Made of carbide
- Hardness HRA90-90.5

Code	Diameter range $\varnothing d$ (mm)
4193-□□□□*	0.300~30.000

*Supplied with manufacturer inspection certificate



Ordering examples:

Diameter	Code
0.311mm	4193-0D311
5.562mm	4193-5D562
16.298mm	4193-16D298

Note: "D" stands for "."

STEEL INDIVIDUAL PIN GAUGES WITH TWO DECIMAL PLACES (0.01MM STEP)

Ordering examples:

Diameter	Code
0.21mm	4110-0D21
5.56mm	4110-5D56
16.00mm	4110-16D00

Note: "D" stands for "."



- Meet DIN2269, grade 1
- Diameter range: $\varnothing 0.20\text{--}\varnothing 20.00\text{mm}$
- Diameter accuracy: $\pm 1\mu\text{m}$
- Made of alloy steel
- Hardness HRC62-65

Code
4110-□□□□

Diameter $\varnothing d$ (mm)
0.20, 0.21, 0.22, 0.23, ... 1.00
1.01, 1.02, 1.03, 1.04, ... 2.00
2.01, 2.02, 2.03, 2.04, ... 3.00
3.01, 3.02, 3.03, 3.04, ... 4.00
4.01, 4.02, 4.03, 4.04, ... 5.00
5.01, 5.02, 5.03, 5.04, ... 6.00
6.01, 6.02, 6.03, 6.04, ... 7.00
7.01, 7.02, 7.03, 7.04, ... 8.00
8.01, 8.02, 8.03, 8.04, ... 9.00
9.01, 9.02, 9.03, 9.04, ... 10.00
10.01, 10.02, 10.03, 10.04, ... 11.00
11.01, 11.02, 11.03, 11.04, ... 12.00
12.01, 12.02, 12.03, 12.04, ... 13.00
13.01, 13.02, 13.03, 13.04, ... 14.00
14.01, 14.02, 14.03, 14.04, ... 15.00
15.01, 15.02, 15.03, 15.04, ... 16.00
16.01, 16.02, 16.03, 16.04, ... 17.00
17.01, 17.02, 17.03, 17.04, ... 18.00
18.01, 18.02, 18.03, 18.04, ... 19.00
19.01, 19.02, 19.03, 19.04, ... 20.00

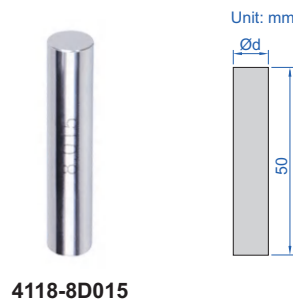
STEEL INDIVIDUAL PIN GAUGES WITH THREE DECIMAL PLACES (0.001MM STEP)



- Meet DIN2269, grade 1
- Diameter range: $\varnothing 0.200\text{--}\varnothing 30.000\text{mm}$ with three decimal, for example 0.211mm, 5.562mm, 16.298mm
- Diameter accuracy: $\pm 1\mu\text{m}$
- Made of alloy steel
- Hardness HRC62-65

Code	Diameter range $\varnothing d$ (mm)
4118-□□□□*	0.200~30.000

*Supplied with manufacturer inspection certificate



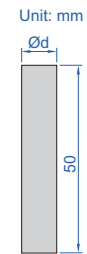
Ordering examples:

Diameter	Code
0.211mm	4118-0D211
5.562mm	4118-5D562
16.298mm	4118-16D298

Note: "D" stands for "."

CERAMIC INDIVIDUAL PIN GAUGES WITH TWO DECIMAL PLACES (0.01MM STEP)

- Meet DIN2269, grade 1
- Diameter range: $\varnothing 0.30\sim\varnothing 20.00\text{mm}$
- Diameter accuracy: $\pm 1\mu\text{m}$
- Made of ceramic, extremely wear resistance, corrosion resistance and dimensional stability



4113-10D00

Ordering examples:

Diameter	Code
1.21mm	4113-1D21
5.56mm	4113-5D56
15.00mm	4113-15D00

Note: "D" stands for "."

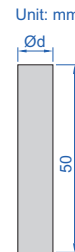
Diameter $\varnothing d$ (mm)
0.30, 0.31, 0.32, 0.33, ..., 1.00
1.01, 1.02, 1.03, 1.04, ..., 2.00
2.01, 2.02, 2.03, 2.04, ..., 3.00
3.01, 3.02, 3.03, 3.04, ..., 4.00
4.01, 4.02, 4.03, 4.04, ..., 5.00
5.01, 5.02, 5.03, 5.04, ..., 6.00
6.01, 6.02, 6.03, 6.04, ..., 7.00
7.01, 7.02, 7.03, 7.04, ..., 8.00
8.01, 8.02, 8.03, 8.04, ..., 9.00
9.01, 9.02, 9.03, 9.04, ..., 10.00

Diameter $\varnothing d$ (mm)
10.01, 10.02, 10.03, 10.04, ..., 11.00
11.01, 11.02, 11.03, 11.04, ..., 12.00
12.01, 12.02, 12.03, 12.04, ..., 13.00
13.01, 13.02, 13.03, 13.04, ..., 14.00
14.01, 14.02, 14.03, 14.04, ..., 15.00
15.01, 15.02, 15.03, 15.04, ..., 16.00
16.01, 16.02, 16.03, 16.04, ..., 17.00
17.01, 17.02, 17.03, 17.04, ..., 18.00
18.01, 18.02, 18.03, 18.04, ..., 19.00
19.01, 19.02, 19.03, 19.04, ..., 20.00

Code
4113-□□□□

CERAMIC INDIVIDUAL PIN GAUGES WITH THREE DECIMAL PLACES (0.001MM STEP)

- Meet DIN2269, grade 1
- Diameter range: $\varnothing 0.300\sim\varnothing 30.000\text{mm}$
- With three decimal, for example 1.211mm, 5.562mm, 14.955mm
- Diameter accuracy: $\pm 1\mu\text{m}$
- Made of ceramic, extremely wear resistance, corrosion resistance and dimensional stability



4192-10D000

Ordering examples:

Diameter	Code
1.211mm	4192-1D211
5.562mm	4192-5D562
14.955mm	4192-14D955

Note: "D" stands for "."

Code	Diameter range $\varnothing d$ (mm)
4192-□□□□	0.300-30.000

BOXES FOR PIN GAUGES

- For individual pin gauges (4110, 4118, 4192, 4113 and 4193 series)



7340

Code	Applicable pin gauge diameter $\varnothing d$	Quantity of pin gauges
7340	0.20-10.00mm	51 pcs
7340-101	0.20-10.00mm	101 pcs
7340-201	10.00-15.00mm	51 pcs
7340-202	15.00-20.00mm	51 pcs