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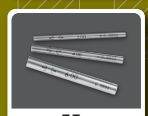
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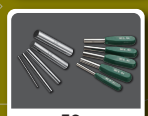
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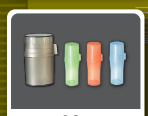
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BLOCK GAUGE
PIN GAUGE
PIN VISE
PIN GAUGE ACCESSORIES
RING GAUGE
PLUG GAUGE
LIMIT GAUGE
THICKNESS GAUGE
TAPER GAUGE
WELDING GAUGE
OTHER GAUGES

■ PIN GAUGE LIST

Product Photo	Steel Set Individual	Steel Set Individual	Steel Set Individual	Steel Set Individual
Product Name	Steel Pin Gauge	Steel Pin Gauge	Maintenance Line Pin Gauge	Steel Pin Gauge
Series	AA series	SA series	AML series	AH・AP・AAP・AS series
Features	The most popular type	High precision quality	Wear-line for checking wear status	For high use applications
Material	Steel	Steel	Steel	Steel
Catalog Page	50	51	52	53

Product Photo	Steel Set Individual	Steel Individual	Steel Individual	Steel Set Individual
Product Name	Steel Pin Gauge	Steel Pin Gauge with Center Hole	Master Gauge	Steel Pin Gauge (with handle)
Series	PM・PG series	AC series	–	AG series
Features	Plus (+) or Minus (-) tolerance	Suitable for measuring runout of work	Actual value marked on pin gauge	The handle protects pin gauge from skin oil and salts
Material	Steel	Steel	Steel	Gauge: Steel
Catalog Page	54	55	55	56

Product Photo	Steel Set Individual	Carbide Set Individual	Carbide Set Individual	Ceramic Set Individual
Product Name	Steel Pin Gauge (for Gear Measurement)	Carbide Pin Gauge	Carbide Pin Gauge (with Handle)	Ceramic Pin Gauge
Series	OP series	TAA series	TAG series	CAA series
Features	For over ping diameter measurement of internal and external gears	High durability and high hardness	High durability and high hardness	Rust and corrosion free
Material	Steel	Carbide	Gauge: Carbide	Ceramic (Zirconia)
Catalog Page	57	58	58	59

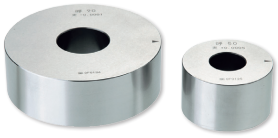
Product Photo	Ceramic Set Individual	Steel Individual	Steel Individual
Product Name	Ceramic Pin Gauge (with handle)	Thread Pin Gauge RA type	Thread Pin Gauge THP
Series	CAG series	Model No. RA-	Model No. THP-
Features	Rust and corrosion free	Firmly fixed to the workpiece with tapered thread	For indicating the center of threaded hole
Material	Ceramic (Zirconia)	Stainless steel (SUS303)	Stainless steel (SUS303)
Catalog Page	59	66	67

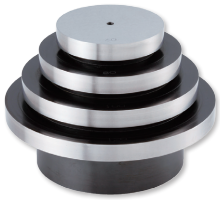
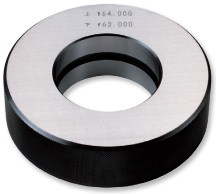
■ BLOCK GAUGE LIST

Product Photo	Steel Set Individual	Steel Set Individual	Ceramic Set Individual
Product Name	Block Gauge (Grade 0 eq.)	Block Gauge (Grade 1 eq.)	Ceramic Block Gauge (Grade 0 eq.)
Series	GBS0- / GB0-	GBS1- / GB1-	BC- / BC0-
Features	High accuracy, class 0 eq. model	High cost performance model	Rust and corrosion free
Material	High Carbon high chromium steel	High Carbon high chromium steel	Ceramic (Zirconia)
Catalog Page	42 ~ 43	44 ~ 48	49

■ RING GAUGE LIST

Product Photo	Steel Individual	Steel Individual MTO	Steel Set MTO	Steel Individual MTO
Product Name	Steel Ring Gauge	Steel Ring Gauge (Large size)	Steel Ring Gauge Set	Steel Ring Gauge with Maintenance line
Features	A wide range of sized are in stock	Up to 520mm manufactualbe	Set consist of frequently used sizes	Maintenance line for gauge ware out
Material	Alloy tool steel	Alloy tool steel	Alloy tool steel	Alloy tool steel
Catalog Page	68	69	70	70

Product Photo	Carbide Individual	Ceramic Individual	Steel Carbide Individual MTO Ceramic	Steel MTO 
Product Name	Carbide Ring Gauge	Ceramic Ring Gauge	Ring Gauge with Protective Cover	Steel Ring Gauge (OD model)
Features	High durability and high hardness	Rust and corrosion free	No-slip and easy to handle	For quick calibration of micrometers or 0 adjustment
Material	Gauge: Carbide	Ceramic (Zirconia)	Gauge: Steel / Carbide / Ceramic	Alloy tool steel
Catalog Page	71	71	72	72

Product Photo	Steel MTO	Steel MTO 	Steel MTO 	Steel MTO
Product Name	Multiple-step Gauge	Multiple-step Gauge (OD model)	Step Gauge (ID model)	Cut Out Gauge
Features	5・10・15・20・25mm pitch integrated type	For OD measurement. Size combination is arranged on request	For ID measurement. Size combination is arranged on request	For use with fixing to the jig
Material	Alloy tool steel	Alloy tool steel	Alloy tool steel	Alloy tool steel
Catalog Page	73	73	73	73

BLOCK GAUGE SET (GRADE 0)

PDI 0

HOW TO MOVIE

High accuracy, class 0 model

Rust prevention▶
Zerust Film for Steel
P380

GBS0-32

USE
- ●As reference standard and for general measurement work
- ●As spacer and prefinished sub-assembly components

MATERIAL
- ●High carbon high chromium steel

FEATURES
- ●Conforms to JIS (Grade 0)
- ●Provided with inspection report

SPECIFICATIONS
- ●Section size: 10mm or under: 30(0~−0.3)×9(−0.05~−0.2)mm
  Over 10mm: 35(0~−0.3)×9(−0.05~−0.2)mm
- ●Coefficient of thermal expansion: 11.5×10^{-6}/K

※Calibration and custom size production are NOT available

SPECIFICATIONS

Size (mm)		Grade 0	
Over	Or under	Tolerance (μm)	Dimensional deviation (μm)
—	10	± 0.12	0.1
10	25	± 0.14	0.1
25	50	± 0.2	0.1
50	75	± 0.25	0.12
75	100	± 0.3	0.12

Order No.	Model No.	Pieces per set	Step (mm)	Nominal Size (mm)	Number of pieces	Weight
150293	GBS0-103	103		1.005	1	3.64kg
			0.01	1.01•1.02…1.49	49	
			0.5	0.5•1.0…24.5	49	
			25	25•50•75•100	4	
150292	GBS0-76	76		1.005	1	2.2kg
			0.01	1.01•1.02…1.49	49	
			0.5	0.5•1.0…9.5	19	
			10	10•20•30•40	4	
			25	50•75•100	3	
150291	GBS0-47	47		1.005	1	2.4kg
			0.01	1.01•1.02…1.09	9	
			0.1	1.1•1.2…1.9	9	
			1.0	1•2•3…24	24	
			25	25•50•75•100	4	
150290	GBS0-32	32		1.005	1	0.98kg
			0.01	1.01•1.02…1.09	9	
			0.1	1.1•1.2…1.9	9	
			1.0	1•2•3…9	9	
			10	10•20•30	3	
				60	1	

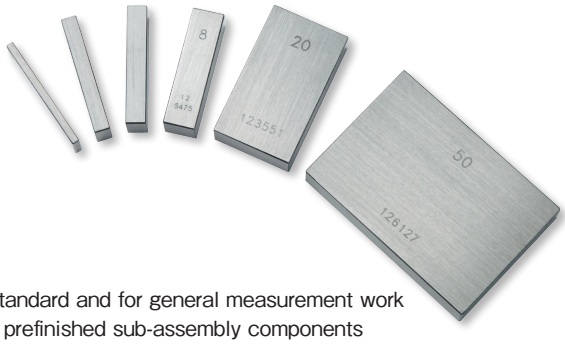
BLOCK GAUGE
PIN GAUGE
PIN VISE
PIN GAUGE ACCESSORIES
RING GAUGE
PLUG GAUGE
LIMIT GAUGE
THICKNESS GAUGE
TAPER GAUGE
WELDING GAUGE
OTHER GAUGES

BLOCK GAUGE (GRADE 0)

PDI 0

HOW TO MOVIE

High accuracy, class 0 model



Rust prevention▶
Zerust Film for Steel
P380

USE
- As reference standard and for general measurement work
- As spacer and prefinished sub-assembly components

MATERIAL
- High carbon high chromium steel

FEATURES
- Conforms to JIS (Grade 0)
- Provided with inspection report

SPECIFICATIONS
- Section size: 10mm or under: 30(0～−0.3)×9(−0.05～−0.2)mm
  Over 10mm: 35(0～−0.3)×9(−0.05～−0.2)mm
- Coefficient of thermal expansion: 11.5×10^{-6}／K

※Calibration and custom size production are NOT available

SPECIFICATIONS

Size(mm)		Grade 0	
Over	Or under	Tolerance(μm)	Dimensional deviation(μm)
–	10	± 0.12	0.10
10	25	± 0.14	0.10
25	50	± 0.20	0.10
50	75	± 0.25	0.12
75	100	± 0.30	0.12
125		± 0.40	0.14
150		± 0.40	0.14
175		± 0.50	0.16
200		± 0.50	0.16
250		± 0.60	0.16
300		± 0.70	0.18
400		± 0.90	0.20
500		± 1.10	0.25
600		± 1.30	0.25

Order No.	Model No.	Size
150294	GB0-05	0.5mm
150295	GB0-10	1.0mm
150296	GB0-1-005	1.005mm
150297	GB0-101	1.01mm
150298	GB0-102	1.02mm
150299	GB0-103	1.03mm
150300	GB0-104	1.04mm
150301	GB0-105	1.05mm
150302	GB0-106	1.06mm
150303	GB0-107	1.07mm
150304	GB0-108	1.08mm
150305	GB0-109	1.09mm
150306	GB0-110	1.10mm
150307	GB0-111	1.11mm
150308	GB0-112	1.12mm
150309	GB0-113	1.13mm
150310	GB0-114	1.14mm
150311	GB0-115	1.15mm
150312	GB0-116	1.16mm
150313	GB0-117	1.17mm
150314	GB0-118	1.18mm
150315	GB0-119	1.19mm
150316	GB0-120	1.20mm
150317	GB0-121	1.21mm
150318	GB0-122	1.22mm
150319	GB0-123	1.23mm
150320	GB0-124	1.24mm
150321	GB0-125	1.25mm
150322	GB0-126	1.26mm
150323	GB0-127	1.27mm
150324	GB0-128	1.28mm
150325	GB0-129	1.29mm
150326	GB0-130	1.30mm
150327	GB0-131	1.31mm
150328	GB0-132	1.32mm
150329	GB0-133	1.33mm
150330	GB0-134	1.34mm
150331	GB0-135	1.35mm
150332	GB0-136	1.36mm
150333	GB0-137	1.37mm
150334	GB0-138	1.38mm

Order No.	Model No.	Size
150335	GB0-139	1.39mm
150336	GB0-140	1.40mm
150337	GB0-141	1.41mm
150338	GB0-142	1.42mm
150339	GB0-143	1.43mm
150340	GB0-144	1.44mm
150341	GB0-145	1.45mm
150342	GB0-146	1.46mm
150343	GB0-147	1.47mm
150344	GB0-148	1.48mm
150345	GB0-149	1.49mm
150346	GB0-150	1.50mm
150347	GB0-160	1.60mm
150348	GB0-170	1.70mm
150349	GB0-180	1.80mm
150350	GB0-190	1.90mm
150351	GB0-200	2.00mm
150352	GB0-250	2.50mm
150353	GB0-300	3.00mm
150354	GB0-350	3.50mm
150355	GB0-400	4.00mm
150356	GB0-450	4.50mm
150357	GB0-500	5.00mm
150358	GB0-550	5.50mm
150359	GB0-600	6.00mm
150360	GB0-650	6.50mm
150361	GB0-700	7.00mm
150362	GB0-750	7.50mm
150363	GB0-800	8.00mm
150364	GB0-850	8.50mm
150365	GB0-900	9.00mm
150366	GB0-950	9.50mm
150367	GB0-1000	10.00mm
150368	GB0-1050	10.50mm
150369	GB0-1100	11.00mm
150370	GB0-1150	11.50mm
150371	GB0-1200	12.00mm
150372	GB0-1250	12.50mm
150373	GB0-1300	13.00mm
150374	GB0-1350	13.50mm
150375	GB0-1400	14.00mm

Order No.	Model No.	Size
150376	GB0-1450	14.50mm
150377	GB0-1500	15.00mm
150378	GB0-1550	15.50mm
150379	GB0-1600	16.00mm
150380	GB0-1650	16.50mm
150381	GB0-1700	17.00mm
150382	GB0-1750	17.50mm
150383	GB0-1800	18.00mm
150384	GB0-1850	18.50mm
150385	GB0-1900	19.00mm
150386	GB0-1950	19.50mm
150387	GB0-2000	20.00mm
150388	GB0-2050	20.50mm
150389	GB0-2100	21.00mm
150390	GB0-2150	21.50mm
150391	GB0-2200	22.00mm
150392	GB0-2250	22.50mm
150393	GB0-2300	23.00mm
150394	GB0-2350	23.50mm
150395	GB0-2400	24.00mm
150396	GB0-2450	24.50mm
150397	GB0-2500	25.00mm
150398	GB0-3000	30.00mm
150399	GB0-4000	40.00mm
150400	GB0-5000	50.00mm
150401	GB0-6000	60.00mm
150402	GB0-7000	70.00mm
150403	GB0-7500	75.00mm
150404	GB0-8000	80.00mm
150405	GB0-9000	90.00mm
150406	GB0-10000	100.00mm
150407	GB0-12500	125mm
150408	GB0-15000	150mm
150409	GB0-17500	175mm
150410	GB0-20000	200mm
150411	GB0-25000	250mm
150412	GB0-30000	300mm
150413	GB0-40000	400mm
150414	GB0-50000	500mm
150415	GB0-60000	600mm

BLOCK GAUGE SET (GRADE 1)

PDI

HOW TO MOVIE

High cost performance model

Rust prevention▶
Zerust Film for Steel
P380

GBS1-32

USE
- ●As reference standard and for general measurement work
- ●As spacer and prefinished sub-assembly components

MATERIAL
- ●High carbon high chromium steel

FEATURES
- ●Conforms to JIS (Grade 1)
- ●Provided with inspection report

SPECIFICATIONS
- ●Section size: 10mm or under: 30(0~−0.3)×9(−0.05~−0.2)mm
  Over 10mm: 35(0~−0.3)×9(−0.05~−0.2)mm
- ●Coefficient of thermal expansion: 11.5×10^{-6}/K

※Calibration and custom size production are NOT available

SPECIFICATIONS

Size (mm)		Grade 1	
Over	Or under	Tolerance (μm)	Dimensional deviation (μm)
—	10	± 0.20	0.16
10	25	± 0.30	0.16
25	50	± 0.40	0.18
50	75	± 0.50	0.18
75	100	± 0.60	0.20

Order No.	Model No.	Pieces per set	Step (mm)	Nominal Size (mm)	Number of pieces	Weight
150801	GBS1-103	103		1.005	1	3.64kg
			0.01	1.01・1.02…1.49	49	
			0.5	0.5・1.0…24.5	49	
			25	25・50・75・100	4	
150802	GBS1-76	76		1.005	1	2.2kg
			0.01	1.01・1.02…1.49	49	
			0.5	0.5・1.0…9.5	19	
			10	10・20・30・40	4	
			25	50・75・100	3	
150804	GBS1-47	47		1.005	1	2.4kg
			0.01	1.01・1.02…1.09	9	
			0.1	1.1・1.2…1.9	9	
			1.0	1・2・3…24	24	
			25	25・50・75・100	4	
150806	GBS1-32	32		1.005	1	0.98kg
			0.01	1.01・1.02…1.09	9	
			0.1	1.1・1.2…1.9	9	
			1	1・2・3…9	9	
			10	10・20・30	3	
				60	1	

BLOCK GAUGE
PIN GAUGE
PIN VISE
PIN GAUGE ACCESSORIES
RING GAUGE
PLUG GAUGE
LIMIT GAUGE
THICKNESS GAUGE
TAPER GAUGE
WELDING GAUGE
OTHER GAUGES

BLOCK GAUGE (GRADE 1)

PDI

HOW TO MOVIE

Rust prevention▶
Zerust Film for Steel
P380

USE
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  Over 10mm: 35(0~−0.3)×9(−0.05~−0.2)mm
- ●Coefficient of thermal expansion: 11.5×10^{-6}／K

※Calibration and custom size production are NOT available

SPECIFICATIONS

Size (mm)		Grade 1	
Over	Or under	Tolerance (μm)	Dimensional Deviation (μm)
–	10	± 0.20	0.16
10	25	± 0.30	0.16
25	50	± 0.40	0.18
50	75	± 0.50	0.18
75	100	± 0.60	0.20
100	150	± 0.80	0.20
150	200	± 1.00	0.25
200	250	± 1.20	0.25
250	300	± 1.40	0.25
300	400	± 1.80	0.30
400	500	± 2.20	0.35
500	600	± 2.60	0.40

Order No.	Model No.	Size
150810	GB1-05	0.5mm
150820	GB1-10	1.0mm
150822	GB1-1-001	1.001mm
150823	GB1-1-002	1.002mm
150824	GB1-1-003	1.003mm
150825	GB1-1-004	1.004mm
150826	GB1-1-005	1.005mm
150827	GB1-1-006	1.006mm
150828	GB1-1-007	1.007mm
150829	GB1-1-008	1.008mm
150830	GB1-1-009	1.009mm
150831	GB1-101	1.01mm
150832	GB1-102	1.02mm
150833	GB1-103	1.03mm
150834	GB1-104	1.04mm
150835	GB1-105	1.05mm
150836	GB1-106	1.06mm
150837	GB1-107	1.07mm
150838	GB1-108	1.08mm
150839	GB1-109	1.09mm
150840	GB1-110	1.10mm
150841	GB1-111	1.11mm
150842	GB1-112	1.12mm
150843	GB1-113	1.13mm
150844	GB1-114	1.14mm
150845	GB1-115	1.15mm
150846	GB1-116	1.16mm
150847	GB1-117	1.17mm
150848	GB1-118	1.18mm
150849	GB1-119	1.19mm
150850	GB1-120	1.20mm
150851	GB1-121	1.21mm
150852	GB1-122	1.22mm
150853	GB1-123	1.23mm
150854	GB1-124	1.24mm
150855	GB1-125	1.25mm
150856	GB1-126	1.26mm
150857	GB1-127	1.27mm
150858	GB1-128	1.28mm
150859	GB1-129	1.29mm
150860	GB1-130	1.30mm
150861	GB1-131	1.31mm

Order No.	Model No.	Size
150862	GB1-132	1.32mm
150863	GB1-133	1.33mm
150864	GB1-134	1.34mm
150865	GB1-135	1.35mm
150866	GB1-136	1.36mm
150867	GB1-137	1.37mm
150868	GB1-138	1.38mm
150869	GB1-139	1.39mm
150870	GB1-140	1.40mm
150871	GB1-141	1.41mm
150872	GB1-142	1.42mm
150873	GB1-143	1.43mm
150874	GB1-144	1.44mm
150875	GB1-145	1.45mm
150876	GB1-146	1.46mm
150877	GB1-147	1.47mm
150878	GB1-148	1.48mm
150879	GB1-149	1.49mm
150880	GB1-150	1.50mm
153001	GB1-151	1.51mm
153002	GB1-152	1.52mm
153003	GB1-153	1.53mm
153004	GB1-154	1.54mm
153005	GB1-155	1.55mm
153006	GB1-156	1.56mm
153007	GB1-157	1.57mm
153008	GB1-158	1.58mm
153009	GB1-159	1.59mm
153010	GB1-160	1.60mm
153011	GB1-161	1.61mm
153012	GB1-162	1.62mm
153013	GB1-163	1.63mm
153014	GB1-164	1.64mm
153015	GB1-165	1.65mm
153016	GB1-166	1.66mm
153017	GB1-167	1.67mm
153018	GB1-168	1.68mm
153019	GB1-169	1.69mm
153020	GB1-170	1.70mm
153021	GB1-171	1.71mm
153022	GB1-172	1.72mm
153023	GB1-173	1.73mm

Order No.	Model No.	Size
153024	GB1-174	1.74mm
153025	GB1-175	1.75mm
153026	GB1-176	1.76mm
153027	GB1-177	1.77mm
153028	GB1-178	1.78mm
153029	GB1-179	1.79mm
153030	GB1-180	1.80mm
153031	GB1-181	1.81mm
153032	GB1-182	1.82mm
153033	GB1-183	1.83mm
153034	GB1-184	1.84mm
153035	GB1-185	1.85mm
153036	GB1-186	1.86mm
153037	GB1-187	1.87mm
153038	GB1-188	1.88mm
153039	GB1-189	1.89mm
153040	GB1-190	1.90mm
153041	GB1-191	1.91mm
153042	GB1-192	1.92mm
153043	GB1-193	1.93mm
153044	GB1-194	1.94mm
153045	GB1-195	1.95mm
153046	GB1-196	1.96mm
153047	GB1-197	1.97mm
153048	GB1-198	1.98mm
153049	GB1-199	1.99mm
150885	GB1-200	2.00mm
153050	GB1-201	2.01mm
153051	GB1-202	2.02mm
153052	GB1-203	2.03mm
153053	GB1-204	2.04mm
153054	GB1-205	2.05mm
153055	GB1-206	2.06mm
153056	GB1-207	2.07mm
153057	GB1-208	2.08mm
153058	GB1-209	2.09mm
153059	GB1-210	2.10mm
153060	GB1-211	2.11mm
153061	GB1-212	2.12mm
153062	GB1-213	2.13mm
153063	GB1-214	2.14mm
153064	GB1-215	2.15mm

BLOCK GAUGE (GRADE 1)

PDI

HOW TO MOVIE

Rust prevention▶
Zerust Film for Steel
P380

Please refer to page 45 for detailed specifications and tolerance

Order No.	Model No.	Size	Order No.	Model No.	Size	Order No.	Model No.	Size
153065	GB1-216	2.16mm	153113	GB1-265	2.65mm	153161	GB1-314	3.14mm
153066	GB1-217	2.17mm	153114	GB1-266	2.66mm	153162	GB1-315	3.15mm
153067	GB1-218	2.18mm	153115	GB1-267	2.67mm	153163	GB1-316	3.16mm
153068	GB1-219	2.19mm	153116	GB1-268	2.68mm	153164	GB1-317	3.17mm
153069	GB1-220	2.20mm	153117	GB1-269	2.69mm	153165	GB1-318	3.18mm
153070	GB1-221	2.21mm	153118	GB1-270	2.70mm	153166	GB1-319	3.19mm
153071	GB1-222	2.22mm	153119	GB1-271	2.71mm	153167	GB1-320	3.20mm
153072	GB1-223	2.23mm	153120	GB1-272	2.72mm	153168	GB1-321	3.21mm
153073	GB1-224	2.24mm	153121	GB1-273	2.73mm	153169	GB1-322	3.22mm
153074	GB1-225	2.25mm	153122	GB1-274	2.74mm	153170	GB1-323	3.23mm
153075	GB1-226	2.26mm	153123	GB1-275	2.75mm	153171	GB1-324	3.24mm
153076	GB1-227	2.27mm	153124	GB1-276	2.76mm	153172	GB1-325	3.25mm
153077	GB1-228	2.28mm	153125	GB1-277	2.77mm	153173	GB1-326	3.26mm
153078	GB1-229	2.29mm	153126	GB1-278	2.78mm	153174	GB1-327	3.27mm
153079	GB1-230	2.30mm	153127	GB1-279	2.79mm	153175	GB1-328	3.28mm
153080	GB1-231	2.31mm	153128	GB1-280	2.80mm	153176	GB1-329	3.29mm
153081	GB1-232	2.32mm	153129	GB1-281	2.81mm	153177	GB1-330	3.30mm
153082	GB1-233	2.33mm	153130	GB1-282	2.82mm	153178	GB1-331	3.31mm
153083	GB1-234	2.34mm	153131	GB1-283	2.83mm	153179	GB1-332	3.32mm
153084	GB1-235	2.35mm	153132	GB1-284	2.84mm	153180	GB1-333	3.33mm
153085	GB1-236	2.36mm	153133	GB1-285	2.85mm	153181	GB1-334	3.34mm
153086	GB1-237	2.37mm	153134	GB1-286	2.86mm	153182	GB1-335	3.35mm
153087	GB1-238	2.38mm	153135	GB1-287	2.87mm	153183	GB1-336	3.36mm
153088	GB1-239	2.39mm	153136	GB1-288	2.88mm	153184	GB1-337	3.37mm
153089	GB1-240	2.40mm	153137	GB1-289	2.89mm	153185	GB1-338	3.38mm
153090	GB1-241	2.41mm	153138	GB1-290	2.90mm	153186	GB1-339	3.39mm
153091	GB1-242	2.42mm	153139	GB1-291	2.91mm	153187	GB1-340	3.40mm
153092	GB1-243	2.43mm	153140	GB1-292	2.92mm	153188	GB1-341	3.41mm
153093	GB1-244	2.44mm	153141	GB1-293	2.93mm	153189	GB1-342	3.42mm
153094	GB1-245	2.45mm	153142	GB1-294	2.94mm	153190	GB1-343	3.43mm
153095	GB1-246	2.46mm	153143	GB1-295	2.95mm	153191	GB1-344	3.44mm
153096	GB1-247	2.47mm	153144	GB1-296	2.96mm	153192	GB1-345	3.45mm
153097	GB1-248	2.48mm	153145	GB1-297	2.97mm	153193	GB1-346	3.46mm
153098	GB1-249	2.49mm	153146	GB1-298	2.98mm	153194	GB1-347	3.47mm
150886	GB1-250	2.50mm	153147	GB1-299	2.99mm	153195	GB1-348	3.48mm
153099	GB1-251	2.51mm	150887	GB1-300	3.00mm	153196	GB1-349	3.49mm
153100	GB1-252	2.52mm	153148	GB1-301	3.01mm	150888	GB1-350	3.50mm
153101	GB1-253	2.53mm	153149	GB1-302	3.02mm	153197	GB1-351	3.51mm
153102	GB1-254	2.54mm	153150	GB1-303	3.03mm	153198	GB1-352	3.52mm
153103	GB1-255	2.55mm	153151	GB1-304	3.04mm	153199	GB1-353	3.53mm
153104	GB1-256	2.56mm	153152	GB1-305	3.05mm	153200	GB1-354	3.54mm
153105	GB1-257	2.57mm	153153	GB1-306	3.06mm	153201	GB1-355	3.55mm
153106	GB1-258	2.58mm	153154	GB1-307	3.07mm	153202	GB1-356	3.56mm
153107	GB1-259	2.59mm	153155	GB1-308	3.08mm	153203	GB1-357	3.57mm
153108	GB1-260	2.60mm	153156	GB1-309	3.09mm	153204	GB1-358	3.58mm
153109	GB1-261	2.61mm	153157	GB1-310	3.10mm	153205	GB1-359	3.59mm
153110	GB1-262	2.62mm	153158	GB1-311	3.11mm	153206	GB1-360	3.60mm
153111	GB1-263	2.63mm	153159	GB1-312	3.12mm	153207	GB1-361	3.61mm
153112	GB1-264	2.64mm	153160	GB1-313	3.13mm	153208	GB1-362	3.62mm

BLOCK GAUGE (GRADE 1)

PDI

HOW TO MOVIE

Rust prevention▶
Zerust Film for Steel
P380

Please refer to page 45 for detailed specifications and tolerance

Order No.	Model No.	Size
153209	GB1-363	3.63mm
153210	GB1-364	3.64mm
153211	GB1-365	3.65mm
153212	GB1-366	3.66mm
153213	GB1-367	3.67mm
153214	GB1-368	3.68mm
153215	GB1-369	3.69mm
153216	GB1-370	3.70mm
153217	GB1-371	3.71mm
153218	GB1-372	3.72mm
153219	GB1-373	3.73mm
153220	GB1-374	3.74mm
153221	GB1-375	3.75mm
153222	GB1-376	3.76mm
153223	GB1-377	3.77mm
153224	GB1-378	3.78mm
153225	GB1-379	3.79mm
153226	GB1-380	3.80mm
153227	GB1-381	3.81mm
153228	GB1-382	3.82mm
153229	GB1-383	3.83mm
153230	GB1-384	3.84mm
153231	GB1-385	3.85mm
153232	GB1-386	3.86mm
153233	GB1-387	3.87mm
153234	GB1-388	3.88mm
153235	GB1-389	3.89mm
153236	GB1-390	3.90mm
153237	GB1-391	3.91mm
153238	GB1-392	3.92mm
153239	GB1-393	3.93mm
153240	GB1-394	3.94mm
153241	GB1-395	3.95mm
153242	GB1-396	3.96mm
153243	GB1-397	3.97mm
153244	GB1-398	3.98mm
153245	GB1-399	3.99mm
150889	GB1-400	4.00mm
153246	GB1-401	4.01mm
153247	GB1-402	4.02mm
153248	GB1-403	4.03mm
153249	GB1-404	4.04mm
153250	GB1-405	4.05mm
153251	GB1-406	4.06mm
153252	GB1-407	4.07mm
153253	GB1-408	4.08mm
153254	GB1-409	4.09mm
153255	GB1-410	4.10mm
153256	GB1-411	4.11mm

Order No.	Model No.	Size
153257	GB1-412	4.12mm
153258	GB1-413	4.13mm
153259	GB1-414	4.14mm
153260	GB1-415	4.15mm
153261	GB1-416	4.16mm
153262	GB1-417	4.17mm
153263	GB1-418	4.18mm
153264	GB1-419	4.19mm
153265	GB1-420	4.20mm
153266	GB1-421	4.21mm
153267	GB1-422	4.22mm
153268	GB1-423	4.23mm
153269	GB1-424	4.24mm
153270	GB1-425	4.25mm
153271	GB1-426	4.26mm
153272	GB1-427	4.27mm
153273	GB1-428	4.28mm
153274	GB1-429	4.29mm
153275	GB1-430	4.30mm
153276	GB1-431	4.31mm
153277	GB1-432	4.32mm
153278	GB1-433	4.33mm
153279	GB1-434	4.34mm
153280	GB1-435	4.35mm
153281	GB1-436	4.36mm
153282	GB1-437	4.37mm
153283	GB1-438	4.38mm
153284	GB1-439	4.39mm
153285	GB1-440	4.40mm
153286	GB1-441	4.41mm
153287	GB1-442	4.42mm
153288	GB1-443	4.43mm
153289	GB1-444	4.44mm
153290	GB1-445	4.45mm
153291	GB1-446	4.46mm
153292	GB1-447	4.47mm
153293	GB1-448	4.48mm
153294	GB1-449	4.49mm
150890	GB1-450	4.50mm
153295	GB1-451	4.51mm
153296	GB1-452	4.52mm
153297	GB1-453	4.53mm
153298	GB1-454	4.54mm
153299	GB1-455	4.55mm
153300	GB1-456	4.56mm
153301	GB1-457	4.57mm
153302	GB1-458	4.58mm
153303	GB1-459	4.59mm
153304	GB1-460	4.60mm

Order No.	Model No.	Size
153305	GB1-461	4.61mm
153306	GB1-462	4.62mm
153307	GB1-463	4.63mm
153308	GB1-464	4.64mm
153309	GB1-465	4.65mm
153310	GB1-466	4.66mm
153311	GB1-467	4.67mm
153312	GB1-468	4.68mm
153313	GB1-469	4.69mm
153314	GB1-470	4.70mm
153315	GB1-471	4.71mm
153316	GB1-472	4.72mm
153317	GB1-473	4.73mm
153318	GB1-474	4.74mm
153319	GB1-475	4.75mm
153320	GB1-476	4.76mm
153321	GB1-477	4.77mm
153322	GB1-478	4.78mm
153323	GB1-479	4.79mm
153324	GB1-480	4.80mm
153325	GB1-481	4.81mm
153326	GB1-482	4.82mm
153327	GB1-483	4.83mm
153328	GB1-484	4.84mm
153329	GB1-485	4.85mm
153330	GB1-486	4.86mm
153331	GB1-487	4.87mm
153332	GB1-488	4.88mm
153333	GB1-489	4.89mm
153334	GB1-490	4.90mm
153335	GB1-491	4.91mm
153336	GB1-492	4.92mm
153337	GB1-493	4.93mm
153338	GB1-494	4.94mm
153339	GB1-495	4.95mm
153340	GB1-496	4.96mm
153341	GB1-497	4.97mm
153342	GB1-498	4.98mm
153343	GB1-499	4.99mm
150891	GB1-500	5.00mm
153344	GB1-501	5.01mm
153345	GB1-502	5.02mm
153346	GB1-503	5.03mm
153347	GB1-504	5.04mm
153348	GB1-505	5.05mm
153349	GB1-506	5.06mm
153350	GB1-507	5.07mm
153351	GB1-508	5.08mm
153352	GB1-509	5.09mm

BLOCK GAUGE (GRADE 1)

PDI

HOW TO MOVIE

Rust prevention▶
Zerust Film for Steel
P380

Please refer to page 45 for detailed specifications and tolerance

Order No.	Model No.	Size
153353	GB1-510	5.10mm
153354	GB1-511	5.11mm
153355	GB1-512	5.12mm
153356	GB1-513	5.13mm
153357	GB1-514	5.14mm
153358	GB1-515	5.15mm
153359	GB1-516	5.16mm
153360	GB1-517	5.17mm
153361	GB1-518	5.18mm
153362	GB1-519	5.19mm
153363	GB1-520	5.20mm
153364	GB1-521	5.21mm
153365	GB1-522	5.22mm
153366	GB1-523	5.23mm
153367	GB1-524	5.24mm
153368	GB1-525	5.25mm
153369	GB1-526	5.26mm
153370	GB1-527	5.27mm
153371	GB1-528	5.28mm
153372	GB1-529	5.29mm
153373	GB1-530	5.30mm
153374	GB1-531	5.31mm
153375	GB1-532	5.32mm
153376	GB1-533	5.33mm
153377	GB1-534	5.34mm
153378	GB1-535	5.35mm
153379	GB1-536	5.36mm
153380	GB1-537	5.37mm
153381	GB1-538	5.38mm
153382	GB1-539	5.39mm
153383	GB1-540	5.40mm
153384	GB1-541	5.41mm
153385	GB1-542	5.42mm
153386	GB1-543	5.43mm
153387	GB1-544	5.44mm
153388	GB1-545	5.45mm
153389	GB1-546	5.46mm
153390	GB1-547	5.47mm
153391	GB1-548	5.48mm
153392	GB1-549	5.49mm
150893	GB1-550	5.50mm
153393	GB1-551	5.51mm
153394	GB1-552	5.52mm
153395	GB1-553	5.53mm
153396	GB1-554	5.54mm
153397	GB1-555	5.55mm
153398	GB1-556	5.56mm
153399	GB1-557	5.57mm
153400	GB1-558	5.58mm

Order No.	Model No.	Size
153401	GB1-559	5.59mm
153402	GB1-560	5.60mm
153403	GB1-561	5.61mm
153404	GB1-562	5.62mm
153405	GB1-563	5.63mm
153406	GB1-564	5.64mm
153407	GB1-565	5.65mm
153408	GB1-566	5.66mm
153409	GB1-567	5.67mm
153410	GB1-568	5.68mm
153411	GB1-569	5.69mm
153412	GB1-570	5.70mm
153413	GB1-571	5.71mm
153414	GB1-572	5.72mm
153415	GB1-573	5.73mm
153416	GB1-574	5.74mm
153417	GB1-575	5.75mm
153418	GB1-576	5.76mm
153419	GB1-577	5.77mm
153420	GB1-578	5.78mm
153421	GB1-579	5.79mm
153422	GB1-580	5.80mm
153423	GB1-581	5.81mm
153424	GB1-582	5.82mm
153425	GB1-583	5.83mm
153426	GB1-584	5.84mm
153427	GB1-585	5.85mm
153428	GB1-586	5.86mm
153429	GB1-587	5.87mm
153430	GB1-588	5.88mm
153431	GB1-589	5.89mm
153432	GB1-590	5.90mm
153433	GB1-591	5.91mm
153434	GB1-592	5.92mm
153435	GB1-593	5.93mm
153436	GB1-594	5.94mm
153437	GB1-595	5.95mm
153438	GB1-596	5.96mm
153439	GB1-597	5.97mm
153440	GB1-598	5.98mm
153441	GB1-599	5.99mm
150894	GB1-600	6.00mm
150895	GB1-650	6.50mm
150896	GB1-700	7.00mm
150897	GB1-750	7.50mm
150899	GB1-800	8.00mm
150900	GB1-850	8.50mm
150901	GB1-900	9.00mm
150902	GB1-950	9.50mm

Order No.	Model No.	Size
150903	GB1-1000	10.00mm
150905	GB1-1050	10.50mm
150906	GB1-1100	11.00mm
150907	GB1-1150	11.50mm
150908	GB1-1200	12.00mm
150909	GB1-1250	12.50mm
150911	GB1-1300	13.00mm
150912	GB1-1350	13.50mm
150913	GB1-1400	14.00mm
150914	GB1-1450	14.50mm
150915	GB1-1500	15.00mm
150916	GB1-1550	15.50mm
150917	GB1-1600	16.00mm
150918	GB1-1650	16.50mm
150919	GB1-1700	17.00mm
150920	GB1-1750	17.50mm
150921	GB1-1800	18.00mm
150922	GB1-1850	18.50mm
150923	GB1-1900	19.00mm
150924	GB1-1950	19.50mm
150925	GB1-2000	20.00mm
150927	GB1-2050	20.50mm
150928	GB1-2100	21.00mm
150929	GB1-2150	21.50mm
150930	GB1-2200	22.00mm
150931	GB1-2250	22.50mm
150933	GB1-2300	23.00mm
150934	GB1-2350	23.50mm
150935	GB1-2400	24.00mm
150936	GB1-2450	24.50mm
150937	GB1-2500	25.00mm
150939	GB1-3000	30.00mm
150940	GB1-4000	40.00mm
150941	GB1-5000	50.00mm
150942	GB1-6000	60.00mm
150944	GB1-7000	70.00mm
150945	GB1-7500	75.00mm
150946	GB1-8000	80.00mm
150947	GB1-9000	90.00mm
150948	GB1-10000	100.00mm
150949	GB1-12500	125mm
150950	GB1-15000	150mm
150794	GB1-17500	175mm
150795	GB1-20000	200mm
150796	GB1-25000	250mm
150797	GB1-30000	300mm
150798	GB1-40000	400mm
150799	GB1-50000	500mm
150800	GB1-60000	600mm

CERAMIC BLOCK GAUGE SET (GRADE 0)

PDI 0

HOW TO MOVIE

Free from rust and corrosion, and easy maintenance

BC-032

USE
- As reference standard and for general measurement work
- As spacer and prefinished sub-assembly components

MATERIAL
- Ceramic (Zirconia)

FEATURES
- Abrasion resistant
- Free from rust and corrosion, and easy maintenance
- Ceramic material is less susceptible to abrasion and aged deterioration than steel
- Non-magnetic
- Conforms to JIS (Grade 0)
- Provided with inspection report

SPECIFICATIONS
- Section size: 10mm or under: 30(0~−0.3)×9(−0.05~−0.2)mm
  Over 10mm: 35(0~−0.3)×9(−0.05~−0.2)mm
- Coefficient of thermal expansion: (9.5±1)×10^{-6}/K

※Calibration and custom size production are NOT available

SPECIFICATIONS

Size (mm)		Grade 0	
Over	Or under	Tolerance (μm)	Dimensional Deviation (μm)
–	10	±0.12	0.10
10	25	±0.14	0.10
25	50	±0.20	0.10
50	75	±0.25	0.12
75	100	±0.30	0.12

Comparison between steel and ceramic materials

Item \ Material		Ceramics (Zirconia)	Steel
Hardness	HV	1,250	650~720
Coefficient of thermal expansion	10^{-6}/K	7~8	11
Specific Gravity		6	7.8
Heat conductivity	W/m·K	3	54.4

SET Item

Order No.	Model No.	Pieces per set	Step (mm)	Nominal Size (mm)	Number of piece	Weight
150770	BC-032	32	–	1.005	1	950g
			0.01	1.01·1.02···1.09	9	
			0.1	1.1·1.2···1.9	9	
			1	1·2·3···9	9	
			10	10·20·30	3	
			–	50	1	
150771	BC-047	47	–	1.005	1	2.25kg
			0.01	1.01·1.02···1.09	9	
			0.1	1.1·1.2···1.9	9	
			1	1·2·3···24	24	
			25	25·50·75·100	4	

SINGLE Item

Order No.	Model No.	Size (mm)
150720	BC0-100	1
150721	BC0-1-005	1.005
150722	BC0-101	1.01
150723	BC0-102	1.02
150724	BC0-103	1.03
150725	BC0-104	1.04
150726	BC0-105	1.05
150727	BC0-106	1.06
150728	BC0-107	1.07
150729	BC0-108	1.08
150730	BC0-109	1.09
150731	BC0-110	1.1
150732	BC0-120	1.2
150733	BC0-130	1.3
150734	BC0-140	1.4
150735	BC0-150	1.5
150736	BC0-160	1.6
150737	BC0-170	1.7
150738	BC0-180	1.8
150739	BC0-190	1.9
150740	BC0-200	2
150741	BC0-300	3
150742	BC0-400	4
150743	BC0-500	5
150744	BC0-600	6

Order No.	Model No.	Size (mm)
150745	BC0-700	7
150746	BC0-800	8
150747	BC0-900	9
150748	BC0-1000	10
150749	BC0-1100	11
150750	BC0-1200	12
150751	BC0-1300	13
150752	BC0-1400	14
150753	BC0-1500	15
150754	BC0-1600	16
150755	BC0-1700	17
150756	BC0-1800	18
150757	BC0-1900	19
150758	BC0-2000	20
150759	BC0-2100	21
150760	BC0-2200	22
150761	BC0-2300	23
150762	BC0-2400	24
150763	BC0-2500	25
150764	BC0-3000	30
150765	BC0-5000	50
150766	BC0-6000	60
150767	BC0-7500	75
150768	BC0-10000	100

STEEL PIN GAUGE SET AA SERIES

JCSS Calibration available

HOW TO MOVIE

The most standard and popular type pin gauge. Available from 1pc.

SUB-ZERO (Cryogenic hardened) TREATMENT

※ 2,700mm or over

φ0.500 ~ 10.000mm
0.001 step
IN STOCK

Master for calibration using length measuring machine▶
Master Gauge

P55

For storage and maintenance▶
Pin Gauge Accessories

P60 ~63

For holding pin gauge▶
Pin Vise

P64 ~65

Rust prevention▶
Zerust Film for Steel

P380

FEATURES

- The most popular type
- Individual pin gauges are also available (plastic case included)
- Custom made Pin Gauges are available on request
- Aluminum Pin Vise is included with AA-0A to AA-9B.
  Pin Vise is included with AA-0E to AA-6F.
- For above 1.000mm, nominal size is marked on gauge
- Provide with individual pin gauge stand

SPECIFICATIONS

Nominal Size (mm)	Step (mm)	Length (mm)	Tolerance (μm)	Out of Roundness (μm)	Diameter Inequality (μm)	Hardness (HV)
0.05	0.01 step	5	±0.5	0.5	1.0	More than 720
0.06 ··· 0.09		10				
0.10 ··· 0.19		40	±0.8			
0.200 ··· 0.999	0.001step					
1.000 ··· 2.699		50				More than 650
2.700 ··· 10.000						
10.01 ···20.00	0.01 step		±1.5	0.8	1.6	
20.01 ···30.00			±2	1.6	3.2	
30.01 ···41.00	-		±3	3	6	

※ 5mm from each edge is not precision guaranteed ※ 30.01 ~ 41.00 are custom made

Pin gauges are slightly chamfered on both edge at the following level;
φ 1mm···Approx. 0.03mm φ 3mm···Approx. 0.1mm φ 5mm···Approx. 0.2mm
φ 7mm···Approx. 0.25mm φ 10mm···Approx. 0.3mm

AA series (0.010mm step)

Model No.	Nominal Size (mm)	Pins per set	Aluminum Pin Vise	Weight (Including case)
AA-00	0.06 · 0.07 · 0.08 ····· 0.290	24		0.90kg
AA-0A	0.200 · 0.210 · 0.220 ····· 0.500	31	APV-0A	0.95kg
AA-0B	0.500 · 0.510 · 0.520 ····· 1.000	51	APV-0B	1.02kg
AA-1A	1.000 · 1.010 · 1.020 ····· 1.500	51	APV-1A	1.03kg
AA-1B	1.500 · 1.510 · 1.520 ····· 2.000	51	APV-1B	1.06kg
AA-2A	2.000 · 2.010 · 2.020 ····· 2.500	51	APV-2A	1.09kg
AA-2B	2.500 · 2.510 · 2.520 ····· 3.000	51	APV-2B	1.13kg
AA-3A	3.000 · 3.010 · 3.020 ····· 3.500	51	APV-3A	1.18kg
AA-3B	3.500 · 3.510 · 3.520 ····· 4.000	51	APV-3B	1.23kg
AA-4A	4.000 · 4.010 · 4.020 ····· 4.500	51	APV-4A	1.29kg
AA-4B	4.500 · 4.510 · 4.520 ····· 5.000	51	APV-4B	1.37kg
AA-5A	5.000 · 5.010 · 5.020 ····· 5.500	51	APV-5A	1.44kg
AA-5B	5.500 · 5.510 · 5.520 ····· 6.000	51	APV-5B	1.53kg
AA-6A	6.000 · 6.010 · 6.020 ····· 6.500	51	APV-6A	1.63kg
AA-6B	6.500 · 6.510 · 6.520 ····· 7.000	51	APV-6B	1.73kg
AA-7A	7.000 · 7.010 · 7.020 ····· 7.500	51	APV-7A	2.33kg
AA-7B	7.500 · 7.510 · 7.520 ····· 8.000	51	APV-7B	2.45kg
AA-8A	8.000 · 8.010 · 8.020 ····· 8.500	51	APV-8A	2.58kg
AA-8B	8.500 · 8.510 · 8.520 ····· 9.000	51	APV-8B	2.71kg
AA-9A	9.000 · 9.010 · 9.020 ····· 9.500	51	APV-9A	2.85kg
AA-9B	9.500 · 9.510 · 9.520 ····· 10.000	51	APV-9B	3.00kg
AA-10A	10.000 · 10.01 · 10.02 ····· 10.50	51		3.12kg
AA-10B	10.50 · 10.51 · 10.52 ····· 11.00	51		3.29kg
AA-11A	11.00 · 11.01 · 11.02 ····· 11.50	51		3.46kg
AA-11B	11.50 · 11.51 · 11.52 ····· 12.00	51		3.64kg
AA-12A	12.00 · 12.01 · 12.02 ····· 12.50	51		3.83kg
AA-12B	12.50 · 12.51 · 12.52 ····· 13.00	51		4.03kg
AA-13A	13.00 · 13.01 · 13.02 ····· 13.50	51		4.24kg
AA-13B	13.50 · 13.51 · 13.52 ····· 14.00	51		4.45kg
AA-14A	14.00 · 14.01 · 14.02 ····· 14.50	51		4.67kg
AA-14B	14.50 · 14.51 · 14.52 ····· 15.00	51		4.90kg
AA-15A	15.00 · 15.01 · 15.02 ····· 15.50	51		5.14kg
AA-15B	15.50 · 15.51 · 15.52 ····· 16.00	51		5.38kg
AA-16A	16.00 · 16.01 · 16.02 ····· 16.50	51		5.79kg
AA-16B	16.50 · 16.51 · 16.52 ····· 17.00	51		6.05kg
AA-17A	17.00 · 17.01 · 17.02 ····· 17.50	51		6.32kg
AA-17B	17.50 · 17.51 · 17.52 ····· 18.00	51		6.60kg
AA-18A	18.00 · 18.01 · 18.02 ····· 18.50	51		6.88kg
AA-18B	18.50 · 18.51 · 18.52 ····· 19.00	51		7.18kg
AA-19A	19.00 · 19.01 · 19.02 ····· 19.50	51		7.48kg
AA-19B	19.50 · 19.51 · 19.52 ····· 20.00	51		7.78kg

AA series (0.005mm step)

Model No.	Nominal Size (mm)	Pins per set	Pin Vise	Weight (Including case)
AA-0E	0.500 · 0.505 · 0.510 ····· 0.750	51	PV-0B	1.12kg
AA-0F	0.750 · 0.755 · 0.760 ····· 1.000	51	PV-0B	1.12kg
AA-1C	1.000 · 1.005 · 1.010 ····· 1.250	51	PV-1A	1.13kg
AA-1D	1.250 · 1.255 · 1.260 ····· 1.500	51	PV-1A	1.14kg
AA-1E	1.500 · 1.505 · 1.510 ····· 1.750	51	PV-1B	1.15kg
AA-1F	1.750 · 1.755 · 1.760 ····· 2.000	51	PV-1B	1.17kg
AA-2C	2.000 · 2.005 · 2.010 ····· 2.250	51	PV-2A	1.18kg
AA-2D	2.250 · 2.255 · 2.260 ····· 2.500	51	PV-2A	1.20kg
AA-2E	2.500 · 2.505 · 2.510 ····· 2.750	51	PV-2B	1.22kg
AA-2F	2.750 · 2.755 · 2.760 ····· 3.000	51	PV-2B	1.24kg
AA-3C	3.000 · 3.005 · 3.010 ····· 3.250	51	PV-3A	1.27kg
AA-3D	3.250 · 3.255 · 3.260 ····· 3.500	51	PV-3A	1.30kg
AA-3E	3.500 · 3.505 · 3.510 ····· 3.750	51	PV-3B	1.33kg
AA-3F	3.750 · 3.755 · 3.760 ····· 4.000	51	PV-3B	1.36kg
AA-4C	4.000 · 4.005 · 4.010 ····· 4.250	51	PV-4A	1.39kg
AA-4D	4.250 · 4.255 · 4.260 ····· 4.500	51	PV-4A	1.42kg
AA-4E	4.500 · 4.505 · 4.510 ····· 4.750	51	PV-4B	1.46kg
AA-4F	4.750 · 4.755 · 4.760 ····· 5.000	51	PV-4B	1.50kg
AA-5C	5.000 · 5.005 · 5.010 ····· 5.250	51	PV-5A	1.54kg
AA-5D	5.250 · 5.255 · 5.260 ····· 5.500	51	PV-5A	1.58kg
AA-5E	5.500 · 5.505 · 5.510 ····· 5.750	51	PV-5B	1.62kg
AA-5F	5.750 · 5.755 · 5.760 ····· 6.000	51	PV-5B	1.67kg
AA-6C	6.000 · 6.005 · 6.010 ····· 6.250	51	PV-6A	1.71kg
AA-6D	6.250 · 6.255 · 6.260 ····· 6.500	51	PV-6A	1.76kg
AA-6E	6.500 · 6.505 · 6.510 ····· 6.750	51	PV-6B	1.81kg
AA-6F	6.750 · 6.755 · 6.760 ····· 7.000	51	PV-6B	1.87kg
AA-7C	7.000 · 7.005 · 7.010 ····· 7.250	51		2.26kg
AA-7D	7.250 · 7.255 · 7.260 ····· 7.500	51		2.32kg
AA-7E	7.500 · 7.505 · 7.510 ····· 7.750	51		2.38kg
AA-7F	7.750 · 7.755 · 7.760 ····· 8.000	51		2.44kg
AA-8C	8.000 · 8.005 · 8.010 ····· 8.250	51		2.50kg
AA-8D	8.250 · 8.255 · 8.260 ····· 8.500	51		2.57kg
AA-8E	8.500 · 8.505 · 8.510 ····· 8.750	51		2.64kg
AA-8F	8.750 · 8.755 · 8.760 ····· 9.000	51		2.71kg
AA-9C	9.000 · 9.005 · 9.010 ····· 9.250	51		2.78kg
AA-9D	9.250 · 9.255 · 9.260 ····· 9.500	51		2.85kg
AA-9E	9.500 · 9.505 · 9.510 ····· 9.750	51		2.93kg
AA-9F	9.750 · 9.755 · 9.760 ····· 10.000	51		3.00kg

Sizes available: 0.05 ~ 41.00mm (Please contact us with request)

STEEL PIN GAUGE SET SA SERIES

JCSS Calibration available

HOW TO MOVIE

High precision model

SUB-ZERO (Cryogenic hardened) TREATMENT

※ 2,700mm or over

For storage and maintenance▶
Pin Gauge Accessories P60 ~63

For holding pin gauge▶
Pin Vise P64 ~65

Rust prevention▶
Zerust Film for Steel P380

FEATURES

- High precision quality pin gauge
- Individual pin gauges are also available (plastic case included)

SPECIFICATIONS

Nominal Size (mm)	Step (mm)	Length (mm)	Tolerance (μm)	Out of Roundness (μm)	Diameter Inequality (μm)	Hardness (HV)
0.100··· 0.999	0.001step	40	±0.3	0.3	0.6	More than 720
1.000··· 2.699		50				
2.700··· 7.010						More than 650
7.011···10.000			±0.5	0.5	1.0	

※ 5mm from each edge is not precision guaranteed

(0.001mm step)

Model No.	Nominal size (mm)	Pins per set	Weight (Including case)
SA-03	0.297 ····· 0.310	14	870g
SA-04	0.397 ····· 0.410	14	870g
SA-05	0.497 ····· 0.510	14	870g
SA-06	0.597 ····· 0.610	14	870g
SA-07	0.697 ····· 0.710	14	870g
SA-08	0.797 ····· 0.810	14	870g
SA-09	0.897 ····· 0.910	14	870g
SA-10	0.997 ····· 1.010	14	870g
SA-11	1.097 ····· 1.110	14	870g
SA-12	1.197 ····· 1.210	14	870g
SA-13	1.297 ····· 1.310	14	870g
SA-14	1.397 ····· 1.410	14	880g
SA-15	1.497 ····· 1.510	14	880g
SA-16	1.597 ····· 1.610	14	880g
SA-17	1.697 ····· 1.710	14	880g
SA-18	1.797 ····· 1.810	14	880g
SA-19	1.897 ····· 1.910	14	880g
SA-20	1.997 ····· 2.010	14	880g
SA-21	2.097 ····· 2.110	14	890g
SA-22	2.197 ····· 2.210	14	890g
SA-23	2.297 ····· 2.310	14	890g
SA-24	2.397 ····· 2.410	14	890g
SA-25	2.497 ····· 2.510	14	890g
SA-26	2.597 ····· 2.610	14	900g
SA-27	2.697 ····· 2.710	14	900g
SA-28	2.797 ····· 2.810	14	900g
SA-29	2.897 ····· 2.910	14	900g
SA-30	2.997 ····· 3.010	14	910g
SA-31	3.097 ····· 3.110	14	910g
SA-32	3.197 ····· 3.210	14	910g
SA-33	3.297 ····· 3.310	14	910g
SA-34	3.397 ····· 3.410	14	920g
SA-35	3.497 ····· 3.510	14	920g
SA-36	3.597 ····· 3.610	14	920g

Model No.	Nominal size (mm)	Pins per set	Weight (Including case)
SA-37	3.697 ····· 3.710	14	930g
SA-38	3.797 ····· 3.810	14	930g
SA-39	3.897 ····· 3.910	14	930g
SA-40	3.997 ····· 4.010	14	940g
SA-41	4.097 ····· 4.110	14	940g
SA-42	4.197 ····· 4.210	14	940g
SA-43	4.297 ····· 4.310	14	950g
SA-44	4.397 ····· 4.410	14	950g
SA-45	4.497 ····· 4.510	14	960g
SA-46	4.597 ····· 4.610	14	960g
SA-47	4.697 ····· 4.710	14	960g
SA-48	4.797 ····· 4.810	14	970g
SA-49	4.897 ····· 4.910	14	970g
SA-50	4.997 ····· 5.010	14	980g
SA-51	5.097 ····· 5.110	14	980g
SA-52	5.197 ····· 5.210	14	980g
SA-53	5.297 ····· 5.310	14	990g
SA-54	5.397 ····· 5.410	14	990g
SA-55	5.497 ····· 5.510	14	1.00kg
SA-56	5.597 ····· 5.610	14	1.00kg
SA-57	5.697 ····· 5.710	14	1.01kg
SA-58	5.797 ····· 5.810	14	1.01kg
SA-59	5.897 ····· 5.910	14	1.02kg
SA-60	5.997 ····· 6.010	14	1.02kg
SA-61	6.097 ····· 6.110	14	1.03kg
SA-62	6.197 ····· 6.210	14	1.03kg
SA-63	6.297 ····· 6.310	14	1.04kg
SA-64	6.397 ····· 6.410	14	1.05kg
SA-65	6.497 ····· 6.510	14	1.05kg
SA-66	6.597 ····· 6.610	14	1.06kg
SA-67	6.697 ····· 6.710	14	1.06kg
SA-68	6.797 ····· 6.810	14	1.07kg
SA-69	6.897 ····· 6.910	14	1.07kg
SA-70	6.997 ····· 7.010	14	1.49kg

Sizes available: 0.100 ~ 10.000mm (Please contact us with request)

MAINTENANCE LINE PIN GAUGE AML SERIES

JCSS Calibration available T

HOW TO MOVIE

For checking shallow holes, for those concerned about gauge wear

SUB-ZERO (Cryogenic hardened) TREATMENT

※ 2,700mm or over

Master for calibration using length measuring machine▶ Master Gauge P55

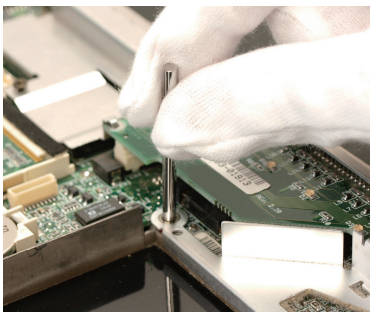
For storage and maintenance▶ Pin Gauge Accessories P60 ~63

For holding pin gauge▶ Pin Vise P64 ~65

Rust prevention▶ Zerust Film for Steel P380

POINT

Wear-line
for checking wear status
Tip wear is easy to see
When line disappears, wear is more than approx. 1μm



FEATURES

- Wear-line on both ends of pin gauge, able to see gauge wear
- When line disappears, wear is more than approx. 1μm
- Individual pin gauges are also available (plastic case included)

SPECIFICATIONS

Size (mm)	Step (mm)	Length (mm)	Tolerance (μm)	Roundness (μm)	Diameter Inequality (μm)	Hardness (HV)
3.000···10.000	0.010 step	50	±0.8	0.5	1.0	More than 650

※ 5mm from each edge is not precision guaranteed

SET Item

Model No.	Nominal Size (mm)	Step (mm)	Pins per Set	Aluminum Pin vise	Weight (Including case)
AML-3A	3.000・3.010・3.020 …… 3.500	0.010 step	51	APV-3A	1.18kg
AML-3B	3.500・3.510・3.520 …… 4.000		51	APV-3B	1.23kg
AML-4A	4.000・4.010・4.020 …… 4.500		51	APV-4A	1.29kg
AML-4B	4.500・4.510・4.520 …… 5.000		51	APV-4B	1.37kg
AML-5A	5.000・5.010・5.020 …… 5.500		51	APV-5A	1.44kg
AML-5B	5.500・5.510・5.520 …… 6.000		51	APV-5B	1.53kg
AML-6A	6.000・6.010・6.020 …… 6.500		51	APV-6A	1.63kg
AML-6B	6.500・6.510・6.520 …… 7.000		51	APV-6B	1.73kg
AML-7A	7.000・7.010・7.020 …… 7.500		51	APV-7A	2.33kg
AML-7B	7.500・7.510・7.520 …… 8.000		51	APV-7B	2.45kg
AML-8A	8.000・8.010・8.020 …… 8.500		51	APV-8A	2.58kg
AML-8B	8.500・8.510・8.520 …… 9.000		51	APV-8B	2.71kg
AML-9A	9.000・9.010・9.020 …… 9.500		51	APV-9A	2.85kg
AML-9B	9.500・9.510・9.520 …… 10.000		51	APV-9B	3.00kg

0.001 step pin gauges are also available on request. Sizes available: 3.00 ~ 10.00mm (Please contact us with request)

BLOCK GAUGE
PIN GAUGE
PIN VISE
PIN GAUGE ACCESSORIES
RING GAUGE
PLUG GAUGE
LIMIT GAUGE
THICKNESS GAUGE
TAPER GAUGE
WELDING GAUGE
OTHER GAUGES

STEEL PIN GAUGE SET AH・AP・AAP・AS SERIES

JCSS Calibration available

HOW TO MOVIE

Pin gauge set that consists of frequently-used sizes

SUB-ZERO (Cryogenic hardened) TREATMENT

※ 2,700mm or over

Master for calibration using length measuring machine▶
Master Gauge
P55

For storage and maintenance▶
Pin Gauge Accessories
P60 ~63

For holding pin gauge▶
Pin Vise
P64 ~65

Rust prevention▶
Zerust Film for Steel
P380

FEATURES

- Pin gauge set consists of frequently used sizes
- Same specifications as AA series
- Custom made Pin Gauge sets are available on request
- Individual pin gauges are also available (plastic case included)

※ Pin Vise is not included

AH series (0.050mm step)

Model No.	Nominal size (mm)	Pin per set	Weight (Including case)
AH-0	0.200・0.250・0.300 ··· 1.000	17	0.88kg
AH-1	1.000・1.050・1.100 ··· 3.500	51	1.07kg
AH-2	3.500・3.550・3.600 ··· 6.000	51	1.72kg
AH-3	6.000・6.050・6.100 ··· 8.500	51	2.30kg
AH-4	8.500・8.550・8.600 ··· 11.00	51	2.97kg
AH-5	11.00 ・11.05 ・11.10 ···13.50	51	3.84kg
AH-6	13.50 ・13.55 ・13.60 ···16.00	51	4.91kg
AH-7	16.00 ・16.05 ・16.10 ···18.50	51	5.92kg
AH-8	18.50 ・18.55 ・18.60 ···20.00	31	4.77kg

AAP series (0.010mm step)

Consist of intermediate nominal size Pin Gauges of AA Series

Model No.	Nominal size (mm)	Pin per set	Weight (Including case)
AAP-0B	0.505・0.515・0.525··· 1.005	51	0.99kg
AAP-1A	1.005・1.015・1.025··· 1.505	51	1.00kg
AAP-1B	1.505・1.515・1.525··· 2.005	51	1.03kg
AAP-2A	2.005・2.015・2.025··· 2.505	51	1.06kg
AAP-2B	2.505・2.515・2.525··· 3.005	51	1.10kg
AAP-3A	3.005・3.015・3.025··· 3.505	51	1.15kg
AAP-3B	3.505・3.515・3.525··· 4.005	51	1.20kg
AAP-4A	4.005・4.015・4.025··· 4.505	51	1.26kg
AAP-4B	4.505・4.515・4.525··· 5.005	51	1.34kg
AAP-5A	5.005・5.015・5.025··· 5.505	51	1.42kg
AAP-5B	5.505・5.515・5.525··· 6.005	51	1.50kg
AAP-6A	6.005・6.015・6.025··· 6.505	51	1.60kg
AAP-6B	6.505・6.515・6.525··· 7.005	51	2.08kg
AAP-7A	7.005・7.015・7.025··· 7.505	51	2.29kg
AAP-7B	7.505・7.515・7.525··· 8.005	51	2.41kg
AAP-8A	8.005・8.015・8.025··· 8.505	51	2.54kg
AAP-8B	8.505・8.515・8.525··· 9.005	51	2.67kg
AAP-9A	9.005・9.015・9.025··· 9.505	51	2.81kg
AAP-9B	9.505・9.515・9.525···10.005	51	2.97kg

AP series (0.100mm step)

Model No.	Nominal size (mm)	Pin per set	Weight (Including case)
AP-1	1.000・1.100・1.200 ····· 5.000	41	1.08kg
AP-2	5.000・5.100・5.200 ····· 10.000	51	2.38kg
AP-3	10.000・10.10 ・10.20 ····· 15.00	51	3.97kg
AP-4	15.00 ・15.10 ・15.20 ····· 20.00	51	5.98kg

AS series (0.010mm step)

Consist of Pin Gauge in the range of ± 0.05mm based on integer number size

Model No.	Nominal size (mm)	Pin per set
AS-1	0.950・0.960····· 1.000····· 1.040・1.050 1.950・1.960····· 2.000····· 2.040・2.050 2.950・2.960····· 3.000····· 3.040・3.050 3.950・3.960····· 4.000····· 4.040・4.050 4.950・4.960····· 5.000····· 5.040・5.050	55
AS-2	5.950・5.960····· 6.000····· 6.040・6.050 6.950・6.960····· 7.000····· 7.040・7.050 7.950・7.960····· 8.000····· 8.040・8.050 8.950・8.960····· 9.000····· 9.040・9.050 9.950・9.960·····10.000·····10.04 ・10.05	55
AS-3	10.95 ・10.96 ·····11.00 ·····11.04 ・11.05 11.95 ・11.96 ·····12.00 ·····12.04 ・12.05 12.95 ・12.96 ·····13.00 ·····13.04 ・13.05 13.95 ・13.96 ·····14.00 ·····14.04 ・14.05 14.95 ・14.96 ·····15.00 ·····15.04 ・15.05	55
AS-4	15.95 ・15.96 ·····16.00 ·····16.04 ・16.05 16.95 ・16.96 ·····17.00 ·····17.04 ・17.05 17.95 ・17.96 ·····18.00 ·····18.04 ・18.05 18.95 ・18.96 ·····19.00 ·····19.04 ・19.05 19.95 ・19.96 ·····20.00 ·····20.04 ・20.05	55
ASP-1	0.450・0.460····· 0.500····· 0.540・0.550 1.450・1.460····· 1.500····· 1.540・1.550 2.450・2.460····· 2.500····· 2.540・2.550 3.450・3.460····· 3.500····· 3.540・3.550 4.450・4.460····· 4.500····· 4.540・4.550	55
ASP-2	5.450・5.460····· 5.500····· 5.540・5.550 6.450・6.460····· 6.500····· 6.540・6.550 7.450・7.460····· 7.500····· 7.540・7.550 8.450・8.460····· 8.500····· 8.540・8.550 9.450・9.460····· 9.500····· 9.540・9.550	55
ASP-3	10.45 ・10.46 ·····10.50 ·····10.54 ・10.55 11.45 ・11.46 ·····11.50 ·····11.54 ・11.55 12.45 ・12.46 ·····12.50 ·····12.54 ・12.55 13.45 ・13.46 ·····13.50 ·····13.54 ・13.55 14.45 ・14.46 ·····14.50 ·····14.54 ・14.55	55
ASP-4	15.45 ・15.46 ·····15.50 ·····15.54 ・15.55 16.45 ・16.46 ·····16.50 ·····16.54 ・16.55 17.45 ・17.46 ·····17.50 ·····17.54 ・17.55 18.45 ・18.46 ·····18.50 ·····18.54 ・18.55 19.45 ・19.46 ·····19.50 ·····19.54 ・19.55	55

STEEL PIN GAUGE SET PM・PG SERIES

HOW TO MOVIE

Available from 1pc. Either plus [+] or minus [-] tolerance set.

SUB-ZERO (Cryogenic hardened) TREATMENT
※ 2,700mm or over

Master for calibration using length measuring machine▶ Master Gauge P55

For storage and maintenance▶ Pin Gauge Accessories P60～63

For holding pin gauge▶ Pin Vise P64～65

Rust prevention▶ Zerust Film for Steel P380

PM series⊕⊖

FEATURES

- Pin Gauges with tolerance of 0 to plus 2μm or 0 to minus 2μm based on nominal size
- For over 1.000mm, nominal size and P (for Plus) or M (for Minus) is marked on gagues
- Please indicate "plus" or "minus" when ordering
- Individual Pin Gauges are also available

SPECIFICATIONS

Size (mm)	Step (mm)	Length (mm)	Tolerance (μm)	Out of Roundness (μm)	Diameter Inequality (μm)	Hardness (HV)
0.20··· 0.99	0.01 step	40	Plus or Minus 0～2	1.0	2.0	More than 720
1.00··· 2.69		50				
2.70···10.00						More than 650

※5mm from each edge is not precision guaranteed

(0.01mm step)

Model No.	Nominal size (mm)	Pins per set	Pin Vise	Weight (Including case)
PM-0A	0.20・0.21・0.22 ····· 0.50	31	–	0.95kg
PM-0B	0.50・0.51・0.52 ····· 1.00	51	PV-0B	1.02kg
PM-1A	1.00・1.01・1.02 ····· 1.50	51	PV-1A	1.03kg
PM-1B	1.50・1.51・1.52 ····· 2.00	51	PV-1B	1.06kg
PM-2A	2.00・2.01・2.02 ····· 2.50	51	PV-2A	1.09kg
PM-2B	2.50・2.51・2.52 ····· 3.00	51	PV-2B	1.13kg
PM-3A	3.00・3.01・3.02 ····· 3.50	51	PV-3A	1.18kg
PM-3B	3.50・3.51・3.52 ····· 4.00	51	PV-3B	1.18kg
PM-4A	4.00・4.01・4.02 ····· 4.50	51	PV-4A	1.18kg
PM-4B	4.50・4.51・4.52 ····· 5.00	51	PV-4B	1.18kg
PM-5A	5.00・5.01・5.02 ····· 5.50	51	PV-5A	1.18kg
PM-5B	5.50・5.51・5.52 ····· 6.00	51	PV-5B	1.18kg
PM-6A	6.00・6.01・6.02 ····· 6.50	51	PV-6A	1.18kg
PM-6B	6.50・6.51・6.52 ····· 7.00	51	PV-6B	1.18kg
PM-7A	7.00・7.01・7.02 ····· 7.50	51	–	1.53kg
PM-7B	7.50・7.51・7.52 ····· 8.00	51		1.53kg
PM-8A	8.00・8.01・8.02 ····· 8.50	51	–	1.53kg
PM-8B	8.50・8.51・8.52 ····· 9.00	51		1.53kg
PM-9A	9.00・9.01・9.02 ····· 9.50	51	–	1.53kg
PM-9B	9.50・9.51・9.52 ····· 10.00	51		1.53kg

PG series⊕⊖

FEATURES

- Pin Gauges with tolerance of +2 to +5μm (or -2 to -5μm) based on nominal size
- Please indicate "plus" or "minus" when ordering
- Individual Pin Gauges are also available

※ Pin Vise is not included
※ PG-00 and PG-3 differ in size step

SPECIFICATIONS

Nominal size (mm)	Step (mm)	Length (mm)	Tolerance (μm)	Out of Roundness (μm)	Diameter Inequality (μm)	Hardness (HV)
0.100 ··· 0.190	0.010 step	20	⊕2～5 based on nominal size	1.5	3.0	More than 720
0.200 ··· 0.290		40				
0.300 ··· 0.975	0.025 step		⊖2～5 based on nominal size			
1.000 ··· 2.675		50				
2.700 ···12.975						More than 650
13.000 ···19.000	0.010 step		※			

※The tolerance of 13.000～19.000 Pin Gauges is with Plus (or Minus) 1～5μm
※5mm from each edge is not precision guaranteed

Model No.	Nominal size	Step	Pins per set	Weight (Including case)
PG-00	0.100・ 0.110・ 0.120··· 0.290	0.010 step	20	0.89kg
PG-0	0.300・ 0.325・ 0.350··· 1.525	0.025 step	50	0.99kg
PG-1	1.550・ 1.575・ 1.600··· 6.275		190	2.12kg
PG-2A	6.300・ 6.325・ 6.350··· 9.775		140	3.95kg
PG-2B	9.800・ 9.825・ 9.850···12.525		110	5.38kg
PG-2C	12.550・12.575・12.600···12.975		18	2.20kg
PG-3	13.000・13.100・13.200···19.000	0.100 step	61	5.93kg

STEEL PIN GAUGE WITH CENTER HOLE AC SERIES

T

Suitable for measuring runount of work

SUB-ZERO (Cryogenic hardened) TREATMENT
※ 2,700mm or over

Master for calibration using length measuring machine▶ Master Gauge P55
For storage and maintenance▶ Pin Gauge Accessories P60 ~63
For holding pin gauge▶ Pin Vise P64 ~65
Rust prevention▶ Zerust Film for Steel P380

USE
- For checking surface deflection of gear wheel and measuring runount of gear wheel and pulley
- For measuring squareness between hole and side face

FEATURES
- For above 2.00mm, nominal size is marked on gauge
- Plastic case included

SPECIFICATIONS

Nominal size (mm)	Step (mm)	Length (mm)	Tolerance (μm)	Out of Roundness (μm)	Diameter Inequality (μm)	Runout Tolerance (μm)	Center hole Angle	Center hole Diameter (mm)	Hardness (HV)
2.00··· 2.99	0.01 step	50	±2.0	1.0	2.0	Within 2.0	60°	1.3	More than 650
3.00··· 3.99								1.8	
4.00··· 6.99								2.4	
7.00···10.00								4.0	

MASTER GAUGE

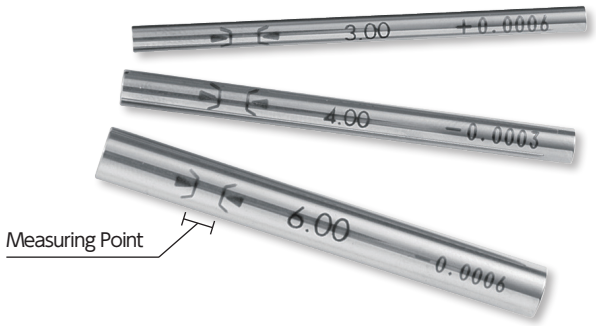
JCSS Calibration available

T

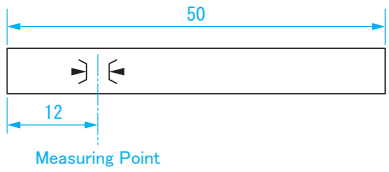
Actual value of the measuring point is marked on pin gauge

SUB-ZERO (Cryogenic hardened) TREATMENT
※ 2,700mm or over

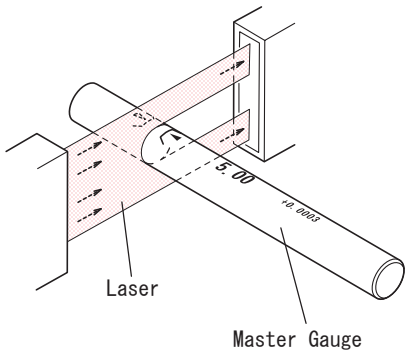
For storage and maintenance▶ Pin Gauge Accessories P60 ~63
Rust prevention▶ Zerust Film for Steel P380



● DIMENSIONS Units: mm



● Example of use



Calibrating a laser thickness gauge using the marked area of the master gauge

FEATURES
- Actual value of the measuring point is marked on pin gauge
- Plastic case included

SPECIFICATIONS

Nominal size (mm)	Step (mm)	Length (mm)	Uncertainty (μm)	Out of Roundness (μm)	Hardness (HV)
1.00··· 2.69	0.01 step	50	0.4	1.0	More than 720
2.70··· 6.00					More than 650

BLOCK GAUGE
PIN GAUGE
PIN VISE
PIN GAUGE ACCESSORIES
RING GAUGE
PLUG GAUGE
LIMIT GAUGE
THICKNESS GAUGE
TAPER GAUGE
WELDING GAUGE
OTHER GAUGES

STEEL PIN GAUGE SET WITH HANDLE AG SERIES

HOW TO MOVIE

Rust prevention▶
Zerust Film for Steel
P380

Available from 1pc. Handle enables indirect contact with hand and gauge to avoid thermal expansion.

SUB-ZERO (Cryogenic hardened) TREATMENT
※ 2,700mm or over

BLOCK GAUGE
PIN GAUGE
PIN VISE
PIN GAUGE ACCESSORIES
RING GAUGE
PLUG GAUGE
LIMIT GAUGE
THICKNESS GAUGE
TAPER GAUGE
WELDING GAUGE
OTHER GAUGES

FEATURES

- AA series Pin Gauge with plastic handle
- Easy to handle for measuring
- Less affected by temperature
- The handle protects Pin Gauges from skin oil and salts
- Size is marked on each plastic handle
- Individual pin gauges are also available

SPECIFICATIONS

Nominal size (mm)	Step (mm)	Length (mm) Gauge Length	Length (mm) Overall Length	Tolerance (μm)	Out of Roundness (μm)	Diameter Inequality (μm)	Hardness (HV)
0.07··· 0.09	0.01 step	3	41	± 0.5	0.5	1.0	More than 720
0.10··· 0.29				± 1.0			
0.30··· 0.49		10	48				
0.50··· 0.99		20	58				
1.00··· 2.69		30	71				
2.70··· 5.00							More than 650
5.01···10.00			76				

※ Exceptionally, for 1.00mm Pin Gauge in Set No. AG-0B -- Gauge Length: 20mm / Overall Length: 58mm
※ 5mm from each edge is not precision guaranteed

(0.01mm step)

Model No.	Nominal size (mm)	Pins per set	Weight (Including case)
AG-0A	0.20•0.21•0.22··· 0.50	31	0.92kg
AG-0B	0.50•0.51•0.52··· 1.00	51	0.99kg
AG-1A	1.00•1.01•1.02··· 1.50	51	1.08kg
AG-1B	1.50•1.51•1.52··· 2.00	51	1.10kg
AG-2A	2.00•2.01•2.02··· 2.50	51	1.13kg
AG-2B	2.50•2.51•2.52··· 3.00	51	1.17kg
AG-3A	3.00•3.01•3.02··· 3.50	51	1.22kg
AG-3B	3.50•3.51•3.52··· 4.00	51	1.28kg
AG-4A	4.00•4.01•4.02··· 4.50	51	1.34kg
AG-4B	4.50•4.51•4.52··· 5.00	51	1.41kg
AG-5A	5.00•5.01•5.02··· 5.50	51	1.82kg
AG-5B	5.50•5.51•5.52··· 6.00	51	1.91kg
AG-6A	6.00•6.01•6.02··· 6.50	51	2.00kg
AG-6B	6.50•6.51•6.52··· 7.00	51	2.10kg
AG-7A	7.00•7.01•7.02··· 7.50	51	2.21kg
AG-7B	7.50•7.51•7.52··· 8.00	51	2.33kg
AG-8A	8.00•8.01•8.02··· 8.50	51	2.51kg
AG-8B	8.50•8.51•8.52··· 9.00	51	2.64kg
AG-9A	9.00•9.01•9.02··· 9.50	51	2.79kg
AG-9B	9.50•9.51•9.52···10.00	51	2.94kg

Sizes available: 0.07 ~ 10.00mm (Please contact us with request)

STEEL PIN GAUGE FOR GEAR MEASUREMENT OP SERIES

HOW TO MOVIE

Available from 1pc. Must-have item for gear wheel measurement.

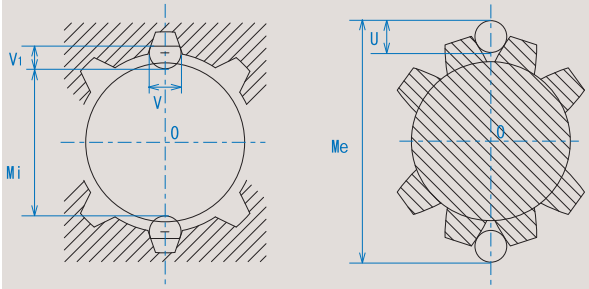
SUB-ZERO (Cryogenic hardened) TREATMENT
※ 2,700mm or over

Master for calibration using length measuring machine▶
Master Gauge
P55

Rust prevention▶
Zerust Film for Steel
P380

How To Measure

■For inside diameter ■For outside diameter



Over-pin diameter is measured by measuring the diameter after placing two pin gauges in opposite grooves of the gear as shown above

USE

- For quick and accurate over-pin diameter measurement of internal and external gears (magnetize the pin for easy handling)

FEATURES

- OP series gauge is for measuring over pin diameter of gears and involute splines. Each module is a set of two pins each for measuring external gear over-pin-diameter, and internal gear over-pin-diameter.
- Individual pin gauges are also available
- Custom made pin gauges are available upon request

To determine proper pin gauge, please note the following
1) For inside diameter or outside diameter
2) Module or diametrical pitch
3) Number of teeth
4) Pressure angle
5) Profile shift coefficient
6) Torsion angle

SPECIFICATIONS

Dimensional deviation (V and U)	0.90mm~10.00mm: ±1 μm 10.01mm~20.00mm: ±1.5μm
Out of Roundness (μm)	0.90mm~10.00mm: 1 μm 10.01mm~20.00mm: 1.5μm
Diameter Inequality (μm)	0.90mm~10.00mm: 2 μm 10.01mm~20.00mm: 3 μm
Length	50mm
Hardness	0.90mm~ 2.69mm: Over HV720 2.70mm~20.00mm: Over HV650

※ 5mm from each edge is not precision guaranteed

OP-1

Module (mm)	Inner dia. (hole) pin diameter (V) × groove height (V1) (mm)	Outer (axis) pin diameter (U) (mm)
0.5	1.00 × 0.84	0.90
1.0	2.00 × 1.68	1.80
1.25	2.50 × 2.10 2.40 × 2.00 ※1	2.25 —
1.667	3.333 × 2.80	3.00
2.5	5.00 × 4.26	4.50
5.0	10.00 × 8.40	9.00
10.0	20.00 × 16.80	18.00

※ 1 Module 1.25 is used for tooth 8・12

OP-2

Module (mm)	Inner dia (hole) pin diameter (V) × groove height (V1) (mm)	Outer (axis) pin diameter (U) (mm)
0.75	1.50 × 1.20 —	1.35 1.40 ※2
1.5	3.00 × 2.52	2.70
2.0	4.00 × 3.36	3.60
3.0	6.00 × 5.04 ※1	5.40
3.75	7.50 × 6.30 —	6.75 7.00 ※3
4.5	9.00 × 7.56	8.10
6.0	12.00 × 10.08	10.80
7.5	15.00 × 12.60	13.50

※ 2 Module 0.75 is used for tooth 6・7・8・9・10・11

※ 3 Module 3.75 is used for tooth 6・7・8・9・10・11

OP-3

This is combination set of OP-1 and OP-2

CARBIDE PIN GAUGE SET TAA・TAG SERIES

JCSS Calibration available (TAA series)

HOW TO MOVIE

Available from 1pc. Made of highly-durable material.

For storage and maintenance▶ Pin Gauge Accessories P60 ~63

For holding pin gauge▶ Pin Vise P64 ~65

MATERIAL
- Gauge: Carbide

FEATURES
- About 20-30 times more durable than Steel Pin Gauge
- The coefficient of thermal expansion is small (1/2 of steel, 5×10^{-6}/K) so the changes due to temperature are small
- Less likely to be damaged due to high hardness
- Even if broken, dimension does not change (no burrs on broken edges)
- Economical - longer span of periodic calibration compared to steel gauge
- Individual pin gauges are also available (plastic case included for TAA series)

TAA series (0.20 ~ 20.00mm)

SPECIFICATIONS

Nominal size (mm)	Step (mm)	Length (mm)	Tolerance (μm)	Out of Roundness (μm)	Diameter Inequality (μm)	Hardness (HV)
0.20··· 0.99	0.01step	30	±1	0.8	1.6	More than 1300
1.00··· 2.99		38				
3.00···10.00		50				
10.01···20.00			±1.5	1.3	2.6	

※ 5mm from each edge is not precision guaranteed

(0.01mm step)

Model No.	Nominal size (mm)	Pins per set	Weight (Including case)
TAA-0B	0.50・0.51・0.52··· 1.00	51	0.99kg
TAA-1A	1.00・1.01・1.02··· 1.50	51	1.01kg
TAA-1B	1.50・1.51・1.52··· 2.00	51	1.05kg
TAA-2A	2.00・2.01・2.02··· 2.50	51	1.09kg
TAA-2B	2.50・2.51・2.52··· 3.00	51	1.15kg
TAA-3A	3.00・3.01・3.02··· 3.50	51	1.29kg
TAA-3B	3.50・3.51・3.52··· 4.00	51	1.39kg
TAA-4A	4.00・4.01・4.02··· 4.50	51	1.50kg
TAA-4B	4.50・4.51・4.52··· 5.00	51	1.63kg
TAA-5A	5.00・5.01・5.02··· 5.50	51	1.78kg
TAA-5B	5.50・5.51・5.52··· 6.00	51	1.94kg
TAA-6A	6.00・6.01・6.02··· 6.50	51	2.11kg
TAA-6B	6.50・6.51・6.52··· 7.00	51	2.30kg
TAA-7A	7.00・7.01・7.02··· 7.50	51	2.99kg
TAA-7B	7.50・7.51・7.52··· 8.00	51	3.20kg
TAA-8A	8.00・8.01・8.02··· 8.50	51	3.44kg
TAA-8B	8.50・8.51・8.52··· 9.00	51	3.68kg
TAA-9A	9.00・9.01・9.02··· 9.50	51	3.95kg
TAA-9B	9.50・9.51・9.52···10.00	51	4.22kg

TAG series (with Handle) (0.20~10.00mm)

※TAA series Pin Gauge with plastic handle

SPECIFICATIONS

Nominal size (mm)	Step (mm)	Length (mm) Gauge Length	Length (mm) Overall Length	Tolerance (μm)	Out of Roundness (μm)	Diameter Inequality (μm)	Hardness (HV)
0.20··· 0.99	0.01step	25	63	±1	0.8	1.6	More than 1300
1.00··· 2.99		28	69				
3.00··· 4.99		30	71				
5.00···10.00			76				

※ 5mm from each edge is not precision guaranteed

(0.01mm step)

Model No.	Nominal size (mm)	Pins per set	Weight (Including case)
TAG-0B	0.50・0.51・0.52··· 1.00	51	0.99kg
TAG-1A	1.00・1.01・1.02··· 1.50	51	1.09kg
TAG-1B	1.50・1.51・1.52··· 2.00	51	1.12kg
TAG-2A	2.00・2.01・2.02··· 2.50	51	1.17kg
TAG-2B	2.50・2.51・2.52··· 3.00	51	1.22kg
TAG-3A	3.00・3.01・3.02··· 3.50	51	1.36kg
TAG-3B	3.50・3.51・3.52··· 4.00	51	1.46kg
TAG-4A	4.00・4.01・4.02··· 4.50	51	1.58kg
TAG-4B	4.50・4.51・4.52··· 5.00	51	1.71kg
TAG-5A	5.00・5.01・5.02··· 5.50	51	2.18kg
TAG-5B	5.50・5.51・5.52··· 6.00	51	2.34kg
TAG-6A	6.00・6.01・6.02··· 6.50	51	2.52kg
TAG-6B	6.50・6.51・6.52··· 7.00	51	2.71kg
TAG-7A	7.00・7.01・7.02··· 7.50	51	2.91kg
TAG-7B	7.50・7.51・7.52··· 8.00	51	3.13kg
TAG-8A	8.00・8.01・8.02··· 8.50	51	3.41kg
TAG-8B	8.50・8.51・8.52··· 9.00	51	3.66kg
TAG-9A	9.00・9.01・9.02··· 9.50	51	3.92kg
TAG-9B	9.50・9.51・9.52···10.00	51	4.19kg

CERAMIC PIN GAUGE SET CAA・CAG SERIES

JCSS Calibration available (CAA series)

HOW TO MOVIE

Available from 1pc. Made of highly-durable material with free from rust.

For storage and maintenance▶ Pin Gauge Accessories P60 ~63

For holding pin gauge▶ Pin Vise P64 ~65

MATERIAL
- Gauge: Ceramic (Zirconia)

FEATURES
- Strong against abrasion
- Free from rust and corrosion, and easy maintenance
- Ceramic material is less susceptible to abrasion and aged deterioration than steel
- Non-magnetic
- For above 1.50mm, Nominal size is laser marked on gauge
- Individual pin gauges are also available (plastic case included for CAA series)

Comparison between carbide and steel materials

Item / Material		Ceramics (Zirconia)	Cemented Carbide	Steel
Specific Gravity		6	14.8	7.8
Hardness	HV	1,250	1,300	650~720
Bending strength	MPa	1,000	1,960	1,960
Young's Modulus	GPa	200	610	205
Coefficient of thermal expansion	10^{-6}/K	7~8	5~5.5	11
Heat conductivity	W/m·K	3	79.5	54.4

CAA series (0.20 ~ 20.00mm)

SPECIFICATIONS

Nominal size (mm)	Step (mm)	Length (mm)	Tolerance (μm)	Out of Roundness (μm)	Diameter Inequality (μm)	Hardness (HV)
0.20··· 2.99	0.01 step	38	±1	0.8	1.6	More than 1250
3.00···10.00		50				
10.01···20.00			±1.5	1.3	2.6	

※ 5mm from each edge is not precision guaranteed
※ Length can be changed without any prior notice due to improvement of product

(0.01mm step)

Model No.	Nominal size (mm)	Pins per set	Weight (Including case)
CAA-0B	0.50・0.51・0.52··· 1.00	51	0.98kg
CAA-1A	1.00・1.01・1.02··· 1.50	51	0.99kg
CAA-1B	1.50・1.51・1.52··· 2.00	51	1.01kg
CAA-2A	2.00・2.01・2.02··· 2.50	51	1.02kg
CAA-2B	2.50・2.51・2.52··· 3.00	51	1.05kg
CAA-3A	3.00・3.01・3.02··· 3.50	51	1.11kg
CAA-3B	3.50・3.51・3.52··· 4.00	51	1.15kg
CAA-4A	4.00・4.01・4.02··· 4.50	51	1.20kg
CAA-4B	4.50・4.51・4.52··· 5.00	51	1.25kg
CAA-5A	5.00・5.01・5.02··· 5.50	51	1.31kg
CAA-5B	5.50・5.51・5.52··· 6.00	51	1.38kg
CAA-6A	6.00・6.01・6.02··· 6.50	51	1.45kg
CAA-6B	6.50・6.51・6.52··· 7.00	51	1.53kg
CAA-7A	7.00・7.01・7.02··· 7.50	51	2.09kg
CAA-7B	7.50・7.51・7.52··· 8.00	51	2.18kg
CAA-8A	8.00・8.01・8.02··· 8.50	51	2.28kg
CAA-8B	8.50・8.51・8.52··· 9.00	51	2.38kg
CAA-9A	9.00・9.01・9.02··· 9.50	51	2.49kg
CAA-9B	9.50・9.51・9.52···10.00	51	2.60kg

CAG Series (with Handle) (0.20 ~ 10.00mm)

※CAA series Pin Gauge with plastic handle

SPECIFICATIONS

Nominal size (mm)	Step (mm)	Length (mm) Gauge Length	Length (mm) Overall Length	Tolerance (μm)	Out of Roundness (μm)	Diameter Inequality (μm)	Hardness (HV)
0.20··· 0.29	0.01 step	3	41	±1	0.8	1.6	More than 1250
0.30··· 0.49		10	48				
0.50··· 0.99		28	66				
1.00··· 2.99			69				
3.00··· 4.99		30	71				
5.00···10.00			76				

※ 5mm from each edge is not precision guaranteed
※ Length can be changed without any prior notice due to improvement of product

(0.01mm step)

Model No.	Nominal size (mm)	Pins per set	Weight (Including case)
CAG-0B	0.50・0.51・0.52··· 1.00	51	0.98kg
CAG-1A	1.00・1.01・1.02··· 1.50	51	1.07kg
CAG-1B	1.50・1.51・1.52··· 2.00	51	1.08kg
CAG-2A	2.00・2.01・2.02··· 2.50	51	1.10kg
CAG-2B	2.50・2.51・2.52··· 3.00	51	1.12kg
CAG-3A	3.00・3.01・3.02··· 3.50	51	1.18kg
CAG-3B	3.50・3.51・3.52··· 4.00	51	1.22kg
CAG-4A	4.00・4.01・4.02··· 4.50	51	1.27kg
CAG-4B	4.50・4.51・4.52··· 5.00	51	1.33kg
CAG-5A	5.00・5.01・5.02··· 5.50	51	1.71kg
CAG-5B	5.50・5.51・5.52··· 6.00	51	1.78kg
CAG-6A	6.00・6.01・6.02··· 6.50	51	1.85kg
CAG-6B	6.50・6.51・6.52··· 7.00	51	1.93kg
CAG-7A	7.00・7.01・7.02··· 7.50	51	2.01kg
CAG-7B	7.50・7.51・7.52··· 8.00	51	2.10kg
CAG-8A	8.00・8.01・8.02··· 8.50	51	2.25kg
CAG-8B	8.50・8.51・8.52··· 9.00	51	2.35kg
CAG-9A	9.00・9.01・9.02··· 9.50	51	2.46kg
CAG-9B	9.50・9.51・9.52···10.00	51	2.58kg

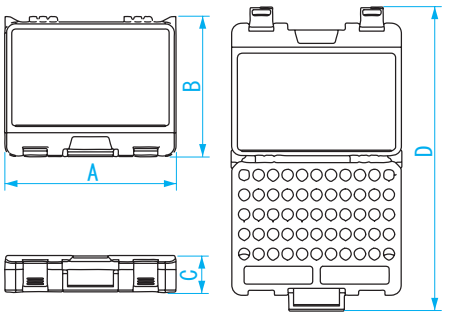
PIN GAUGE CASE

Nominal size printed on each slot. Can be sold cases only.

PCS-1
(NON-PRINTED)

PCS-1P
(PRINTED)

● DIMENSIONS



Units: mm

Model No.	A	B	C	D※
PCS-1, PCS-1P	290	206	71	(460)
PCS-2, PCS-2P	325	265	71	(578)
PCS-2W, PCS-2WP	325	265	71	(578)

※ Reference only

Order No.	Model No.	Applicable pin gauge set	Inner Board	No. of Slots
992015	PCS-1	■ STEEL AA-00 ~ AA-6B AH-0 ~ AH-2 AP-1 AA-0E ~ AA-6F AAP-0B ~ AAP-6A PG-00 ⊕⊖ PG-0 ⊕⊖ PM-0B ⊕⊖~ PM-6B ⊕⊖ ■ CARBIDE TAA-0B ~ TAA-6B ■ CERAMIC CAA-0B ~ CAA-6B	NON-PRINTED	55
992017	PCS-1P		PRINTED	
992016	PCS-2	■STEEL AA-7A ~ AA-15B AH-3 ~ AH-6 AP-2 ~ AP-3 AA-7C ~ AA-9F AAP-6B ~ AAP-9B PG-2C ⊕⊖ PM-7A ⊕⊖~ PM-9B ⊕⊖ ■CARBIDE TAA-7A ~ TAA-9B ■CERAMIC CAA-7A ~ CAA-9B	NON-PRINTED	55
992018	PCS-2P		PRINTED	
992019	PCS-2W	■STEEL AA-16A ~ AA-19B AH-7 ~ AH-8 AP-4 ※Pin gauges to be stored without individual pin gauge case	NON-PRINTED	55
992020	PCS-2WP		PRINTED	

PIN GAUGE CASE

Nominal size printed on each slot. Can be sold cases only.

W-PG1(+)

W-PG2A(+)

W-PG3(+)

W-4
(NON-PRINTED)

W-4P
(PRINTED)

W-9

Order No.	Model No.	Standard	Applicable pin gauge set	Inner	No. of slots	Weight	Size (Approx: W×D×H)
217100	W-PG1(+)	For PG-1	■ STEEL PG-1⊕	PRINTED	190	1.11kg	333 × 235 × 72mm
217101	W-PG1(−)		■ STEEL PG-1⊖				
217210	W-PG2A(+)	For PG-2A	■ STEEL PG-2A⊕	PRINTED	140	1.07kg	333 × 235 × 72mm
217211	W-PG2A(−)		■ STEEL PG-2A⊖				
217221	W-PG2B(+)	For PG-2B	■ STEEL PG-2B⊕	PRINTED	110	1.07kg	333 × 235 × 72mm
217222	W-PG2B(−)		■ STEEL PG-2B⊖				
217300	W-PG3(+)	For PG-3	■ STEEL PG-3⊕	PRINTED	61	1.02kg	333 × 235 × 72mm
217301	W-PG3(−)		■ STEEL PG-3⊖				
992324	W-4	Pin gauge with handle: Small	■ STEEL AG-0A ~ AG-4B ■ CARBIDE TAG-0A ~ TAG-4B ■ CERAMIC CAG-0A ~ CAG-4B	NON-PRINTED	55	0.82kg	300 × 185 × 91mm
992304	W-4P			PRINTED			
992325	W-5	Pin gauge with handle: Large	■ STEEL AG-5A ~ AG-9B ■ CARBIDE TAG-5A ~ TAG-9B ■ CERAMIC CAG-5A ~ CAG-9B	NON-PRINTED	55	1.02kg	330 × 212 × 87mm
992305	W-5P			PRINTED			
992256	W-6	Individual pin gauge case size L	ϕ 16.00 ~ 21.99mm	NON-PRINTED	55	1.34kg	445 × 234 × 80mm
992329	W-9	Individual pin gauge case size LL	ϕ 22.00 ~ 30.00mm	NON-PRINTED	30	1.28kg	310 × 285 × 80mm

PLASTIC CASE FOR INDIVIDUAL PIN GAUGE

Easy to distinguish every single pin gauge by these colored cases

Appearance				
Order No.	992011			
Size	S			
Standard	For Steel Pin Gauge	For Carbide Pin Gauge	For Ceramic Pin Gauge	For Maintenance Line Pin Gauge
Applicable Pin Gauge Size	0.060 ~ 6.999 (7.000mm for AA-6B)	0.50 ~ 6.99 (7.000mm for TAA-6B)	0.50 ~ 6.99 (7.000mm for CAA-6B)	3.00 ~ 6.99 (7.000mm for AML-6B)
Applicable Pin Gauge Case	PCS-1			

Appearance				
Order No.	992012			
Size	M			
Standard	For Steel Pin Gauge	For Carbide Pin Gauge	For Ceramic Pin Gauge	For Maintenance Line Pin Gauge
Applicable Pin Gauge Size	7.000 ~ 15.99 (16.00mm for AA-15B) (SA-70 : 6.997 ~)	7.00 ~ 14.00	7.00 ~ 10.00	7.00 ~ 10.00
Applicable Pin Gauge Case	PCS-2			

Appearance		
Order No.	992013	992014
Size	L	LL
Standard	For Steel Pin Gauge	For Steel Pin Gauge
Applicable Pin Gauge Size	16.00 ~ 21.99	22.00 ~ 30.00
Applicable Pin Gauge Case	W-6	W-9

PIN GAUGE CABINET

Pin gauge storage cabinet can store up to ten pin gauge sets

Applicable case：PCS-1, PCS-2

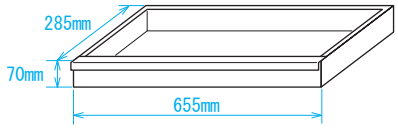
USE
- ●For storage of pin gauge set

MATERIAL
- ●SPCC（cold rolled steel）

FEATURES
- ●Deep drawer can store SK pin gauge carrying case

SPECIFICATIONS
- ●Applicable case: PCS-1, PCS-2
- ※Remove the cover case when storing
- ●Number of drawers: 5
  （two sets each drawer, total of ten sets can be stored）

【Drawer dimensions (removed)】



※ Pin gauges are not included

Order No.	Model No.	Product Dimensions (mm)	Weight
217930	P-5C	W825×D350×H630	36kg

MAINTENANCE KIT

HOW TO MOVIE

USE
- ●For pin gauge maintenance

FEATURES
- ●Provide with plastic case for easy to carry

ALUMINUM PIN VISE

HOW TO MOVIE

0.5mm of wide holding range on both sides

USE
- GO/NOGO pin gauge holder - double ended

MATERIAL
- Body: Aluminum

FEATURES
- With special made resin collet. **Aluminum Pin Vise is strong against deformation but soft for Pin Gauge.**
- Aluminum pin vise can be used as limit gauge by holding pin gauges at both GO (green) and NOGO (red) sides
- Size is marked on the handle
- With Plastic Case

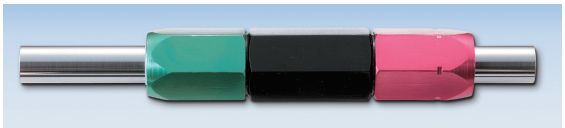
SPECIFICATIONS
- Holding range: 0.5mm

※With exception of APV-0A: 0.3mm

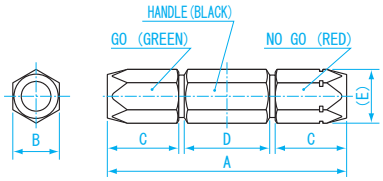
APV-17A

APV-6A

Example use



● DIMENSIONS



Units: mm

Model No.	A	B	C	D	E
APV-0A～ 6B	91	14	23	40	16
APV-7A～ 9B	90	17	26	34	19.5
APV-10A～12B	105	21	31	39	24
APV-13A～15B	111	24	31	45	27.5
APV-16A～19B	117	28	32	48	32

Order No.	Model No.	Pin Gauge size (mm)	Weight
216001	APV-0A	0.200～ 0.500	30g
216002	APV-0B	0.500～ 1.000	30g
216011	APV-1A	1.000～ 1.500	30g
216012	APV-1B	1.500～ 2.000	30g
216021	APV-2A	2.000～ 2.500	30g
216022	APV-2B	2.500～ 3.000	30g
216031	APV-3A	3.000～ 3.500	30g
216032	APV-3B	3.500～ 4.000	30g
216041	APV-4A	4.000～ 4.500	30g
216042	APV-4B	4.500～ 5.000	30g
216051	APV-5A	5.000～ 5.500	30g
216052	APV-5B	5.500～ 6.000	30g
216061	APV-6A	6.000～ 6.500	30g
216062	APV-6B	6.500～ 7.000	30g
216071	APV-7A	7.000～ 7.500	40g
216072	APV-7B	7.500～ 8.000	40g
216081	APV-8A	8.000～ 8.500	40g
216082	APV-8B	8.500～ 9.000	40g
216091	APV-9A	9.000～ 9.500	40g
216092	APV-9B	9.500～10.000	40g

Order No.	Model No.	Pin Gauge size (mm)	Weight
216101	APV-10A	10.000～10.50	65g
216102	APV-10B	10.50 ～11.00	65g
216111	APV-11A	11.00 ～11.50	65g
216112	APV-11B	11.50 ～12.00	65g
216121	APV-12A	12.00 ～12.50	65g
216122	APV-12B	12.50 ～13.00	65g
216131	APV-13A	13.00 ～13.50	80g
216132	APV-13B	13.50 ～14.00	80g
216141	APV-14A	14.00 ～14.50	80g
216142	APV-14B	14.50 ～15.00	80g
216151	APV-15A	15.00 ～15.50	80g
216152	APV-15B	15.50 ～16.00	80g
216161	APV-16A	16.00 ～16.50	110g
216162	APV-16B	16.50 ～17.00	110g
216171	APV-17A	17.00 ～17.50	110g
216172	APV-17B	17.50 ～18.00	110g
216181	APV-18A	18.00 ～18.50	110g
216182	APV-18B	18.50 ～19.00	110g
216191	APV-19A	19.00 ～19.50	110g
216192	APV-19B	19.50 ～20.00	110g

SINGLE OPEN-END ALUMINUM PIN VISE

HOW TO MOVIE

0.5mm of wide holding range. Specialized in holding function.

USE
- Pin gauge vise

MATERIAL
- Body: Aluminum

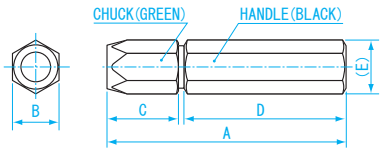
FEATURES
- With special made resin collet.

Aluminum Pin Vise is strong against deformation but soft for Pin Gauge.

SPECIFICATIONS
- Holding range: 0.5mm

※With exception of APV-0A-S: 0.3mm

● DIMENSIONS



Units: mm

Model No.	A	B	C	D	E
APV-0A-S ～ 6B-S	86	14	23	60	16
APV-7A-S ～ 9B-S	87	17	26	59	19.5

Order No.	Model No.	Pin Gauge size (mm)	Weight
217001	APV-0A-S	0.200～ 0.500	35g
217002	APV-0B-S	0.500～ 1.000	35g
217011	APV-1A-S	1.000～ 1.500	35g
217012	APV-1B-S	1.500～ 2.000	35g
217021	APV-2A-S	2.000～ 2.500	35g
217022	APV-2B-S	2.500～ 3.000	35g
217031	APV-3A-S	3.000～ 3.500	35g
217032	APV-3B-S	3.500～ 4.000	35g
217041	APV-4A-S	4.000～ 4.500	35g
217042	APV-4B-S	4.500～ 5.000	35g

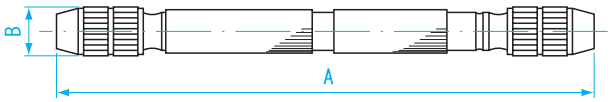
Order No.	Model No.	Pin Gauge size (mm)	Weight
217051	APV-5A-S	5.000～ 5.500	35g
217052	APV-5B-S	5.500～ 6.000	35g
217061	APV-6A-S	6.000～ 6.500	35g
217062	APV-6B-S	6.500～ 7.000	35g
217071	APV-7A-S	7.000～ 7.500	43g
217072	APV-7B-S	7.500～ 8.000	43g
217081	APV-8A-S	8.000～ 8.500	43g
217082	APV-8B-S	8.500～ 9.000	43g
217091	APV-9A-S	9.000～ 9.500	43g
217092	APV-9B-S	9.500～10.000	43g

PIN VISE

Can be used as limit gauge by installing two different size pin gauges

HOW TO MOVIE

● DIMENSIONS



Units: mm

Model No.	A	B
PV-0A ~ 2B	98	9
PV-3A ~ 4B	104	11
PV-5A ~ 6B	114	14
PV-7A ~ 9B	135	17

USE
- ●GO/NOGO pin gauge holder - double ended

MATERIAL
- ●Chrome plated brass

FEATURES
- ●Pin vise can be used as limit gauge by holding pin gauges at both GO (no line) and NOGO (red line) sides

SPECIFICATIONS
- ●Holding range: 0.5mm
- ※With exception of PV-0A: 0.3mm

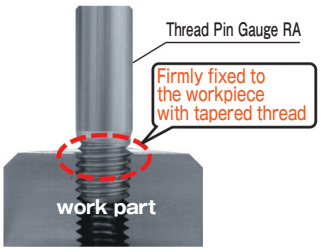
Order No.	Model No.	Pin Gauge Size (mm)	Part No.			Weight
			Ring	Grip	Collet	
219001	PV-0A	0.200 ~ 0.500	B1	B2	B00	30g
219002	PV-0B	0.500 ~ 1.000	B1	B2	B01	30g
219011	PV-1A	1.000 ~ 1.500	B1	B2	B3	30g
219012	PV-1B	1.500 ~ 2.000	B1	B2	B4	30g
219021	PV-2A	2.000 ~ 2.500	B1	B2	B5	30g
219022	PV-2B	2.500 ~ 3.000	B1	B2	B6	30g
219031	PV-3A	3.000 ~ 3.500	B7	B8	B9	40g
219032	PV-3B	3.500 ~ 4.000	B7	B8	B10	40g
219041	PV-4A	4.000 ~ 4.500	B7	B8	B11	40g
219042	PV-4B	4.500 ~ 5.000	B7	B8	B12	40g
219051	PV-5A	5.000 ~ 5.500	B13	B14	B15	70g
219052	PV-5B	5.500 ~ 6.000	B13	B14	B16	80g
219061	PV-6A	6.000 ~ 6.500	B13	B14	B17	80g
219062	PV-6B	6.500 ~ 7.000	B13	B14	B18	80g
219071	PV-7A	7.000 ~ 7.500	B19	B20	B21	110g
219072	PV-7B	7.500 ~ 8.000	B19	B20	B22	110g
219081	PV-8A	8.000 ~ 8.500	B19	B20	B23	110g
219082	PV-8B	8.500 ~ 9.000	B19	B20	B24	110g
219091	PV-9A	9.000 ~ 9.500	B19	B20	B25	110g
219092	PV-9B	9.500 ~ 10.000	B19	B20	B26	110g

THREAD PIN GAUGE RA

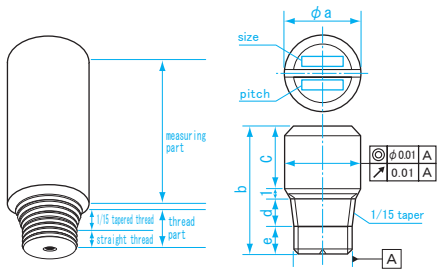
HOW TO MOVIE

Suitable when screw holes on workpiece is not chamfered

Rust prevention▶
Zerust Film for Steel
P380



● DIMENSIONS Units: mm



FEATURES

- ●Threaded portion has 1/15 taper starting at half way point to secure gauge to workpiece
- ●For measuring threaded hole which is difficult to measure with the existing thread pin gauge (e.g. threaded hole which is difficult to chamfer the opening or processed obliquely to work surface)
- ●Also suitable for deburring Process

Accuracy	Runout between measurement part and thread part : Model No. RA○○-1···within 0.01mm Runout between measurement part and thread part : Model No. RA○○-2···within 0.015mm Runout between measurement part and thread part : Model No. RA○○-3···within 0.02mm Accuracy of φa: within ±0.005mm
Material	Stainless Steel (SUS303)

〈Size List〉

Order No.	Model No.	Size	a(mm)	b(mm)	c(mm)	d(mm)	e(mm)
250011	RA125-1	M 1 × P0.25		8.0	4.5		
250012	RA125-2	M 1 × P0.25	2	13.5	10.0	1.50	1.00
250013	RA125-3	M 1 × P0.25		23.5	20.0		
250014	RA204-1	M 2 × P0.4		10.0	4.5		
250015	RA204-2	M 2 × P0.4	3	25.5	20.0	2.50	2.00
250016	RA204-3	M 2 × P0.4		35.5	30.0		
250017	RA305-1	M 3 × P0.5		12.0	5.0		
250018	RA305-2	M 3 × P0.5	4	27.0	20.0		2.50
250019	RA305-3	M 3 × P0.5		37.0	30.0	3.50	
250020	RA407-1	M 4 × P0.7		14.0	6.0		
250021	RA407-2	M 4 × P0.7	5	28.0	20.0		3.50
250022	RA407-3	M 4 × P0.7		38.0	30.0		
250023	RA508-1	M 5 × P0.8		16.0	7.0		
250024	RA508-2	M 5 × P0.8	6	29.0	20.0		4.00
250025	RA508-3	M 5 × P0.8		39.0	30.0	4.00	
250026	RA610-1	M 6 × P1.0		18.0	8.0		
250027	RA610-2	M 6 × P1.0	7	30.0	20.0		
250028	RA610-3	M 6 × P1.0		40.0	30.0		5.00
250029	RA8125-1	M 8 × P1.25		19.0	8.5		
250030	RA8125-2	M 8 × P1.25	9	30.5	20.0	4.50	
250031	RA8125-3	M 8 × P1.25		40.5	30.0		
250032	RA1015-1	M10 × P1.5		21.0	8.5		
250033	RA1015-2	M10 × P1.5	11	32.5	20.0	5.50	6.00
250034	RA1015-3	M10 × P1.5		42.5	30.0		
250035	RA1215-1	M12 × P1.5		23.0	8.5		
250036	RA1215-2	M12 × P1.5		34.5	20.0		
250037	RA1215-3	M12 × P1.5	13	44.5	30.0		7.00
250038	RA12175-1	M12 × P1.75		23.0	8.5		
250039	RA12175-2	M12 × P1.75		34.5	20.0		
250040	RA12175-3	M12 × P1.75		44.5	30.0	6.50	
250041	RA1415-1	M14 × P1.5		23.5	8.5		
250042	RA1415-2	M14 × P1.5	15	35.0	20.0		
250043	RA1415-3	M14 × P1.5		45.0	30.0		7.50
250044	RA1615-1	M16 × P1.5		23.5	8.5		
250045	RA1615-2	M16 × P1.5	17	35.0	20.0		
250046	RA1615-3	M16 × P1.5		45.0	30.0		
250047	RA1815-1	M18 × P1.5		24.5	8.5		
250048	RA1815-2	M18 × P1.5	19	36.0	20.0	7.00	8.00
250049	RA1815-3	M18 × P1.5		46.0	30.0		

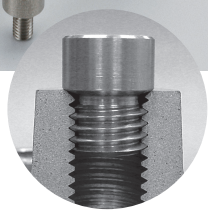
THREAD PIN GAUGE

Enables easy threaded hole centering and locating

HOW TO MOVIE

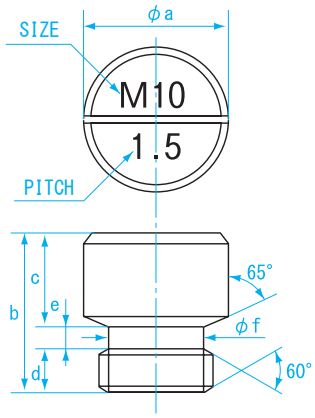
Rust prevention▶
Zerust Film for Steel
P380

FEATURES
- Easy handling with simple tool
- Enables to indicate the center of threaded hole
- More accurate, economical and easier than other gauges
- Made with stainless steel, prevents the thread pin gauge from rust
- Tapered bottom of the measurement area secures fit with work and allows high accuracy measurement



Accuracy	Runout between Measuring Head and Screw: Below 0.01mm Accuracy of Measuring Head (size: a): Below ±0.005mm Screw: equivalent for JIS for the second grade
Material	Stainless steel (SUS303)

● DIMENSIONS



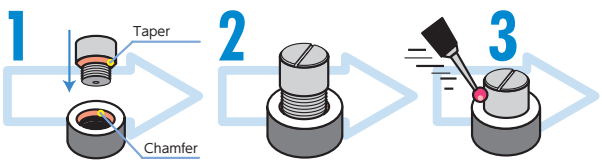
〈Size List〉

Order No.	Model No.	Size	a(mm)	b(mm)	c(mm)	d(mm)	e(mm)	f(mm)
360204	THP-0204	M 2 × P0.4	4	9.5	6	3	0,5	1.44
360305	THP-0305	M 3 × P0.5	5					2.30
360407	THP-0407	M 4 × P0.7	6	11		4.3	0.7	3.02
360508	THP-0508	M 5 × P0.8	7					3.88
360607	THP-06075	M 6 × P0.75	8	14	8	5	1	4.95
360610	THP-0610	M 6 × P1.0						4.60
360810	THP-0810	M 8 × P1.0	10	17	10	5.5	1.5	6.60
360812	THP-08125	M 8 × P1.25						6.25
361010	THP-1010	M10 × P1.0	12	18		6.5		8.60
361012	THP-10125	M10 × P1.25						8.25
361015	THP-1015	M10 × P1.5						7.90
361210	THP-1210	M12 × P1.0	14	19		7.5		10.60
361212	THP-12125	M12 × P1.25						10.25
361215	THP-1215	M12 × P1.5						9.90
361217	THP-12175	M12 × P1.75						9.55
361415	THP-1415	M14 × P1.5	16	20		8.5		11.90
361420	THP-1420	M14 × P2.0						11.20
361615	THP-1615	M16 × P1.5	18					13.90
361620	THP-1620	M16 × P2.0						13.20
361825	THP-1825	M18 × P2.5	20					14.50
362025	THP-2025	M20 × P2.5	22					16.50

※ Custom made Pin Gauge is also available

How to use Thread Pin Gauge

●Easily locate threaded hole position with thread pin gauge
CMM can Easily attain the hole center using thread pin gauge

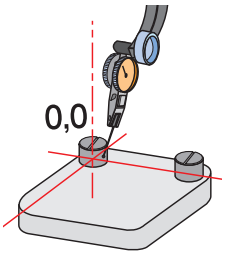


1. Prepare a thread pin gauge the same size as the threaded hole
2. Hand screw the thread pin gauge into the threaded hole
3. Measure!

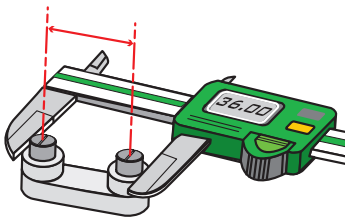
HOW TO MOVIE

Example of use

●Reference position established with two threaded holes



●Pitch measurement between threaded holes



HOW TO MOVIE

STEEL RING GAUGE

T PDI

HOW TO MOVIE

Master ring gauge for internal diameter measurement. A wide range of sizes are in stock while custom size ring gauge is also available upon request.

SUB-ZERO (Cryogenic hardened) TREATMENT
STABILIZATION TREATMENT
LAPPED FINISH

Carbide for durable and long life ▶
Carbide Ring Gauge

P71

Free from rust and corrosion ▶
Ceramic Ring Gauge

P71

Non-slip and easy to handle ▶
Ring Gauge with Protective Cover

P72

For Serial No. Management ▶
Laser Marking

P120

Rust prevention ▶
Zerust Film for Steel

P380

USE

- As a master ring gauge for "0" adjustment of measuring instruments such as bore gauge, inside micrometer, dial caliper, etc.

MATERIAL

- Alloy tool steel

FEATURES

- Provided with inspection report

SPECIFICATIONS

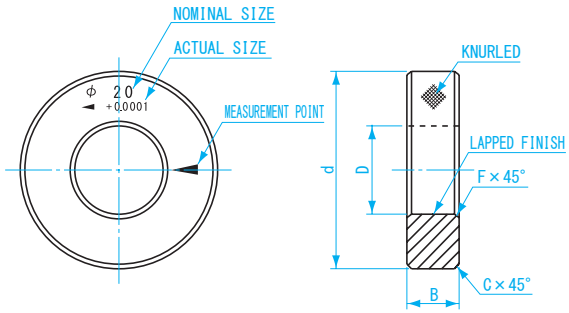
Size (mm)	Step (mm)	Out of Roundness (μm)	Diameter Inequality (μm)	Tolerance (μm)	Hardness (HV)
1 to 30	0.1 step	0.5	1.0	± 1.0	653 ~ 772
Over 30 to 50		0.8	1.6	± 1.5	
Over 50 to 60	0.5 step	1.0	2.0	± 2.0	
Over 60 to 80					
Over 80 to 100					
Over 100 to 200	5.0 step	2.0	4.0	± 5.0	

- Surface roughness: Within Ra0.1μm
- Squareness: 0.05 / ϕ100
- Parallelism: Within 0.015mm

〈Standard Size List〉

Size (mm)	Step (mm)	
1 to 50	0.1 step	1.0・1.1・1.2・1.3・1.4・1.5・1.6・1.7・1.8・1.9・2.0・2.1・2.2・2.3・2.4・2.5・2.6・2.7.....50.0
Over 50 to 100	0.5 step	50.5・51.0・51.5・52.0・52.5・53.0・53.5・54.0・54.5・55.0・55.5・56.0・56.5・57.0・57.5.....100.0
Over 100 to 200	5.0 step	105.0・110.0・115.0・120.0・125.0・130.0・135.0・140.0・145.0・150.0・155.0・160.0・165.0.....200.0

● DIMENSIONS



Size List

※Reference value

Size D (mm)	Outside Diameter d (mm)	Thickness B (mm)	Chamfering for outside diameter C (mm)※	Chamfering for inside diameter F (mm)※	Remarks	Weight
1 to 2.5	22	4	0.4	0.3	Knurled	10g
Over 2.5 to 5		5				10g
Over 5 to 10	32	8	0.8	0.5		50g
Over 10 to 15	38	10	1.2			80g
Over 15 to 20	45	12		1.0		100g
Over 20 to 25	53	14				200g
Over 25 to 32	63	16	1.5			300g
Over 32 to 40	71	18	2.0			400g
Over 40 to 50	85	20				600~700g
Over 50 to 60	100	24		1.5		0.9~1.1kg
Over 60 to 70	112					1.1~1.3kg
Over 70 to 80	125					1.4~1.6kg
Over 80 to 90	140					1.7~1.9kg
Over 90 to 100	160					2.3~2.6kg
Over 100 to 110	180	30	2.4			3.7~4.1kg
Over 110 to 120	190	35				4.7~5.1kg
Over 120 to 130	200					5.0~5.5kg
Over 130 to 140	210	38				5.7~6.3kg
Over 140 to 160	230	40				6.6~8.2kg
Over 160 to 180	260			2.0		8.6~ 10kg
Over 180 to 200	280					9.4~ 11kg

STEEL RING GAUGE LARGE SIZE

T PDI MTO product

HOW TO MOVIE

Up to 520mm manufactuable. Custom size ring gauge is also available upon request.

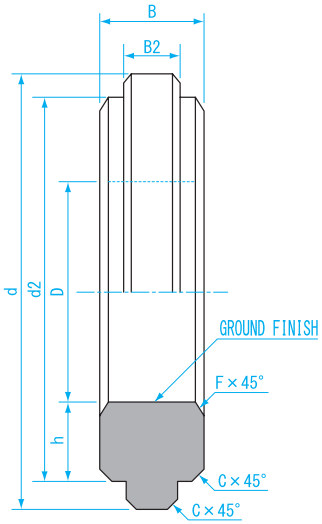
SUB-ZERO (Cryogenic hardened) TREATMENT
STABILIZATION TREATMENT

■Provided with aluminum case

MATERIAL
- ●Alloy tool steel

FEATURES
- ●Provided with inspection report

● DIMENSIONS



SPECIFICATIONS

Size (mm)	Step (mm)	Out of Roundness (μm)	Diameter Inequality (μm)	Tolerance (μm)	Hardness (HV)
Over 200 to 230	5.0 step	5.0	10.0	± 7.0	653 ~ 772
Over 230 to 300	10.0 step				
Over 300 to 400				± 8.0	
Over 400 to 500				± 9.0	
Over 500 to 520				± 10.0	

- ●Surface roughness: Within Ra0.2μm
- ●Squareness: 0.1/φ450
- ●Parallelism: Within 0.025mm

Size List

※ Reference value

Size D (mm)	Outside Diameter (mm) d	Outside Diameter (mm) d2	Thickness (mm) B	Thickness (mm) B2	h (mm)	Chamfering for outside diameter C (mm)※	Chamfering for inside diameter F (mm)※	Remarks	Weight (kg)
Over 200 to 230	310	250~270	45	25	20	2.0	2.5	NOT Knurled	9~10
Over 230 to 260	340	280~300							11~14
Over 260 to 290	370	310~330							11~13
Over 290 to 320	400	340~360							12~14
Over 320 to 360	440	380~410			25				14~16
Over 360 to 400	480	420~450							15~18
Over 400 to 450	540	460~500	50						19~24
Over 450 to 500	600	510~550							23~29
Over 500 to 520	660	560~600							27~33

Order No.	Size (mm)
420500	205.0
421000	210.0
421500	215.0
422000	220.0
422500	225.0
423000	230.0
424000	240.0
425000	250.0
426000	260.0
427000	270.0
428000	280.0
429000	290.0
430000	300.0
431000	310.0
432000	320.0
433000	330.0
434000	340.0
435000	350.0

Order No.	Size (mm)
436000	360.0
437000	370.0
438000	380.0
439000	390.0
440000	400.0
441000	410.0
442000	420.0
443000	430.0
444000	440.0
445000	450.0
446000	460.0
447000	470.0
448000	480.0
449000	490.0
450000	500.0
451000	510.0
452000	520.0

STEEL RING GAUGE SET

T PDI MTO product

HOW TO MOVIE

Rust prevention▶
Zerust Film for Steel
P380

Ring gauge set consist of frequently-used sizes

SUB-ZERO (Cryogenic hardened) TREATMENT
STABILIZATION TREATMENT
LAPPED FINISH

- For detailed accuracy and specification, please refer to Page 68 - STEEL RING GAUGE

Order No.	Model No.	Nominal Size	Pieces per set	Weight (Including case)
400001	RG-1S	1.0・1.5・2.0・2.5・3.0・4.0・5.0・6.0・7.0・8.0・9.0・10.0	12	0.85kg
400002	RG-2S	11.0・12.0・13.0・14.0・15.0・16.0・17.0・18.0・19.0・20.0・22.0・24.0	12	2.45kg
400003	RG-3S	25.0・26.0・27.0・28.0・30.0・32.0・34.0・35.0・36.0・37.0・38.0・40.0	12	5.80kg
400004	RG-4S	42.0・44.0・45.0・46.0・47.0・48.0・50.0	7	5.85kg
400005	RG-5S	52.0・54.0・55.0・56.0・58.0・60.0・65.0	7	9.75kg
400006	RG-6S	68.0・70.0・75.0・80.0	4	6.85kg
400007	RG-7S	85.0・90.0・95.0・100.0	4	10.7 kg

STEEL RING GAUGE WITH MAINTENANCE LINE

T PDI MTO product

HOW TO MOVIE

Rust prevention▶
Zerust Film for Steel
P380

Maintenance line series ring gauge now available

Custom Sizes Available

Please contact us for inquiry

MATERIAL
- Alloy tool steel

FEATURES
- Maintenance line on steel ring gauge allows easy checking for gauge wear-out
- When line disappears, wear is more than 1μm
- Available for sizes: 15~50mm (1mm step)
- Provided with inspection report

CARBIDE RING GAUGE

T PDI

HOW TO MOVIE

Rust prevention▶
Zerust Film for Steel
P380

Inner ring made of carbide, highly-durable material

LAPPED FINISH

MATERIAL
- Steel with carbide insert

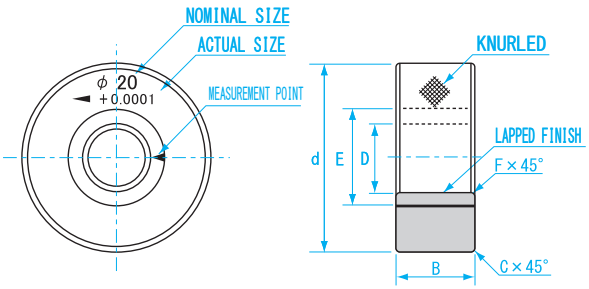
FEATURES
- Durable and long life
- The coefficient of thermal expansion is small (1/2 of steel, $5x10^{-6}$/K), so better tolerates temperature changes
- Less likely to be damaged due to high hardness
- Economical- Frequent periodic calibration not required
- Provided with inspection report

SPECIFICATIONS

Size (mm)	Step (mm)	Out of Roundness (μm)	Diameter Inequality (μm)	Tolerance (μm)	Hardness (HV)
1 to 30	0.5 step	0.5	1.0	±1	1,200
Over 30 to 50		0.8	1.6	±1.5	

- Surface roughness: Within Ra0.1μm
- Squareness: 0.05/ϕ100
- Parallelism: Within 0.015mm

● DIMENSIONS



Size List ※ Reference value

Size D(mm)	Diameter of Carbide part E (mm)	Outside Diameter d (mm)	Thickness B (mm)	Chamfering for outside Diameter C(mm)※	Chamfering for inside Diameter F(mm)※
1 to 2.5	8	22	4	0.4	0.3
Over 2.5 to 5	11		5		
Over 5 to 10	16	32	8	0.8	0.5
Over 10 to 15	21	38	10	1.2	1.0
Over 15 to 20	28	45	12		
Over 20 to 25	33	53	14		
Over 25 to 32	40	63	16	1.5	
Over 32 to 40	50	71	18	2.0	
Over 40 to 50	60	85	20		

Sizes available: 1.0 ~ 50.0mm (Please contact us with request)

CERAMIC RING GAUGE

T PDI

HOW TO MOVIE

Made of highly-durable material. Less affected by thermal expansion as well as free from rust.

LAPPED FINISH

MATERIAL
- Ceramics

FEATURES
- Ceramic material is less susceptible to abrasion and aged deterioration than steel
- Free from rust and corrosion, and easy maintenance
- Non-magnetic body
- Does not deform with damage, resists scratches and forming burrs
- Lightweight and easy handling
- Size is laser marked ●Provided with inspection report

Material Data

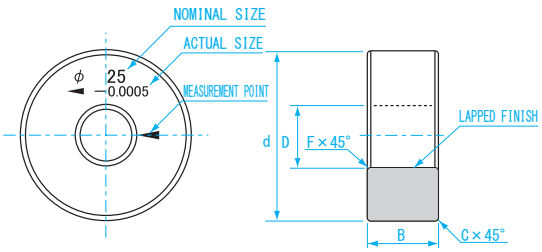
List \ Material		Ceramics (Zirconia)
Specific Gravity	–	6
Hardness	HV	1,250
Bending strength	MPa	1,000
Young's Modulus	GPa	200
Coefficient of thermal expansion	10^{-6}/K	7~8
Heat conductivity	W/m·K	3

SPECIFICATIONS

Size (mm)	Step (mm)	Out of Roundness (μm)	Diameter Inequality (μm)	Tolerance (μm)
3 to 30	0.5 step	0.5	1.0	±1
Over 30 to 50		0.8	1.6	±1.5

- Surface roughness: Within Ra0.1μm
- Squareness: 0.05/ϕ100
- Parallelism: Within 0.015mm

● DIMENSIONS



Size List ※ Reference value

Size D(mm)	Outside Diameter d(mm)	Thickness B(mm)	Chamfering for outside diameter C(mm)※	Chamfering for inside diameter F(mm)※
3 to 10	32	8	0.8	0.5
Over 10 to 15	38	10	1.2	1.0
Over 15 to 20	45	12		
Over 20 to 25	53	14		
Over 25 to 32	63	16	1.5	
Over 32 to 40	71	18	2.0	
Over 40 to 50	85	20		

Sizes available: 3.0 ~ 50.0mm (Please contact us with request)

RING GAUGE WITH PROTECTIVE COVER

T PDI MTO product

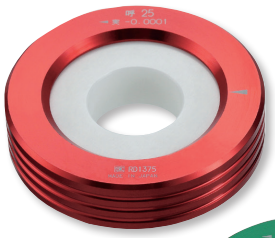
HOW TO MOVIE

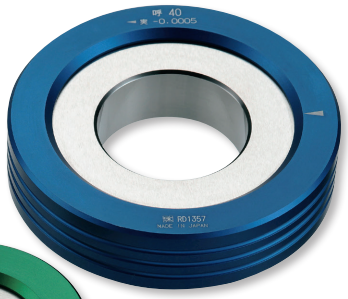
No-slip and easy to handle, will increase productivity

LAPPED FINISH

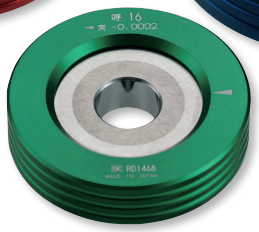
Rust prevention▶
Zerust Film for Steel
P380

CERAMIC RING GAUGE
(with protective cover)





STEEL RING GAUGE
(with protective cover)



CARBIDE RING GAUGE
(with protective cover)

MATERIAL
- Protective cover: Anodized aluminum
- Gauge: Steel / Carbide / Ceramic

FEATURES
- A ring gauge embedded in Aluminum Protective Cover
- Covered gauge is easier to handle with dirty hands Less susceptible to thermal expansion when holding a gauge by hand
- Less susceptible to thermal expansion when holding a gauge by hand
- Protects from chipping when dropped
- Provided with inspection report

SPECIFICATIONS

Size (mm)	Step (mm)	Out of Roundness (μm)	Diameter Inequality (μm)	Tolerance (μm)
1 to 2 (Steel & Carbide only)	1.0 step	0.5	1.0	±1
Over 2 to 30				
Over 30 to 50		0.8	1.6	±1.5

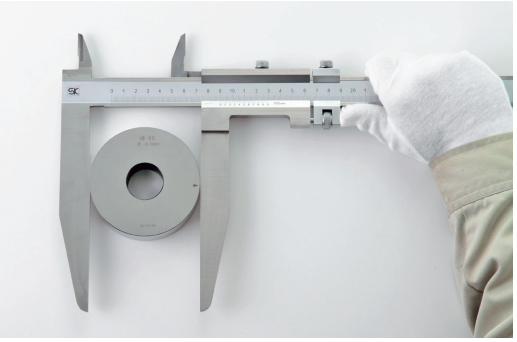
- Surface roughness: Within Ra0.1μm

STEEL RING GAUGE OD MODEL

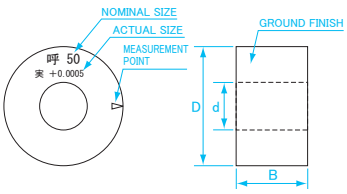
T PDI MTO product

Available from φ 40-400mm. Simple calibration or 0 adjustment of outside measuring instrument.

Rust prevention▶
Zerust Film for Steel
P380



● DIMENSIONS



USE
- For quick calibration of micrometer

MATERIAL
- Alloy tool steel

FEATURES
- Custom sizes are available up to φ400
- Size range: 40~400mm
- Provided with inspection report

SPECIFICATIONS
- Hardness: HV653~772

SPECIFICATIONS

SizeD (mm)	OD tolerance (μm)	Out of Roundness (μm)	Diameter Inequality (μm)	Thickness (mm)	Hole Diameter (mm)
40 to 50	±3	1.5	3	30	20
Over 50 to 70	±5	2.5	5		
Over 70 to 100					30
Over 100 to 150	±10	5	10		40
Over 150 to 200					50
Over 200 to 300					80
Over 300 to 350					160
Over 350 to 375					200
Over 375 to 400					250

SPECIAL SHAPE - MULTIPLE-STEP GAUGE

MTO product

USE
- For quick calibration of micrometers (0~25mm)

MATERIAL
- Alloy tool steel

FEATURES
- OD pitch: 5·10·15·20·25mm Integrated type gauge

※Sample image

Custom Designs Available

Please contact us for inquiry

SPECIAL SHAPE - MULTIPLE-STEP GAUGE / OD MODEL

MTO product

USE
- For calibration or 0 adjustment

MATERIAL
- Alloy tool steel

FEATURES
- Size combination is arranged on request

※Sample image

Custom Designs Available

Please contact us for inquiry

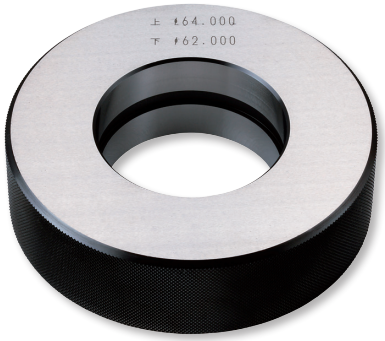
SPECIAL SHAPE - STEP GAUGE / ID MODEL

MTO product

USE
- For 0 adjustment of dial bore gauge

MATERIAL
- Alloy tool steel

FEATURES
- Size combination is arranged on request



※Sample image

Custom Sizes Available

Please contact us for inquiry

SPECIAL SHAPE - CUT OUT

MTO product

MATERIAL
- Alloy tool steel

FEATURES
- The special shape allows to hold the ring gage with a fixture to prevent the gauge from moving

※Sample image

Custom Designs Available

Please contact us for inquiry

STEEL LIMIT PLUG GAUGE

PDI

HOW TO MOVIE

For GO/NOGO inspection of hole diameter

Rust prevention▶
Zerust Film for Steel
P380

USE

LP10-H7

- For hole diameter inspection

MATERIAL

- Gauge: Alloy tool steel
- Handle: Aluminum

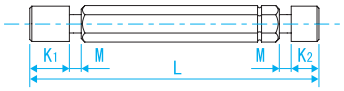
FEATURES

- GO/NOGO gauge for testing fit of shaft in a hole based on maximum and minimum allowable dimensions
- Provided with inspection report

SPECIFICATIONS

- **Class H7 for manufacturing**
- Hardness HV660~780
- Surface roughness: Within Ra0.2μm

● DIMENSIONS



Order No.	Model No.	Size	L (mm)	K1 (mm)	K2 (mm)	M (mm)	Weight
397003	LP3-H7	φ 3	58.5	7	3.5	4	10g
397004	LP4-H7	φ 4	77	10	5	6	10g
397005	LP5-H7	φ 5					10g
397006	LP6-H7	φ 6					10g
397007	LP7-H7	φ 7	101	12	7		20g
397008	LP8-H7	φ 8					20g
397009	LP9-H7	φ 9					20g
397010	LP10-H7	φ10					30g
397011	LP11-H7	φ11	107	13			50g
397012	LP12-H7	φ12					50g
397013	LP13-H7	φ13					60g
397014	LP14-H7	φ14					60g
397015	LP15-H7	φ15	119	17	10		100g
397016	LP16-H7	φ16					100g
397017	LP17-H7	φ17					120g
397018	LP18-H7	φ18					130g
397019	LP19-H7	φ19					180g
397020	LP20-H7	φ20					190g
397021	LP21-H7	φ21					200g
397022	LP22-H7	φ22					200g
397023	LP23-H7	φ23					210g
397024	LP24-H7	φ24					210g
397025	LP25-H7	φ25	141	22	13	8	250g
397026	LP26-H7	φ26					260g
397027	LP27-H7	φ27					280g
397028	LP28-H7	φ28					290g
397029	LP29-H7	φ29					290g
397030	LP30-H7	φ30					300g
397031	LP31-H7	φ31	157	25		9.5	470g
397032	LP32-H7	φ32					480g
397033	LP33-H7	φ33					500g
397034	LP34-H7	φ34					520g
397035	LP35-H7	φ35					540g
397036	LP36-H7	φ36					550g
397037	LP37-H7	φ37					570g
397038	LP38-H7	φ38					590g
397039	LP39-H7	φ39					600g
397040	LP40-H7	φ40					620g

Custom size limit gauges are also available on request

CARBIDE LIMIT PLUG GAUGE

T PDI

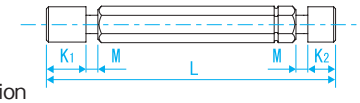
HOW TO MOVIE

Durable Carbide plug gauge
with low thermal expansion
and good durability

Rust prevention▶
Zerust Film for Steel
P380

TLP10-H7

● DIMENSIONS



USE
- ●For hole diameter inspection

MATERIAL
- ●Gauge: Carbide ●Handle: Aluminum

FEATURES
- ●GO/NOGO gauge for testing fit of shaft in a hole based on maximum and minimum allowable dimensions
- ●Excellent wear resistance for 20~30 times longer service life than steel
- ●The coefficient of thermal expansion (5×10^{-6} /K) is ½ that of steel, so the changes due to temperature are small
- ●Less likely to be scratched or damaged due to high hardness
- ●Economical - longer span of periodic calibration compared to steel gauge
- ●Provided with inspection report

SPECIFICATIONS
- ●**Class H7 for manufacturing**
- ●Surface roughness: Within Ra0.2μm

Order No.	Model No.	Standard	L (mm)	K1 (mm)	K2 (mm)	M (mm)	Weight
396010	TLP10-H7	φ10	87	10	7	7	38g
396011	TLP11-H7	φ11	99	12	8	8	58g
396012	TLP12-H7	φ12					64g
396013	TLP13-H7	φ13					72g
396014	TLP14-H7	φ14					78g
396015	TLP15-H7	φ15	116	16	10	10	110g
396016	TLP16-H7	φ16					120g
396017	TLP17-H7	φ17					128g
396018	TLP18-H7	φ18					142g
396019	TLP19-H7	φ19	132		12	12	198g
396020	TLP20-H7	φ20					212g
396021	TLP21-H7	φ21					222g
396022	TLP22-H7	φ22					236g
396023	TLP23-H7	φ23					252g
396024	TLP24-H7	φ24					268g
396025	TLP25-H7	φ25	136	18	14		306g
396026	TLP26-H7	φ26					320g
396027	TLP27-H7	φ27					334g
396028	TLP28-H7	φ28					352g
396029	TLP29-H7	φ29					362g
396030	TLP30-H7	φ30					382g

CERAMIC LIMIT PLUG GAUGE

T PDI

HOW TO MOVIE

Ceramic plug gauge
with long service life
for good economic performance

Rust prevention▶
Zerust Film for Steel
P380

CLP10-H7

● DIMENSIONS

USE
- ●For hole diameter inspection

MATERIAL
- ●Gauge: Ceramic ●Handle: Aluminum

FEATURES
- ●GO/NOGO gauge for testing fit of shaft in a hole based on maximum and minimum allowable dimensions
- ●Ceramic material is less susceptible to abrasion and aged deterioration than steel
- ●Free from rust and corrosion, and easy maintenance
- ●Material has coefficient of thermal expansion similar to steel
- ●Non-magnetic
- ●Does not deform with damage, resist scratches and forming burrs
- ●Provided with inspection report

SPECIFICATIONS
- ●**Class H7 for manufacturing**
- ●Surface roughness: Within Ra0.2μm

Order No.	Model No.	Standard	L (mm)	K1 (mm)	K2 (mm)	M (mm)
399010	CLP10-H7	φ10	87	10	7	7
399011	CLP11-H7	φ11	99	12	8	8
399012	CLP12-H7	φ12				
399013	CLP13-H7	φ13				
399014	CLP14-H7	φ14				
399015	CLP15-H7	φ15	116	16	10	10
399016	CLP16-H7	φ16				
399017	CLP17-H7	φ17				
399018	CLP18-H7	φ18				
399019	CLP19-H7	φ19	132		12	12
399020	CLP20-H7	φ20				
399021	CLP21-H7	φ21				
399022	CLP22-H7	φ22				
399023	CLP23-H7	φ23				
399024	CLP24-H7	φ24				
399025	CLP25-H7	φ25	136	18	14	
399026	CLP26-H7	φ26				
399027	CLP27-H7	φ27				
399028	CLP28-H7	φ28				
399029	CLP29-H7	φ29				
399030	CLP30-H7	φ30				

LIMIT PLUG GAUGE WITH THIN HANDLE

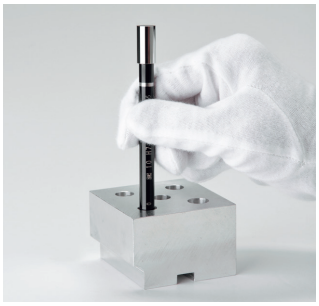
PDI

HOW TO MOVIE

Rust prevention▶
Zerust Film for Steel
P380

Narrow shaft allows examining diameter of deep holes

SHLP10-H7



USE
- For hole diameter inspection

MATERIAL
- Gauge: Alloy tool steel
- Handle: Stainless

FEATURES
- Handle diameter is smaller than gauge diameter so that the gauge reaches to deeper hole where normal limit plug gauge cannot
- Provided with inspection report

SPECIFICATIONS
- **Class H7 for manufacturing**
- Surface roughness: Within Ra0.2μm

● DIMENSIONS

Order No.	Model No.	Standard	L (mm)	K_1 (mm)	K_2 (mm)	Handle Diameter (mm)	Weight
393503	SHLP3-H7	ϕ 3	110	20	20	ϕ 2	4g
393504	SHLP4-H7	ϕ 4				ϕ 3	8g
393505	SHLP5-H7	ϕ 5					10g
393506	SHLP6-H7	ϕ 6				ϕ 5	20g
393507	SHLP7-H7	ϕ 7					24g
393508	SHLP8-H7	ϕ 8					27g
393509	SHLP9-H7	ϕ 9					32g
393510	SHLP10-H7	ϕ10	120			ϕ 8	58g
393511	SHLP11-H7	ϕ11					63g
393512	SHLP12-H7	ϕ12					69g
393513	SHLP13-H7	ϕ13					69g
393514	SHLP14-H7	ϕ14					82g
393515	SHLP15-H7	ϕ15					89g
393516	SHLP16-H7	ϕ16	140	25	25	ϕ10	136g
393517	SHLP17-H7	ϕ17					146g
393518	SHLP18-H7	ϕ18					157g
393519	SHLP19-H7	ϕ19					169g
393520	SHLP20-H7	ϕ20					181g

Custom size limit gauges are also available on request

LIMIT PLUG GAUGE WITH MAINTENANCE LINE

PDI

HOW TO MOVIE

Rust prevention▶
Zerust Film for Steel
P380

Maintenance line series plug gauge now available

Custom Sizes Available

Please contact us for inquiry

USE
- For hole diameter inspection

MATERIAL
- Gauge: Alloy tool steel
- Handle: Aluminum

FEATURES
- Maintenance line on Plug Gage allows easy checking for gauge wear-out
- When line disappears, wear is more than 1μm
- Provided with inspection report

CARBIDE LIMIT STEP PLUG GAUGE T PDI

GO/NOGO gauge at one side

Rust prevention▶
Zerust Film for Steel
P380

SPTLP-10

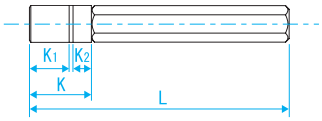
USE
- For hole diameter inspection

MATERIAL
- Gauge: Carbide
- Handle: Aluminum

FEATURES
- GO/NOGO gauge for testing fit of shaft in a hole based on maximum and minimum allowable dimensions
- No need to flip over, work efficiency goes up
- Provided with inspection report

SPECIFICATIONS
- **Class H7 for manufacturing**
- Surface roughness: Within Ra0.2μm

● DIMENSIONS



Order No.	Model No.	Standard	L (mm)	K1 (mm)	K2 (mm)	K (mm)
398110	SPTLP-10	φ10	72	10	5	16
398111	SPTLP-11	φ11	82	12	6	19
398112	SPTLP-12	φ12				
398113	SPTLP-13	φ13				
398114	SPTLP-14	φ14				
398115	SPTLP-15	φ15	95	16	8	25
398116	SPTLP-16	φ16				
398117	SPTLP-17	φ17				
398118	SPTLP-18	φ18				
398119	SPTLP-19	φ19	107		10	27
398120	SPTLP-20	φ20				
398121	SPTLP-21	φ21				
398122	SPTLP-22	φ22				
398123	SPTLP-23	φ23				
398124	SPTLP-24	φ24				
398125	SPTLP-25	φ25	110	18		29
398126	SPTLP-26	φ26				
398127	SPTLP-27	φ27				
398128	SPTLP-28	φ28				
398129	SPTLP-29	φ29				
398130	SPTLP-30	φ30				

CERAMIC LIMIT STEP PLUG GAUGE T PDI

GO/NOGO gauge at one side

Rust prevention▶
Zerust Film for Steel
P380

SPCLP-10

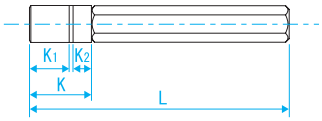
USE
- For hole diameter inspection

MATERIAL
- Gauge: Ceramic
- Handle: Aluminum

FEATURES
- GO/NOGO gauge for testing fit of shaft in a hole based on maximum and minimum allowable dimensions
- No need to flip over, work efficiency goes up
- Provided with inspection report

SPECIFICATIONS
- **Class H7 for manufacturing**
- Surface roughness: Within Ra0.2μm

● DIMENSIONS



Order No.	Model No.	Standard	L (mm)	K1 (mm)	K2 (mm)	K (mm)
398010	SPCLP-10	φ10	72	10	5	16
398011	SPCLP-11	φ11	82	12	6	19
398012	SPCLP-12	φ12				
398013	SPCLP-13	φ13				
398014	SPCLP-14	φ14				
398015	SPCLP-15	φ15	95	16	8	25
398016	SPCLP-16	φ16				
398017	SPCLP-17	φ17				
398018	SPCLP-18	φ18				
398019	SPCLP-19	φ19	107		10	27
398020	SPCLP-20	φ20				
398021	SPCLP-21	φ21				
398022	SPCLP-22	φ22				
398023	SPCLP-23	φ23				
398024	SPCLP-24	φ24				
398025	SPCLP-25	φ25	110	18		29
398026	SPCLP-26	φ26				
398027	SPCLP-27	φ27				
398028	SPCLP-28	φ28				
398029	SPCLP-29	φ29				
398030	SPCLP-30	φ30				

STEEL LIMIT PLUG GAUGE (APV TYPE)

Reasonable choice - a pair of pin gauges installed in an aluminum holder.
Pin gauges are exchangeable in case of worn-out.

Replacement Pin Gauge when wear out▶
Steel Pin Gauge
P50

Rust prevention▶
Zerust Film for Steel
P380

USE ●GO/NOGO plug gauge for hole diameter inspection
MATERIAL ●Body: Aluminum ●Gauge: Steel
SPECIFICATIONS **●Class H7 for manufacturing**

SPG12-H7

Order No.	Model No.	Standard	Tolerance Class	Tolerance (μm)
393030	SPG3-H7	φ 3	H7	+10 0
393040	SPG4-H7	φ 4		+12 0
393050	SPG5-H7	φ 5		
393060	SPG6-H7	φ 6		
393070	SPG7-H7	φ 7		+15 0
393080	SPG8-H7	φ 8		
393090	SPG9-H7	φ 9		
393100	SPG10-H7	φ10		
393110	SPG11-H7	φ11		+18 0
393120	SPG12-H7	φ12		
393130	SPG13-H7	φ13		
393140	SPG14-H7	φ14		
393150	SPG15-H7	φ15		
393160	SPG16-H7	φ16		
393170	SPG17-H7	φ17		
393180	SPG18-H7	φ18		
393190	SPG19-H7	φ19		+21 0
393200	SPG20-H7	φ20		

※5mm from each edge is not precision guaranteed

CARBIDE LIMIT PLUG GAUGE (APV TYPE)

Excellent in abrasion resistance, made of durable carbide

Replacement Pin Gauge when wear out▶
Carbide Pin Gauge
P58

USE ●GO/NOGO plug gauge for hole diameter inspection
MATERIAL ●Body: Aluminum ●Gauge: Carbide
SPECIFICATIONS **●Class H7 for manufacturing**

TPG9-H7

Order No.	Model No.	Standard	Tolerance Class	Tolerance (μm)
393230	TPG3-H7	φ 3	H7	+10 0
393240	TPG4-H7	φ 4		+12 0
393250	TPG5-H7	φ 5		
393260	TPG6-H7	φ 6		
393270	TPG7-H7	φ 7		+15 0
393280	TPG8-H7	φ 8		
393290	TPG9-H7	φ 9		
393300	TPG10-H7	φ10		
393310	TPG11-H7	φ11		+18 0
393320	TPG12-H7	φ12		
393330	TPG13-H7	φ13		
393340	TPG14-H7	φ14		
393350	TPG15-H7	φ15		
393360	TPG16-H7	φ16		
393370	TPG17-H7	φ17		
393380	TPG18-H7	φ18		
393390	TPG19-H7	φ19		+21 0
393400	TPG20-H7	φ20		

※5mm from each edge is not precision guaranteed

CERAMIC LIMIT PLUG GAUGE (APV TYPE)

Excellent stability to aged deterioration, requires low maintenance

Replacement Pin Gauge when wear out▶
Ceramic Pin Gauge
P59

USE ●GO/NOGO plug gauge for hole diameter inspection
MATERIAL ●Body: Aluminum ●Gauge: Ceramic
SPECIFICATIONS **●Class H7 for manufacturing**

CPG6-H7

Order No.	Model No.	Standard	Tolerance Class	Tolerance (μm)
393430	CPG3-H7	φ 3	H7	+10 0
393440	CPG4-H7	φ 4		+12 0
393450	CPG5-H7	φ 5		
393460	CPG6-H7	φ 6		
393470	CPG7-H7	φ 7		+15 0
393480	CPG8-H7	φ 8		
393490	CPG9-H7	φ 9		
393500	CPG10-H7	φ10		

※5mm from each edge is not precision guaranteed

STEEL LIMIT RING GAUGE T PDI

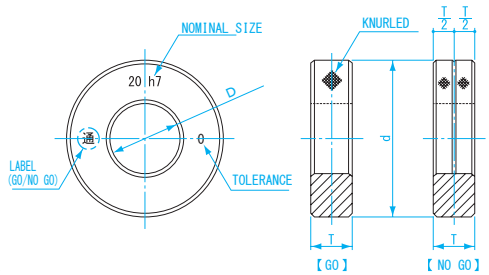
HOW TO MOVIE

Custom size limit ring gauges are also available upon request

Individual ring gauge▶
Ring Gauge
P68 ~72

Rust prevention▶
Zerust Film for Steel
P380

● DIMENSIONS



USE
- GO/NOGO ring gauge for shaft diameter inspection

MATERIAL
- Alloy tool steel

FEATURES
- A pair of gauges with maximum and minimum limit size to test the compatibility of hole width
- Provided with inspection report

SPECIFICATIONS
- **Class h7 for manufacturing**
- Hardness: HV653~772

Order No.	Model No.	Nominal size D(mm)	Outside Diameter d(mm)	Thickness T(mm)	Tolerance (μm)
394000	LR10-h7	φ10	32	8	0 -15
394010	LR11-h7	φ11	38	10	0 -18
394020	LR12-h7	φ12			
394030	LR13-h7	φ13			
394040	LR14-h7	φ14			
394050	LR15-h7	φ15			
394060	LR16-h7	φ16	45	12	
394070	LR17-h7	φ17			
394080	LR18-h7	φ18			
394090	LR19-h7	φ19			0 -21
394100	LR20-h7	φ20			
394110	LR21-h7	φ21	53	14	
394120	LR22-h7	φ22			
394130	LR23-h7	φ23			
394140	LR24-h7	φ24			
394150	LR25-h7	φ25			
394160	LR26-h7	φ26	63	16	
394170	LR27-h7	φ27			
394180	LR28-h7	φ28			
394190	LR29-h7	φ29			
394200	LR30-h7	φ30			

STEEL LIMIT RING GAUGE WITH PROTECTIVE COVER PDI

HOW TO MOVIE

GO/NOGO gauge paired by a protective cover.
No risk of loosing one, easy to use.

Individual ring gauge▶
Ring Gauge
P68 ~72

Rust prevention▶
Zerust Film for Steel
P380

USE
- GO/NOGO ring gauge for shaft diameter inspection

MATERIAL
- Gauge: Alloy tool steel
- Protective cover: Aluminum

FEATURES
- GO/NOGO gauge embedded in aluminum protective cover
- Covered gauge is easier to handle with dirty hands
- Less susceptible to thermal expansion when holding a gauge by hand
- Provided with inspection report

SPECIFICATIONS
- **Class h7 for manufacturing**
- Hardness: HV653~772 (Gauge)

Order No.	Model No.	Nominal size (mm)
395005	HKLR5-h7	φ5
395006	HKLR6-h7	φ6
395007	HKLR7-h7	φ7
395008	HKLR8-h7	φ8
395009	HKLR9-h7	φ9
395010	HKLR10-h7	φ10
395011	HKLR11-h7	φ11
395012	HKLR12-h7	φ12
395013	HKLR13-h7	φ13
395014	HKLR14-h7	φ14
395015	HKLR15-h7	φ15
395016	HKLR16-h7	φ16
395017	HKLR17-h7	φ17
395018	HKLR18-h7	φ18
395019	HKLR19-h7	φ19
395020	HKLR20-h7	φ20

Custom size limit gauges are also available on request

THREAD LIMIT GAUGE (OLD JIS / GPIP Ⅱ・GRIR Ⅱ)

PDI

HOW TO MOVE

GO/NOGO gauge for checking accuracy of thread

For Serial No. Management ▶ Laser Marking P120

Rust prevention ▶ Zerust Film for Steel P380

Category	for Inspection
Thread Plug Gauge, Class 2	GPIP Ⅱ
Thread Ring Gauge, Class 2	GRIR Ⅱ

●Thread limit gauge is used to perform GO/NOGO inspection based on the minimum and maximum dimensions prescribed for each screw grade.
For acceptance of a threaded part, GO gauge should thread without any difficulties and NOGO gauge should not thread more than two complete revolutions.

※ The thread category does not represent its quality but represent the position of the acceptance range.
Please select a screw gauge suitable for the product grade.

USE
●For internal / external screw thread inspection

FEATURES
●Enables to inspect whether threaded parts are within upper / lower limits of the screw's prescribed dimensional precision
●Provided with inspection report

THREAD LIMIT PLUG GAUGE (OLD JIS FOR INSPECTION CLASS 2 / GPIP Ⅱ)

HOW TO MOVE

MATERIAL
●Gauge part: Alloy tool steel
●Handle part: Aluminum

● DIMENSIONS

※ Reference purposes only

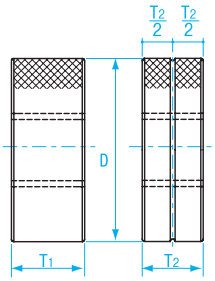
Order No.	Model No.	Nominal size	K1 (mm)	K2 (mm)	M※ (mm)	L※ (mm)
370204	GPIP2-0204	M2 ×P0.4	4.5	4.5	5.5	60
370207	GPIP2-026045	M2.6×P0.45				
370305	GPIP2-0305	M3 ×P0.5				
370306	GPIP2-03506	M3.5×P0.6	6	6	6	72
370407	GPIP2-0407	M4 ×P0.7				
370508	GPIP2-0508	M5 ×P0.8	8			74
370607	GPIP2-06075	M6 ×P0.75				
370610	GPIP2-0610	M6 ×P1.0				
370710	GPIP2-0710	M7 ×P1.0	10		7	86
370810	GPIP2-0810	M8 ×P1.0	12	10		92
370812	GPIP2-08125	M8 ×P1.25				
371010	GPIP2-1010	M10 ×P1.0				
371012	GPIP2-10125	M10 ×P1.25				
371015	GPIP2-1015	M10 ×P1.5				
371210	GPIP2-1210	M12 ×P1.0	16		8	105
371212	GPIP2-12125	M12 ×P1.25				
371215	GPIP2-1215	M12 ×P1.5				
371217	GPIP2-12175	M12 ×P1.75				
371420	GPIP2-1420	M14 ×2.0	15		6	117
371620	GPIP2-1620	M16 ×2.0				
371825	GPIP2-1825	M18 ×2.5	22	15		129
372025	GPIP2-2025	M20 ×2.5				

THREAD LIMIT RING GAUGE (OLD JIS FOR INSPECTION CLASS 2 / GRIR Ⅱ)

HOW TO MOVE

MATERIAL
●Alloy tool steel

● DIMENSIONS



Order No.	Model No.	Nominal size	Outside Diameter D (mm)	T1 (mm)	T2 (mm)
380204	GRIR2-0204	M2 ×P0.4	25	3	3
380207	GRIR2-026045	M2.6×P0.45			
380305	GRIR2-0305	M3 ×P0.5		4	
380407	GRIR2-0407	M4 ×P0.7		6	4
380508	GRIR2-0508	M5 ×P0.8			
380610	GRIR2-0610	M6 ×P1.0	30	8	6
380710	GRIR2-0710	M7 ×P1.0			
380810	GRIR2-0810	M8 ×P1.0			
380812	GRIR2-08125	M8 ×P1.25			
381010	GRIR2-1010	M10 ×P1.0	40		
381012	GRIR2-10125	M10 ×P1.25			
381015	GRIR2-1015	M10 ×P1.5		10	8
381210	GRIR2-1210	M12 ×P1.0			
381212	GRIR2-12125	M12 ×P1.25			
381215	GRIR2-1215	M12 ×P1.5			
381217	GRIR2-12175	M12 ×P1.75		15	10
381420	GPIR2-1420	M14 ×2.0	50		
381620	GRIR2-1620	M16 ×2.0			
381825	GRIR2-1825	M18 ×2.5		22	15
382025	GRIR2-2025	M20 ×2.5			

Custom size limit gauges are also available on request

THREAD LIMIT GAUGE (OLD JIS / GPWP Ⅱ・GRWR Ⅱ)

PDI

HOW TO MOVIE

GO/NOGO gauge for checking accuracy of thread

For Serial No. Management ▶
Laser Marking
P120

Rust prevention ▶
Zerust Film for Steel
P380

Category	for Manufacturing
Thread Plug Gauge, Class 2	GPWP Ⅱ
Thread Ring Gauge, Class 2	GRWR Ⅱ

●Thread limit Gauge is used to perform GO / NOGO inspection based on the minimum and maximum dimensions prescribed for each screw grade.
For acceptance of a threaded part, GO gauge should thread without any difficulties and NOGO should not thread more than two complete revolutions.

※ The thread category does not represent its quality but represent the position of the acceptance range.
Please select a screw gauge suitable for the product grade.

USE
●For Internal / external screw thread inspection

FEATURES
●Enables to inspect whether threaded parts are within upper/lower limits of the screw's prescribed dimensional precision.
●Provided with inspection report

THREAD LIMIT PLUG GAUGE (OLD JIS FOR MACHINE WORK CLASS 2 / GPWP Ⅱ)

MATERIAL
●Gauge: Alloy tool steel
●Handle: Aluminum

● DIMENSIONS

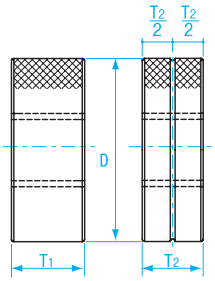
※ Reference purposes only

Order No.	Model No.	Nominal Size	K1 (mm)	K2 (mm)	M※ (mm)	L※ (mm)
470204	GPWP2-0204	M2 ×P0.4	4.5	4.5	5.5	60
470207	GPWP2-026045	M2.6×P0.45				
470305	GPWP2-0305	M3 ×P0.5				
470306	GPWP2-03506	M3.5×P0.6	6	6	6	72
470407	GPWP2-0407	M4 ×P0.7				
470508	GPWP2-0508	M5 ×P0.8	8			74
470607	GPWP2-06075	M6 ×P0.75				
470610	GPWP2-0610	M6 ×P1.0				
470710	GPWP2-0710	M7 ×P1.0	10		7	86
470810	GPWP2-0810	M8 ×P1.0	12	10		92
470812	GPWP2-08125	M8 ×P1.25				
471010	GPWP2-1010	M10 ×P1.0				
471012	GPWP2-10125	M10 ×P1.25				
471015	GPWP2-1015	M10 ×P1.5				
471210	GPWP2-1210	M12 ×P1.0	16		8	105
471212	GPWP2-12125	M12 ×P1.25				
471215	GPWP2-1215	M12 ×P1.5				
471217	GPWP2-12175	M12 ×P1.75				
471420	GPWP2-1420	M14 ×2.0	15		6	117
471620	GPWP2-1620	M16 ×2.0				
471825	GPWP2-1825	M18 ×2.5	22	15		129
472025	GPWP2-2025	M20 ×2.5				

THERAD LIMIT RING GAUGE (OLD JIS FOR MACHINE WORK CLASS 2 / GRWR Ⅱ)

MATERIAL
●Alloy tool steel

● DIMENSIONS



Order No.	Model No.	Nominal Size	Outside Diameter D (mm)	T1 (mm)	T2 (mm)
300204	GRWR2-0204	M2 ×P0.4	25	3	3
300207	GRWR2-026045	M2.6×P0.45			
300305	GRWR2-0305	M3 ×P0.5		4	
300407	GRWR2-0407	M4 ×P0.7		6	4
300508	GRWR2-0508	M5 ×P0.8			
300610	GRWR2-0610	M6 ×P1.0	30	8	6
300710	GRWR2-0710	M7 ×P1.0			
300810	GRWR2-0810	M8 ×P1.0			
300812	GRWR2-08125	M8 ×P1.25			
301010	GRWR2-1010	M10 ×P1.0	40		
301012	GRWR2-10125	M10 ×P1.25			
301015	GRWR2-1015	M10 ×P1.5		10	8
301210	GRWR2-1210	M12 ×P1.0			
301212	GRWR2-12125	M12 ×P1.25			
301215	GRWR2-1215	M12 ×P1.5			
301217	GRWR2-12175	M12 ×P1.75		15	10
301420	GPWR2-1420	M14 ×2.0	50		
301620	GRWR2-1620	M16 ×2.0			
301825	GRWR2-1825	M18 ×2.5		22	15
302025	GRWR2-2025	M20 ×2.5			

Custom size limit gauges are also available on request

THREAD LIMIT PLUG GAUGE (ISO TYPE JIS / GPNP) NEW!

PDI

HOW TO MOVIE

GO/NOGO gauge for checking accuracy of thread.
While the original JIS gauge has two classifications of NOGO gauge (; for Inspection and for Manufacturing), there is no classification in ISO type JIS gauge.

For Serial No. Management ▶ Laser Marking P120
Rust prevention ▶ Zerust Film for Steel P380

Catetory	Standard・Class
Thread Plug, Class 2	GPNP-6H

●Thread limit Gauge is used to perform GO/NOGO inspection based on the minimum and maximum dimensions prescribed for each screw grade.
For acceptance of a threaded part, GO gauge should thread without any difficulties and NOGO should not thread more than two complete revolutions.

※ The thread category does not represent its quality but represent the position of the acceptance range.
Please select a screw gauge suitable for the product grade.

USE
●For Internal / external screw thread inspection

FEATURES
●Enables to inspect whether threaded parts are within upper/lower limits of the screw's prescribed dimensional precision.
●Provided with inspection report

THREAD LIMIT PLUG GAUGE (ISO TYPE JIS / GPNP)

● DIMENSIONS

Material
●Gauge part: Alloy tool steel
●Handle part: Aluminum

※ Reference purposes only

Order No.	Model No.	Nominal Size	K1 (mm)	K2 (mm)	M ※ (mm)	L ※ (mm)
NEW! 326024	GPNP-0204I	M 2 × P0.4	4.5	4.5	5.5	60
326035	GPNP-0305I	M 3 × P0.5				
NEW! 326036	GPNP-03506I	M 3.5 × P0.6	6	6	6	72
326047	GPNP-0407I	M 4 × P0.7				
326058	GPNP-0508I	M 5 × P0.8	8			74
NEW! 326060	GPNP-06075I	M 6 × P0.75				
326061	GPNP-0610I	M 6 × P1.0				
NEW! 326071	GPNP-0710I	M 7 × P1.0	10		7	86
NEW! 326080	GPNP-0810I	M 8 × P1.0	12	10		92
326081	GPNP-08125I	M 8 × P1.25				
NEW! 326099	GPNP-1010I	M10 × P1.0				
NEW! 326100	GPNP-10125I	M10 × P1.25				
326101	GPNP-1015I	M10 × P1.5				
NEW! 326118	GPNP-1210I	M12 × P1.0	16		8	105
NEW! 326119	GPNP-12125I	M12 × P1.25				
NEW! 326120	GPNP-1215I	M12 × P1.5				
326121	GPNP-12175I	M12 × P1.75				

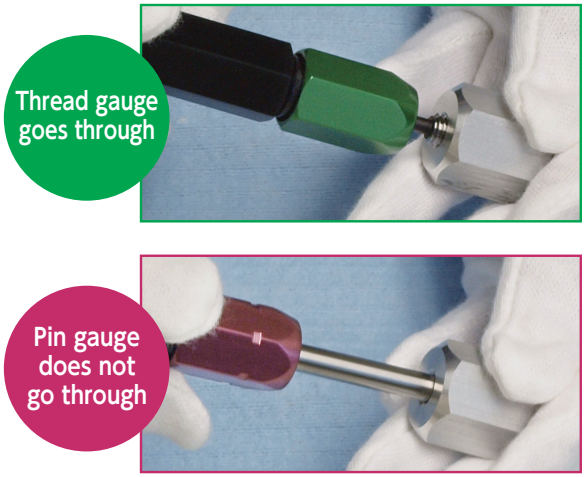
TAP GAUGE FOR NOGO

Thread gauge and pilot hole size pin gauge in one product.
Checking pilot hole diameter with its upper limit.

Rust prevention▶
Zerust Film for Steel
P380

GP2N-0610

Pass Condition



Replacement thread / pin gauge available

USE
- Checking NG for large tap hole

MATERIAL
- Handle: Aluminum

FEATURES
- One side thread plug gauge, one side pin gauge for pilot hole confirmation

Order No.	Model No.	Nominal Size
390211	GP2N-0305	M3×0.5
390212	GP2N-0407	M4×0.7
390213	GP2N-0508	M5×0.8
390214	GP2N-0610	M6×1.0
390215	GP2N-08125	M8×1.25

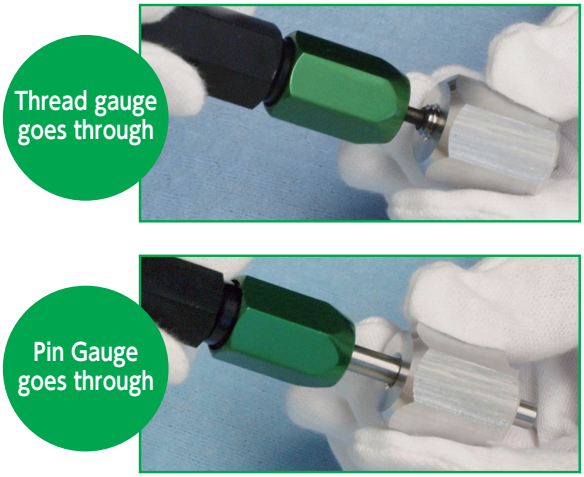
TAP GAUGE FOR GO

Thread gauge and pilot hole size pin gauge in one product.
Checking pilot hole diameter with its lower limit.

Rust prevention▶
Zerust Film for Steel
P380

GP2G-0610

Pass Condition



Replacement thread / pin gauge available

USE
- Checking NG for small tape hole

MATERIAL
- Handle: Aluminum

FEATURES
- One side thread plug gauge, one side pin gauge for pilot hole confirmation

Order No.	Model No.	Nominal Size
390221	GP2G-0305	M3×0.5
390222	GP2G-0407	M4×0.7
390223	GP2G-0508	M5×0.8
390224	GP2G-0610	M6×1.0
390225	GP2G-08125	M8×1.25

BALL GAP GAUGE

Small hole gauge to check right position or gap when assembling parts

Rust prevention▶
Zerust Film for Steel
P380

BTS-030

BTS-025

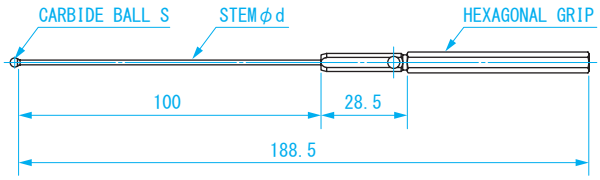
USE
- Suitable for measuring shallow groove and curbed inner pipes
- Clearance measurement of mold

MATERIAL
- Gauge Head: Carbide
- Shaft/Grip: Stainless steel

FEATURES
- Stainless steel spring. Flexible shaft and able to bend
- Easy to check right position or gap when assembling parts

SPECIFICATIONS
- Gauge Accuracy: Sphericity 0.005mm
  Tolerance ±0.005mm

●DIMENSIONS Units: mm



Order No.	Model No.	Ball size S (mm)	Stem diameter d (mm)
112000	BTS-020	ϕ2.0	1.0
112001	BTS-021	ϕ2.1	1.6
112002	BTS-022	ϕ2.2	
112003	BTS-023	ϕ2.3	
112004	BTS-024	ϕ2.4	
112005	BTS-025	ϕ2.5	
112006	BTS-026	ϕ2.6	
112007	BTS-027	ϕ2.7	
112008	BTS-028	ϕ2.8	
112009	BTS-029	ϕ2.9	
112010	BTS-030	ϕ3.0	
112011	BTS-031	ϕ3.1	
112012	BTS-032	ϕ3.2	
112013	BTS-033	ϕ3.3	
112014	BTS-034	ϕ3.4	
112015	BTS-035	ϕ3.5	
112016	BTS-036	ϕ3.6	
112017	BTS-037	ϕ3.7	
112018	BTS-038	ϕ3.8	
112019	BTS-039	ϕ3.9	
112020	BTS-040	ϕ4.0	
112021	BTS-041	ϕ4.1	2.3
112022	BTS-042	ϕ4.2	
112023	BTS-043	ϕ4.3	
112024	BTS-044	ϕ4.4	
112025	BTS-045	ϕ4.5	

Order No.	Model No.	Ball size S (mm)	Stem diameter d (mm)
112026	BTS-046	ϕ4.6	2.3
112027	BTS-047	ϕ4.7	
112028	BTS-048	ϕ4.8	
112029	BTS-049	ϕ4.9	
112030	BTS-050	ϕ5.0	
112031	BTS-051	ϕ5.1	
112032	BTS-052	ϕ5.2	
112033	BTS-053	ϕ5.3	
112034	BTS-054	ϕ5.4	
112035	BTS-055	ϕ5.5	
112036	BTS-056	ϕ5.6	
112037	BTS-057	ϕ5.7	
112038	BTS-058	ϕ5.8	
112039	BTS-059	ϕ5.9	
112040	BTS-060	ϕ6.0	
112041	BTS-061	ϕ6.1	
112042	BTS-062	ϕ6.2	
112043	BTS-063	ϕ6.3	
112044	BTS-064	ϕ6.4	
112045	BTS-065	ϕ6.5	
112046	BTS-066	ϕ6.6	
112047	BTS-067	ϕ6.7	
112048	BTS-068	ϕ6.8	
112049	BTS-069	ϕ6.9	
112050	BTS-070	ϕ7.0	

BALL GAP GAUGE

Small hole gauge to check right position or gap when assembling parts

Rust prevention▶
Zerust Film for Steel
P380

BTP-030

BTP-025

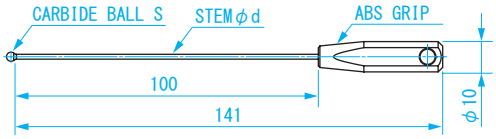
USE
- ●For gap measurement

MATERIAL
- ●Gauge head: Carbide
- ●Stem: Stainless steel
- ●Grip: ABS

FEATURES
- ●Easy to check right position or gap when assembling parts

SPECIFICATIONS
- ●Gauge Accuracy: Sphericity 0.005mm
  Tolerance ±0.005mm

●DIMEMSIONS Units: mm



Order No.	Model No.	Ball size S (mm)	Stem diameter d (mm)
112051	BTP-020	ϕ2.0	1.0
112052	BTP-021	ϕ2.1	1.6
112053	BTP-022	ϕ2.2	
112054	BTP-023	ϕ2.3	
112055	BTP-024	ϕ2.4	
112056	BTP-025	ϕ2.5	
112057	BTP-026	ϕ2.6	
112058	BTP-027	ϕ2.7	
112059	BTP-028	ϕ2.8	
112060	BTP-029	ϕ2.9	
112061	BTP-030	ϕ3.0	
112062	BTP-031	ϕ3.1	
112063	BTP-032	ϕ3.2	
112064	BTP-033	ϕ3.3	
112065	BTP-034	ϕ3.4	
112066	BTP-035	ϕ3.5	
112067	BTP-036	ϕ3.6	
112068	BTP-037	ϕ3.7	
112069	BTP-038	ϕ3.8	
112070	BTP-039	ϕ3.9	
112071	BTP-040	ϕ4.0	
112072	BTP-041	ϕ4.1	2.3
112073	BTP-042	ϕ4.2	
112074	BTP-043	ϕ4.3	
112075	BTP-044	ϕ4.4	
112076	BTP-045	ϕ4.5	

Order No.	Model No.	Ball size S (mm)	Stem diameter d (mm)
112077	BTP-046	ϕ4.6	2.3
112078	BTP-047	ϕ4.7	
112079	BTP-048	ϕ4.8	
112080	BTP-049	ϕ4.9	
112081	BTP-050	ϕ5.0	
112082	BTP-051	ϕ5.1	
112083	BTP-052	ϕ5.2	
112084	BTP-053	ϕ5.3	
112085	BTP-054	ϕ5.4	
112086	BTP-055	ϕ5.5	
112087	BTP-056	ϕ5.6	
112088	BTP-057	ϕ5.7	
112089	BTP-058	ϕ5.8	
112090	BTP-059	ϕ5.9	
112091	BTP-060	ϕ6.0	
112092	BTP-061	ϕ6.1	
112093	BTP-062	ϕ6.2	
112094	BTP-063	ϕ6.3	
112095	BTP-064	ϕ6.4	
112096	BTP-065	ϕ6.5	
112097	BTP-066	ϕ6.6	
112098	BTP-067	ϕ6.7	
112099	BTP-068	ϕ6.8	
112100	BTP-069	ϕ6.9	
112101	BTP-070	ϕ7.0	

FEELER GAUGE (WIDE TYPE)

Essential for assembly and adjustment

50mm width　　30mm width

12.7mm wide (normal) type▶
Feeler Gauge
P86 ~87

Multiple sizes in one product▶
Thickness Gauge
P88 ~90

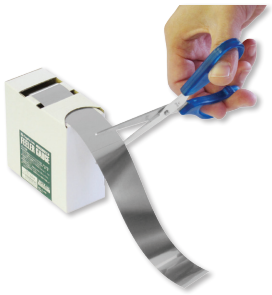
Rust prevention▶
Zerust Film for Steel
P380

USE
- ●For measurement of gap width
- ●For assemble or adjustment of automotive engine components or other machinery

MATERIAL
- ●Stainless steel (SUS304)【RoHS Compliant】

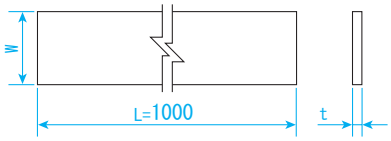
FEATURES
- ●Can be cut to necessary size
- ●Convenient cardboard storage box
- ●Made of stainless steel, rust resistant

SPECIFICATIONS
- ●Leaf Length: 1m
- ●Case Size: 80×88×40mm(30mm width)
  90×90×60mm(50mm width)



Can be cut to necessary size

● DIMENSIONS　　Units: mm



Order No.	Model No.	Leaf Width(W) (mm)	Thickness(t) (mm)	Thickness Accuracy(t) (mm)
007391	SFG30-005-1	30	0.005	±0.0005
007392	SFG30-01-1		0.01	±0.001
007393	SFG30-02-1		0.02	±0.002
007394	SFG30-03-1		0.03	±0.003
007395	SFG30-04-1		0.04	±0.004
007396	SFG30-05-1		0.05	±0.005
007397	SFG30-06-1		0.06	±0.006
007398	SFG30-08-1		0.08	±0.008
007399	SFG30-10-1		0.1	±0.01
007400	SFG50-005-1	50	0.005	±0.0005
007401	SFG50-01-1		0.01	±0.001
007402	SFG50-02-1		0.02	±0.002
007403	SFG50-03-1		0.03	±0.003
007404	SFG50-04-1		0.04	±0.004
007405	SFG50-05-1		0.05	±0.005
007406	SFG50-06-1		0.06	±0.006
007407	SFG50-08-1		0.08	±0.008
007408	SFG50-10-1		0.1	±0.01

FEELER GAUGE (SFG SERIES)

Essential for assembly and fitting work

Wide width type▶
Feeler Gauge (Wide type)
P86

Multiple sizes in one product▶
Thickness Gauge
P88 ~90

Rust prevention▶
Zerust Film for Steel
P380

USE
- ●For measurement of gap width
- ●For assemble or adjustment of automotive engine components or other machinery

MATERIAL
- ●Leaf thickness: 0.01mm　Stainless steel SUS301H
  0.005·0.02~0.10mm　Stainless steel SUS304H

FEATURES
- ●Can be cut to necessary size

SPECIFICATIONS
- ●Leaf width: 12.7mm　●Leaf hardness: HV300 and above　●Case Size: 77×77×22mm
- ※White powder remains on the surface of the product is antirust agent

Order No.	Model No.	Size (mm)	Leaf Width (mm)	Leaf Length (m)	Accuracy (mm)	Weight (Including case)
007245	SFG-005-1	0.005×1m	0.005	1	±0.004	34g
007251	SFG-01-1	0.01 ×1m	0.01			34g
007252	SFG-02-1	0.02 ×1m	0.02			35g
007381	SFG-03-1	0.03 ×1m	0.03		±0.005	36g
007382	SFG-04-1	0.04 ×1m	0.04			37g
007383	SFG-05-1	0.05 ×1m	0.05			38g
007384	SFG-06-1	0.06 ×1m	0.06			39g
007385	SFG-07-1	0.07 ×1m	0.07			40g
007386	SFG-08-1	0.08 ×1m	0.08			41g
007387	SFG-09-1	0.09 ×1m	0.09			42g
007388	SFG-10-1	0.10 ×1m	0.10		±0.006	43g
007421	SFG-01-3	0.01 ×3m	0.01	3	±0.004	36g
007422	SFG-02-3	0.02 ×3m	0.02			39g
007423	SFG-03-3	0.03 ×3m	0.03		±0.005	42g
007424	SFG-04-3	0.04 ×3m	0.04			45g
007425	SFG-05-3	0.05 ×3m	0.05			48g

Order No.	Model No.	Size (mm)	Leaf Width (mm)	Leaf Length (m)	Accuracy (mm)	Weight (Including case)
007426	SFG-06-3	0.06×3m	0.06	3	±0.005	51g
007427	SFG-07-3	0.07×3m	0.07			54g
007428	SFG-08-3	0.08×3m	0.08			57g
007429	SFG-09-3	0.09×3m	0.09			60g
007430	SFG-10-3	0.10×3m	0.10		±0.006	63g
007411	SFG-01-5	0.01×5m	0.01	5	±0.004	38g
007412	SFG-02-5	0.02×5m	0.02			43g
007413	SFG-03-5	0.03×5m	0.03		±0.005	48g
007414	SFG-04-5	0.04×5m	0.04			53g
007415	SFG-05-5	0.05×5m	0.05			58g
007416	SFG-06-5	0.06×5m	0.06			63g
007417	SFG-07-5	0.07×5m	0.07			68g
007418	SFG-08-5	0.08×5m	0.08			73g
007419	SFG-09-5	0.09×5m	0.09			78g
007420	SFG-10-5	0.10×5m	0.10		±0.006	83g

FEELER GAUGE (FG SERIES)

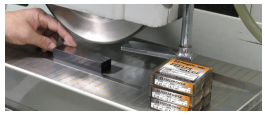
T

Essential for assembly and fitting work

Wide width type▶
Feeler Gauge (Wide type) P86

Multiple sizes in one product▶
Thickness Gauge P88 ~90

Rust prevention▶
Zerust Film for Steel P380



USE
- For measurement of gap width
- For assemble or adjustment of automotive engine components or other machinery

MATERIAL
- Carbon tool steel (Hardened) (equivalent to SK7)

FEATURES
- Can be cut to necessary size

SPECIFICATIONS
- Leaf width: 12.7mm
- Leaf hardness: HV320 and above

※White powder remains on the surface of the product is antirust agent

Order No.	Model No.	Size (mm)	Leaf Width (mm)	Leaf Length (m)	Accuracy (mm)	Case size (mm)	Weight (Including case)
007253	FG-03-1	0.03x1m	0.03	1	±0.005	77×77×22	36g
007254	FG-04-1	0.04x1m	0.04				37g
007255	FG-05-1	0.05x1m	0.05				38g
007256	FG-06-1	0.06x1m	0.06				39g
007257	FG-07-1	0.07x1m	0.07				40g
007258	FG-08-1	0.08x1m	0.08				41g
007259	FG-09-1	0.09x1m	0.09				42g
007260	FG-10-1	0.10x1m	0.10				43g
007261	FG-11-1	0.11x1m	0.11		±0.01		44g
007262	FG-12-1	0.12x1m	0.12				45g
007263	FG-13-1	0.13x1m	0.13				46g
007264	FG-14-1	0.14x1m	0.14				47g
007265	FG-15-1	0.15x1m	0.15				48g
007266	FG-16-1	0.16x1m	0.16				49g
007267	FG-17-1	0.17x1m	0.17				50g
007268	FG-18-1	0.18x1m	0.18				51g
007269	FG-19-1	0.19x1m	0.19				52g
007270	FG-20-1	0.20x1m	0.20				53g
007275	FG-25-1	0.25x1m	0.25				58g
007280	FG-30-1	0.30x1m	0.30				63g
007282	FG-35-1	0.35x1m	0.35		±0.012	115×115×22	121g
007284	FG-40-1	0.40x1m	0.40				126g
007286	FG-45-1	0.45x1m	0.45				133g
007287	FG-50-1	0.50x1m	0.50				138g
007289	FG-60-1	0.60x1m	0.60		±0.02	Plastic bag package	64g
007291	FG-70-1	0.70x1m	0.70				72g
007292	FG-80-1	0.80x1m	0.80				84g
007293	FG-90-1	0.90x1m	0.90				92g
007294	FG-00-1	1.00x1m	1.00				101g
007303	FG-03-3	0.03x3m	0.03	3	±0.005	77×77×22	42g
007304	FG-04-3	0.04x3m	0.04				45g
007305	FG-05-3	0.05x3m	0.05				48g
007306	FG-06-3	0.06x3m	0.06				51g
007307	FG-07-3	0.07x3m	0.07				54g
007308	FG-08-3	0.08x3m	0.08				57g
007309	FG-09-3	0.09x3m	0.09				60g
007310	FG-10-3	0.10x3m	0.10				63g
007311	FG-11-3	0.11x3m	0.11		±0.01		66g
007312	FG-12-3	0.12x3m	0.12				69g
007313	FG-13-3	0.13x3m	0.13				72g
007314	FG-14-3	0.14x3m	0.14				75g
007315	FG-15-3	0.15x3m	0.15			115×115×22	130g
007317	FG-20-3	0.20x3m	0.20				145g
007318	FG-25-3	0.25x3m	0.25				160g
007319	FG-30-3	0.30x3m	0.30				176g
007321	FG-35-3	0.35x3m	0.35		±0.012	Plastic bag package	107g
007323	FG-40-3	0.40x3m	0.40				140g
007325	FG-45-3	0.45x3m	0.45				156g
007326	FG-50-3	0.50x3m	0.50				170g
007328	FG-60-3	0.60x3m	0.60		±0.02		208g
007330	FG-70-3	0.70x3m	0.70				234g
007331	FG-80-3	0.80x3m	0.80				270g
007332	FG-90-3	0.90x3m	0.90				293g
007333	FG-00-3	1.00x3m	1.00				320g
007343	FG-03-5	0.03x5m	0.03	5	±0.005	77×77×22	48g
007344	FG-04-5	0.04x5m	0.04				53g
007345	FG-05-5	0.05x5m	0.05				58g
007346	FG-06-5	0.06x5m	0.06				63g
007347	FG-07-5	0.07x5m	0.07				68g
007348	FG-08-5	0.08x5m	0.08				73g
007349	FG-09-5	0.09x5m	0.09				78g
007350	FG-10-5	0.10x5m	0.10				83g
007351	FG-11-5	0.11x5m	0.11		±0.01		88g
007352	FG-12-5	0.12x5m	0.12				93g
007353	FG-13-5	0.13x5m	0.13				98g
007354	FG-14-5	0.14x5m	0.14				103g
007355	FG-15-5	0.15x5m	0.15			115×115×22	161g
007357	FG-20-5	0.20x5m	0.20				185g
007358	FG-25-5	0.25x5m	0.25			Plastic bag package	157g
007359	FG-30-5	0.30x5m	0.30				184g
007361	FG-35-5	0.35x5m	0.35		±0.012		211g
007363	FG-40-5	0.40x5m	0.40				232g
007365	FG-45-5	0.45x5m	0.45				259g
007366	FG-50-5	0.50x5m	0.50				282g
007368	FG-60-5	0.60x5m	0.60		±0.02		345g
007370	FG-70-5	0.70x5m	0.70				389g
007371	FG-80-5	0.80x5m	0.80				449g
007372	FG-90-5	0.90x5m	0.90				487g
007373	FG-00-5	1.00x5m	1.00				532g

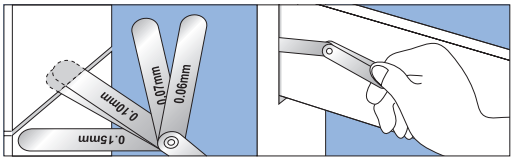
THICKNESS GAUGE

Suitable for measuring slight gaps where it is difficult to do with other measuring instruments

HOW TO MOVIE

For cutting necessary size▶ Feeler Gauge P86 ~87
Replaceable leaf▶ Thickness Gauge Leaf P89
Rust-resistant type▶ Stainless Thickness Gauge P90
Rust prevention▶ Zerust Film for Steel P380

65M



※Leaves can be combined for a wide range of measurements

USE
- For measurement of gap width

MATERIAL
- Carbon tool steel

FEATURES
- Enables precise inspection by inserting the gauge into the gap between two flat surfaces
- Suitable for measuring gap between piston and cylinder of automotive engine
- Each of the gauges can be detached by unscrewing the clip of the cover (except 172 series)
- Leaf width: 12.7mm

※White powder remains on the surface of the product is antirust agent

ACCURACY

Leaf thickness (mm)	Tolerance (mm)
0.01~0.06	±0.005
0.07~0.10	±0.01
0.11~0.35	±0.015
0.40~0.60	±0.02
0.70~3.00	±0.035

Order No.	Model No.	Leaf Length (mm)	Pieces/ Set	Nominal Size (mm)	Weight
111032	172MA	75	9	0.04 0.05 0.06 0.07 0.08 0.10 0.15 0.20 0.30	30g
111033	172MB	100			30g
111034	172MC	150			50g
110970	172MD	230			70g
110971	172ME	300			90g
110972	100MR	100	10	0.03 0.04 0.05 0.08 0.10 0.15 0.20 0.25 0.30 0.40	40g
110973	150MR	150			60g
110974	100MK	100	10	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10	30g
110975	150MK	150			40g
111038	60M	75	19	0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50 0.70 0.80 1.00	60g
111039	100MY	100			80g
111040	150MY	150			120g
111035	65M	75	25	0.03 0.04 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 0.60 0.70 0.80 0.90 1.00	80g
111036	100MZ	100			100g
111037	150MZ	150			150g
111031	72M	75	12	0.04 0.05 0.06 0.07 0.08 0.10 0.15 0.20 0.30 1.00 2.00 3.00	70g
111044	100MT	100			100g
111045	150MT	150			140g
110976	100ML	100	19	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 1.00	80g
110977	150ML	150			120g
110978	80M	75	13	0.03 0.04 0.05 0.06 0.07 0.08 0.10 0.15 0.20 0.30 1.00 2.00 3.00	60g
111046	100MX	100			90g
111047	150MX	150			140g
111048	100MH	100	10	0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 1.00	80g
111049	150MH	150			110g

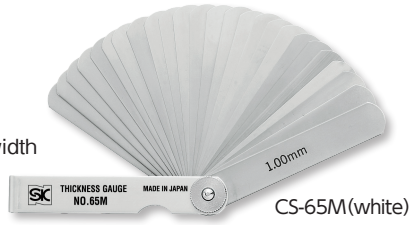
BLOCK GAUGE
PIN GAUGE
PIN VISE
PIN GAUGE ACCESSORIES
RING GAUGE
PLUG GAUGE
LIMIT GAUGE
THICKNESS GAUGE
TAPER GAUGE
WELDING GAUGE
OTHER GAUGES

THICKNESS GAUGE WITH COLOR SLEEVE

HOW TO MOVIE

Same accuracy as regular THICKNESS GAUGE with three different color options - white, black and green

For cutting necessary size▶ Feeler Gauge P86 ~87
Replaceable leaf▶ Thickness Gauge Leaf P89
Rust-resistant type▶ Stainless Thickness Gauge P90
Rust prevention▶ Zerust Film for Steel P380



CS-65M(white)

CS-65M(black)

CS-65M(green)

USE
- For measurement of gap width

MATERIAL
- Carbon tool steel

FEATURES
- Enables precise inspection by inserting the gauge into the gap between two flat surfaces
- Suitable for measuring gap between piston and cylinder of automotive engine
- Each of the gauges can be detached by unscrewing the clip of the cover (except 172 series)
- Leaf Width: 12.7mm

※Please specify color (White, Black, Green) at the time of order placement
※White powder remains on the surface of the product is antirust agent

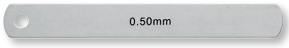
ACCURACY

Leaf thickness (mm)	Tolerance (mm)
0.01~0.06	±0.005
0.07~0.10	±0.01
0.11~0.35	±0.015
0.40~0.60	±0.02
0.70~3.00	±0.035

Model No.	Leaf Length (mm)	Pieces/ Set	Size (mm)	Weight
CS-172MA	75	9	0.04 0.05 0.06 0.07 0.08 0.10 0.15 0.20 0.30	30g
CS-172MB	100			30g
CS-172MC	150			50g
CS-100MR	100	10	0.03 0.04 0.05 0.08 0.10 0.15 0.20 0.25 0.30 0.40	40g
CS-150MR	150			60g
CS-100MK	100	10	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10	30g
CS-150MK	150			40g
CS-60M	75	19	0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.15 0.20	60g
CS-100MY	100		0.25 0.30 0.35 0.40 0.45 0.50 0.70 0.80 1.00	80g
CS-150MY	150			120g
CS-65M	75	25	0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12	80g
CS-100MZ	100		0.13 0.14 0.15 0.20 0.25 0.30 0.35 0.40 0.45 0.50	100g
CS-150MZ	150		0.60 0.70 0.80 0.90 1.00	150g
CS-72M	75	12	0.04 0.05 0.06 0.07 0.08 0.10 0.15 0.20 0.30 1.00	70g
CS-100MT	100		2.00 3.00	100g
CS-150MT	150			140g
CS-100ML	100	19	0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10	80g
CS-150ML	150		0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 1.00	120g
CS-80M	75	13	0.03 0.04 0.05 0.06 0.07 0.08 0.10 0.15 0.20 0.30	60g
CS-100MX	100		1.00 2.00 3.00	90g
CS-150MX	150			140g
CS-100MH	100	10	0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 1.00	80g
CS-150MH	150			110g

THICKNESS GAUGE LEAF

HOW TO MOVIE



S100-05

S150-10

For cutting necessary size▶ Feeler Gauge P86 ~87
Rust prevention▶ Zerust Film for Steel P380

MATERIAL
- Carbon tool steel
- Leaf Width: 12.7mm

※White powder remains on the surface of the product is antirust agent

■ Leaf Length: 100mm

Order No.	Model No.	Thickness (mm)
110801	S100-001	0.01
110802	S100-002	0.02
110803	S100-003	0.03
110804	S100-004	0.04
110805	S100-005	0.05
110806	S100-006	0.06
110807	S100-007	0.07
110808	S100-008	0.08
110809	S100-009	0.09
110810	S100-01	0.10
110811	S100-02	0.20
110812	S100-03	0.30
110813	S100-04	0.40
110814	S100-05	0.50
110815	S100-06	0.60
110816	S100-07	0.70
110817	S100-08	0.80
110818	S100-09	0.90
110819	S100-10	1.00

■ Leaf Length: 150mm

Order No.	Model No.	Thickness (mm)
110820	S150-001	0.01
110821	S150-002	0.02
110822	S150-003	0.03
110823	S150-004	0.04
110824	S150-005	0.05
110825	S150-006	0.06
110826	S150-007	0.07
110827	S150-008	0.08
110828	S150-009	0.09
110829	S150-01	0.10
110830	S150-02	0.20
110831	S150-03	0.30
110832	S150-04	0.40
110833	S150-05	0.50
110834	S150-06	0.60
110835	S150-07	0.70
110836	S150-08	0.80
110837	S150-09	0.90
110838	S150-10	1.00

STAINLESS THICKNESS GAUGE NEW!

Rust-resistant stainless steel type now available

For cutting necessary size▶
Feeler Gauge
P86 ~87

USE
- For measurement of gap width

MATERIAL
- Stainless steel (SUS304H)

FEATURES
- Rust-resistant stainless steel leaf
- Accurate inspection can be done by inserting into a fine gap between two planes where difficult to measure
- It is an indispensable measuring tools for automotive distance measurement of piston and cylinder of engine
- Leaf width: 12.7mm

※The gauge leafs are fixed by eyelet and cannot be replaced.

ACCURACY

Leaf thickness (mm)	Tolerance (mm)
0.04~0.10	±0.005
0.15~0.30	±0.015

Order No.	Model No.	Leaf Length (mm)	Pieces /set	Size (mm)	Weight
NEW! 110681	S172MA	75	9	0.04 0.05 0.06 0.07 0.08 0.10 0.15 0.20 0.30	20g
NEW! 110682	S172MB	100			26g
NEW! 110683	S172MC	150			38g

THICKNESS GAUGE LEAF NEW!

For cutting necessary size▶
Feeler Gauge
P86 ~87

SS-100-030

SS-150-030

MATERIAL
- Stainless steel (SUS304H)
- Leaf width: 12.7mm

ACCURACY

Leaf size (mm)	Tolerance (mm)
0.04~0.10	±0.005
0.15~0.30	±0.015

■ Leaf Length: 100mm

Order No.	Model No.	Thickness (mm)
NEW! 110764	SS-100-004	0.04
NEW! 110765	SS-100-005	0.05
NEW! 110766	SS-100-006	0.06
NEW! 110767	SS-100-007	0.07
NEW! 110768	SS-100-008	0.08
NEW! 110770	SS-100-010	0.10
NEW! 110771	SS-100-015	0.15
NEW! 110772	SS-100-020	0.20
NEW! 110773	SS-100-030	0.30

■ Leaf Length: 150mm

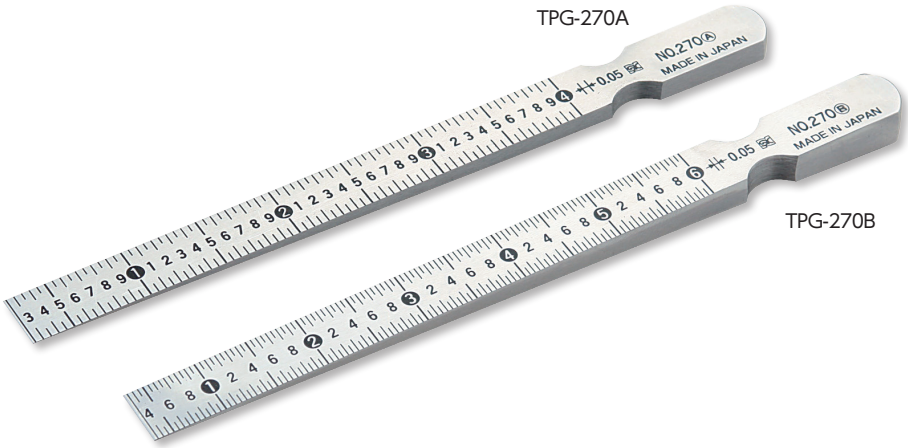
Order No.	Model No.	Thickness (mm)
NEW! 110777	SS-150-004	0.04
NEW! 110778	SS-150-005	0.05
NEW! 110779	SS-150-006	0.06
NEW! 110780	SS-150-007	0.07
NEW! 110781	SS-150-008	0.08
NEW! 110783	SS-150-010	0.10
NEW! 110784	SS-150-015	0.15
NEW! 110785	SS-150-020	0.20
NEW! 110786	SS-150-030	0.30

TAPER GAUGE

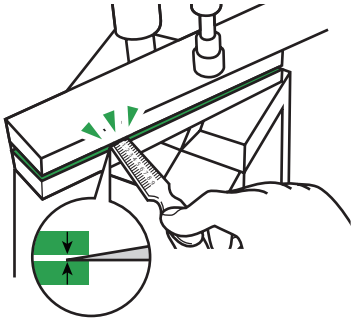
HOW TO MOVIE

For measuring narrower gap▶
Thickness Gauge
P88 ~90

Rust prevention▶
Zerust Film for Steel
P380



Graduation shows the gap width



USE
- For measurement of groove and gap etc.

MATERIAL
- Carbon steel for machine structual use, non-hardened

FEATURES
- Each number marked on the gauge shows gauge thickness of its point which enables to measure width of inner gap
- Satin finish
- Packed in plastic carrying case

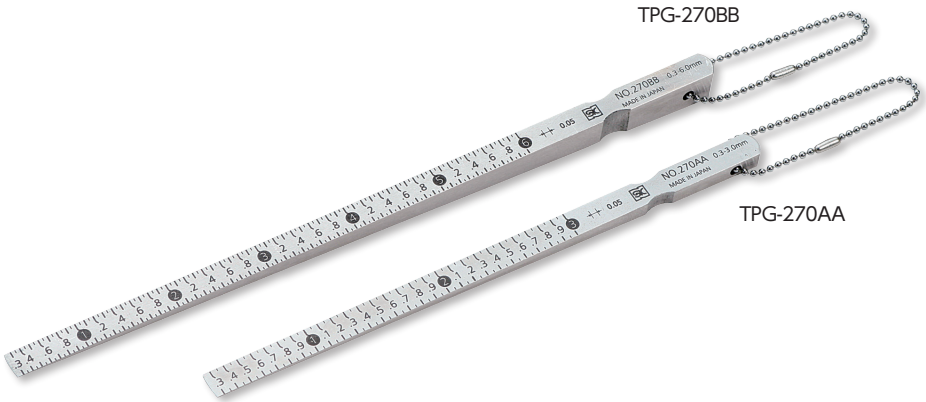
Order No.	Model No.	Standard	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Taper Angle	Full Length H×W (mm)	Weight
007000	TPG-270A	270A	0.3~4	±0.04	0.05	1°54′33″	158×12	95g
007001	TPG-270B	270B	0.4~6	±0.04	0.05	2°51′45″	158×12	95g

TAPER GAUGE NARROW WIDTH TYPE

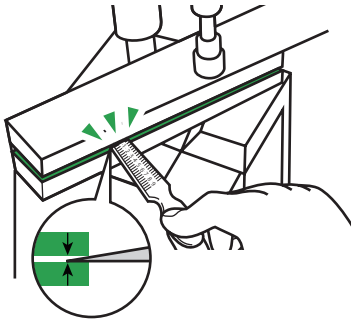
HOW TO MOVIE

For measuring narrower gap▶
Thickness Gauge
P88 ~90

Rust prevention▶
Zerust Film for Steel
P380



Graduation shows the gap width



USE
- For measurement of groove and gap etc.
- For use as a height adjustment jig

MATERIAL
- Carbon steel for machine structual use, non-hardened

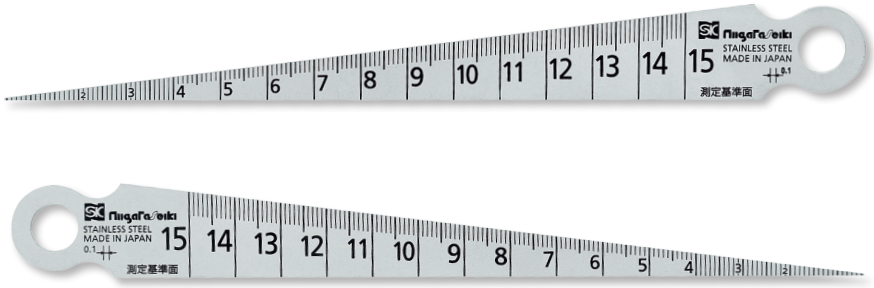
FEATURES
- Each number marked on the gauge shows gauge thickness of its point which enables to measure width of inner gap
- Narrow width type
- Satin finish
- Packed in plastic carrying case
- Ball chain attached

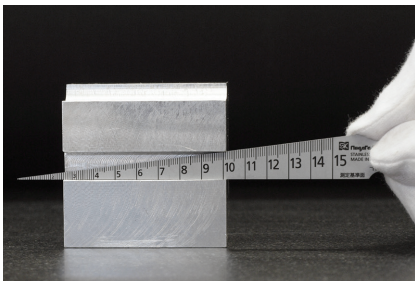
Order No.	Model No.	Standard	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Taper Angle	Full Length H×W (mm)	Weight
007002	TPG-270AA	270AA	0.3~3	±0.04	0.05	1°54′33″	127.5×6	18g
007003	TPG-270BB	270BB	0.3~6	±0.04	0.05	2°51′45″	160 ×6	38g

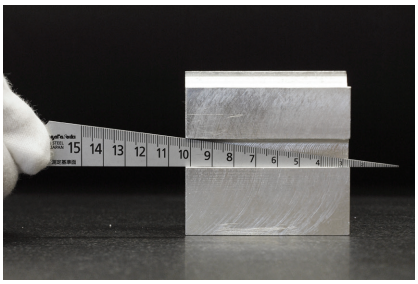
BLOCK GAUGE
PIN GAUGE
PIN VISE
PIN GAUGE ACCESSORIES
RING GAUGE
PLUG GAUGE
LIMIT GAUGE
THICKNESS GAUGE
TAPER GAUGE
WELDING GAUGE
OTHER GAUGES

RIGHT ANGLE TAPER GAUGE

HOW TO MOVIE







USE
- For measurement of groove and gap etc.

MATERIAL
- Hardened stainless steel

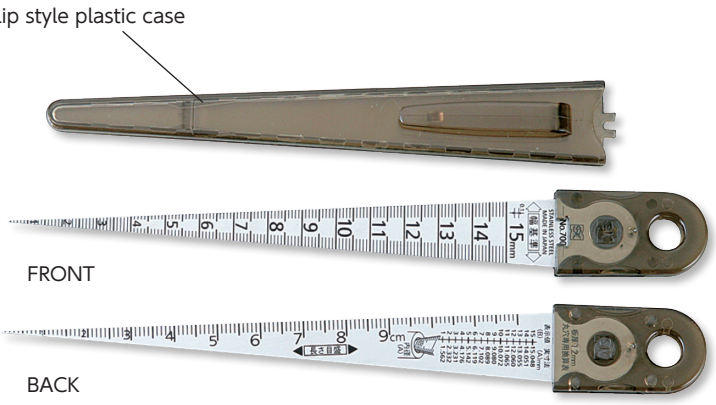
FEATURES
- Taper gauge specialized in inner width measurements
  One side of gauge rests secure along with the workpiece for a stable measurement
- The scale is designed to be read easily from the side when the gap to be measured is not visible from above

Order No.	Model No.	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Taper Angle	Full Length (mm)	Weight
007004	TPG-700T	1～15	±0.05	0.1	7° 9′ 10″	148.5	10g

TAPER GAUGE

HOW TO MOVIE

Clip style plastic case



Wide Measuring Range 1-29mm▶
Taper Gauge TPG-267M
P94

Slide case for convenient carrying▶
Slide Taper Gauge
P95

Made of polycarbonate▶
Plastic Taper Gauge KAIDAN
P95

130mm scale set▶
Taper Gauge with Scale
P96

Perfect for carrying in shirt pocket

USE
- For measurement of groove, gap, hole diameter etc.

MATERIAL
- Hardened stainless steel
- Hardness: HV480

FEATURES
- Satin finish
- Back side- scale graduated and hole diameter conversion table
- Pocket clip style carrying case
- Front - Width scale, Back - Length scale

Order No.	Model No.	Standard	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Taper Angle	Full Length (mm)	Thickness (mm)	Weight
007008	TPG-700AC	#700 1-15 with Plastic case	1～15	± 0.05	0.1	7° 9′ 10″	148.5	1.2	10g

TAPER GAUGE

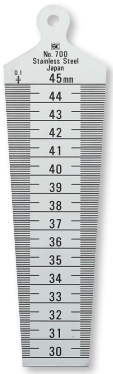
HOW TO MOVIE

For measuring narrower gap▶
Pin Gauge
P50

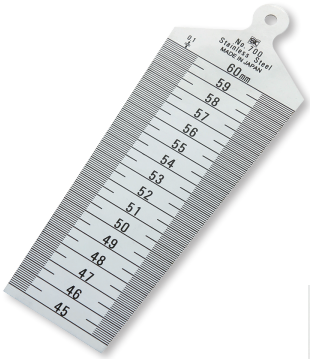
Quick size measurement of groove and gap

TPG-700A

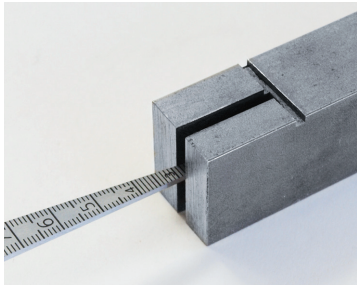
TPG-700B



TPG-700C



TPG-700D



Measurement of gap width

USE
- For measurement of groove, gap, hole diameter etc.

MATERIAL
- Hardened stainless steel
- Hardness: HV480

FEATURES
- Satin finish

Order No.	Model No.	Standard	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Taper Angle	Overall Length (mm)	Thickness (mm)	Weight
007010	TPG-700A	#700 1-15	1～15	± 0.05	0.1	7° 9′ 10″	148.5	1.2	10g
007011	TPG-700B	#700 15-30	15～30	± 0.05	0.1	7° 9′ 10″	153	1.2	40g
007012	TPG-700C	#700 30-45	30～45	± 0.05	0.1	7° 9′ 10″	159	1.2	60g
007013	TPG-700D	#700 45-60	45～60	± 0.05	0.1	7° 9′ 10″	161.5	1.2	80g

SHORT TAPER GAUGE SET/ SINGLE PART

HOW TO MOVIE

No need to cut-off the existing taper gauge.
Suitable for measuring shallow gap

TPG-511

TPG-0515S

USE
- For measurement of groove, gap, hole diameter etc.

MATERIAL
- Stainless steel
- Hardness: HV300

FEATURES
- Suitable for measuring shallow gap
- With ball chain
- TPG-0515S is set of 0.5～7.0mm, 5.0～11.0mm and 9.0～15.0mm

Order No.	Model No.	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Taper Angle	Overall Length (mm)	Thickness (mm)	Weight
111422	TPG-057	0.5～ 7.0	± 0.1	0.1	7° 9′ 10″	72.8	1.2	6g
111423	TPG-511	5.0～11.0				68.8		9g
111424	TPG-915	9.0～15.0						11g
111425	TPG-0515S	0.5～15.0				72.8		20g

TAPER GAUGE KAIDAN

HOW TO MOVIE

Made of polycarbonate ▶
Plastic Taper Gauge KAIDAN
P95

New stepped millimeter graduation prevents misreading

FRONT

BACK

USE
- For measurement of groove, gap, hole diameter etc.

MATERIAL
- Hardened stainless steel
- Hardness: HV480

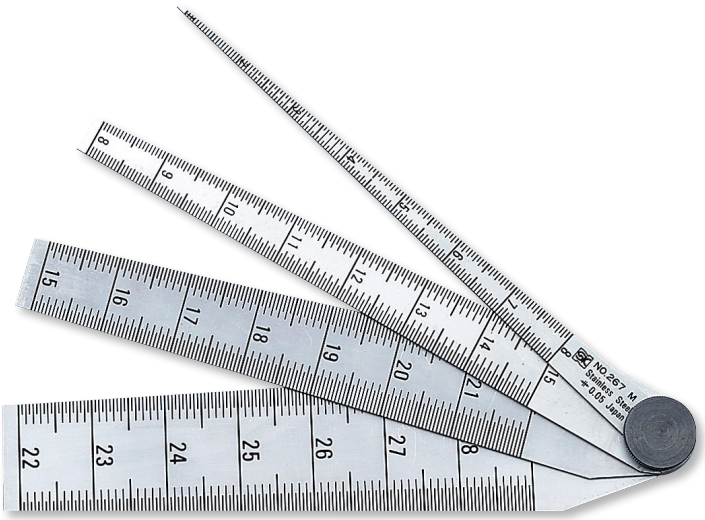
FEATURES
- Increasing height of each mark makes it easier for eye to distinguish 0.1mm steps
- Sequential number style can be read directly without checking the surrounding numbers, 0.2mm point markings
- Satin finish
- Front: width scale
- Back: length scale with a conversion table

Order No.	Model No.	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Taper Angle	Full Length (mm)	Thickness (mm)	Weight
007211	TPG-700AKD	1～15	± 0.05	0.1	7° 9′ 10″	148.5	1.0	10g

TAPER GAUGE

HOW TO MOVIE

Four different sizes of gauges in one set, enables to measure 1 ～ 29mm gap



USE
- For measurement of groove, gap, hole diameter etc.

MATERIAL
- Hardened stainless steel
- Hardness: HV480

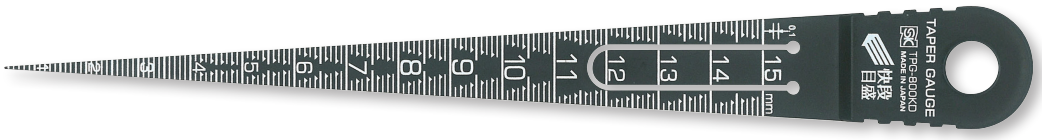
FEATURES
- Satin finish
- Number of leafs: 4 pieces（1～8mm, 8～15mm, 15～22mm, 22～29mm）

Order No.	Model No.	Standard	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Full Length (mm)	Thickness (mm)	Weight
007030	TPG-267M	267M	1～29	±0.05	0.05	144	1.2	80g

PLASTIC TAPER GAUGE KAIDAN

HOW TO MOVIE

Polycarbonate material allows scratch-free contact to measuring objects



Stepped millimeter graduation prevents misreading

can put in a pocket

USE
- For measurement of groove, gap, hole diameter etc.

MATERIAL
- Polycarbonate

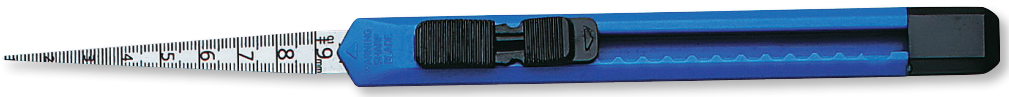
FEATURES
- Scratch resistant
- Clip design

Order No.	Model No.	Standard	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Full Length (mm)	Weight
007212	TPG-800KD	800	1～15	±0.2	0.1	158	5g

SLIDE TAPER GAUGE

HOW TO MOVIE

Clip-type slide case for safe and convenient carrying



USE
- For measurement of groove, gap, hole diameter etc.

MATERIAL
- Hardened stainless steel
- Hardness: HV480

FEATURES
- Satin finish
- Clip-type slide case for safe and convenient carrying
- Gauge tip is rounded for safety
- Slide into case for storage

Clip-style slide case

Perfect for carrying in shirt pocket

Order No.	Model No.	Standard	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Taper Angle	Weight
007201	TPG-700SL	700SL	1～9	±0.05	0.1	7°9′10″	20g

TAPER GAUGE WITH KAIDAN SCALE

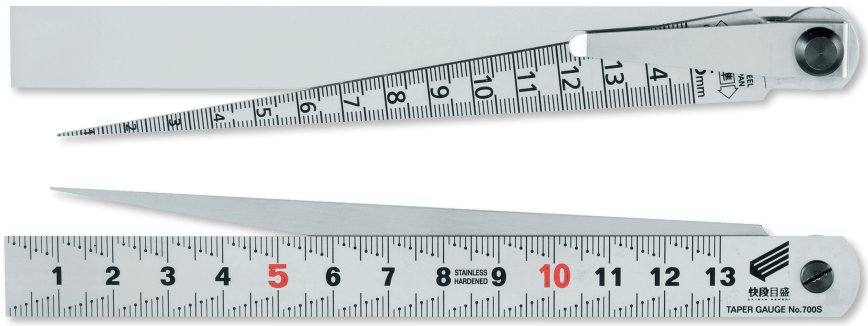
HOW TO MOVIE

Convenient set, taper gauge 700A with 130mm scale

Stepped graduation for easy reading ▶ TAPER GAUGE KAIDAN P94
Stepped graduation for easy reading ▶ Stainless Steel Ruler KAIDAN P304

FRONT

BACK



With pocket clip, easy to carry

USE
- For measurement of groove, gap, hole diameter and length

MATERIAL
- Hardened stainless steel

FEATURES
- Convenient set, taper gauge 700A with 130mm scale. Folds safely with pocket clip, easy to carry.
- 130mm scale with 1mm Kaidan graduation on the back for convenient use
- Satin finish

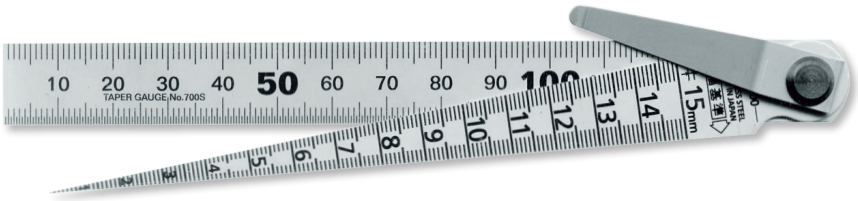
Order No.	Model No.	Weight
007205	TPG-700SKD	40g

	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Full Length (mm)	Taper Angle
Taper Gauge	1～ 15	±0.05	0.1	148.5	7°9′10″
Scale	0～130	±0.13	1	155	–

TAPER GAUGE

HOW TO MOVIE

Convenient set, taper gauge 700A with 130mm scale



With pocket clip, easy to carry

USE
- For measurement of groove, gap, hole diameter and length

MATERIAL
- Hardened stainless steel

FEATURES
- Convenient set, taper gauge 700A with 130mm scale. Folds safely with pocket clip, easy to carry.
- Satin finish

Order No.	Model No.	Standard	Weight
007200	TPG-700S	700S	40g

	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Full Length (mm)	Taper Angle
Taper Gauge	1～ 15	±0.05	0.1	148.5	7°9′10″
Scale	0～130	±0.13	0.5	155	–

CIRCULAR TAPER GAUGE

HOW TO MOVIE

For measuring narrower gap▶
Pin Gauge
P50

Rust prevention▶
Zerust Film for Steel
P380

TPG-710A

TPG-710B

TPG-710C

USE
- For measurement of groove, gap, hole and tube diameter etc.

MATERIAL
- Gauge: Carbon tool steel (TPG-710A), Carbon steel for machine structual use (TPG-710B & 710C)
- Grip: Free cutting steel

FEATURES
- Cylindrical type
- Silver finish

Order No.	Model No.	Standard	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Taper Angle	Full Length (mm)	Weight
007100	TPG-710A	710A	1～ 6	± 0.05	0.1	5° 44′	93	20g
007101	TPG-710B	710B	4～15	± 0.05	0.1	5° 44′	175	140g
007102	TPG-710C	710C	4～25	± 0.05	0.1	5° 44′	290	550g

CIRCULAR TAPER GAUGE WITH GREEN COLOR GRIP

HOW TO MOVIE

For measuring narrower gap▶
Pin Gauge
P50

Rust prevention▶
Zerust Film for Steel
P380

CGTPG-710A

CGTPG-710B

CGTPG-710C

USE
- For measurement of groove, gap, hole and tube diameter etc.

MATERIAL
- Gauge: Carbon tool steel (CCTPG-710A), Carbon steel for machine structual use (CCTPG-710B & 710C)
- Grip: Anodized aluminum

FEATURES
- Silver finish

Order No.	Model No.	Standard	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Taper Angle	Full Length (mm)	Weight
007103	CGTPG-710A	710A	1～ 6	± 0.05	0.1	5° 44′	93	20g
007104	CGTPG-710B	710B	4～15	± 0.05	0.1	5° 44′	175	140g
007105	CGTPG-710C	710C	4～25	± 0.05	0.1	5° 44′	290	550g

CIRCULAR TAPER GAUGE

HOW TO MOVIE

Rust prevention▶
Zerust Film for Steel
P380

TPG-715A

USE
- For measurement of groove, gap, hole and tube diameter etc.

MATERIAL
- Gauge: Carbon tool steel
- Case: Brass

FEATURES
- Comes with a cap for gauge tip protection

Order No.	Model No.	Standard	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Taper Angle	Full Length (mm)	Weight
007150	TPG-715A	715A	0.1 ~ 3	± 0.05	0.1	5° 43′ 29″	118.5	33g
007151	TPG-715B	715B	1 ~ 6	± 0.05	0.1	5° 43′ 29″	168	80g

CIRCULAR TAPER GAUGE WITH GREEN COLOR CASE

HOW TO MOVIE

Rust prevention▶
Zerust Film for Steel
P380

CCTPG-715A

USE
- For measurement of groove, gap, hole and tube diameter etc.

MATERIAL
- Gauge: Carbon tool steel
- Case: Anodized aluminum

FEATURES
- Comes with a cap for gauge tip protection

Order No.	Model No.	Standard	Measuring Range (mm)	Accuracy (mm)	Graduation (mm)	Taper Angle	Full Length (mm)	Weight
007152	CCTPG-715A	715A	0.1 ~ 3	± 0.05	0.1	5° 43′ 29″	118.5	33g
007153	CCTPG-715B	715B	1 ~ 6	± 0.05	0.1	5° 43′ 29″	168	80g

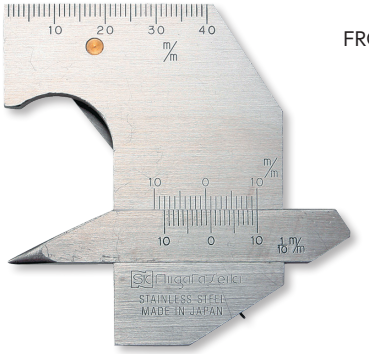
WELDING GAUGE

T

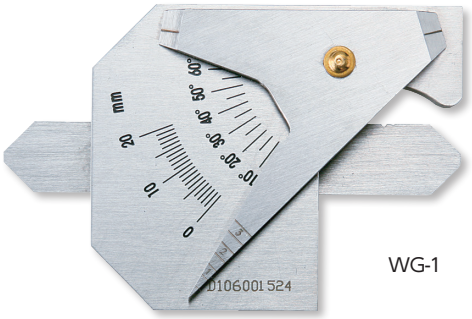
A wide variety of welding measurements in one gauge

Function comparison▶
Welding Gauge Chart
P110 ~111

FRONT



FRONT

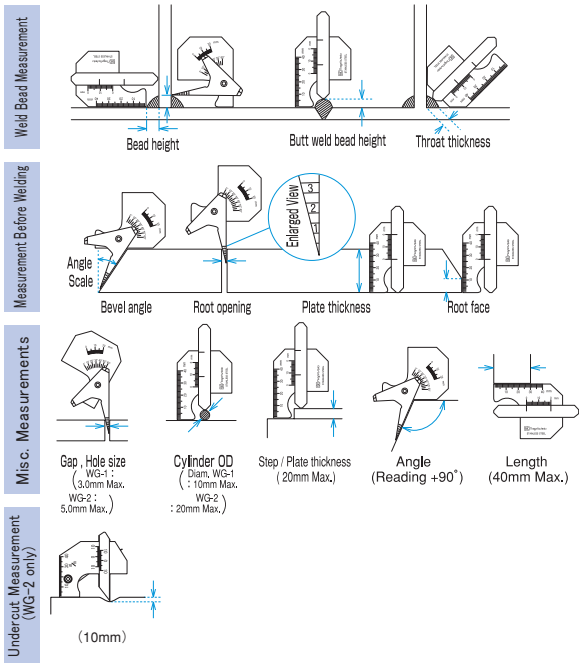


BACK

WG-1

BACK

WG-2



USE
- For measuring fillet weld, bead weld, etc.

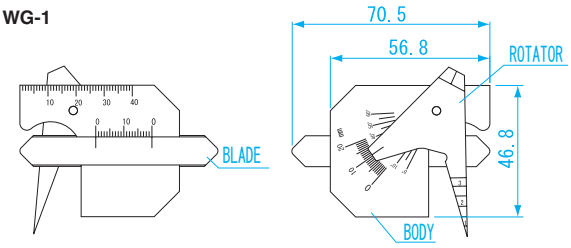
MATERIAL
- Stainless steel

FEATURES
- Efficient for welding and quality control
- Tough and portable (with vinyl case)

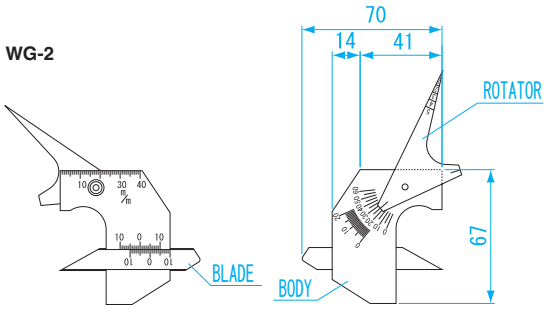
● DIMENSIONS

Units: mm

WG-1



WG-2



Order No.	Model No.	Measurement Accuracy for Throat Thickness of Fillet Weld	Bevel Angle Accuracy	Accuracy	Weight
007502	WG-1 (M)	± 0.4mm	± 0.7°	± 0.4mm	79g
007503	WG-2 (L)	± 0.2mm	± 0.7°	± 0.4mm	91g

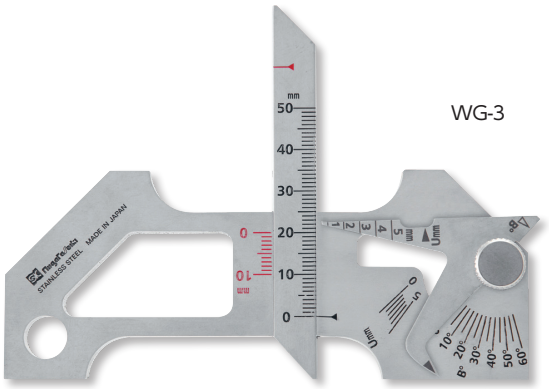
BLOCK GAUGE
PIN GAUGE
PIN VISE
PIN GAUGE ACCESSORIES
RING GAUGE
PLUG GAUGE
LIMIT GAUGE
THICKNESS GAUGE
TAPER GAUGE
WELDING GAUGE
OTHER GAUGES

WELDING GAUGE

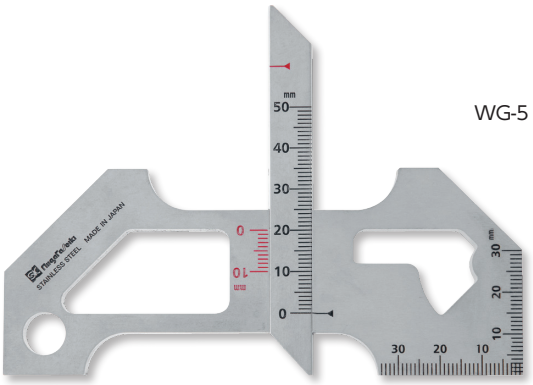
T

Gauges with new features added to existing welding gauge line-up.
Measure weld reinforcement height up to 50mm.

Function comparison▶
Welding Gauge Chart
P110 ~111

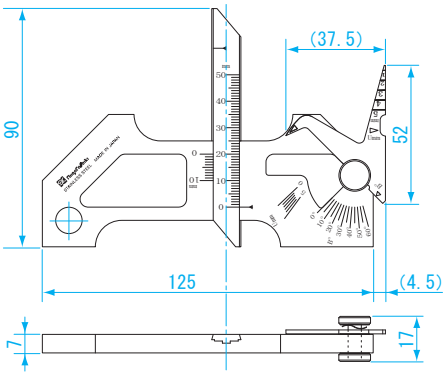


WG-3



WG-5

● DIMENSIONS Units: mm

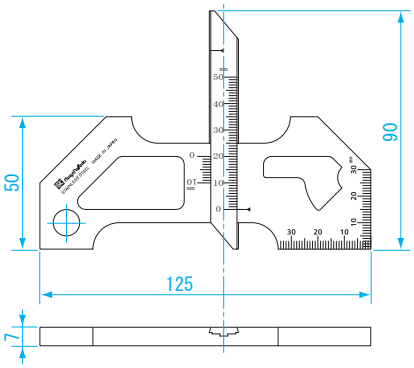


USE
- Measurement of size and alignment of bead, gap size, undercut, etc.

MATERIAL
- Stainless Steel (silver finish)

FEATURES
- Speed up and streamline the quality control of welding
- Measures weld reinforcement height up to 50mm
- Wide base for stability during measurements
- Pivoting gauge provides a variety of measurement functions
- Silver finish is ideal for reduced reflection when photographing measurements
- Translucent case for easy confirmation of contents

● DIMENSIONS Units: mm



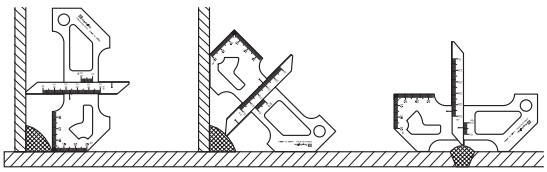
USE
- Measurement of size and alignment of bead, gap size, undercut, etc.

MATERIAL
- Stainless steel (silver finish)

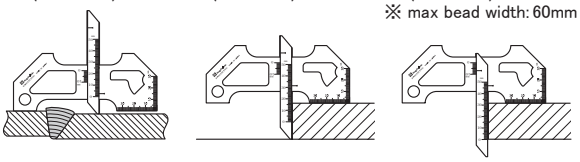
FEATURES
- Speed up and streamline the quality control of welding
- Measures weld reinforcement height up to 50mm
- Wide base for stability during measurements
- Silver finish is ideal for reduced reflection when photographing measurements
- Translucent case for easy confirmation of contents

■ Measurement Functions

WG-3, WG-5 capabilities

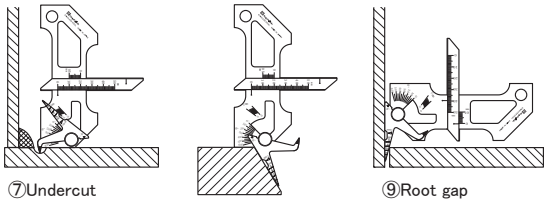


①Fillet leg length measurement (0~50mm)
②Fillet throat height measurement (0~50mm)
③Weld reinforcement height measurement (0~10mm)
※ max bead width: 60mm



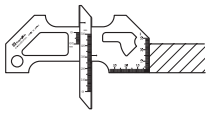
④Step height measurement (0~50mm)
※max bead width: 53mm
⑤Depth and step measurement (0~50mm)
⑥Thickness measurement (0~35mm)

WG-3 only



⑦Undercut measurement (0~5mm)
⑧Bevel angle measurement (0~60°)
⑨Root gap measurement (0.5~5mm)

WG-5 only



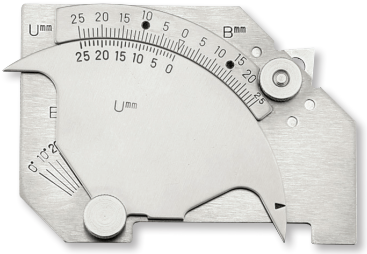
⑩Thickness measurement (0~30mm)

Order No.	Model No.	Weight
007506	WG-3	198g
007507	WG-5	187g

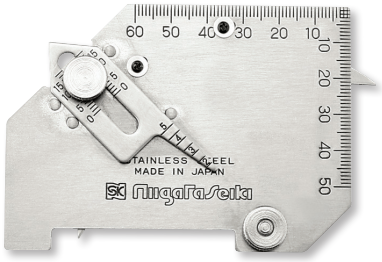
WELDING GAUGE

Essential for welding process. A wide variety of welding measurements in one gauge.

Function comparison▶
Welding Gauge Chart
P110 ~111

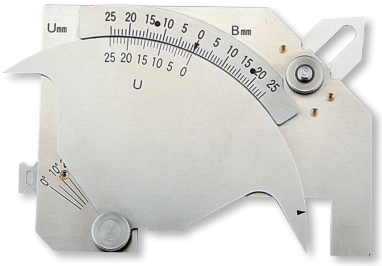


FRONT

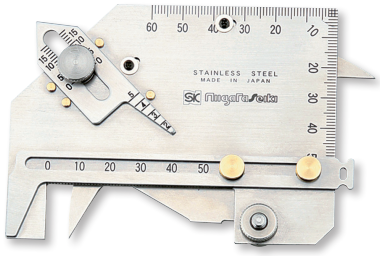


BACK

WGU-7M



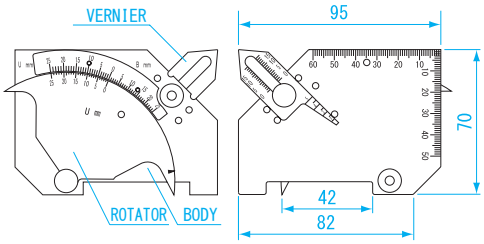
FRONT



BACK

WGU-8M

● DIMENSIONS Units: mm



USE

●For wide of variety welding measurements

Undercut depth / Groove angle / Inconsistent level
Height of fillet weld & bead weld / Throat thickness of fillet
Root opening / Plate thickness

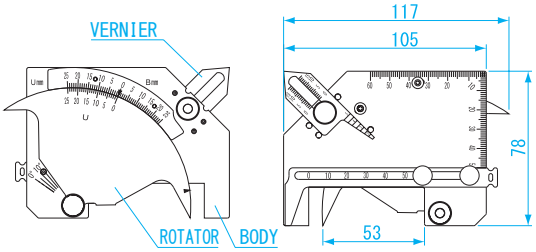
MATERIAL

●Stainless steel

FEATURES

●Long usage life, rust and corrosion resistant and extremely durable as well as being light weight
●Very convenient to the welding process involving steel frame assembly such as general welding, ship building, bridge construction, etc.
●Easy reading scale

● DIMENSIONS Units: mm



USE

●For wide of variety welding measurements

Undercut depth / Groove angle / Inconsistent level
Height of fillet weld & bead weld / Throat thickness of fillet
Root opening / Plate thickness / External diameter of circular workpiece / Width of bead weld

MATERIAL

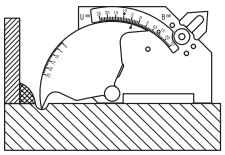
●Stainless steel

FEATURES

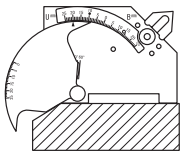
●Additional function for measurement of external diameter of circular workpiece, swelling of pressure welding of reinforcing iron and width of bead weld
●Bead stride width: 53mm
●Bevel angle range: 0-70°

■ MEASUREMENT FUNCTION

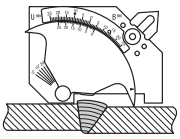
WGU-7M,WGU-8M, WGU-9M common functions



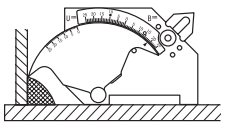
① Undercut depth (0~25mm)



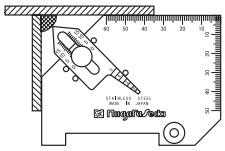
② Bevel angle
(WGU-7M: 0~60°)
(WGU-8M・WGU-9M: 0~70°)



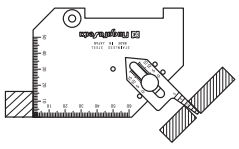
③ Bead striding width (WGU-7M: 42mm)
(WGU-8M・WGU-9M: 53mm)
Step difference (0~25mm)



④ Height of fillet & bead weld (0~25mm)

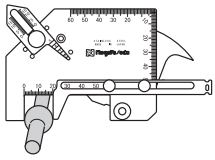


⑤ Throat thickness of fillet weld (0~15mm)

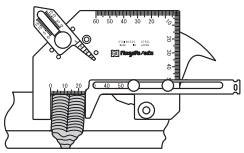


⑥ Root opening (2~5mm)
⑦ Plate thickness (scale)

WGU-8M, WGU-9M common functions



⑧ External diameter of circular workpiece
WGU-8M: up to 30mm
WGU-9M: up to 50mm



⑨ Width of bead weld (0~53mm)

Order No.	Model No.	Weight
007513	WGU-7M	150g
007514	WGU-8M	190g

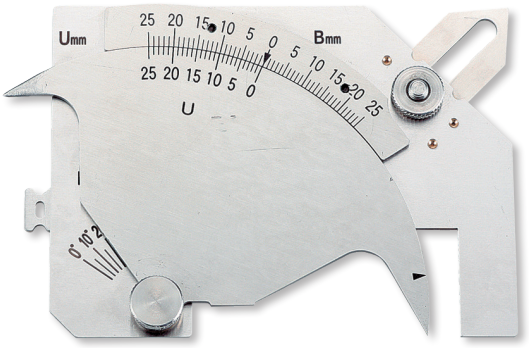
BLOCK GAUGE
PIN GAUGE
PIN VISE
PIN GAUGE ACCESSORIES
RING GAUGE
PLUG GAUGE
LIMIT GAUGE
THICKNESS GAUGE
TAPER GAUGE
WELDING GAUGE
OTHER GAUGES

WELDING GAUGE

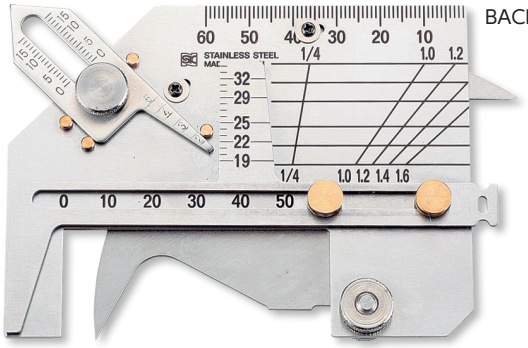
T

Essential for welding process. A wide variety of welding measurements in one gauge.

Function comparison▶
Welding Gauge Chart
P110 ~111



FRONT



BACK

USE

●For a wide variety of welding measurements

Undercut depth / Groove angle / Inconsistent level
Height of fillet weld & bead weld / Throat thickness of fillet
Root opening / Plate thickness / External diameter of circular workpiece / Width of bead weld

MATERIAL

●Stainless steel

FEATURES

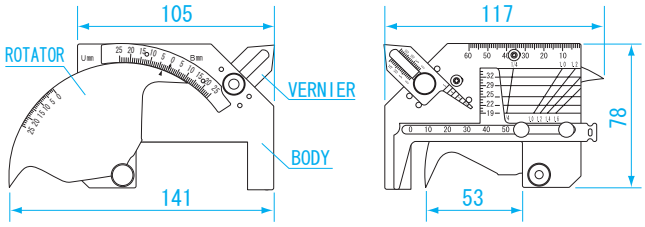
●Additional functions for measurement of
- external diameter of circular workpiece
- swelling of pressure welded reinforcing iron
- width of bead weld

●Bead stride width: 53mm

●Bevel angle range: 0-70°

●Higher accuracy undercut measurement function

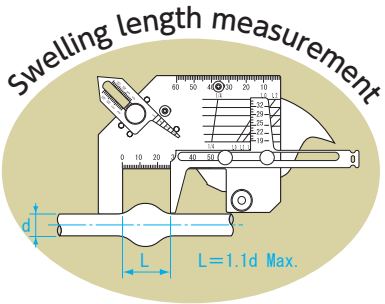
● DIMENSIONS Units: mm

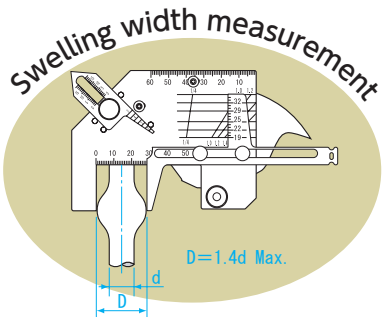


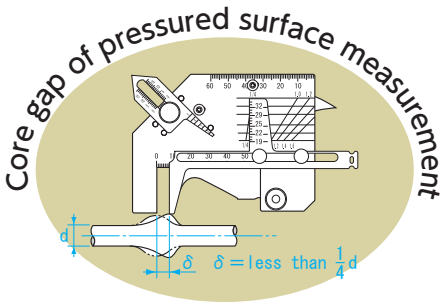
Additional functions

Provides quick way to measure the diameter of welded rebar to insure proper dimensions of weld seam.

Scale marked for material diameter (ϕ19, 20, 25, 29, 32) corresponding to various rebar diameters, and amount of expansion (1/4, 1.0~1.6). You can quickly find the ratio by reading the intersection of the two scale lines.







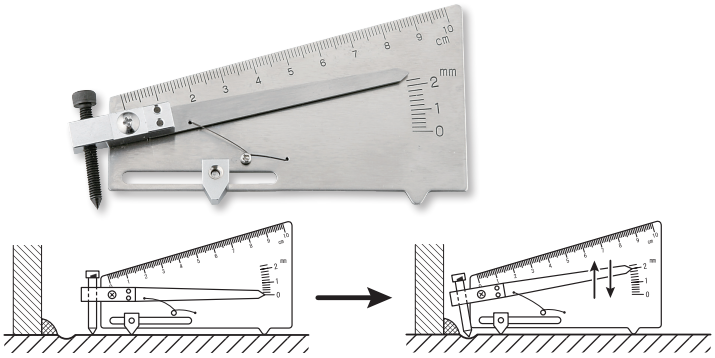
※ Please also refer to "MEASUREMENT FUNCTIONS" on Page 101 to see other functions

Order No.	Model No.	Rebar diameter (mm)	Expansion	Weight
007515	WGU-9M	ϕ 19 ~ 35	1/4, 1.0 ~ 1.6	190g

WELDING GAUGE

Essential for welding process. Specialized for undercut depth measurement.

Function comparison▶
Welding Gauge Chart
P110 ~111



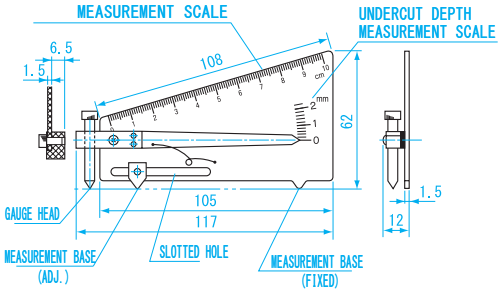
USE
- For undercut depth and length measurement (Scale range: 0-2mm)

MATERIAL
- Stainless steel

FEATURES
- Easy to measure depth and length of undercut
- Capable of 0 adjustment with screw type of gauge head

SPECIFICATIONS
- Measuring Range
  Depth: 0 ~ 2.0mm (Minimum reading: 0.2mm, Accuracy: ± 0.1mm)
  Length: 0 ~ 10cm
- Width of measurement base: ≒ 40mm

● DIMENSIONS Units: mm



Zero Adjustment

1. Press this gauge to the measuring sample
2. Adjust Zero point adjustment screw to indicate 0, insuring that all three points contact surface

Measurement

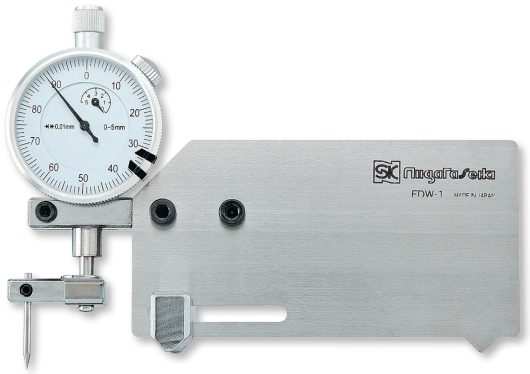
After 0 adjustment, put the tool on undercut and the spring will move indicator arm to show depth of undercut on graduation

Order No.	Model No.	Weight
007521	WGU-2S	100g

WELDING GAUGE

Essential for welding process. Dial gauge type. Specialized for undercut measurement.

Function comparison▶
Welding Gauge Chart
P110 ~111



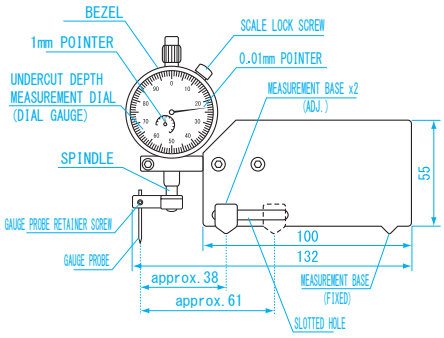
USE
- Exclusive use for undercut measurement

MATERIAL
- Stainless steel

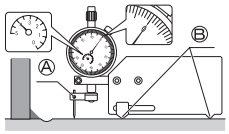
FEATURES
- Easy and accurate to measure depth and length of undercut
- Dial gauge type performs more precise measurement
- Three point support for stable measurement

SPECIFICATIONS
- Measuring Range: 0~4.00mm
- Minimum reading: 0.01mm
- Accuracy: ±0.04mm
- Width of measurement base: ≒ 23mm

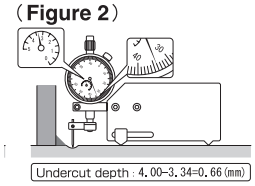
● DIMENSIONS Units: mm



(Figure 1)



(Figure 2)



Zero Adjustment

Recommended to be performed on a flat surface such as a surface plate

① Loosen GAUGE PROBE RETAINER SCREW using hex key
② Place Welding Gauge on surface insuring all three points of MEASUREMENT BASE are making contact (2x ADJ, 1x FIXED) and push on SPINDLE shaft. When 1mm POINTER indicates 4.00mm, tighten GAUGE PROBE RETAINER SCREW. (Insure that probe tip is in contact with the surface plate)

Measurement

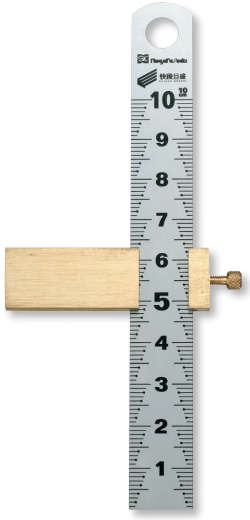
① Place the gauge on a flat surface and rotate BEZEL to indicate 0.01mm. (Figure 1)
② Place PROBE tip on weld undercut point to be measured. (Figure 2)
③ Undercut value is obtained by subtracting Dial Gauge reading from 4.00mm

Order No.	Model No.	Weight
007520	FDW-1	280g

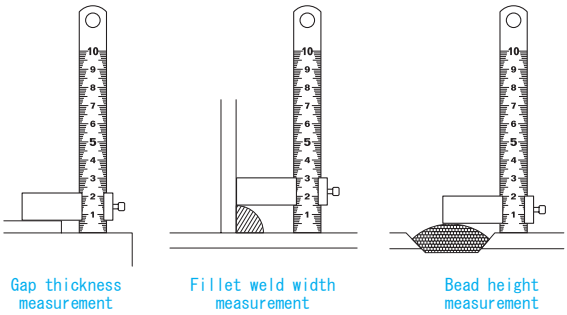
MULTI STEP GAUGE KAIDAN

For measurement of steps of machinery, jigs and structures.
Vertical scale for easy reading.

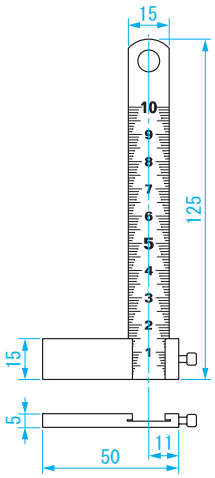
Function comparison▶
Welding Gauge Chart
P110 ~111



● Example of use



● DIMEMSIONS Units: mm



USE
- For measurement of steps of machinery, jigs and structures

MATERIAL
- Stainless steel, Brass

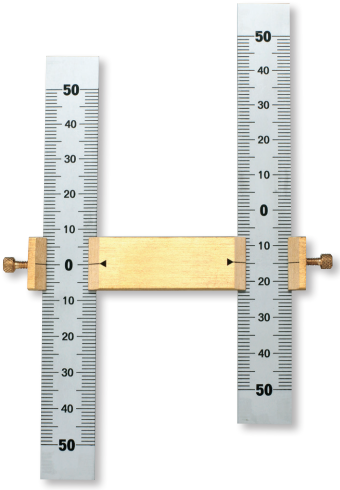
FEATURES
- Vertical scale for easy reading
- Stepped length of linear graduations by 1mm for easy-to-read

Order No.	Model No.	Measurement Range (mm)	Accuracy (mm)	Graduation (mm)	Weight
111401	MSG-100KD	0~100	±0.15	1	32g

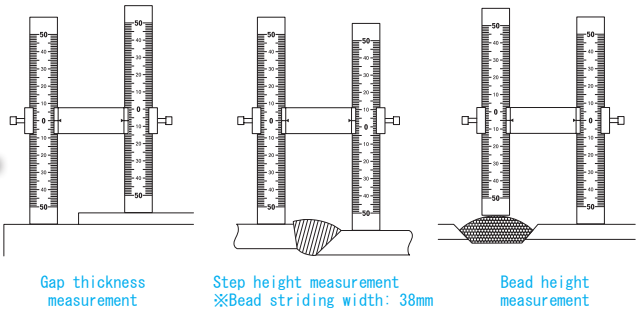
MULTI STEP GAUGE

For measurement of steps of machinery, jigs and structures.
Vertical scale for easy reading.

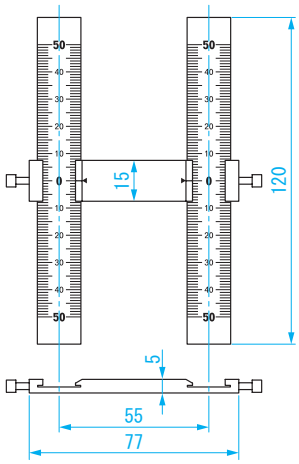
Function comparison▶
Welding Gauge Chart
P110 ~111



● Example of use



● DIMEMSIONS Units: mm



USE
- For measurement of steps of machinery, jigs and structures

MATERIAL
- Stainless steel, Brass

FEATURES
- Vertical scale for easy reading

Order No.	Model No.	Measurement Range (mm)	Accuracy (mm)	Graduation (mm)	Weight
111402	MSG-50	-50~+50	±0.15	1	51g

DIGITAL WELDING GAUGE

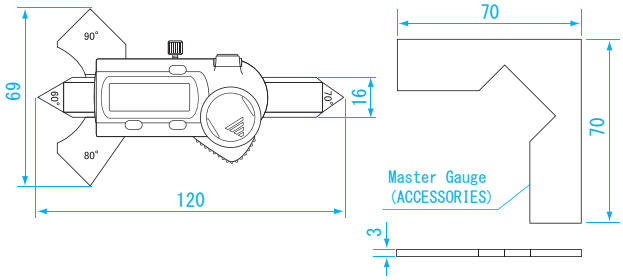
T PDI O

Essential for welding process.
Digital welding gauge specialized for measuring fillet weld and bead weld height.

Function comparison▶ Welding Gauge Chart P110 ~111
Wireless data output▶ Bluetooth BOX for Calipers P165

Provided with zero setting master gauge

● DIMENSIONS Units: mm



USE
- For measuring the size of fillet weld and bead weld

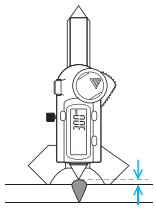
MATERIAL
- Stainless steel

FEATURES
- Easy to read with digital display
- Bevel angle: 60°, 70°, 80°, 90° (Accuracy: ±2°)
- Master gauge included
- Hold function

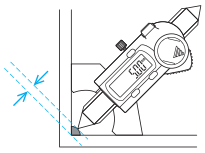
SPECIFICATIONS
- Throat thickness: 20mm
- Bead height: 10mm
- perating temperature: 0~40℃

POWER
- One CR2032 (lithium) battery included for testing

Weld reinforcement height measurement

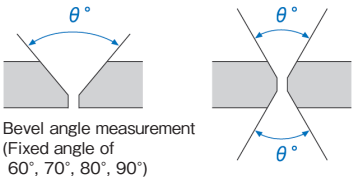


Bead height
Maximum measurement
10mm



Throat thickness
Maximum measurement
20mm

Measurement before welding process



Bevel angle measurement
(Fixed angle of
60°, 70°, 80°, 90°)

※ Quantization Error (± 1 digit) not included

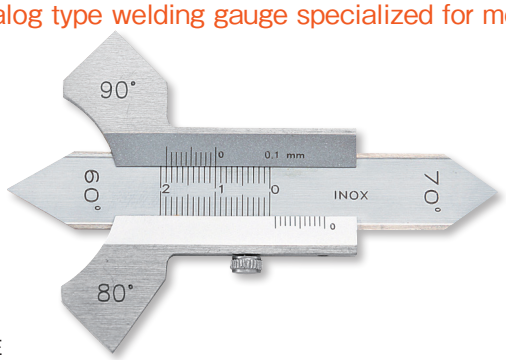
Order No.	Model No.	Resolution (mm)	Accuracy※ (mm)	Weight
007527	GDCS-20WG	0.01	± 0.03	130g

WELDING GAUGE

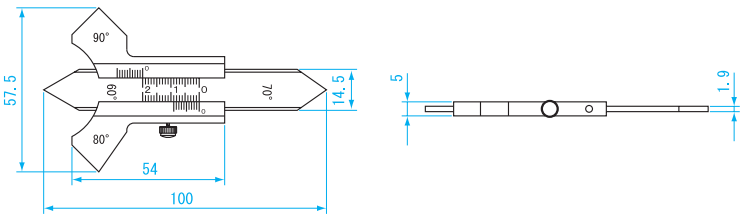
T O

Essential for welding process.
Analog type welding gauge specialized for measuring fillet weld and bead weld height.

Function comparison▶ Welding Gauge Chart P110 ~111



● DIMENSIONS Units: mm



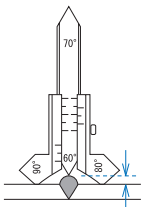
USE
- Use for measuring the size of fillet weld and bead weld

MATERIAL
- Stainless steel

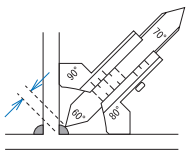
FEATURES
- Made of stainless steel, corrosion resistant
- Bevel angle: 60°, 70°, 80°, 90°

SPECIFICATIONS
- Fillet weld: 11mm
- Bead weld: 8mm
- Accuracy: ±0.2mm
- Minimum reading: 0.1mm

Weld Bead Measurement

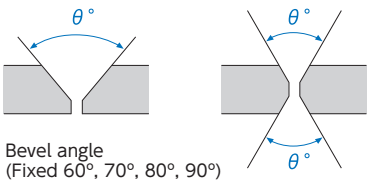


Bead height
Maximum measurement 8mm



Throat thickness
Maximum measurement 11mm

Measurement Before Welding



Bevel angle
(Fixed 60°, 70°, 80°, 90°)

Order No.	Model No.	Weight
007516	AWG-10	80g

BLOCK GAUGE
PIN GAUGE
PIN VISE
PIN GAUGE ACCESSORIES
RING GAUGE
PLUG GAUGE
LIMIT GAUGE
THICKNESS GAUGE
TAPER GAUGE
WELDING GAUGE
OTHER GAUGES

ANGLE LIMIT GAUGE

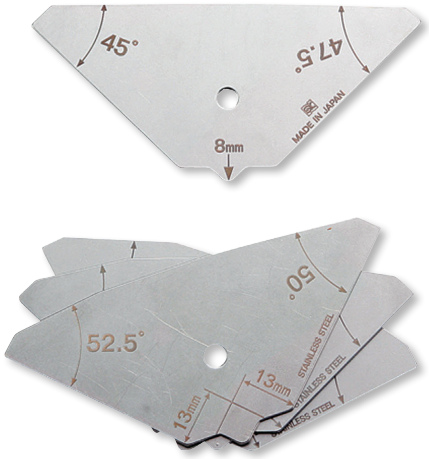
T

Function comparison▶
Welding Gauge Chart
P110 ~111

Groove angle measurement▶
Angle Gauge
P109

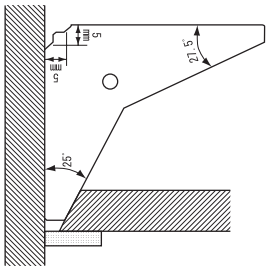
Inner angle measurement▶
Inside Protractor
P158

WAL2542

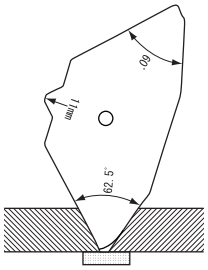


WAL4562

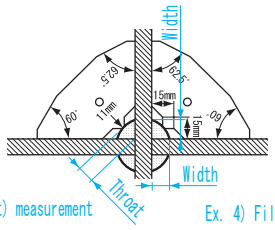
● Example of use



Ex. 1) Joint gap angle (inside) measurement



Ex. 2) Butt joint gap angle measurement



Ex. 3) Fillet weld (throat) measurement

Ex. 4) Fillet weld width measurement

USE
- For measuring bevel angle of T-joint (interior angle), bevel angle of facing joint (interior angle), leg length (height), and throat thickness of fillet weld

MATERIAL
- Stainless steel

FEATURES
- Indication of size limit for easy judgement (angle step by 2.5°, throat thickness step by 1mm)
- Set of 4 pieces
- Provided with plastic case and ball chain

SPECIFICATIONS

Model No.		WAL2542				WAL4562			
Blank No.		1	2	3	4	1	2	3	4
Outline Dimension (mm)	Overall width	92				92			
	Overall height	46	45	44	43	43	44	45	46
	Plate thickness	1.5				1.5			
Material/ Finish		SUS304 /barrel semi-gloss finish				SUS304/ barrel semi-gloss finish			
Measurement Value Indication	Angle degree (Both side)	25°	30°	35°	40°	45°	50°	55°	60°
		27.5°	32.5°	37.5°	42.5°	47.5°	52.5°	57.5°	62.5°
	Throat thickness (Front)	4	5	6	7	8	9	10	11
	Leg Length (Back)	5	7	8	10	11	13	14	15
Accuracy		Fillet weld·Reinforcement±0.1mm/ Angle ±1°				Fillet weld·Reinforcement±0.1mm/ Angle ±1°			

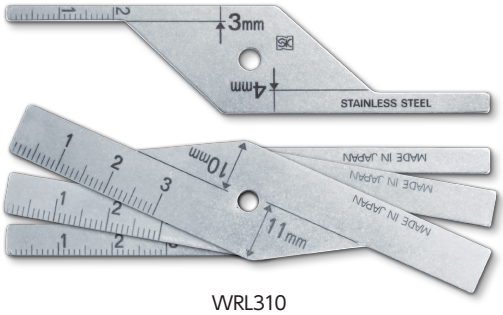
Order No.	Model No.	Weight
007550	WAL2542	100g
007551	WAL4562	120g

ROOT LIMIT GAUGE

T

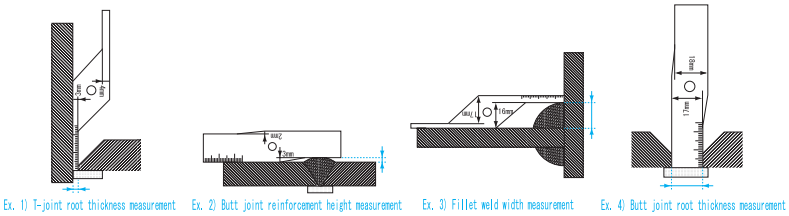
Limit gauge for measuring root gap of T-joint, facing joint and so on

Function comparison▶
Welding Gauge Chart
P110 ~111



WRL310

● Example of use



USE
- ●Use for measuring root gap of T-joint or facing joint, leg length (height) of fillet weld and excess weld and height of facing joint

MATERIAL
- ●Stainless steel

FEATURES
- ●Measure with 1mm interval
- ●The measurement result of root thickness will be indicated on the scale
- ●Measurement range chosen so most frequently used dimensions are combined
- ●Provided with plastic case & ball chain

Order No.	Model No.	Weight
007560	WRL310	60g
007561	WRL1118	90g

SPECIFICATIONS

Model No.		WRL310				WRL1118			
Blank No.		1	2	3	4	1	2	3	4
Outline dimension (mm)	Overall width	90				90			
	Overall height	20				20			
	Plate thickness	2				2			
Material/ Finish		SUS304/ barrel semi-gloss finish				SUS304/ barrel semi-gloss finish			
Measurement Value Indication	Root gap (Front)	3·4	5·6	7·8	9·10	11·12	13·14	15·16	17·18
	Leg length·height (Back)	16·17	14·15	12·13	10·11	8·9	6·7	4·5	2·3
	Root side(Front)	20				20			
	Plate thickness	30				30			
Accuracy		±0.1mm				±0.1mm			

WELDING ELECTRODE GAUGE SET / SINGLE PART

Quick measurement for height of welding electrode

EC-1520S

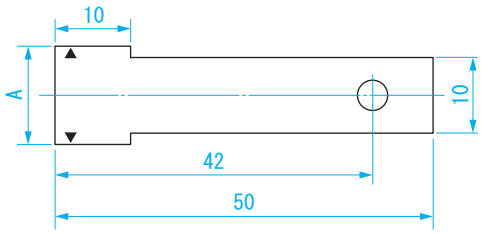
EC-21

USE
- ●Use for measuring height of welding electrode

MATERIAL
- ●Stainless steel

SPECIFICATIONS
- ●Accuracy: ±0.2mm
- ●Thickness: 1mm
- ●With ball chain

● DIMEMSIONS Units: mm



■ Set

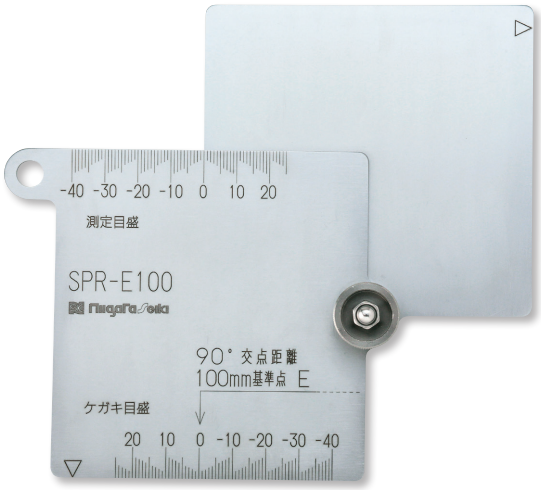
Order No.	Model No.	Size A (mm)	Weight
111419	EC-1015S	10・11・12・13・14・15	26g
111420	EC-1520S	15・16・17・18・19・20	28g
111421	EC-2025S	20・21・22・23・24・25	31g

■ Single Part

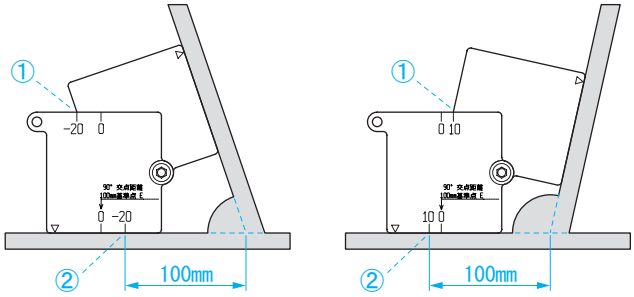
Order No.	Model No.	Size A (mm)	Weight
111403	EC-10	10	6.7g
111404	EC-11	11	6.8g
111405	EC-12	12	6.8g
111406	EC-13	13	6.9g
111407	EC-14	14	7.0g
111408	EC-15	15	7.1g
111409	EC-16	16	7.2g
111410	EC-17	17	7.2g
111411	EC-18	18	7.3g
111412	EC-19	19	7.4g
111413	EC-20	20	7.5g
111414	EC-21	21	7.5g
111415	EC-22	22	7.6g
111416	EC-23	23	7.7g
111417	EC-24	24	7.8g
111418	EC-25	25	7.8g

STEALTH POINT READER

The length measurement from welded corners.
Can determine the position of the reference point（100 mm）from the corner hidden in fillet.



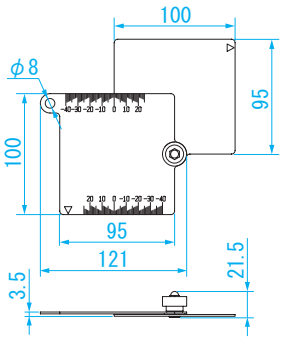
● Example of use



①Read the value from the measuring scale where the two plates intersect

②Confirm the same point as ① and the value read from step ① indicates the point 100mm from the corner

● DIMENSIONS Units: mm



USE
- For measuring the length from the welded corner

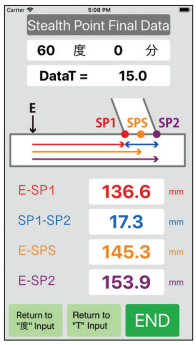
FEATURES
- Can determine the position of the reference point（100 mm）from the corner hidden in fillet

MATERIAL
- Stainless steel

Order No.	Model No.	Usage Range (intersection angle)	Accuracy (mm)	Weight
007571	SPR-E100	60°～120°	± 0.5	240g

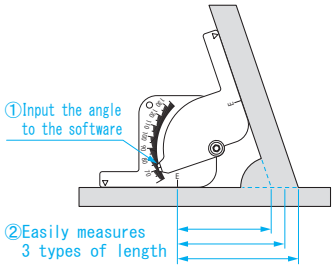
STEALTH POINT READER NEW!

For measuring the length from the welded corner.
Dedicated application software for free and it can be easily measured the distance from the reference point to the welding point.

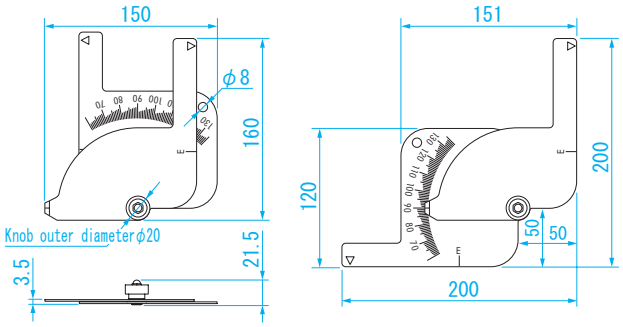


< Image of application >

● Example of use



● DIMENSIONS Units: mm



USE
- For measuring the length from the welded corner

MATERIAL
- Stainless steel

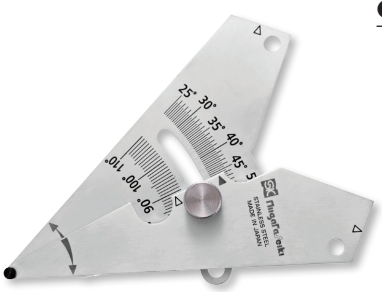
FEATURES
- Dedicated application software for free and it can be easily measured the distance from the reference point to the welding point

Supported OS
- iPhone: iOS 10.0 or later / Android: Android 4.4 or later

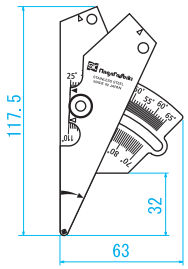
Order No.	Model No.	Usage Range (intersection angle)	Angle Measurement Accuracy	Accuracy（welding point distance from reference point）(mm)	Weight
NEW! 007572	SPR-S	60° ～ 135°	± 0.5°	± 0.7 (85° or more) ± 1.1 (less than 85°)	270g

ANGLE GAUGE

Specialized for angle measurement of grooves with minimum reading 0.5°



● DIMENSIONS Units: mm



USE
- ●Butt angle measurement and gap angle measurement

MATERIAL
- ●Stainless steel

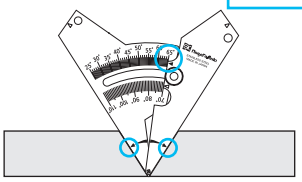
FEATURES
- ●Measurement of butt joint gap angle
- ●Sharpened tip enables measurement for root gap of 0mm, or when sheet thickness is less than 15mm
- ●Minimum reading 0.5°, large graduation for easy reading
- ●T-joint gap angle can be measured avoiding weld buildup
- ●Non-reflective satin finish for better ligibility
- ●Solid and convenient carrying (provided with plastic carrying case)

SPECIFICATIONS
- ●Bevel angle: 25~65° (minimum graduation: 0.5°)
- ●Angle of cross weld part: 70~110°

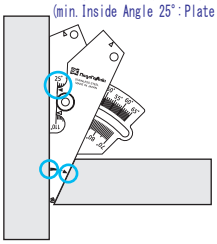
● Example use

Example 1) Butt joint gap angle measurement (max. inside angle 65°: plate thickness :30mm)

・How to read the value Examples 1) & 2) Angle between ◀ ▶ marks indicated at ◀

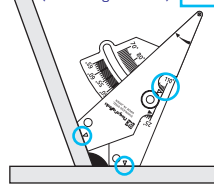


Example 2) T-joint gap angle measurement (min. Inside Angle 25°: Plate Thickness: 30mm)

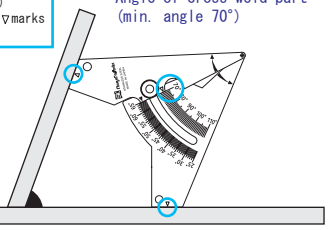


Example 3) Angle of cross weld part (max. angle 110°)

How to read the value Examples 3) & 4) Angle between ◁ ▽ marks indicated at ▷



Example 4) Angle of cross weld part (min. angle 70°)

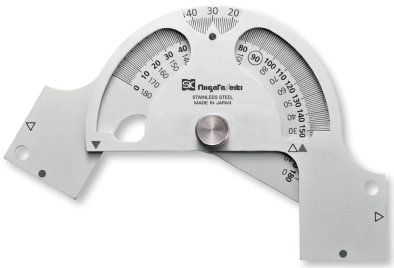


SPECIFICATIONS

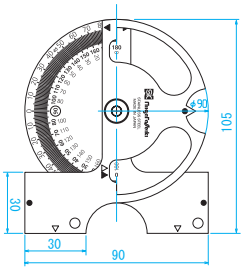
Order No.	Model No.	Accuracy	Weight
007518	WGA-65	± 0.5°	73.5g

ANGLE PROTRACTOR

Specialized for angle measurement.
three measurement points enable multiple angle measurements.



● DIMENSIONS Units: mm



USE
- ●Measuring angles for sheet metal bending, welding flanges and butt joints, openings and bevels, scissors plates, etc.

MATERIAL
- ●Stainless steel

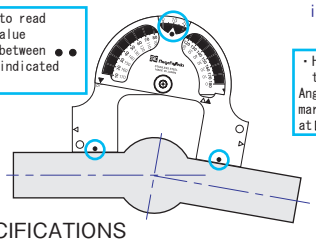
FEATURES
- ●Enables a wide range of angle measurements before and after welding process
- ●Direct measurement can be done without interference from swelling or weld bead
- ●Can measure sheet metal bends and outside angle measurements
- ●Non-reflective satin finish for better ligibility
- ●Solid and convenient carrying (provided with plastic case)

SPECIFICATIONS
- ●Bevel angle: Scissors angle 30~130° (minimum graduation: 1°)
- ●Bending angle and angle of butt weld joint: 0~90°
- ●Stud and beam angle after welding: 0~180°

● Example use

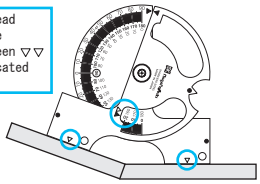
Example 1) Angle measurement of bent butt weld (0~90°: example indicates 10°)

・How to read the value Angle between ● ● marks indicated at ●



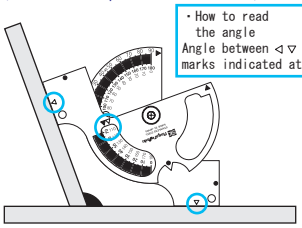
Example 2) Angle measurement of bent Flange and metal plate (0~180°: example indicates 20°)

・How to read the value Angle between ▽ ▽ marks indicated at ▷

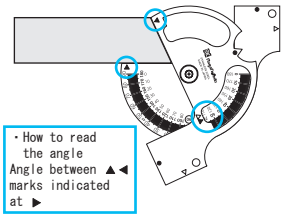


Example 3) Angle of cross weld part (0~180°: example indicates 110°)

・How to read the angle Angle between ◁ ▽ marks indicated at ▷



Example 4) Plate bevel angle (30~130°: example indicates 65°)



・How to read the angle Angle between ▲ ◀ marks indicated at ▶

SPECIFICATIONS

Order No.	Model No.	Accuracy of angle	Weight
007519	AP-130	± 0.5°	100g

● Measurement function and List

※ Measures dimension of weld, relative amount must be calculated

Process	No.	Categories	Figures	TAPER GAUGE	WG-1	WG-2	WG-3	WG-5	WGU-7M	WGU-8M	WGU-9M	WGU-2S
Machining and Assembly (Before welding)	1	T joint Gap		○	○	○	○	–	○	○	○	–
	2	Lap joint Gap		○	○	○	○	–	○	○	○	–
	3	Misalignment of Butt weld		○	○	○	○	–	○	○	○	–
	4	Root Openings		○	○	○	○	–	○	○	○	–
	5	Root gap of T-joint		–	–	–	–	–	–	–	–	–
	6	Root Face		–	○	○	○	○	○	○	○	○
	7	Bevel Angle		–	○	○	○	–	○	○	○	–
	8	Groove angle		–	–	–	–	–	–	–	–	–
	9	T-joint gap angle		–	–	–	–	–	–	–	–	–
	10	Edg Misalignment		–	○	○	○	○	○	○	○	–
After Welding	11	Leg length (height) of Fillet Weld		–	○	○	○	○	○	○	○	–
	12	Throat Thickness of Fillet Weld		–	○	○	○	○	○	○	○	–
	13	Height of Butt weld Overlay		–	○	○	○	○	○	○	○	–
	14	Height of T- joint weld Overlay		–	○	○	○	○	○	○	○	–
	15	Undercut		–	–	○	○	–	○	○	○	○
	16	Misalignment of Butt Weld		–	–	○	○	○	○	○	○	–
	17	Bending angle and angle of butt weld joint		–	–	–	–	–	–	–	–	–
	18	Angle of Cross weld part		–	–	–	–	–	–	–	–	–
	19	Stud angle after welding		–	–	–	–	–	–	–	–	–
	20	Irregularity of Bead Surface		–	–	–	–	–	–	○	○	–
Pressure welding	21	Swelling diameter		–	–	–	–	–	–	△※	○	–
	22	Swelling length		–	–	–	–	–	–	△※	○	–
	23	Misalignment of Pressured Surface		–	–	–	–	–	–	△※	○	–
	24	Bending angle		–	–	–	–	–	–	–	–	–

SPECIFICATIONS	TAPER GAUGE	WG-1	WG-2	WG-3	WG-5	WGU-7M	WGU-8M	WGU-9M	WGU-2S
Material	–	Stainless steel Plate thickness: 4.3mm		Stainless steel Plate thickness 7mm Satin finish		Stainless steel Plate thickness: 1.5mm			
Scale	–	40mm		–	30・35mm	50・60mm		60mm	100mm
Height of Bead Weld	–	10mm		10mm		25mm			–
Height of Fillet Weld	–	20mm	10mm Minimum reading0.1	50mm		25mm			–
Throat thickness of fillet weld	–	10mm		50mm		15mm			–
Undercut depth	–	–	10mm	10mm	–	25mm			2mm (Accuracy ±0.1mm)
Root Opening	–	0.5 ~ 3mm	0.5 ~ 5mm	0.5 ~ 5mm	–	2 ~ 5mm			–
Welding Bar Diameter	–	10mm	20mm	10mm		–	30mm	50mm	–
Width of Bead Weld	–	–		–		–	0 ~ 53mm		–
Length Accuracy	–	± 0.4mm	± 0.2mm (Gap measurement ± 0.4mm)	± 0.4mm		± 0.4mm (Throat thickness measurement ± 0.7mm- manufacturing accuracy)			± 0.6mm
Beveling(groove) angle	–	0 ~ 60° Minimum reading value : 5°		0 ~ 60° Minimum reading value : 5°	–	0 ~ 60° Minimum reading value : 5°	0 ~ 70° Minimum reading value : 5°		–
Bending angle and angle of butt weld joint	–	–		–		–			
Stud and beam angle after welding	–	–		–		–			
Angle Accuracy	–	± 0.7°		± 0.7°	–	± 2°			–

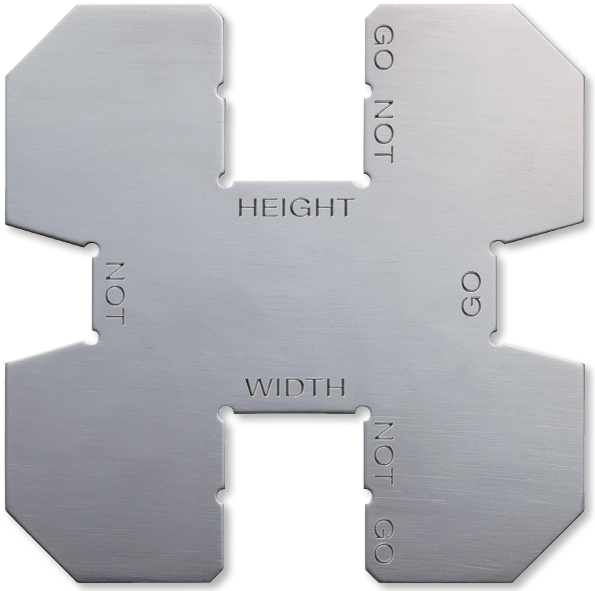
Process	No.	Categories	Figures	FDW-1	WRL310 WRL1118	WAL2542 WAL4562	AWG-10	GDCS-20WG	WGA-65	AP-130	MSG-100KD	MSG-50
Machining and Assembly (Before welding)	1	T joint Gap		–	○	–	–	–	–	–	–	–
	2	Lap joint Gap		–	○	–	–	–	–	–	–	–
	3	Misalignment of Butt weld		–	○	–	–	–	–	–	–	–
	4	Root Openings		–	○	–	–	–	–	–	–	–
	5	Root gap of T-joint		–	○	–	–	–	–	–	–	–
	6	Root Face		–	○	–	–	–	–	–	–	–
	7	Bevel Angle		–	–	–	–	–	–	○	–	–
	8	Groove angle		–	–	○	○	○	○	–	–	–
	9	T-joint gap angle		–	–	○	–	–	○	–	–	–
	10	Edg Misalignment		–	–	–	–	–	–	–	–	–
After Welding	11	Leg length (height) of Fillet Weld		–	○	○	–	–	–	–	○	–
	12	Throat Thickness of Fillet Weld		–	–	○	○	○	–	–	–	–
	13	Height of Butt weld Overlay		–	○	–	○	○	–	–	○	○
	14	Height of T- joint weld Overlay		–	○	–	○	○	–	–	○	–
	15	Undercut		○	–	–	–	–	–	–	–	–
	16	Misalignment of Butt Weld		–	–	–	–	–	–	–	–	○
	17	Bending angle and angle of butt weld joint		–	–	–	–	–	–	○	–	–
	18	Angle of Cross weld part		–	–	–	–	–	○	○	–	–
	19	Stud angle after welding		–	–	–	–	–	○	○	–	–
	20	Irregularity of Bead Surface		–	–	–	–	–	–	–	–	–
Pressure welding	21	Swelling diameter		–	–	–	–	–	–	–	–	–
	22	Swelling length		–	–	–	–	–	–	–	–	–
	23	Misalignment of Pressured Surface		–	–	–	–	–	–	–	–	–
	24	Bending angle		–	–	–	–	–	–	○	–	–

SPECIFICATIONS	FDW-1	WRL310 WRL1118	WAL2542 WAL4562	AWG-10	GDCS-20WG	WGA-65	AP-130	MSG-100KD	MSG-50
Material	Stainless steel Plate thickness:1.5mm	Stainless steel Plate thickness : 2mm	Stainless steel Plate thickness:1.5mm	Stainless steel Thickness : Body : 5mm, Blade:1.9mm	Stainless steel Thickness : Body : 5.7mm Blade : 3.2mm	Stainless steel Plate thickness : 1.5mm Satin finish		Stainless steel Brass	Stainless steel Brass
Scale	–	20mm	–	–		–		10cm	50-0-50mm
Height of Bead Weld	–	10～17mm fixed (1mm step) 2～9mm fixed (1mm step)	–	8mm	10mm	–		10cm (Width: Approx. 3cm)	100mm (Width: Approx. 38mm)
Height of Fillet Weld	–	10～17mm fixed (1mm step) 2～9mm fixed (1mm step)	5・7・8・10mm fixed 11・13・14・15mm fixed	–		–		10cm (Width: Approx. 3cm)	–
Throat thickness of fillet weld	–	–	4～7mm fixed (1mm step) 8～11mm fixed (1mm step)	11mm	20mm	–		–	–
Undercut depth	4mm (Accuracy ± 0.04mm)	–	–	–		–		–	–
Root Opening	–	3～10mm fixed (1mm step) 11～18mm fixed (1mm step)	–	–		–		–	–
Welding Bar Diameter	–	–	–	–		–		–	–
Width of Bead Weld	–	–	–	–		–		–	–
Length Accuracy	–	± 0.1mm	± 0.1mm	± 0.2mm	± 0.03mm	–		–	–
Beveling (groove) angle	–	–	25・27.5・30・32.5 35・37.5・40・42.5° fixed 45・47.5・50・52.5 55・57.5・60・62.5° fixed	60・70・80・90° fixed		25～65° Minimum reading value : 0.5°	30～130° Minimum reading value : 1°	–	–
Bending angle and angle of butt weld joint	–	–	–	–		–	0～90°	–	–
Stud and beam angle after welding	–	–	–	–		70～110°	0～180°	–	–
Angle Accuracy	–	–	± 1°	–		± 0.5°		–	–

GASKET LIMIT GAUGE

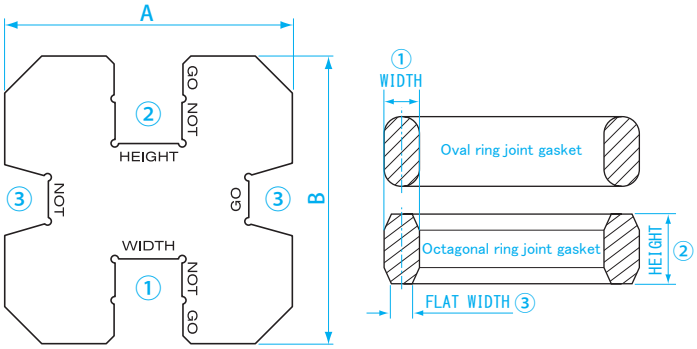
T MTO product

Limit gauge for GO/NOGO testing of ring joint gaskets



GST-1

● DIMENSIONS



Units: mm

Model No.	Outer size		① Width		② Height		③ Flat width	
	A	B	GO	NOT	GO	NOT	GO	NOT
GST-1	80	80	11.33	10.93	16.20	15.20	7.95	7.55
GST-2	80	80	12.90	12.50	18.00	17.00	8.86	8.46
GST-3	80	80	16.08	15.68	21.10	20.10	10.69	10.29
GST-4	120	120	19.25	18.85	24.40	23.40	12.52	12.12
GST-5	120	120	22.42	22.02	27.40	26.40	15.01	14.61
GST-6	140	140	25.60	25.20	32.30	31.30	17.50	17.10
GST-7	140	140	28.78	28.38	35.60	34.60	20.01	19.61

USE
- ●Limit gauge for GO/NOGO testing of ring joint gaskets (Oval ring joint gasket can be tested its width only. Octagonal ring joint gasket can be tested its width, height and flat width.)

MATERIAL
- ●Stainless steel

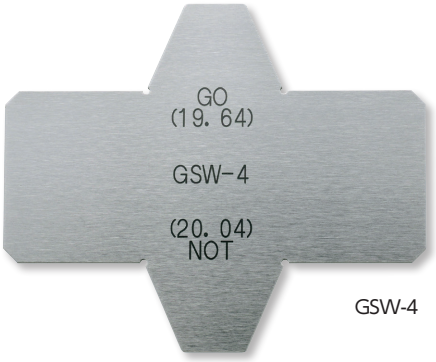
SPECIFICATIONS
- ●GO/NOGO standard conforms to JPI-7S-23
- ●Thickness: 1.5mm
- ●Gasket width accuracy: ±0.20mm
- ●Gasket height accuracy: ±0.5mm
- ●Octagonal corner radius accuracy: ±0.5mm

Order No.	Model No.	Compatible Gasket No.	Common size	Octagonal gasket			Weight
			Gasket Width (mm)	Gasket Height (mm)	Flat width (mm)	Octagonal Corner Radius (mm)	
007478	GST-1	21,23,24,26,27,30,31,34,35,37, 39,41,44,45,49,53,57,61,65,69, 82,84,92,99	11.13	15.7	7.75	1.5	53g
007479	GST-2	28,32,46,73	12.70	17.5	8.66	1.5	53g
007480	GST-3	38,50,54,62,66,77,86,87	15.88	20.6	10.49	1.5	110g
007481	GST-4	42,47,70,74,88,89,93,94,95	19.05	23.9	12.32	1.5	110g
007482	GST-5	51,58,96,97,98	22.22	26.9	14.81	1.5	110g
007483	GST-6	63,78	25.40	31.8	17.30	2.3	139g
007484	GST-7	55,67,71,100	28.58	35.1	19.81	2.3	139g

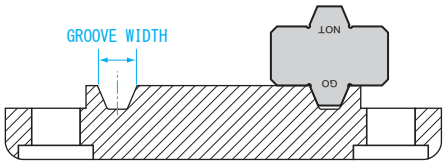
GASKET LIMIT GAUGE

T MTO product

Limit gauge for GO/NOGO testing of O-ring groove width



GSW-4



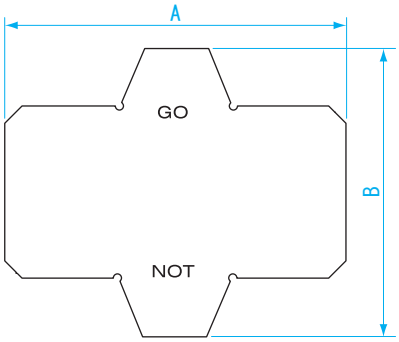
O-ring groove limit inspection

USE
- Limit gauge for measuring width of O-ring groove

MATERIAL
- Stainless steel

SPECIFICATIONS
- GO/NOGO standard conforms to JPI-7S-23
- Thickness: 1.5mm
- Groove width accuracy: ±0.20mm
- Groove depth accuracy: +0.41/0mm
- Groove bottom corner radius tolerance: Less than 1.5mm ···+0.8/0mm
  More than 1.5mm ···±0.8mm
- Angle accuracy: ±0.5°

● DIMENSIONS



Units: mm

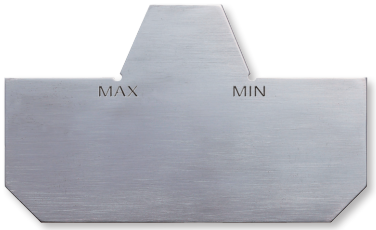
Model No.	A	B
GSW-1	40	35
GSW-2	40	35
GSW-3	60	50
GSW-4	60	50
GSW-5	80	60
GSW-6	80	60
GSW-7	80	70

Order No.	Model No.	Compatible O-Ring No.	Groove Width (mm)	GO (mm)	NOT (mm)	Groove Depth (mm)	Groove Bottom Corner Radius	Weight
007471	GSW-1	21,23,24,26,27,30,31,34,35, 37,39,41,44,45,49,53,57,61, 65,69,82,84,92,99	11.91	11.71	12.11	7.92	0.8	11g
007472	GSW-2	28,32,46,73	13.49	13.29	13.69	9.52	1.5	11g
007473	GSW-3	38,50,54,62,66,77,86,87	16.66	16.46	16.86	11.13	1.5	22g
007474	GSW-4	42,47,70,74,88,89,93,94,95	19.84	19.64	20.04	12.7	1.5	22g
007475	GSW-5	51,58,96,97,98	23.01	22.81	23.21	14.27	1.5	35g
007476	GSW-6	63,78	26.97	26.77	27.17	15.88	2.3	35g
007477	GSW-7	55,67,71,100	30.18	29.98	30.38	17.48	2.3	40g

GASKET LIMIT GAUGE

T MTO product

Limit gauge for GO/NOGO testing of angle for octagonal ring joint gaskets

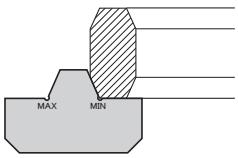


OG-2

USE
- Limit gauge for GO/NOGO testing of angle for octagonal ring joint gaskets

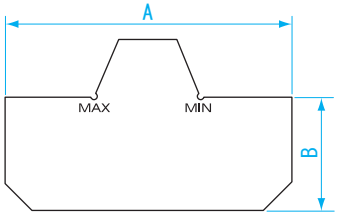
MATERIAL
- Stainless steel

SPECIFICATIONS
- Angle standard conforms to JPI-7S-23
- Thickness: 1.5mm
- Dimensional tolerance of angle: ±0.5°



Limit gauge for testing angle of octagonal shaped gaskets

● DIMENSIONS



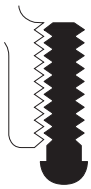
Order No.	Model No.	Width A (mm)	Height B (mm)	MAX	MIN	Weight
007485	OG-1	50	20	23° 30'	22° 30'	10g
007486	OG-2	60	27	23° 30'	22° 30'	18g

PITCH GAUGE

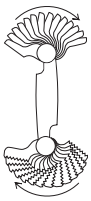
For screw inspection▶
Thread Limit Gauge
P80 ~82

Rust prevention▶
Zerust Film for Steel
P380

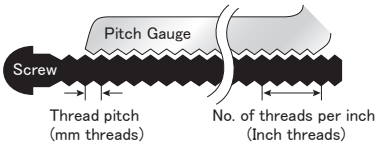
W26



Screw thread measurement



Sliding type



USE
- Use for measuring screw pitch

MATERIAL
- Carbon steel for machine structural use

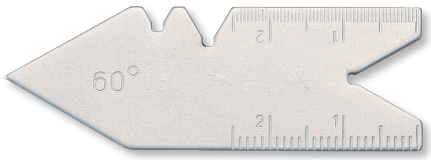
FEATURES
- Pitch is marked on leaf

Order No.	Model No.	Indication Unit	Number of Leaves	Pitch Size	Weight
110961	M28	mm	28	0.25 0.3 0.35 0.4 0.45 0.5 0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 1 1.1 1.2 1.25 1.3 1.4 1.5 1.6 1.7 1.75 1.8 1.9 2 2.5	40g
110962	W26	inch	26	4 41/2 5 6 7 8 9 10 11 12 13 14 16 18 19 20 22 24 25 26 28 30 32 40 48 60	40g

CENTER GAUGE

Maintenance for drill tip angle▶
Drill Tip Gauge
P116

Rust prevention▶
Zerust Film for Steel
P380



SG-60M

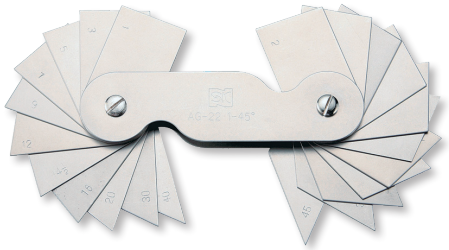
USE
- Fish tail thread gauge for inspection of the angle of lathe center, angle of the tool for screw cutting, etc.

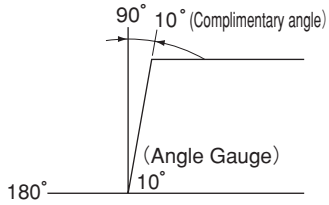
MATERIAL
- Carbon steel for machine structural use

FEATURES
- Can check the angle of tool bits and tool edges

Order No.	Model No.	Angle	Graduation	Accuracy	Weight
007541	SG-60M	60°	0~25mm 0.5mm step, 1mm step	±1°	10g
007542	SG-55I	55°	0~1inch 1/14 inch step, 1/20 inch step	±1°	10g

ANGLE GAUGE





USE
- Use for inspection of internal angle

MATERIAL
- Stainless steel

FEATURES
- 11 leaves on each side, range of 1°~45°
- The angle marked on each leaf is complementary angle

Order No.	Model No.	Graduation	Accuracy	Weight
110931	AG-22	1 2 3 4 5 6 7 8 9 10 12 14 14.5 15 16 18 20 25 30 35 40 45°	±20'	200g

BLOCK GAUGE
PIN GAUGE
PIN VISE
PIN GAUGE ACCESSORIES
RING GAUGE
PLUG GAUGE
LIMIT GAUGE
THICKNESS GAUGE
TAPER GAUGE
WELDING GAUGE
OTHER GAUGES

RADIUS GAUGE

RG-32

USE
- For checking the radius curve of dies, jigs, and wooden molds, etc.

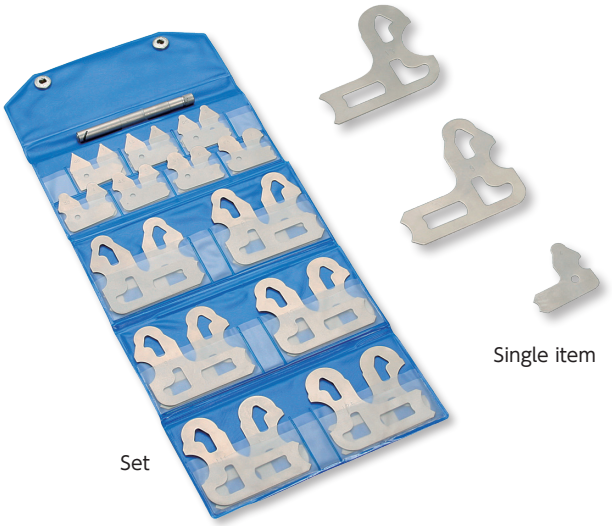
MATERIAL
- Carbon steel for machine structural use

FEATURES
- Concave and convex leaves are separated

Order No.	Model No.	Number of Leaves per Set	Details of Radius Dimension (mm)	Accuracy (mm)	Weight
110923	RG-34	34	1.0 ～ 3.0 (0.25 step) 3.5 ～ 7.0 (0.5 step)	±0.1	65g
110922	RG-32	32	7.5 ～15.0 (0.5 step)	±0.1	115g
110921	RG-30	30	15.5 ～20.0 (0.5 step) 21.0 ～25.0 (1.0 step)	±0.1	110g

RADIUS GAUGE (Set / Single part)

(RG-26S)



USE
- For checking radius curve of dies, jigs and wooden mold etc.

MATERIAL
- Stainless steel

FEATURES
- Each size is separated, suitable for measuring difficult to access parts

SPECIFICATIONS (Radius gauge set)

Order No.	Model No.	Pieces per Set	Detail of Radius Dimension (mm)	Accuracy (mm)	Weight
110875	RG-26S	26	0.5～13.0(0.5step)	±0.1	290g

SPECIFICATIONS (Single part)

Order No.	Model No.	Detail of Radius Dimension (mm)
110881	RGL-05	0.5
110882	RGL-10	1.0
110883	RGL-15	1.5
110884	RGL-20	2.0
110885	RGL-25	2.5
110886	RGL-30	3.0
110887	RGL-35	3.5
110888	RGL-40	4.0
110889	RGL-45	4.5
110890	RGL-50	5.0
110891	RGL-55	5.5
110892	RGL-60	6.0
110893	RGL-65	6.5
110894	RGL-70	7.0
110895	RGL-75	7.5
110896	RGL-80	8.0
110897	RGL-85	8.5
110898	RGL-90	9.0
110899	RGL-95	9.5
110900	RGL-100	10.0
110901	RGL-105	10.5
110902	RGL-110	11.0
110903	RGL-115	11.5
110904	RGL-120	12.0
110905	RGL-125	12.5
110906	RGL-130	13.0

DRILL TIP GAUGE

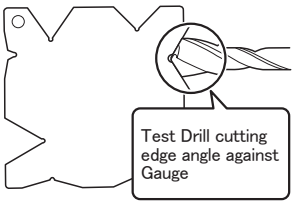
T

Suitable for checking angle of drill-tip after grinding

USE
- Use for checking angle of drill-tip after grinding (60° 70° 90° 118° 125° 135° 150° 160°)

MATERIAL
- Stainless steel

FEATURES
- 8 types of edge angle gauges are useful when grinding
- 2mm scale to measure length of drill tip
- Provided with ball chain



Order No.	Model No.	Product Dimension W×H×D(mm)	Accuracy	Weight
007531	DPG-A	77×77×1	±1.5°	11g

DRILL TIP GAUGE

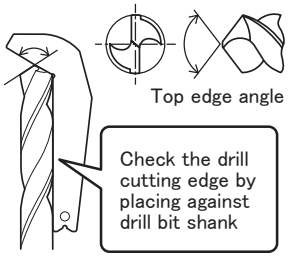
T

Suitable for measuring drill-tip after grinding

USE
- Use for measuring drill-tip after grinding (118°)

MATERIAL
- Stainless steel

FEATURES
- Confirms drill tip edge angle after grinding
- Provided with ball chain



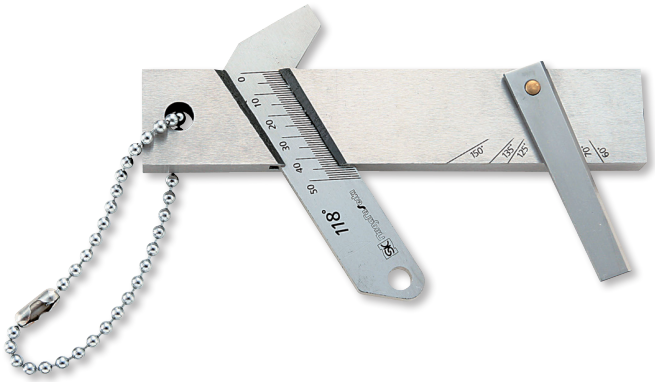
Order No.	Model No.	Product Dimension L×D(mm)	Accuracy	Weight
007532	DPG-118	90×0.5	±1.5°	10g

DRILL POINT GAUGE

T

Suitable for checking angle of drill-tip after grinding

Rust prevention▶
Zerust Film for Steel
P380



USE
- Maintenance management of drilling work
- For measuring drill-tip angle, eccentricity of chisel edge and lip height

MATERIAL
- Main scale･rotor: Stainless steel
- Base: Carbon tool steel

FEATURES
- Clearly marked scale for quick reading
- Rotating tip angle gauge (Marking at 60° 70° 90° 125° 135° 150°)
- Provided with ball chain

SPECIFICATIONS
- Tip angle: 118°
- Drill edge length: 3～45mm

Order No.	Model No.	Product Dimension (mm)	Accuracy	Weight
007535	DP-118	Base:22×110×8 Rotor:7.5×50×2 Main Scale:68×9	±1.5°	160g

SLIDING DRILL POINT GAUGE

T

Suitable for maintenance of drill-tip angle

USE
- Maintenance management of drill point angle

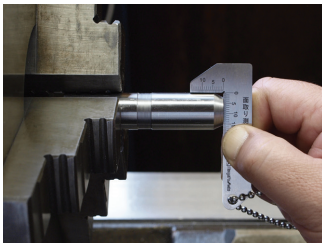
MATERIAL
- Stainless steel

FEATURES
- Use for measuring the drill tip edge length range of 3～40mm
- Satin finish

SPECIFICATIONS
- Tip angle: 118°
- Drill edge length: 3～40mm

Order No.	Model No.	Accuracy	Weight
007536	S-118	±1.5°	150g

CHAMFER MEASURING GAUGE



USE
- Use for measuring the size of all kinds of chamfer

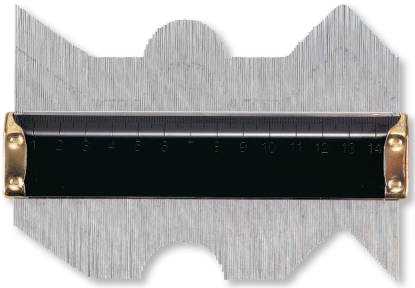
MATERIAL
- Stainless steel

FEATURES
- Measure chamfer circumference of workpiece on lathe
- For milling, measure hole chamfer on workpiece
- Provided with ball chain

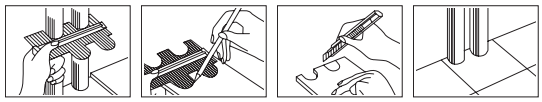
SPECIFICATIONS
- Measuring range: 0~15C
- Minimum reading: 0.5mm

Order No.	Model No.	Product Dimension (mm)	Accuracy (mm)	Weight
006990	CMG-10	Overall Length 71.6×2 Side Length 16	±0.25	20g

PROFILE GAUGE



Example of Use



1. Push profile gauge against desired sample
2. Transfer profile to workpiece
3. Cut workpiece to shape
4. A perfect fit made easy

USE
- Contour gauge for recording the cross-sectional shape of a surface

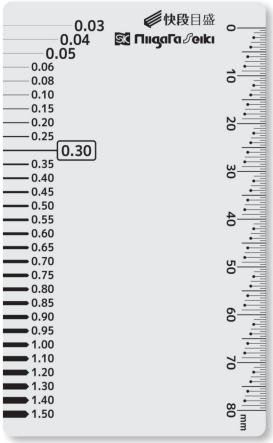
MATERIAL
- Pin material: Stainless steel

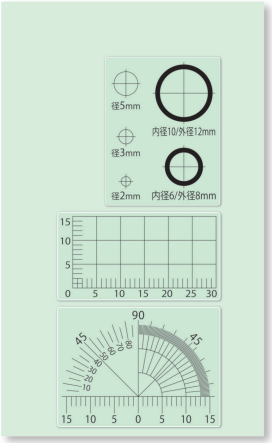
FEATURES
- Pins are thin and can easily record a smooth curve

SPECIFICATIONS
- Active Length: 150mm

Order No.	Model No.	Product Dimension (mm)	Weight
011440	CG-100S	155×84	210g

CRACK GAUGE KAIDAN CLEAR CARD





Sticker included

USE
- Crack measurement of wall, foundation etc.

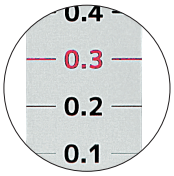
MATERIAL
- Polyester

FEATURES
- Measuring width and length of crack
- Supplied with sticker for angle and diameter measurement
- Flexible, transparent polyester material makes it easy to use
- Portable (business card size)

Order No.	Model No.	Product Dimension (mm)	Weight
111263	CM-CKD	91×55	1g

CRACK GAUGE WITH KAIDAN SCALE TYPE

0.3mm marked in red.
For measuring cracks.



FRONT

BACK

USE
- Crack measurement of wall, foundation etc.

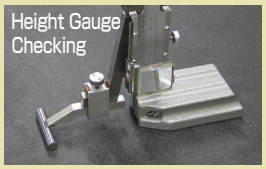
MATERIAL
- Stainless steel

FEATURES
- 0.3mm marked in red, easy to distinguish defect or cracks
- Stepped length of linear graduations by 1mm for easy-to-read on back
- Satin finished

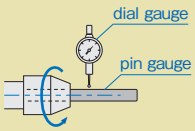
Order No.	Model No.	Measurement Range of Crack Gauge (mm)	Measurement Range of Metal Scale (mm)	Weight
111262	CM-SKD	0.1~2.0	0~150	10g

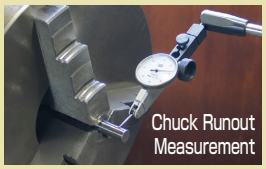
HOW TO USE PIN GAUGE

Measuring Tool Checking

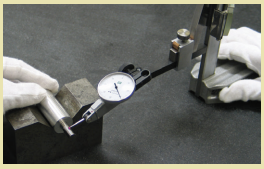


Center Runout Measurement



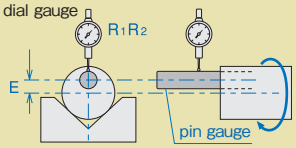


Hole eccentricity Measurement



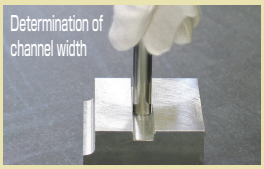
R_1··· Max. reading of dial gauge
R_2··· Min. reading of dial gauge

$$E=\frac{R_1-R_2}{2}$$



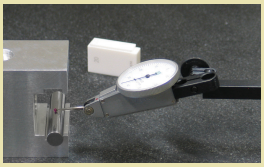
Dovetail Measurement

Determination of channel width



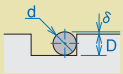
Key way and etc

Groove depth measurement



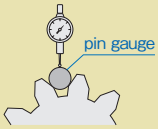
δ··· Dial gauge reading

$D=d-\delta$



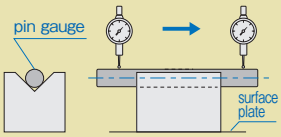
Gear tooth measurement

Dial gauge measurement

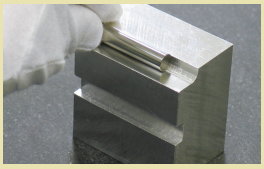


Measuring V groove parallelism

Dial gauge measurement

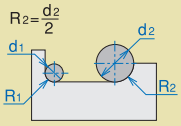


Radius measurement



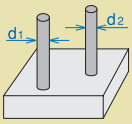
$$R_1=\frac{d_1}{2}$$

$$R_2=\frac{d_2}{2}$$

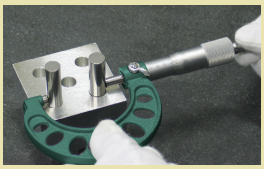


Hole diameter measurement

GO / No-Go Pin Gauges also available

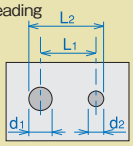


Measurement between holes

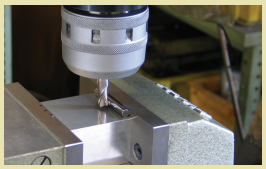


$d_1 \cdot d_2$··· Pin Gauge diameters
L_2··· Micrometer reading

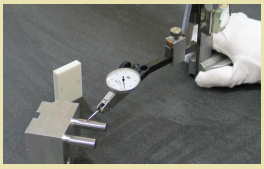
$$L_1=L_2-\frac{d_1+d_2}{2}$$



Mill tool positioning



Measurement of hole position, parallelism

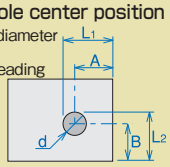


Measuring hole center position

d··· Pin Gauge diameter
$L_1 \cdot L_2$··· Dial gauge reading

$$A=L_1-\frac{d}{2}$$

$$B=L_2-\frac{d}{2}$$

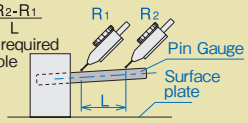


Slope of hole (parallelism measurement)

$R_1 \cdot R_2$··· Dial gauge reading

$$\text{Slope}=\frac{R_2-R_1}{L}$$

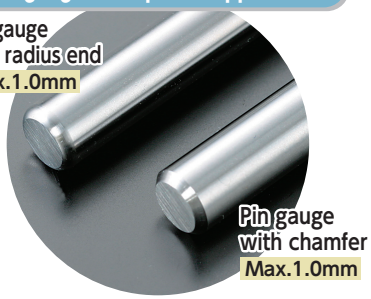
Repeat as required for each hole

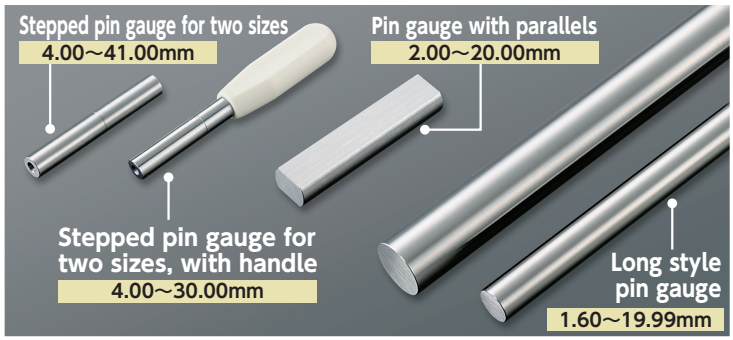


SPECIAL SHAPES

Custom shape pin gauges available upon request

Pin gauges for special applications

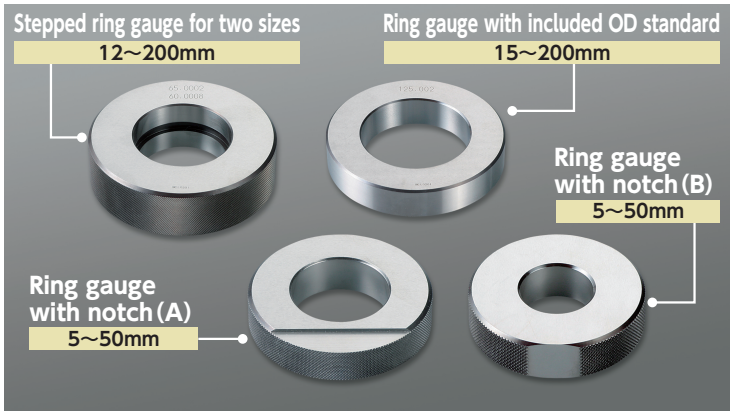




Custom Ring gauges, Stepped gauges, special shapes available upon request.

Ring gauges for special applications

Custom marking also available



Please feel free to contact us for any inquiry

LASER MARKING

Custom marking for gauge control and identification

Laser Marking for Ring Gauge

Number of characters: (example) Up to 23 characters with a ring gauge size of ϕ30.0mm
Please inquire the maximum number of characters of other size

Order No.	Model No.	Delivery time
499991	RGLM	15 business days after receiving order

Laser Marking for Plug Gauge Handle

Number of characters: Up to 15 characters

Order No.	Model No.	Delivery time
499992	GPLM	15 business days after receiving order