

SPECIFICATIONS

Steel Setting Rings

Order No.	Nominal size ϕD	Dimensions (mm)			Type	Accuracy				
		ϕD	ϕE	T		Tolerance between the nominal size and the actual diameter (μm)	Uncertainty of marked diameter value (μm)*1	Roundness/Cylindricity (μm)*2	Distance from the side face H (mm)	Size of warranted calibration surface K (mm)
177-220	1mm	20	—	4	A	± 10	± 1.5	1	1.6	0.8
177-222	1.1mm	20	—	4	A	± 10	± 1.5	1	1.6	0.8
177-225	1.2mm	20	—	4	A	± 10	± 1.5	1	1.6	0.8
177-227	1.3mm	20	—	4	A	± 10	± 1.5	1	1.6	0.8
177-230	1.4mm	20	—	4	A	± 10	± 1.5	1	1.6	0.8
177-236	1.75mm	25	—	5	A	± 10	± 1.5	1	1.6	1.8
177-239	2mm	25	—	5	A	± 10	± 1.5	1	1.6	1.8
177-242	2.25mm	25	—	5	A	± 10	± 1.5	1	1.6	1.8
177-208	2.5mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-246	2.75mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-248	3mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-250	3.25mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-252	3.5mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-255	3.75mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-204	4mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-257	4.5mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-205	5mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-263	5.5mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-267	6mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-271	6.5mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-275	7mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-125	8mm	32	—	10	A	± 10	± 1.5	1	2.0	6.0
177-279	9mm	32	—	10	A	± 10	± 1.5	1	2.0	6.0
177-126	10mm	32	—	10	A	± 10	± 1.5	1	2.0	6.0
177-284	12mm	32	—	10	A	± 10	± 1.5	1	2.0	6.0
177-132	14mm	38	—	10	A	± 10	± 1.5	1	2.0	6.0

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		ϕD	ϕE	T		Tolerance between the nominal size and the actual diameter (inch)	Uncertainty of marked diameter value (inch)*1	Roundness/Cylindricity (inch)*2	Distance from the side face H (mm)	Size of warranted calibration surface K (mm)
177-209	.1"	25	—	7	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	1.7	3.6
177-206	.16"	25	—	7	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	1.7	3.6
177-207	.24"	25	—	7	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	1.7	3.6
177-281	.275"	25	—	7	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	1.7	3.6
177-179	.35"	32	—	10	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	2.0	6.0
177-283	.425"	32	—	10	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	2.0	6.0
177-180	.5"	32	—	10	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	2.0	6.0
177-181	.6"	38	—	10	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	2.0	6.0
177-182	.65"	45	—	10	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	2.0	6.0
177-183	.7"	45	—	10	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	2.0	6.0
177-287	.8"	45	—	10	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	2.0	6.0
177-184	1"	53	—	15	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	3.2	8.6
177-289	1.2"	71	—	15	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	3.2	8.6
177-185	1.4"	71	—	15	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	3.2	8.6
177-291	1.6"	71	—	15	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	3.2	8.6
177-186	1.8"	85	—	15	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	3.2	8.6

CERA Setting Rings

Order No.	Nominal size ϕD	Dimensions (mm)			Type	Accuracy				
		ϕD	ϕE	T		Tolerance between the nominal size and the actual diameter (μm)	Uncertainty of marked diameter value (μm)*1	Roundness/Cylindricity (μm)*2	Distance from the side face H (mm)	Size of warranted calibration surface K (mm)
177-418	4mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-420	6mm	25	—	7	A	± 10	± 1.5	1	1.7	3.6
177-423	8mm	32	—	10	A	± 10	± 1.5	1	2.0	6.0
177-424	10mm	32	—	10	A	± 10	± 1.5	1	2.0	6.0
177-425	12mm	32	—	10	A	± 10	± 1.5	1	2.0	6.0
177-427	16mm	45	—	10	A	± 10	± 1.5	1	2.0	6.0
177-429	20mm	45	—	10	A	± 10	± 1.5	1	2.0	6.0
177-430	25mm	53	—	15	A	± 10	± 1.5	1	3.2	8.6
177-431	30mm	71	—	15	A	± 10	± 1.5	1	3.2	8.6
177-432	35mm	71	—	15	A	± 10	± 1.5	1	3.2	8.6
177-433	40mm	71	—	15	A	± 10	± 1.5	1	3.2	8.6
177-434	45mm	85	—	15	A	± 10	± 1.5	1	3.2	8.6

*1 Actual diameter is marked in 0.001 mm increments. (Dimension measuring position is the center of the height T.)

*2 Cylindricity is defined as per JIS B 0621 Definitions and designations of geometrical deviations, Section 4.4 "Cylindricity." Cylindricity is measured using three cross-sections between the top and bottom face of a ring, namely, close to the face near each sides and the center.

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		ϕD	ϕE	T		Tolerance between the nominal size and the actual diameter (μm)	Uncertainty of marked diameter value (μm)*1	Roundness/Cylindricity (μm)*2	Distance from the side face H (mm)	Size of warranted calibration surface K (mm)
177-177	16mm	45	—	10	A	± 10	± 1.5	1	2.0	6.0
177-133	17mm	45	—	10	A	± 10	± 1.5	1	2.0	6.0
177-285	18mm	45	—	10	A	± 10	± 1.5	1	2.0	6.0
177-286	20mm	45	—	10	A	± 10	± 1.5	1	2.0	6.0
177-139	25mm	53	—	15	A	± 10	± 1.5	1	3.2	8.6
177-288	30mm	71	—	15	A	± 10	± 1.5	1	3.2	8.6
177-140	35mm	71	—	15	A	± 10	± 1.5	1	3.2	8.6
177-290	40mm	71	—	15	A	± 10	± 1.5	1	3.2	8.6
177-178	45mm	85	—	15	A	± 10	± 1.5	1	3.2	8.6
177-146	50mm	85	—	20	A	± 20	± 1.5	1	3.7	12.6
177-292	60mm	112	—	20	A	± 20	± 1.5	1	3.7	12.6
177-314	62mm	112	—	20	A	± 20	± 1.5	1.5	3.7	12.6
177-147	70mm	112	—	20	A	± 20	± 1.5	1.5	3.7	12.6
177-316	75mm	125	—	25	A	± 20	± 1.5	1.5	4.2	16.6
177-294	80mm	125	—	25	A	± 20	± 1.5	1.5	4.2	16.6
177-318	87mm	140	—	25	A	± 20	± 1.5	1.5	4.2	16.6
177-148	90mm	140	—	25	A	± 20	± 1.5	1.5	4.2	16.6
177-296	100mm	160	—	25	A	± 20	± 1.5	2	4.2	16.6
177-298	125mm	210	168		B	± 20	± 2.5	2	5.3	27.5
177-300	150mm	235	187		B	± 20	± 2.5	2	5.3	27.5
177-302	175mm	260	215		B	± 20	± 2.5	2.5	5.3	27.5
177-304	200mm	311	244	38.1 (25.4)	B	± 20	± 2.5	2.5	5.3	27.5
177-306	225mm	337	264		B	± 20	± 2.5	2.5	5.3	27.5
177-308	250mm	362	290		B	± 20	± 2.5	3	5.3	27.5
177-310	275mm	413	321		B	± 20	± 2.5	3	5.3	27.5
177-312	300mm	438	340		B	± 20	± 2.5	3	5.3	27.5

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177-187	2"	85	—	20	A	$\pm .0008$ "	$\pm .00006$ "	.00004"	3.7	12.6
177-293	2.4"	112	—	20	A	$\pm .0008$ "	$\pm .00006$ "	.00004"	3.7	12.6
177-315	2.5"	112	—	20	A	$\pm .0008$ "	$\pm .00006$ "	.00006"	3.7	12.6
177-188	2.8"	112	—	20	A	$\pm .0008$ "	$\pm .00006$ "	.00006"	3.7	12.6
177-317	3"	125	—	25	A	$\pm .0008$ "	$\pm .00006$ "	.00006"	4.2	16.6
177-295	3.2"	125	—	25	A	$\pm .0008$ "	$\pm .00006$ "	.00006"	4.2	16.6
177-319	3.5"	140	—	25	A	$\pm .0008$ "	$\pm .00006$ "	.00006"	4.2	16.6
177-189	3.6"	140	—	25	A	$\pm .0008$ "	$\pm .00006$ "	.00006"	4.2	16.6
177-297	4"	160	—	25	A	$\pm .0008$ "	$\pm .00006$ "	.00008"	4.2	16.6
177-299	5"	210	168	38.1	B	$\pm .0008$ "	$\pm .00010$ "	.00008"	5.3	27.5
177-301	6"	235	187	38.1	B	$\pm .0008$ "	$\pm .00010$ "	.00008"	5.3	27.5
177-303	7"	260	215	38.1	B	$\pm .0008$ "	$\pm .00010$ "	.00010"	5.3	27.5
177-305	8"	311	244	38.1	B	$\pm .0008$ "	$\pm .00010$ "	.00010"	5.3	27.5
177-307	9"	337	264	38.1	B	$\pm .0008$ "	$\pm .00010$ "	.00010"	5.3	27.5
177-309	10"	362	290	38.1	B	$\pm .0008$ "	$\pm .00010$ "	.00012"	5.3	27.5
177-311	11"	413	321	38.1	B	$\pm .0008$ "	$\pm .00010$ "	.00012"	5.3	27.5
177-313	12"	438	340	38.1	B	$\pm .0008$ "	$\pm .00010$ "	.00012"	5.3	27.5

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177-518	.16"	25	—	7	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	1.7	3.6
177-520	.24"	25	—	7	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	1.7	3.6
177-522	.275"	25	—	7	A	$\pm .0004$ "	$\pm .00006$ "	.00004"	1.7	3.6