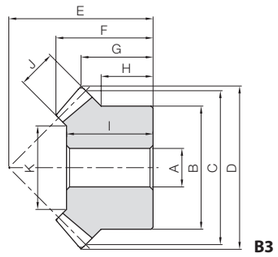
Specifications	
Precision grade	JIS B 1704: 1978 grade 4
Gear teeth	Gleason
Pressure angle	20°
Helix angle	35°
Material	S45C
Heat treatment	Gear teeth induction hardened
Tooth hardness	50 to 60HRC
Surface treatment	Black oxide coating

* The precision grade of J Series products is equivalent to the value shown in the table.

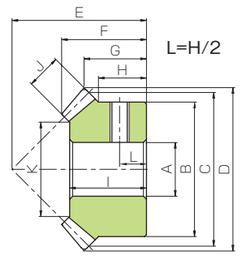


B3

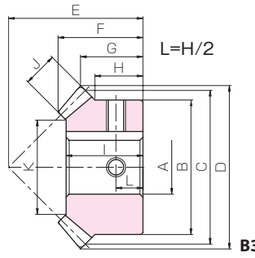
Catalog Number	Gear Ratio	No. of teeth	Shape	Direction of spiral	Bore A_{H7}	Hub dia. B	Pitch dia. C	Outside dia. D	Mounting distance E	Total length F	Crown to back G	Hub width H	Hole length I	Face width J	Holding surface dia. K	Allowable torque (N-m) Bending strength	Allowable torque (N-m) Surface durability	Allowable torque (kgf-m) Bending strength	Allowable torque (kgf-m) Surface durability	Backlash (mm)	Weight (kg)
SMS1-20R SMS1-20L	1	20	B3	R	6	16	20	21.3	20	13.84	10.65	8	12	5	9.86	1.07	0.65	0.11	0.067	0.03~0.13	0.019
				L																	
SMS1.5-20R SMS1.5-20L				R	8	26	30	31.74	30	21.18	15.87	13	19	8	15.37	3.73	2.33	0.38	0.24	0.05~0.15	0.074
				L																	
SMS2-20R SMS2-20L				R	12	34	40	42.4	37	24.75	18.2	14	22	10	21.72	8.54	5.40	0.87	0.55	0.06~0.16	0.15
				L																	
SMS2.5-20R SMS2.5-20L				R	14	42	50	52.94	48	32.42	24.47	19	29	12	28.06	16.3	10.5	1.66	1.07	0.07~0.17	0.30
				L																	
SMS3-20R SMS3-20L				R	16	50	60	63.72	58	39.6	29.86	23	35	15	31.57	28.8	18.7	2.94	1.91	0.08~0.18	0.52
				L																	
SMS3.5-20R SMS3.5-20L				R	20	60	70	74.47	65	43.81	32.23	25	40	18	39.09	46.5	30.4	4.74	3.10	0.10~0.25	0.82
				L																	
SMS4-20R SMS4-20L				R	20	64	80	84.88	75	50.51	37.44	27	45	20	43.43	68.3	45.0	6.97	4.59	0.12~0.27	1.15
				L																	
SMS5-20R SMS5-20L				R	25	80	100	105.9	90	60.16	42.95	30	54	26	54.46	136	90.9	13.9	9.27	0.14~0.34	2.13
				L																	
SMS6-20R SMS6-20L				R	28	100	120	127.16	104	67.35	47.58	34	60	30	67.15	226	155	23.0	15.8	0.16~0.36	3.65
				L																	
SMS8-20R SMS8-20L				R	30	130	160	169.94	125	72.6	49.97	30	62	35	95	484	344	49.4	35.1	0.20~0.45	7.00
				L																	
SMS1-25R SMS1-25L	1	25	B3	R	6	20	25	26.22	23	15.08	11.11	8	14	6	15.03	1.71	1.28	0.17	0.13	0.03~0.13	0.035
				L																	
SMS1.5-25R SMS1.5-25L				R	10	30	37.5	39.31	34	22.14	16.16	11.5	19	9	19.54	5.78	4.42	0.59	0.45	0.05~0.15	0.11
				L																	
SMS2-25R SMS2-25L				R	12	40	50	52.38	40	24.2	16.19	10	20	12	26.06	13.7	10.7	1.40	1.09	0.06~0.16	0.21
				L																	
SMS2.5-25R SMS2.5-25L				R	16	50	62.5	65.54	50	30.24	20.27	12.5	26	15	34.57	26.8	21.1	2.73	2.15	0.07~0.17	0.42
				L																	
SMS3-25R SMS3-25L				R	20	60	75	78.77	60	37.57	24.39	15	32	20	37.43	49.1	39.1	5.00	3.98	0.08~0.18	0.74
				L																	
SMS3.5-25R SMS3.5-25L				R	25	70	87.5	91.81	70	42.98	28.41	17.5	37	22	46.77	75.4	60.6	7.69	6.18	0.10~0.25	1.14
				L																	
SMS4-25R SMS4-25L				R	28	80	100	104.7	80	49.14	32.35	20	43	25	55.29	112	90.7	11.5	9.25	0.12~0.27	1.71
				L																	
SMS5-25R SMS5-25L				R	28	100	125	130.86	100	60.59	40.43	25	50	30	65.15	214	175	21.8	17.8	0.14~0.34	3.39
				L																	
SMS6-25R SMS6-25L				R	28	120	150	157.17	120	71.97	48.58	30	61	35	83	357	300	36.4	30.6	0.16~0.36	5.99
				L																	
SMS2-30R SMS2-30L	1	30	B3	R	12	45	60	62.42	50	29.27	21.21	12.5	25	12	36.06	18.2	16.9	1.86	1.72	0.06~0.16	0.37
				L																	
SMS2.5-30R SMS2.5-30L				R	16	60	75	78.04	62	36.08	26.02	17	32	15	47.57	35.6	33.4	3.63	3.40	0.07~0.17	0.76
				L																	
SMS3-30R SMS3-30L				R	20	70	90	93.61	75	45.25	31.8	20	40	20	53.43	65.8	62.3	6.71	6.35	0.08~0.18	1.32
				L																	
SMS3.5-30R SMS3.5-30L				R	25	90	105	109.21	85	49.4	34.6	25	45	22	67.77	101	96.0	10.3	9.79	0.10~0.25	2.19
				L																	
SMS4-30R SMS4-30L				R	28	100	120	124.71	95	54.28	37.35	25	50	25	79.29	150	144	15.3	14.7	0.12~0.27	3.07
				L																	
SMS5-30R SMS5-30L				R	28	130	150	155.90	120	68.2	47.95	35	62	30	99.15	284	276	29.0	28.1	0.14~0.34	6.44
				L																	

[Caution on Product Characteristics] ① The bore may slightly vary due to the effect of heat treatment. When using with the listed bore diameter, you may need to ream the bore prior to use.

J Series



B3T



B3K

To order J Series products, please specify: Catalog No. + J + BORE.

* The product shapes of J Series items are identified by background color.

Bore H7	8	10	12	14	15	16	17	18	19	20	22	25	28	30	32	35	40	45	50	55	60	65	70	75	80	85
Keyway Js9		4×1.8		5×2.3				6×2.8				8×3.3			10×3.3		12×3.3	14×3.8		16×4.3	18×4.4		20×4.9		22×5.4	
Screw size	—	M4						M5				M6			M8			M10		M12			M16			
Catalog Number	M5																									
SMS1-20R J BORE SMS1-20L J BORE																										
SMS1.5-20R J BORE SMS1.5-20L J BORE																										
SMS2-20R J BORE SMS2-20L J BORE																										
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SMS5-30R J BORE SMS5-30L J BORE																										

[Caution on J series] ① Cancellation is not possible for made-to-order products. See page 42 for lead times and allowable order quantities. See page 44 for other precautions.

Product Precautions → Page 310
Precautions for Standard Machined Products → Pages 42~44