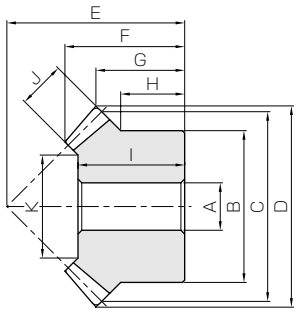
SUM
Stainless Steel Miter Gears

Module 1 ~ 4

Specifications	
Precision grade	JIS B 1704 grade 3
Gear teeth	Gleason
Pressure angle	20°
Material	SUS303
Heat treatment	—
Tooth hardness	less than 187HB



B3

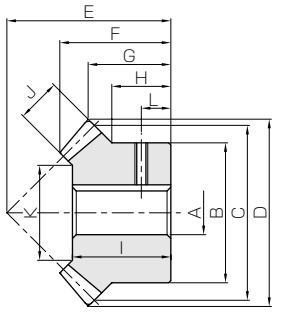
Catalog No.	Gear ratio	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Mounting distance	Total length	Crown to back length	Hub width
					A_{H7}	B	C	D	E	F	G	H
SUM1-20	1	***m*1**	20	B3	6	16	20	21.41	20	13.95	10.71	8
SUM1.5-20		***m*1.5**	20	B3	8	26	30	32.12	30	21.24	16.06	13
SUM2-20		***m*2**	20	B3	12	34	40	42.83	37	24.89	18.41	14
SUM2.5-20		***m*2.5**	20	B3	14	42	50	53.54	48	32.54	24.77	19
SUM3-20		***m*3**	20	B3	16	50	60	64.24	58	39.84	30.12	23
SUM4-20		***m*4**	20	B3	20	64	80	85.65	75	50.78	37.83	27
SUM1-25	1	***m*1**	25	B3	6	20	25	26.41	23	15.16	11.21	8
SUM1.5-25		***m*1.5**	25	B3	10	30	37.5	39.62	34	22.25	16.31	11.5
SUM2-25		***m*2**	25	B3	12	45	50	52.83	40	24.33	16.41	12.5
SUM2.5-25		***m*2.5**	25	B3	16	55	62.5	66.04	50	30.41	20.52	15
SUM3-25		***m*3**	25	B3	20	65	75	79.24	60	37.81	24.62	17.5
SUM4-25		***m*4**	25	B3	28	80	100	105.66	80	49.32	32.83	20

[Caution on Product Characteristics]
① The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 421 for more details.
② Dimensions of the outside diameter, the overall length and crown to back length are all theoretical values, and some differences will occur due to the corner chamfering of the gear tips.

SUMA
Finished Bore Stainless Steel Miter Gears

Module 1 ~ 4

Specifications	
Precision grade	JIS B 1704 grade 3
Gear teeth	Gleason
Pressure angle	20°
Material	SUS303
Heat treatment	—
Tooth hardness	less than 187HB



BK

Catalog No.	Gear ratio	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Mounting distance	Total length	Crown to back length	Hub width	Length of bore
					A_{H7}	B	C	D	E	F	G	H	I
SUMA1-20	1	***m*1**	20	BK	6	16	20	21.41	20	13.95	10.71	8	12
SUMA1.5-20		***m*1.5**	20	BK	8	26	30	32.12	30	21.24	16.06	13	19
SUMA2-20		***m*2**	20	BK	12	34	40	42.83	37	24.89	18.41	14	22
SUMA2.5-20		***m*2.5**	20	BK	14	42	50	53.54	48	32.54	24.77	19	29
SUMA3-20		***m*3**	20	BK	16	50	60	64.24	58	39.84	30.12	23	35
SUMA4-20		***m*4**	20	BK	20	64	80	85.65	75	50.78	37.83	27	45
SUMA1-25	1	***m*1**	25	BK	6	20	25	26.41	23	15.16	11.21	8	14
SUMA1.5-25		***m*1.5**	25	BK	10	30	37.5	39.62	34	22.25	16.31	11.5	19
SUMA2-25		***m*2**	25	BK	12	45	50	52.83	40	24.33	16.41	12.5	20
SUMA2.5-25		***m*2.5**	25	BK	16	55	62.5	66.04	50	30.41	20.52	15	26
SUMA3-25		***m*3**	25	BK	20	65	75	79.24	60	37.81	24.62	17.5	32
SUMA4-25		***m*4**	25	BK	30	80	100	105.66	80	49.32	32.83	20	43

[Caution on Product Characteristics]
① For products with a tapped hole, a set screw is included.
② The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 421 for more details.
③ Dimensions of the outside diameter, the overall length and crown to back length are all theoretical values, and some differences will occur due to the corner chamfering of the gear tips.

Stainless Steel Miter Gears

Length of bore	Face width	Holding surface dia.	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash	Weight	Catalog No.
l	J	K	Bending strength	Surface durability	Bending strength	Surface durability	(mm)	(kg)	
12	5	9.86	0.49	0.060	0.050	0.0061	0.03~0.13	0.019	**SUM1-20**
19	8	15.37	1.72	0.22	0.18	0.022	0.05~0.15	0.074	**SUM1.5-20**
22	10	21.72	3.94	0.51	0.40	0.052	0.06~0.16	0.15	**SUM2-20**
29	12	28.06	7.52	1.00	0.77	0.10	0.07~0.17	0.30	**SUM2.5-20**
35	15	31.57	13.3	1.80	1.36	0.18	0.08~0.18	0.52	**SUM3-20**
45	20	43.43	31.5	4.39	3.22	0.45	0.12~0.27	1.15	**SUM4-20**
14	6	15.03	0.81	0.12	0.083	0.012	0.03~0.13	0.035	**SUM1-25**
19	9	19.54	2.74	0.41	0.28	0.042	0.05~0.15	0.11	**SUM1.5-25**
20	12	26.06	6.50	1.00	0.66	0.10	0.06~0.16	0.24	**SUM2-25**
26	15	34.57	12.7	2.00	1.29	0.20	0.07~0.17	0.46	**SUM2.5-25**
32	20	37.43	23.3	3.73	2.37	0.38	0.08~0.18	0.80	**SUM3-25**
43	25	55.29	53.2	8.79	5.43	0.90	0.12~0.27	1.72	**SUM4-25**

[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 422) when performing modifications and/or secondary operations for safety concerns. Haguruma Kobo, the KHK's system for quick modification of KHK stock gears is also available.

SUMA

Finished Bore Stainless Steel Miter Gears

Face width	Holding surface dia.	Keyway	Set Screw		Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash	Weight	Catalog No.
J	K	Width×Depth	Size	L	Bending strength	Surface durability	Bending strength	Surface durability	(mm)	(kg)	
5	9.86	—	M4	4	0.49	0.060	0.050	0.0061	0.03~0.13	0.018	**SUMA1-20**
8	15.37	—	M4	6.5	1.72	0.22	0.18	0.022	0.05~0.15	0.073	**SUMA1.5-20**
10	21.72	4 x 1.8	M4	7	3.94	0.51	0.40	0.052	0.06~0.16	0.14	**SUMA2-20**
12	28.06	5 x 2.3	M5	9.5	7.52	1.00	0.77	0.10	0.07~0.17	0.29	**SUMA2.5-20**
15	31.57	5 x 2.3	M5	11.5	13.3	1.80	1.36	0.18	0.08~0.18	0.52	**SUMA3-20**
20	43.43	6 x 2.8	M5	13.5	31.5	4.39	3.22	0.45	0.12~0.27	1.14	**SUMA4-20**
6	15.03	—	M4	4	0.81	0.12	0.083	0.012	0.03~0.13	0.034	**SUMA1-25**
9	19.54	—	M4	6	2.74	0.41	0.28	0.042	0.05~0.15	0.11	**SUMA1.5-25**
12	26.06	4 x 1.8	M4	6.5	6.50	1.00	0.66	0.10	0.06~0.16	0.24	**SUMA2-25**
15	34.57	5 x 2.3	M5	7.5	12.7	2.00	1.29	0.20	0.07~0.17	0.46	**SUMA2.5-25**
20	37.43	6 x 2.8	M5	9	23.3	3.73	2.37	0.38	0.08~0.18	0.79	**SUMA3-25**
25	55.29	8 x 3.3	M6	10	53.2	8.79	5.43	0.90	0.12~0.27	1.67	**SUMA4-25**

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