

Spur Gear

Pressure Angle 20°, Module 1.5, Shaft Bore Configurable Type

Fixing Parts				Others		
Rotary Shaft	Cantilever Shaft	MechaLock	Parallel Key	Bearing with Housings	Bearing	Shaft Collar
P1-837	P1-901	P1-1521	P2-277	P1-947	P1-1017	P1-297
P1-900	P1-926	P1-1530	P2-282	P1-1014	P1-1049	P1-330

For products uncovered by the e-Catalog Standard, see P.131.

Type			Material	Surface Treatment	Accessory
Straight Bore	Straight Bore + Tap	Keyway, Keyway + Tap			
GEAHB	GEAB	GEAKB	S45C Equivalent	Black Oxide	Set Screw (SCM435, Black Oxide)
GEAHBB	GEABB	GEAKBB			
GEAHBG	GEABG	GEAKBG			
GEAHS	GEAS	GEAKS	SUS304	-	Set Screw (SUS304)

Set Screw is not included in Un-tapped Type products.
Selectable Gear Shapes differ depending on the number of teeth. Check the spec. table.

Gear Shape

Shaft Bore Specifications (Selectable Gear Shapes)

For Tap, Keyway Dimension Details, see P.1532.
Positioning of keyway and teeth is not fixed.
Accuracy Previous JIS B 1702 Class 4 (New JIS B 1702-1 Class 8 Equivalent)
Tapped shaft bores are not available for Shape A.

When desiring to fix the gear hub onto the shaft through MechaLock, see Keyless Type on P.1557. For configuring the tooth width / hub dimensions, see P.1551.

Part Number	Number of Teeth	B	Gear Shape	Shaft Bore Dia. PH7 (1mm Increment)		d Reference Dia.	D Tip Dia.	G Root Dia.	H	L	l1	l2	M (Coarse)	*1 Allowable Transmission Force (N·m)	
				Straight Bore	Keyway, Keyway + Tap									S45C Equivalent	SUS304
Straight Bore (Shape A, Shape B, Shape K) GEAHB GEAHBB GEAHBG GEAHS	12	1.5	A K	6-12	8N	18	21	14.25	21	30	15	4	M4	8.33	4.76
	13					19.5	22.5	15.75	22.5					9.55	5.45
	14					21	24	17.25	16					10.79	6.16
	15					22.5	25.5	18.75	18					12.09	-
	16					24	27	20.25	20					13.39	7.64
	17					25.5	28.5	21.75	21					14.72	8.4
	18			27	30	23.25	22	16.06	9.17						
	19			28.5	31.5	24.75	24	17.41	9.94						
	20			30	33	26.25	25	18.81	10.74						
	21			31.5	34.5	27.75	26	20.2	11.52						
	22			33	36	29.25	26	21.63	12.34						
	23			34.5	37.5	30.75	27	23.02	13.14						
24	36	39	32.25	27	24.45	13.95									
25	37.5	40.5	33.75	30	25.92	14.79									
26	39	42	35.25	32	27.42	15.65									
27	40.5	43.5	36.75	34	28.85	16.46									
28	42	45	38.25	34	30.43	17.36									
29	43.5	46.5	39.75	35	31.79	18.14									
30	45	48	41.25	35	33.3	19									
32	48	51	44.25	-	36.11	-									
34	51	54	47.25	40	39.45	22.51									
35	52.5	55.5	48.75	40	40.93	23.35									
36	54	57	50.25	42	42.24	24.1									
38	57	60	53.25	42	45.44	25.93									
40	60	63	56.25	45	48.31	27.57									
42	63	66	59.25	45	51.43	29.35									
44	66	69	62.25	45	54.62	31.17									
45	67.5	70.5	63.75	45	56.23	32.09									
46	69	72	65.25	45	57.86	33.02									
48	72	75	68.25	45	60.9	34.75									
50	75	78	71.25	45	63.97	36.51									
52	78	81	74.25	45	67.07	38.28									
54	81	84	77.25	50	70.21	40.07									
55	82.5	85.5	78.75	50	71.94	41.06									
56	84	87	80.25	50	73.7	42.05									
58	87	90	83.25	50	76.57	43.7									
60	90	93	86.25	50	79.8	45.54									
62	93	96	89.25	50	82.69	47.19									
64	96	99	92.25	50	85.97	49.06									
65	97.5	100.5	93.75	50	87.43	49.89									
66	99	102	95.25	50	89.28	50.95									
68	102	105	98.25	50	92.62	52.85									
70	105	108	101.25	50	95.56	54.53									
72	108	111	104.25	50	98.5	56.21									
75	112.5	115.5	108.75	50	103.39	59									
80	120	123	116.25	50	111.3	-									
84	126	129	122.25	50	117.79	67.22									
85	127.5	130.5	123.75	50	119.29	68.07									
90	135	138	131.25	50	127.36	72.68									
95	142.5	145.5	138.75	50	135.52	77.33									
100	150	153	146.25	50	143.75	82.03									
120	180	183	176.25	70	175.06	99.9									
Straight Bore + Tap (Shape B, Shape K) GEAB GEABB GEABG GEAS	12	1.5	A B	6-12	10N-30N	18	21	14.25	21	27	12	5	M5	8.33	4.76
	13					19.5	22.5	15.75	22.5					9.55	5.45
	14					21	24	17.25	16					10.79	6.16
	15					22.5	25.5	18.75	18					12.09	-
	16					24	27	20.25	20					13.39	7.64
	17					25.5	28.5	21.75	21					14.72	8.4
	18			27	30	23.25	22	16.06	9.17						
	19			28.5	31.5	24.75	24	17.41	9.94						
	20			30	33	26.25	25	18.81	10.74						
	21			31.5	34.5	27.75	26	20.2	11.52						
	22			33	36	29.25	26	21.63	12.34						
	23			34.5	37.5	30.75	27	23.02	13.14						
24	36	39	32.25	27	24.45	13.95									
25	37.5	40.5	33.75	30	25.92	14.79									
26	39	42	35.25	32	27.42	15.65									
27	40.5	43.5	36.75	34	28.85	16.46									
28	42	45	38.25	34	30.43	17.36									
29	43.5	46.5	39.75	35	31.79	18.14									
30	45	48	41.25	35	33.3	19									
32	48	51	44.25	-	36.11	-									
34	51	54	47.25	40	39.45	22.51									
35	52.5	55.5	48.75	40	40.93	23.35									
36	54	57	50.25	42	42.24	24.1									
38	57	60	53.25	42	45.44	25.93									
40	60	63	56.25	45	48.31	27.57									
42	63	66	59.25	45	51.43	29.35									
44	66	69	62.25	45	54.62	31.17									
45	67.5	70.5	63.75	45	56.23	32.09									
46	69	72	65.25	45	57.86	33.02									
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50	75	78	71.25	45	63.97	36.51									
52	78	81	74.25	45	67.07	38.28									
54	81	84	77.25	50	70.21	40.07									
55	82.5	85.5	78.75	50	71.94	41.06									
56	84	87	80.25	50	73.7	42.05									
58	87	90	83.25	50	76.57	43.7									
60	90	93	86.25	50	79.8	45.54									
62	93	96	89.25	50	82.69	47.19									
64	96	99	92.25	50	85.97	49.06									
65	97.5	100.5	93.75	50	87.43	49.89									
66	99	102	95.25	50	89.28	50.95									
68	102	105	98.25	50	92.62	52.85									
70	105	108	101.25	50	95.56	54.53									
72	108	111	104.25	50	98.5	56.21									
75	112.5	115.5	108.75	50	103.39	59									
80	120	123	116.25	50	111.3	-									
84	126	129	122.25	50	117.79	67.22									
85	127.5	130.5	123.75	50	119.29	68.07									
90	135	138	131.25	50	127.36	72.68									
95	142.5	145.5	138.75	50	135.52	77.33									
100	150	153	146.25	50	143.75	82.03									
120	180	183	176.25	70	175.06	99.9									
Keyway (Shape A) GEAKB	12	1.5	A	6-12	10N-30N	18	21	14.25	21	27	12	5	M5	8.33	4.76
	13					19.5	22.5	15.75	22.5					9.55	5.45
	14					21	24	17.25	16					10.79	6.16
	15					22.5	25.5	18.75	18					12.09	-
	16					24	27	20.25	20					13.39	7.64
	17					25.5	28.5	21.75	21					14.72	8.4
	18			27	30	23.25	22	16.06	9.17						
	19			28.5	31.5	24.75	24	17.41	9.94						
	20			30	33	26.25	25	18.81	10.74						
	21			31.5	34.5	27.75	26	20.2	11.52						
	22			33	36	29.25	26	21.63	12.34						
	23			34.5	37.5	30.75	27	23.02	13.14						
24	36	39	32.25	27	24.45	13.95									
25	37.5	40.5	33.75	30	25.92	14.79									
26	39	42	35.25	32	27.42	15.65									
27	40.5	43.5	36.75	34	28.85	16.46									
28	42	45	38.25	34	30.43	17.36									
29	43.5	46.5	39.75	35	31.79	18.14									
30	45	48	41.25	35	33.3	19									
32	48	51	44.25	-	36.11	-									
34	51	54	47.25	40	39.45	22.51									
35	52.5	55.5	48.75	40	40.93	23.35									
36	54	57	50.25	42	42.24	24.1									
38	57	60	53.25	42	45.44	25.93									
40	60	63	56.25	45	48.31	27.57									
42	63	66	59.25	45	51.43	29.35									
44	66	69	62.25	45	54.62	31.17									
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46	69	72	65.25	45	57.86	33.02									
48	72	75	68.25	45	60.9	34.75									
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56	84	87	80.25	50	73.7	42.05									
58	87	90	83.25	50	76.57	43.7									
60	90	93	86.25	50	79.8	45.54									
62	93	96	89.25	50	82.69	47.19									
64	96	99	92.25	50	85.97	49.06									
65	97.5	100.5	93.75	50	87.43	49.89									