

# Spur Gears

- Pressure Angle 20°, Module 2.0 -



CAD Data Folder Name: 19\_Gears

When ordering, select Part Number and Values from Selection Steps ①~⑥.

Ordering Example: Part Number (①Type · ②Module) - ③Number of Teeth - ④Thickness B - ⑤Gear Shape - ⑥Shaft Dia. P

GEAHB2.0 - 30 - 20 - A - 12

**Shape A** Configurable

Type		Material	Surface Treatment	Shaft Bore Specifications	
Straight Bore	Keyway			Straight Bore	Keyway
GEAHB	GEAKB	S45C Equivalent	Black Oxide		
GEAHBB	GEAKBB				
GEAHBG	GEAKBG				
GEAHS	GEAKS	SUS304 Equivalent	-		

For details of alterations, refer to P.1006.  
For alterations on tooth width, refer to P.1023.

⑤ Shape A

Keyway Dimension Details P.1006  
Positioning of keyway and teeth is not fixed.

Accuracy Previous JIS B 1702 Class 4 (New JIS B 1702-1 Class 8 Equivalent)

CAD 2D/3D RoHS

When ordering, select Part Number and Values from Selection Steps ①~⑥.

Ordering Example: Part Number (①Type · ②Module) - ③Number of Teeth - ④Thickness B - ⑤Gear Shape - ⑥Shaft Dia. P

GEAKB2.0 - 20 - 20 - B - 12N

**Shape B** Configurable

Type			Material	Surface Treatment	Accessory	Shaft Bore Specifications	
Straight Bore	Straight Bore + Tap	Keyway + Tap				Straight Bore	Straight Bore + Tap
GEAHB	GEAB	GEAKB	S45C Equiv.	Black Oxide	Set Screw (*Except Straight Bore Type.)		
GEAHBB	GEABB	GEAKBB					
GEAHBG	GEABG	GEAKBG					
GEAHS	GEAS	GEAKS	SUS304 Equiv.	-			

For details of alterations, refer to P.1006.  
For alterations on tooth width, refer to P.1023.

Keyway Dimension Details P.1006  
Positioning of keyway and teeth is not fixed.

Accuracy Previous JIS B 1702 Class 4 (New JIS B 1702-1 Class 8 Equivalent)

CAD 2D/3D RoHS

Part Number	①Type	②Module	③Number of Teeth	④Thickness B	⑤Gear Shape	⑥Shaft Bore Dia P <sub>H7</sub> 1mm Increment		d Reference Circle Diameter	D Addendum Circle Diameter	G Root Circle Diameter	*1 Allowable Transmission Force (N·m) Bending Strength		Days to Ship	
						Straight Bore	Keyway				S45C Equiv.	SUS304 Equiv.	S45C Equiv.	SUS304 Equiv.
Straight Bore GEAHB GEAHBB GEAHBG GEAHS	2.0	A	12	20	A	8	8N	24	28	19	19.75	11.27	3 Days*2	5 Days
			14			8~11	28	32	23	25.58	14.60			
			15			8~15	30	34	25	28.65	16.35			
			16			8~16	32	36	27	31.73	18.11			
			18			8~21	36	40	31	38.07	21.73			
			19			8~21	38	42	33	41.27	23.55			
			20			8~23	40	44	35	44.59	25.45			
			22			8~25	44	48	39	51.27	29.26			
			24			8~28	48	52	43	57.96	33.07			
			25			8~28	50	54	45	61.43	35.05			
			26			8~29	52	56	47	64.99	37.09			
			28			8~31	56	60	51	72.12	41.16			
			30			8~33	60	64	55	78.93	45.04			
			32			8~35	64	68	59	85.59	48.84			
			34			10~35	68	72	63	93.52	53.37			
			35			10~36	70	74	65	97.01	55.36			
			36			10~38	72	76	67	100.13	57.14			
			40			10~42	80	84	75	114.52	65.35			
			42			10~42	84	88	79	121.92	69.57			
			45			10~42	90	94	85	133.29	76.06			
48	10~43	96	100	91	144.35	82.38								
50	10~43	100	104	95	151.64	86.53								
52	12~45	104	108	99	158.99	90.73								
60	12~45	120	124	115	189.16	107.94								
70	15~45	140	144	135	226.51	129.26								
72	15~45	144	148	139	233.49	-								
80	20~45	160	164	155	263.82	-								

Specify 10K as P dimension if keyway width of 4.0mm (height 1.8mm) for Keyway with shaft bore diameter of 10 is desired. P.1006  
 \*1 Allowable Transmission Forces in the table are reference values calculated with prescribed conditions. For conditions, refer to P.1006. Tooth width is calculated as 10mm.  
 \*2 For orders placed by THA: 12:30, SGP&MYS: 13:30 P.75  
 Products with no ship dates indicated are not available.

Part Number	①Type	②Module	③Number of Teeth	④Thickness B	⑤Gear Shape	⑥Shaft Bore Dia P <sub>H7</sub> 1mm Increment		d Reference Circle Diameter	D Addendum Circle Diameter	G Root Circle Diameter	H	L	L1	L2	M (Coarse)	*1 Allowable Transmission Force (N·m) Bending Strength		Days to Ship	
						Straight Bore	Keyway + Tap									S45C Equiv.	SUS304 Equiv.	S45C Equiv.	SUS304 Equiv.
Straight Bore GEAHB GEAHBB GEAHBG GEAHS	2.0	B	12	20	B	8	8N	24	28	19	18	30	10	5	M5	19.75	11.27	3 Days*2	5 Days
			14			8~11	28	32	23	20	25.58					14.60			
			15			8~15	30	34	25	24	28.65					16.35			
			16			8~16	32	36	27	25	31.73					18.11			
			18			8~21	36	40	31	30	38.07					21.73			
			19			8~21	38	42	33	31	41.27					23.55			
			20			8~23	40	44	35	33	44.59					25.45			
			22			8~25	44	48	39	36	51.27					29.26			
			24			8~28	48	52	43	40	57.96					33.07			
			25			8~28	50	54	45	45	61.43					35.05			
			26			8~29	52	56	47	42	64.99					37.09			
			28			8~31	56	60	51	45	72.12					41.16			
			30			8~33	60	64	55	48	78.93					45.04			
			32			8~35	64	68	59	50	85.59					48.84			
			34			10~35	68	72	63	62	93.52					53.37			
			35			10~36	70	74	65	52	97.01					55.36			
			36			10~38	72	76	67	55	100.13					57.14			
			40			10~42	80	84	75	60	114.52					65.35			
			42			10~42	84	88	79	62	121.92					69.57			
			45			10~42	90	94	85	65	133.29					76.06			
48	10~43	96	100	91	65	144.35	82.38												
50	10~43	100	104	95	62	151.64	86.53												
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60	12~45	120	124	115	65	189.16	107.94												
70	15~45	140	144	135	65	226.51	129.26												
72	15~45	144	148	139	65	233.49	-												
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Ordering Example: Part Number (①Type · ②Module) - ③Number of Teeth - ④Thickness B - ⑤Gear Shape - ⑥Shaft Dia. - (etc)

GEAHB2.0 - 30 - 20 - A - 12 - KFC30-K5

**Alterations**

Alterations Code	Side Through Hole
KFC, KTC	Machines through holes on the side surface. (KFC, KTC: 1mm Increment, K: 0.5mm Increment) P+K+4<KFC(KTC)>G-K-4 <K Selection> K3.0~K6.0 <Ordering Code> KFC20-K3.5

Many variations for alterations are also available. Details: P.1006

Ordering Example: Part Number (①Type · ②Module) - ③Number of Teeth - ④Thickness B - ⑤Gear Shape - ⑥Shaft Dia. - (etc)

GEAKB2.0 - 20 - 20 - B - 12N - KC120

**Alterations**

Alterations Code	Set Screw	Tapped Hole Dimension
KC90, KC120	KC90: Adds another set screw at 90° position. KC120: Adds another set screw at 120° position. *Not applicable to Straight Bore Type.	Changes the tapped hole dimension. <Ordering Code> TPC4 *Not applicable to Straight Bore Type.

M	TPC
M5	M4 M6
M6	M5 M8

Many variations for alterations are also available. Details: P.1006