

Spur Gears

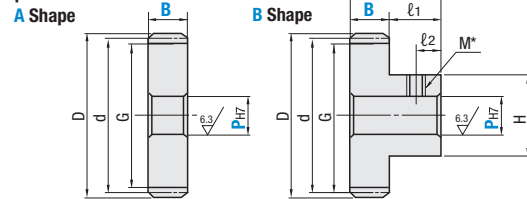
Pressure Angle 20°, Module 2.0

Spur Gears – Pressure Angle 20°, Module 2.0



Type			Material	Surface Treatment	Accessories
Straight Bore	Straight Bore + Tap	Keyway / Keyway + Tap			
GEAHB	GEAB	GEAKB	1045 Carbon Steel or Equivalent	Black Oxide Electroless Nickel Plating	Set Screw (4137 Alloy Steel Black Oxide)
GEAHBB	GEABB	GEAKBB			
GEAHBG	GEABG	GEAKBG			
GEAHS	GEAS	GEAKS	304 Stainless Steel	—	Set Screw (304 Stainless Steel)

Gear Shape



Shaft Bore Specifications (Selectable Gear Shapes)			
Straight Bore (Shape A / B)	Straight Bore + Tap (Shape B)	Keyway (Shape A)	Keyway + Tap (Shape B)

- Ⓢ Keyway Dimension Details P.1469.
- Ⓢ Positioning of keyway and teeth are not fixed.
- Ⓢ Set Screw is not included in Non-tapped Type products.
- Ⓢ Shaft bores with set screws are not available for Shape A.

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

Part Number	Type	Module	Number of Teeth	B	Gear Shape	Shaft Bore Dia. P ₁₇ 1 mm Increment		d Reference Dia.	D Tip Dia.	G Root Dia.	H	L	ℓ ₁	ℓ ₂	M (Coarse)	*Allowable Transmission Force (N-m) Bending Strength	
						Straight Bore	Keyway / Keyway + Tap									1045 Carbon Steel or Equivalent	304 Stainless Steel
Selectable Gear Shapes		2.0	12	20	A	8	8N	24	28	19	18	30	10	5	M5	19.75	11.27
			26					30	21	20	22.65					12.92	
			28					32	23		25.62					14.62	
			30					34	25		28.66					16.36	
			32					36	27		31.75					18.12	
			34					38	29		34.89					19.91	
			36					40	31		38.08					21.73	
			38					42	33		41.3					23.57	
			40					44	35		44.56					25.43	
			42					46	37		47.85					27.3	
			44					48	39		51.18					29.21	
			46					50	41		54.52					31.11	
			48					52	43		57.9					33.04	
			50					54	45		61.3					34.98	
			52					56	47		64.71					36.93	
			54					58	49		68.16					38.9	
			56					60	51		71.63					40.88	
			58					62	53		75.1					42.86	
			60					64	55		78.58					44.84	
			Straight Bore + Tap Shape B						2.0	33	20					B	10-38
66	70	61		52	89.14	50.87											
68	72	63			92.71	52.91											
70	74	65			96.25	54.92											
72	76	67			99.83	56.97											
74	78	69			103.42	59.04											
76	80	71			107.02	61.07											
78	82	73			110.63	63.13											
80	84	75			114.22	65.18											
82	86	77			117.81	67.24											
84	88	79			121.45	69.3											
86	90	81			125.1	71.37											
88	92	83			128.74	73.47											
90	94	85			132.37	75.54											
92	96	87			136.03	77.63											
94	98	89			139.7	79.73											
96	100	91			143.36	81.81											
98	102	93			147.03	83.9											
100	104	95			150.72	86.01											
Keyway Shape A Keyway + Tap Shape B		2.0		49	20	B	10-50			10N-42N		102	106	97	62		
			104	108				99	64		158.03	90.18					
			106	110				101			161.7	92.27					
			108	112				103			165.41	94.39					
			110	114				105			169.13	96.51					
			112	116				107			172.86	98.64					
			114	118				109			176.54	100.74					
			116	120				111			180.23	102.85					
			118	122				113			183.93	104.96					
			120	124				115			187.66	107.09					

Ⓢ Shaft bore diameter 9N is not available for Keyway Bore + Tap.
 Ⓢ Select 10K as P dimension if you request keyway width of 4.0 mm (height 1.8 mm) for Keyway + Tap with shaft bore diameter of 10. P.1469
 * Allowable Transmission Forces in the table are reference values calculated based on conditions shown on P.1469.

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Pressure Angle 20°, Module 2.0, continued

Part Number	Type	Module	Number of Teeth	B	Gear Shape	Shaft Bore Dia. P ₁₇ 1mm Increment		d Reference Dia.	D Tip Dia.	G Root Dia.	H	L	ℓ ₁	ℓ ₂	M (Coarse)	* Allowable Transmission Force (N-m) Bending Strength	
						Straight Bore	Keyway / Keyway+Tap									1045 Carbon Steel or Equivalent	304 Stainless Steel
Straight Bore (Shape A, Shape B)		2.0	62	20	A	15-52	15N-44N	124	128	119	65	34	14	7	M6	195.15	111.37
			63					126	130	121						198.83	113.46
			64					128	132	123						202.61	115.62
			65					130	134	125						206.32	117.74
			66					132	136	127						210.03	119.86
			68					136	140	131						217.5	124.12
			69					138	142	133						221.25	126.26
			70					140	144	135						225.01	128.4
			72					144	148	139						232.46	132.66
			75					150	154	145						243.76	139.1
Straight Bore+Tap (Shape B)		2.0	76	20	A	20-52	20N-44N	152	156	147	70	34	14	7	M6	247.48	141.23
			77					154	158	149						251.31	143.41
			78					156	160	151						255.05	145.54
			80					160	164	155						262.53	149.82
			81					162	166	157						266.29	151.96
			84					168	172	163						277.6	158.41
			85					170	174	165						281.38	160.57
			88					176	180	171						292.78	167.08
			90					180	184	175						300.29	171.36
			91					182	186	177						304.12	173.55
Keyway (Shape A) Keyway+Tap (Shape B)		2.0	92	20	B	20-55	20N-47N	184	188	179	70	34	14	7	M6	307.82	175.66
			95					190	194	185						319.22	182.17
			96					192	196	187						324.53	184.82
			98					196	200	191						329.25	187.09
			99					198	202	193						333.25	189.48
			100					200	204	195						337.25	191.87
			100					200	204	195						341.25	194.26
			100					200	204	195						345.25	196.65
			100					200	204	195						349.25	199.04
			100					200	204	195						353.25	201.43

Part Number Example: **GEAKBG2.0 - 15 - 20 - B - 10N**
GEAHB2.0 - 30 - 20 - A - 8

Ⓢ Gear shape will be "B" when not specified.