


Bonded Plastic Spur Gears

Pressure Angle 20°, Module 1.0, 1.5, 2.0, 2.5, 3.0

Features: Gears with metal cores fusion bonded with MC nylon teeth. Best suited when strong mounting to shafts is desired.

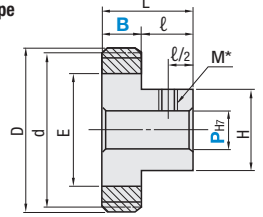
Bonded Plastic Spur Gears – Pressure Angle 20°, Module 1.0, 1.5, 2.0, 2.5, 3.0



RoHS 10

Type			Material		Accessories
Straight Bore	Straight Bore + Tap	Keyed Bore + Tap	Teeth	Core	
GEYH	GEYT	GEYK	MC Nylon	1025 Carbon Steel	Set Screw *Except Straight Bore Type

Gear Shape: B Shape



Shaft Bore Specifications		
Straight Bore	Straight Bore + Tap	Keyed Bore + Tap

Keyway Dimension Details P.1469.
Keyway position is not aligned with tooth.

Tapped Hole Dimension List		
Shaft Bore Dia. P _{HT}	M (Coarse Thread)	Accessories Set Screw
8-12	M4	M4 x 3
13-17	M5	M5 x 4
18-30	M6	M6 x 5

Accuracy JIS B 1702 (Class 5)

*Straight Bore type does not have tapped holes.
MC nylon may shrink due to its water-absorbing property.

Part Number	Type	Module	No. of Teeth	B	Gears Shape	Shaft Bore Dia. P _{HT} (1 mm Increment)		d	D	H	E	L	ℓ	*Allowable Transmission Force (N·m) Bending Strength		
						Straight Bore	Keyed Bore + Tap									
Straight Bore GEYH	1.0	10	30	B	10	8-12	8N-10N	30	32	18	20	20	10	1.03		
			32					34	1.11							
			34					36	1.20							
			35					37	1.25							
			36					38	1.30							
			38					40	1.39							
			40					42	1.48							
			42					44	1.57							
			45					47	1.71							
			48					50	1.86							
			50					52	1.96							
			52					54	2.05							
			56					58	2.24							
			60					62	2.44							
			70					72	2.88							
75	77	3.11														
Straight Bore + Tap GEYT	1.5	15	28	B	15	10-16	10N-13N	42	45	28	30	27	12	3.18		
			30					48	3.46							
			32					51	3.76							
			34					54	4.06							
			35					55.5	4.22							
			36					57	4.38							
			40					63	5.00							
			42					66	5.31							
			45					70.5	5.78							
			48					72	6.27							
			50					75	6.60							
			20					44	4.91							
			22					48	5.55							
			24					52	6.19							
			25					54	6.54							
28	60	7.54														
30	64	8.20														
32	68	8.91														
34	72	9.63														
35	74	9.99														
36	76	10.38														
Keyed Bore + Tap GEYK	2.0	20	20	B	20	10-15	10N-13N	40	44	35	40	34	14	4.91		
			22					48	5.55							
			24					52	6.19							
			25					54	6.54							
			28					60	7.54							
			30					64	8.20							
			32					68	8.91							
			34					72	9.63							
			35					74	9.99							
			36					76	10.38							
			10-16					44	48					23	25	5.55
			10-19					48	52					28	30	6.19
			10-24					56	60					35	40	7.54
			12-28					60	64					40	45	8.20

⊗ Shaft bore diameter 9N is not available for Keyed Bore + Tap.
 ⊕ Select 10K as P dimension if you request keyway width of 4.0 mm (height 1.8 mm) for Keyed Bore + 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.

Bonded Plastic Spur Gears

Pressure Angle 20°, Module 1.0, 1.5, 2.0, 2.5, 3.0, *continued*

Part Number	Type	Module	No. of Teeth	B	Gears Shape	Shaft Bore Dia. P _{HT} (1 mm Increment)		d	D	H	E	L	ℓ	* Allowable Transmission Force (N·m) Bending Strength	
						Straight Bore	Keyed Bore + Tap								
Straight Bore GEYH	2.5	25	18	B	25	12-17	12N-15N	45	50	25	30	40	15	8.28	
			20			12-19	12N-17N	50	55	28	40			9.59	
			22			12-24	12N-21N	55	60	45	40			10.84	
			24					60	65					35	12.10
			25					62.5	67.5					12.78	
			26					65	70					13.47	
Straight Bore + Tap GEYT	3.0	30	26	B	30	12-28	12N-24N	70	75	40	47	17	14.73		
			28			12-16	12N-14N	48	54	24			30	12.25	
			18			12-21	12N-18N	54	60	30			40	14.31	
			20			12-23	12N-20N	60	66	33			45	16.56	
Keyed Bore + Tap GEYK	3.0	30	22	B	30	12-26	12N-23N	66	72	38	45	47	17	18.72	
			24			12-30	12N-26N	72	78	43				20.90	

* Allowable Transmission Forces in the table are reference values calculated based on conditions shown on P.1469.

Part Number Example

Part Number - No. of Teeth - B - Tooth Shape - P

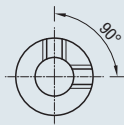
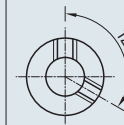
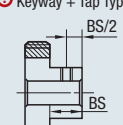
GEYT1.5 - 40 - 15 - B - 18

GEYK2.0 - 30 - 20 - B - 15N

Part Number Alterations

Part Number - No. of Teeth - B - Tooth Shape - P - (KC90 / KC120 / BS)

GEYK3.0 - 20 - 30 - B - 20N - BS12.5

Alterations	Set Screw		Hub Cut
	KC90	KC120	BS
Code			
Spec.	Adds another set screw at the position of 90°. ⊗ Not applicable to Straight Bore Type. 	Adds another set screw at the position of 120°. ⊗ Not applicable to Straight Bore Type. 	Cuts the hub length in 0.5 mm increments. ⊕ Straight Bore Type: 0 ≤ BS ≤ ℓ ⊕ Straight Bore + Tap Type: M + 3 ≤ BS ≤ ℓ ⊕ Keyway + Tap Type: M + 3 ≤ BS ≤ ℓ  Ordering Code: BS6.5

Bonding Strength & Safety Factor

- The fusion bonding strength of MC nylon and cores vary depending on bonded areas. See Fig.1 for the relations between bonded diameter and radial strength (torque), and Fig.2 for bonded diameter and thrust strength.
- For the bonded strength obtained in (1), apply 4-5 as safety factor. If ambient temperature rises, multiply the correction coefficient in Fig. 3.
- Allowable strength is as follows:
 $T_{al} = T_{max} \times 1 / \text{Safety Factor} \times T$
 T_{al} : Allowable Fusion Bonded Strength
 T_{max} : Fusion Bonded Strength in Fig. 1 or 2

