Bevel Gears

Screw Gears

Other Bevel Worm Products Gearboxes Gear Pairs

Plastic Spur Gears





* The precision grade of J Series products is	
equivalent to the value shown in the table.	

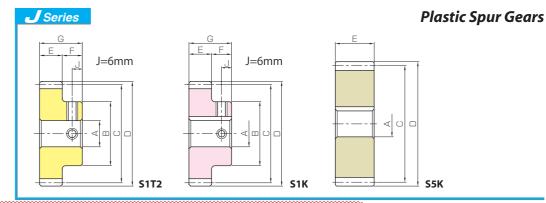
- <u>G</u> - <u>E</u> - F -	E
S1	S5

Catalog	No. of	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total Length	Allowable torque (N·m)	Allowable torque (kgf·m)	Backlash	Weight
Number	teeth	Зпаре	Α	В	С	D	Е	F	G	Bending strength	Bending strength	(mm)	(kg)
PS2.5-12	12			23	30	35				4.39	0.45		0.023
PS2.5-13	13		10	25	32.5	37.5				5.06	0.52		0.028
PS2.5-14	14			25	35	40				5.77	0.59		0.031
PS2.5-15	15			30	37.5	42.5				6.42	0.65	0~0.44	0.037
PS2.5-16	16			32	40	45				7.09	0.72		0.043
PS2.5-18	18			38	45	50				8.28	0.84		0.057
PS2.5-20	20	S1		40	50	55		12	37	9.59	0.98		0.070
PS2.5-22	22		12	44	55	60				10.8	1.11		0.085
PS2.5-24	24		12	48	60	65				12.1	1.23		0.10
PS2.5-25	25			50	62.5	67.5				12.8	1.30		0.11
PS2.5-26	26			55	65	70	25			13.5	1.37		0.12
PS2.5-28	28			60	70	75	23			14.7	1.50	0~0.46	0.15
PS2.5-30	30			65	75	80	80			16.0	1.63	0~0.46	0.17
PSA2.5-32	32				80	85				17.4	1.77		0.14
PSA2.5-35	35				87.5	92.5				19.5	1.99		0.17
PSA2.5-36	36				90	95				20.3	2.07		0.18
PSA2.5-40	40				100	105				23.2	2.36		0.22
PSA2.5-45	45	S5	15		112.5	117.5		—		26.8	2.73		0.28
PSA2.5-48	48				120	125				29.0	2.96		0.32
PSA2.5-50	50				125	130				30.6	3.12	0~0.48	0.35
PSA2.5-55	55				137.5	142.5				34.1	3.48		0.43
PSA2.5-60	60				150	155				37.7	3.84		0.51

- [Caution on Product Characteristics] ① Significant variations in temperature or humidity can cause dimensional changes in plastic gears, including bore size (H8 when produced), tooth diameter, and backlash. Please see the section "Design of Plastic Gears" in our separate technical reference book. (Page 100).
 - ② The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 24 for more details.
 - ③ Without lubrication, using plastic gears in pairs may generate heat and dilation. It is recommended to mate them with steel gears.
 - (4) The backlash values shown in the table are the theoretical values for the backlash in the normal direction of a pair of identical gears in mesh.

[Caution on Secondary Operations]

- ① Please read "Cautions on Performing Secondary Operations" (Page 26) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK system for quick modification of KHK stock gears, is also
- ② Plastic gears are susceptible to the effects of temperature and moisture. Dimensional changes may occur while performing secondary operations and during post-machining operations.
- * In regard to MC Nylon gears, other materials are available for plastic gears, including Ultra High Molecular Weight Polyethylene (U-PE), which has excellent abrasion resistance and resin conforming to the Plastic Implementation Measure (PIM). A single piece order is acceptable and will be produced as a custom-made gear. Please see Page 16 for more details on quotations and orders.



To order J Series products, please specify: Catalog No. + J + BORE.

Bore нв	*******	* The product shapes of J Series items are identified by background color.																				
Keyway Js9	10	12	14	15	16	17	18	19	20	22	25	28	30	32	35	40	45	50				
Screw size	4×	1.8		5×	2.3	2.3			6×2.8 8×3.3 10×3.3			6×2.8		8×3.3		10×3.3		12×3.3 14×3		12×3.3 14×3.8		<3.8
Catalog Number	. M			14				M5			M6		IV	18		_						
PS2.5-12 J BORE	S1T2																					
PS2.5-13 J BORE	S1K																					
PS2.5-14 J BORE	S1K	S1K																				
PS2.5-15 J BORE		S1K	S1K													-	ld _a					
PS2.5-16 J BORE		S1K	S1K	S1K	S1K										4							
PS2.5-18 J BORE		S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K						4							
PS2.5-20 J BORE		S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					3							
PS2.5-22 J BORE		S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					ilu:						
PS2.5-24 J BORE		S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					15					
PS2.5-25 J BORE		S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K				attim						
PS2.5-26 J BORE		S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K								
PS2.5-28 J BORE		S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K							
PS2.5-30 J BORE		S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K							
PSA2.5-32 J BORE				S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K							
PSA2.5-35 J BORE				S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K						
PSA2.5-36 J BORE				S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K						
PSA2.5-40 J BORE				S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K					
PSA2.5-45 J BORE				S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5k				
PSA2.5-48 J BORE				S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K				
PSA2.5-50 J BORE				S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K				
PSA2.5-55 J BORE				S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K				
PSA2.5-60 J BORE				S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K				

- [Caution on J series] ① As available-on-request products, these require a lead-time for shipping within 2 working days (excludes the day ordered), after placing an order.
 - 2 Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote
 - ③ Keyways are made according to JIS B1301 standards, Js9 tolerance. They may be 0.01 mm negative depending on mate-
 - 4 Certain products which would otherwise have a very long tapped hole are counterbored to reduce the length of the tap. For details, please see the KHK Web Catalog.
 - (5) For products having a tapped hole, a set screw is included.
 - ⑥ Since tapped holes of plastic products are easily broken, avoid too much tightening when fastening screws. For products which have a short tapped hole (Products marked with " ** " are the tap size), fasten with torques less than 0.12N·m for M4, and 0.38N·m for M5. For details, please see the KHK Web Catalog.

 - ② When using S1T2 set screws for fastening gears to a shaft, only use this method for applications with light load usage. For secure fastening, please use dowel pins in combination.

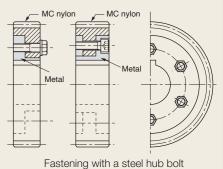


How to attach gears to shafts

To attach gears to shafts, in case of light loads, methods include using keys, taper pins, spring pins, and press fitting after mounting the setscrews. Since loosening tends to occur in the conditions below, plastic gears are better fastened by using a steel hub.

- 1. When the circumferential temperature is high
- 2. For large diameter gears
- 3. If forward-reverse motion impacts keys

For fastening steel hubs into plastic gears with bolts, see right for various methods.



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