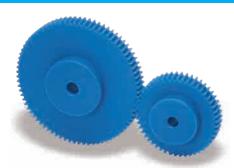
Module 2

PS/PSA



	Specifications
Precision grade	JIS grade N9 (JIS B1702-1: 1998)*
Gear teeth	Standard full depth
Pressure angle	20°
Material	MC901
Heat Treatment	_
Tooth hardness	(115 to 120HRR)

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

	E
\$1	\$5

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	Jiiape	Α	В	С	D	Е	F	G	Bending strength	Bending strength	(mm)	(kg)
PS2-12	12			18	24	28				2.25	0.23		0.011
PS2-13	13			20	26	30				2.59	0.26		0.013
PS2-14	14			20	28	32				2.96	0.30		0.015
PS2-15	15			24	30	34				3.29	0.34		0.019
PS2-16	16			26	32	36	36 40 44			3.63	0.37	0~0.42	0.022
PS2-18	18			30	36	40				4.24	0.43	0~0.42	0.029
PS2-20	20	S1	10	32	40	44		10	30	4.91	0.50		0.036
PS2-22	22			35	44	48 52			5.55	0.57		0.044	
PS2-24	24			38	48				6.19	0.63		0.052	
PS2-25	25			40	50	54				6.54	0.67		0.057
PS2-26	26			42	52	56				6.90	0.70		0.063
PS2-28	28			45	56	60				7.54	0.77		0.073
PS2-30	30			50	60	64	64			8.20	0.84		0.086
PSA2-32	32				64	68				8.91	0.91	0~0.44	0.072
PSA2-35	35				70	74	20			10.0	1.02		0.087
PSA2-36	36				72	76	20			10.4	1.06		0.092
PSA2-40	40				80	84				11.9	1.21		0.11
PSA2-45	45		12		90	94				13.7	1.40		0.14
PSA2-48	48				96	100				14.9	1.52		0.17
PSA2-50	50				100	104				15.7	1.60		0.18
PSA2-55	55				110	114				17.5	1.78		0.22
PSA2-60	60	S5		—	120	124		—	_	19.3	1.97		0.26
PSA2-65	65				130	134				21.1	2.15		0.30
PSA2-70	70				140	144				23.0	2.34		0.35
PSA2-75	75				150	154				24.9	2.54	0~0.46	0.41
PSA2-80	80		15		160	164				26.7	2.72	U~U.40	0.46
PSA2-85	85		15		170	174				28.5	2.91		0.52
PSA2-90	90				30.4	3.10		0.59					
PSA2-95	95				190	194				32.3	3.29		0.65
PSA2-100	100				200	204				34.2	3.48		0.72

- [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

- 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.

## **J** Series **Plastic Spur Gears** J=5mm J=5mm

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

Bore нв				* The	produ	ıct sha	pes of	J Seri	es iter	ns are	identif	ied by	backg	round	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					6×2.8			8×3.3			10×3.3		12×3.3	14×3.8		
Catalog Number 🔪	M4						M5			M6			M8			_		
PS2-12 J BORE	S1T2																	
PS2-13 J BORE	S1T2																	
PS2-14 J BORE	S1T2																	
PS2-15 J BORE	S1K																	
PS2-16 J BORE	S1K	S1K																
PS2-18 J BORE	S1K	S1K	S1K	S1K	S1K										_0	AMMA.	-	
PS2-20 J BORE	S1K	S1K	S1K	S1K	S1K	S1K									3			
PS2-22 J BORE	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K										
PS2-24 J BORE	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K								
PS2-25 J BORE	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K				Ш	1			
PS2-26 J BORE	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K					- 2	-		
PS2-28 J BORE	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K			Ш		mattl.	1	
PS2-30 J BORE	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K	S1K			100	1100		_
PSA2-32 J BORE		S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K						
PSA2-35 J BORE		S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K				
PSA2-36 J BORE		S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K				-
PSA2-40 J BORE		S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K			_
PSA2-45 J BORE		S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K		
PSA2-48 J BORE		S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	
PSA2-50 J BORE		S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	
PSA2-55 J BORE		S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5
PSA2-60 J BORE		S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5K	S5
PSA2-65 J BORE PSA2-70 J BORE			-	S5K	S5													
PSA2-70 J BORE				S5K S5K	S5 S5													
PSA2-80 J BORE				S5K S5K	S5K	S5K S5K	S5K	S5K S5K	S5K S5K	S5K	S5K S5K	S5K S5K	S5K	S5K	S5K	S5K	S5K	S5
PSA2-85 J BORE			<del>                                     </del>	S5K	S5													
PSA2-90 J BORE				S5K	S5													
PSA2-90 J BORE		<u> </u>		S5K	S5													
PSA2-100 J BORE			-	S5K	S5													
3A2-100 J DONE				JJK	JON	JOR	JJK	JJK	33									

- [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 price and lead time.
  - 3 Keyways are made according to JIS B1301 standards, Js9 tolerance. They may be 0.01 mm negative depending on material characteristics.
  - (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.
  - 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.
  - The wind the state of the state secure fastening, please use dowel pins in combination.

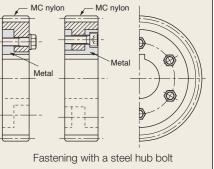


## How to attach gears to shafts

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.



Racks

CP Racks & Pinions

CP Racks & Pinions

Screw

Other Bevel Worm Products Gearboxes Gear Pairs