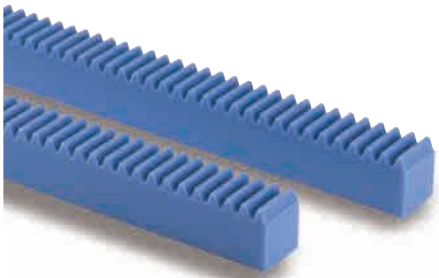




# PR・PRF Plastic Racks

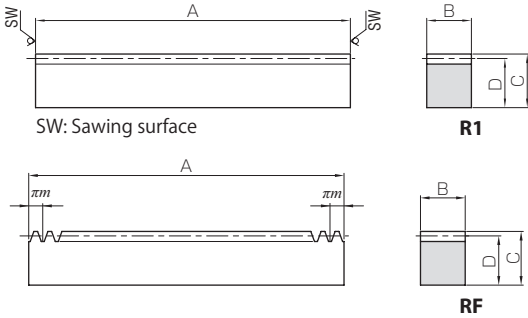
Module 1 ~ 3

## Plastic Racks



Specifications	
Precision grade	KHK R 001 grade 5 *
Gear teeth	Standard full depth
Pressure angle	20°
Material	MC901
Heat treatment	—
Tooth hardness	(115 ~ 120HRR)

\* The precision grade of this product is equivalent to the value shown in the table.



Catalog No.	Module	Effective no. of teeth	Shape	Total length	Face width	Height	Height to pitch line	Allowable force (N)		Weight (kg)
				A	B	C	D	Bending strength	Bending strength	
PR1-500	m1	159	R1	505	10	12	11	92.8	9.46	0.064
PR1.5-500	m1.5	105	R1	505	15	20	18.5	209	21.3	0.16
PR1.5-1000		212		1010						0.33
PR2-500	m2	79	R1	505	20	25	23	371	37.9	0.27
PR2-1000		159		1010						0.54
PR2.5-500	m2.5	63	R1	505	25	30	27.5	580	59.2	0.40
PR2.5-1000		127		1010						0.81
PR3-500	m3	52	R1	505	30	35	32	835	85.2	0.56
PR3-1000		105		1010						1.12

Catalog No.	Module	No. of teeth	Shape	Total length	Face width	Height	Height to pitch line	Allowable force (N)		Weight (kg)
				A	B	C	D	Bending strength	Bending strength	
PRF1.5-1000	m1.5	212	RF	999.03	15	20	18.5	209	21.3	0.32
PRF2-1000	m2	160	RF	1005.31	20	25	23	371	37.9	0.54
PRF2.5-1000	m2.5	128	RF	1005.31	25	30	27.5	580	59.2	0.80
PRF3-1000	m3	106	RF	999.03	30	35	32	835	85.2	1.11

- [Caution on Product Characteristics]
- ① The allowable forces shown in the table are the calculated values according to the assumed usage conditions. Please see Page 190 for more details.
  - ② The backlash of racks differ depending on the size of the mating pinion. Please calculate the backlash from the backlash value of the mating pinion. Also, please refer to the data in the section called 'Backlash of Rack Tooth (Amount of Tooth Thinning)' on Page 193.
  - ③ Dimensions of Plastic Racks vary due to temperature and humidity. A 10° C rise in the ambient temperature will cause 0.45 mm increase in the length per 1000 mm. A 2% moisture absorption will cause approx. 5 mm increase in the length per 1000 mm. Please see the section "Design of Plastic Gears" in separate technical reference book. (Page 101).
  - ④ The straightness deviation of Plastic Racks is less than 5mm per meter. However, for Plastic Racks with the total length of 1000 mm, the value may exceed 5 mm due to age deterioration. You may correct this error by using the bottom surface as the reference when attaching the racks.

- [Caution on Secondary Operations]
- ① Please read "Caution on Performing Secondary Operations" (Page 194) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK's system for quick modification of KHK stock gears is also available.
  - 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. It is recommended to modify mounting holes and the attaching portions at the same time when stringing racks together.

## Recommended Mating Pinions



SUS・SUSA Stainless Steel Spur Gears

Please see Page 126 for more details.



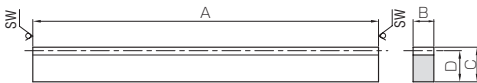
# BSR Brass Racks

Module 0.5、0.8、1

## Brass Racks



Specifications	
Precision grade	KHK R 001 grade 4
Gear teeth	Standard full depth
Pressure angle	20°
Material	Free cutting brass (C3604)
Heat treatment	—
Tooth hardness	(more than 80HV)



SW: Sawing surface

R1

Catalog No.	Module	Effective no. of teeth	Shape	Total length	Face width	Height	Height to pitch line	Allowable force (N)		Allowable force (kgf)		Weight (kg)
				A	B	C	D	Bending strength	Surface durability	Bending strength	Surface durability	
BSR0.5-300	m0.5	190	R1	303	3	9	8.5	28.7	—	2.93	—	0.066
BSR0.8-300	m0.8	118	R1	303	4	10	9.2	61.3	—	6.25	—	0.095
BSR1-300	m1	94	R1	303	6	10	9	115	—	11.7	—	0.14

- [Caution on Product Characteristics]
- ① The allowable forces shown in the table are the calculated values according to the assumed usage conditions. Please see Page 190 for more details.
  - ② The backlash of racks differ depending on the size of the mating pinion. Please calculate the backlash from the backlash value of the mating pinion. Also, please refer to the data in the section called 'Backlash of Rack Tooth (Amount of Tooth Thinning)' on Page 193.
- [Caution on Secondary Operations]
- ① Please read "Caution on Performing Secondary Operations" (Page 194) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK's system for quick modification of KHK stock gears is also available.

## Recommended Mating Pinions



BSS Brass Spur Gears

Please see Page 158 for more details.