

# Rubber Magnets

Standard / High Strength / Roll

**Rubber Magnets – Standard**

**HXP**  
Band Type

**HXP**  
A / B Dimension Configurable

**Dimension Tolerance of A and B**  
200mm or less 201-400  
+1.5 +2.0  
0 0

**Material:** Neodymium-group Rare Earth Magnet Powder Compounded Magnet

## Physical and Mechanical Characteristics of Rubber Magnets

Measurement Item	Testing Method	Neodymium Magnets Rare Earth Magnetic Particle Compounded Rubber	Samarium Iron-Nitrogen Rubber	Isotropic Ferrite Rubber	Anisotropic Ferrite Rubber
Tensile Strength [Mpa]	JIS K6301	3.8	≥3.9	3.9	6.9
Elongation Rate [%]	JIS K6301	55	20	80	50
Hardness (Shore D)	ASTM D2240	30	55	48	49
Volume Resistivity [Ω / m]	JIS K7194	4.75 x 10 <sup>14</sup>	5.7 x 10 <sup>3</sup>	4.0 x 10 <sup>12</sup>	4.0 x 10 <sup>12</sup>
Heat Resistant Temperature	—	-20~100°C	-40~120°C	-10~50°C	-10~50°C

## A / B Configurable

Part Number	A 1mm Increment	
	Type	T
HXP	1.0	10-100
	2.0	101-200
	3.0	201-300
HXP	1.0	10-100
	2.0	101-200
	3.0	201-300

## Magnetic Properties

Type	T	Attraction Force [g/cm <sup>2</sup> ]	Surface Magnetic Flux Density [G]
HXP	1.0	140	1300
HXP	2.0	250	1550

**Band Type**  
Part Number - A  
Example: HXP1.0 - 100

**A / B Configurable**  
Part Number - A - B  
Example: HXP2.0 - 305 - 150

① Attraction force and surface magnetic flux density are for reference only. ② Temperature limit for seals is 80°C.

**Rubber Magnets – High Strength**

**HXRS** (Square Type)

**HXRS** (Band Type)

**Dimension Tolerance of A & B**  
200mm or less 201-300  
+1.5 +2.0  
0 0

**Material:** Samarium-iron-nitrogen Rubber Magnet

## A Selectable Square

Part Number	Type	T
HXRS	0.5	10-100
	1.0	101-200
	1.5	201-300

## A Selectable – Band Type

Part Number	Type	T
HXRS	0.5	10-100
	1.0	101-200
	1.5	201-300

## A / B Configurable

Part Number	A 1mm Increment	
	Type	T
HXRS	0.5	10-100
	1.0	101-200
	1.5	201-300
HXRS	0.5	10-100
	1.0	101-200
	1.5	201-300

① Attraction force and surface magnetic flux density are for reference only. ② Usable as simplified magnet catches if mounted on door frame.

**Part Number Example**

**A Selectable**  
Part Number - A  
Example: HXRS1.0 - 100

**A / B Configurable**  
Part Number - A - B  
Example: HXRSF0.5 - 110 - 65

## Magnetic Properties

Type	T	Attraction Force [g/cm <sup>2</sup> ]	Surface Magnetic Flux Density [G]
HXRS	0.5	27	610
HXRS	1	98	860
HXRS	1.5	142	1030

**Rubber Magnets – Roll**

**Dimension Tolerance of A & B**  
200mm or less 201-300  
+1.5 +2.0  
0 0

**Material:** Isotropic Ferrite Rubber Magnet

Part Number	Length	Attraction Force [g/cm <sup>2</sup> ]
HXR HXT	0.4	16
	0.6	25
	1.0	38
	2.0	54
	3.0	56

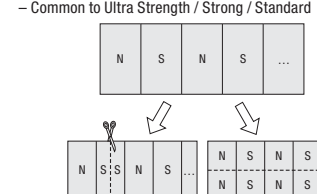
## Features of Rubber Magnets

– For Standard Type  
The pole width is as the Table right.  
For polarity of the magnetic material being cut, see the Rightmost Fig. ("")  
The seal side has no magnetic force.

Type	T	Pole Width [P] (mm)
HXR	0.4	2.0
	0.6	2.5
	1.0	3.0
	2.0	5.0
	3.0	5.0
HXT	0.6	3.0
	1.0	3.0
	2.0	5.0

## Application Example

Image of Magnetic Material (when being cut)  
– Common to Ultra Strength / Strong / Standard



**Part Number Example**  
Part Number: HXR0.6, HXT3.0

# Magnets

Countersunk

**Countersunk**

Type		Material	Heat-Resistant Temperature	Surface Treatment
Round	Square			
NHXCC	NHXCS	Neodymium Magnet	80°C	Nickel Plating
NHXCC	NHXCSH	Heat-Resistant Neodymium Magnets	150°C	

Magnetization Direction : Y-direction

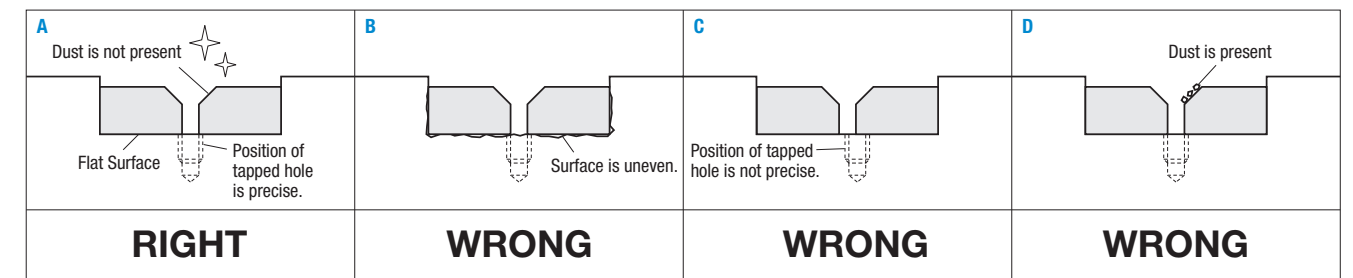
Part Number	Type	A	T	d1	d2	Accessory	Attraction Force N [kgf]		Surface Flux Density Gauss [G]	
							NHXCC NHXCCH	NHXCS NHXCCH	NHXCC NHXCCH	NHXCS NHXCCH
Round Type NHXCC NHXCCH	8	2	2	5.5	3.0	M2.5-6	7.8 {0.8}	10.8 {1.1}	2700-2900	2900-3200
			3				10.8 {1.1}	16.6 {1.7}	3400-3600	3200-3600
	10	3	3	6.5	3.5	M3-8	14.7 {1.5}	22.5 {2.3}	3400-3700	3400-3700
			4				18.6 {1.9}	24.5 {2.5}	3900-4200	3900-4100
	12	3	3	6.5	3.5	M3-8	23.5 {2.4}	27.4 {2.8}	4100-4300	3900-4200
			4.5				18.6 {1.9}	24.5 {2.5}	3500-3700	3200-3500
15	3	3	9	4.8	M4-10	23.5 {2.4}	39.2 {4}	3400-3700	3200-3500	
		5				41.1 {4.2}	54.8 {5.6}	4000-4300	3900-4200	
20	4	4	11	5.8	M5-12	49 {5.0}	47.0 {4.8}	3200-3500	2900-3200	
		5.5				54.8 {5.6}	78.4 {8.0}	3900-4200	3600-4000	
25	4	4	13	7.0	M6-15	58.8 {6.0}	58.8 {6.0}	3200-3600	2800-3100	
		6				78.4 {8.0}	98.0 {10.0}	3600-4000	3600-4000	

① Attraction Force and Surface Flux Density are reference values for magnets alone. ② Very powerful magnets. May crack when pulled and struck by other magnetic substances. Please handle with care when unpacking.

**Part Number Example**  
Part Number: NHXCC8 - 3

## About Installation

- Place magnet on flat surface. (Illustration B)
- Please make sure that there is no misalignment between magnet holes and tapped holes. (Illustration C)
- Please make sure that there is no dust before installing flat-head screw. (Illustration D)



## Tightening Torque (Value for Reference)

Flat Head Screw Mounting Type		
Tightening Torque (Value for Reference)		
Magnet A Dimension	Included Flat Head Screw	N.m
8	M2.5-6	0.2
10	M3-8	0.6
12		
15	M4-10	1.4
20	M5-12	2.9
25	M6-15	5.0

① Tightening beyond the specified torques may cause magnet breakage.