

SAKAGAMI

Technology & Sealing System



The professional seal manufacturer in Japan

SAKAGAMI SEISAKUSHO LTD.

Hydraulic packings

Disclaimer



Applications beyond the specification might be adoptable depending on the accuracy of equipment and/or the operation condition.
The figures and values herein, including operation ranges and performance data, are guidelines for selection of products. Sakagami Seisakusho Ltd. does not guarantee any of these figures and values.

Product name	Profiles (Left section)	Material codes	Standard Material			Operating fluid		
			Service range					
Application			Max. pressure MPa (kgf/cm ²)	Max. speed (m/s)	Temperature range (°C)			
GPY-Packings Piston packings		RN919	Clearance of extrusion H9/f8	17.5 {175}	1	-30~100	Mineral oils Water polyglycol solutions Water-in-oil emulsions	
			w/Back-up ring	25 {250}	0.5			
GNY-Packings Rod packings		RN919	Clearance of extrusion H9/f8	17.5 {175}		1		-30~100
			w/Back-up ring	25 {250}	0.5			
RGY-Packings Piston packings		RN923	Clearance of extrusion H9/f8	14 {140}		1		-25~100
			w/Back-up ring	21 {210}	0.5			
RNY-Packings Rod packings		RN922	Clearance of extrusion H9/f8	14 {140}		1		-25~100
			w/Back-up ring	21 {210}	0.5			
Ⓣ SGY-Packings Piston packings		RN812	w/Back-up ring	21 {210}		0.5		-45~100
			Ⓣ SNY-Packings Rod packings	RN809	w/Back-up ring	21 {210}		0.5
SKY-Packings Piston & rod packings		RN906 (RF905) (RF907)			Clearance of extrusion H9/f8	14 {140}		1 (0.5)
			w/Back-up ring	21 {210}	0.5			
KY-Packings Piston & rod packings		RN906 (RF905) (RF907)	Clearance of extrusion H9/f8	15 {150}		1 (0.5)	-10~80 (-5~150)	
			w/Back-up ring	30 {300}	0.5			
RGU-Packings Piston packings		RN923	Clearance of extrusion H9/f8	14 {140}		1	-25~100	
			w/Back-up ring	21 {210}	0.5	-25~80		
HSD-Packings Piston packings		RN906	Clearance of extrusion H9/f8	14 {140}		1	-10~80	
			w/Back-up ring	21 {210}	0.5			
PENTA-Seals PS Rod packings		RN906 (RF905)	Clearance of extrusion H9/f8	14 {140}		0.5	-10~80 (-5~150)	Mineral oils Water polyglycol solutions Water-in-oil emulsions (Mineral oils Phosphoric ester)
			w/Back-up ring	21 {210}				
NMY-Packings Rod packings		RN906	Clearance of extrusion H9/f8	14 {140}	0.5	-10~80		
			w/Back-up ring	21 {210}				
STK-Seals (STR type) Piston seals		PT151	Rotation & oscillating movements	28 {280}	0.3	-30~100		
			ST-Seals Piston seals	PT111			Reciprocating movement	
SMJ-Seal Rod seal		PT154			Clearance of extrusion 0.6mm in dia.	21 {210}	3	-30~100
			Clearance of extrusion 0.3mm in dia.	35 {350}				

- For the material codes, the temperature ranges and applicable fluid specified in (), heat resistant materials are used. For those applications requiring heat resistance, while the pressure condition is far below the maximum pressure, it is advisable to add back-up rings to the packings for improvement of the heat resistance.
- Configurations of high pressure back-up rings to be inquired.
- Profile of RGU has been innovated to improve stability of sealing performance.
- The details of material codes are shown in the pages 10 to 12.
- Field of application presents typical examples. Please consult our sealing professionals for special applications.



Pneumatic packings

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Product name Application	Profiles (Left section)	Standard Material				Characteristics
		Material codes	Service range			
			Pressure MPa (kgf/cm ²)	Max. speed (m/s)	Temperature range (°C)	
PGY-Packings Piston packings		RN713 (RF905)	1 {10}	1	-15~60 ⁽³⁾ (-5~150)	Improved wear resistant packings are PGY piston packings & PNY rod packings. Stable sealing performance is obtainable in lubricated, non-lubricated and dry air systems.
PNY-Packings Rod packings		RN713 (RF905)	1 {10}	1	-15~60 ⁽³⁾ (-5~150)	
GLY-Packings Piston & rod packings		RK701 (RF905)	1 {10}	1	-25~70 (-5~150)	GLY-packings are applicable to pneumatic pistons & rods in non-lubricated air supply systems, while inapplicable to lubricated cylinders.
PPD-Packings Piston packings		RN729	1 {10}	1	-20~80	PPD-packings are double acting piston packings compatible with the grooves for the PSD-packings. Sealing performance of PPD-packings sustains unchanged despite of large eccentric movement of the pistons. Moderate durability and fair friction characteristics.
PSD-Packings Piston packings		RN713 (RF704)	1 {10}	1	-15~60 ⁽³⁾ (-5~150)	PSD-packings are the world best selling double acting pneumatic piston packings. The profile of the PSD-packings is compact and designed to provide outstanding friction properties. Unlike O-rings, PSD-packings resist twisting or rolling.
PDU-Packings Rod packings		RN818 (RF905)	1 {10}	1	-15~60 ⁽³⁾ (-5~150)	PDU-packings, the one-piece packing & wiper, allow compacter cylinder designs.
Mini Y-Packings MYA·MYN·MYH Piston & rod packings	 	MYA RK703 (NBR) MYN RN716 (NBR) MYH ⁽¹⁾ RF704 (FKM)	0.8 {8}	0.4	-25~70 -10~70 -5~150	Packings for small-gauge pneumatic applications. ●MYA packings feature low friction applicable to small-gauge cylinders. ●MYN packings are extra low friction, even lower than MYA packings, suitable for solenoid valves. ●MYH packings are applicable to high temperature applications. Mini-Y packings are compatible with the grooves for O-rings specified by JIS B2401 P-line.
MYP-Packings Piston packings		RN722	1 {10}	0.5	-20~60	MYP-packings are applicable to small diameter pistons. Likewise Mini Y Packings, they are compatible with the grooves for O-rings specified by JIS B2401 P-line. By adopting the slit structure of the lip part, MYP-packings regulate back pressure and avoid incorrect installation. High wear resistant properties and stable performance are achievable.
MYR-Packings Rod packings		RN818	1 {10}	0.5	-15~60	MYR-packings are applicable to small diameter rods. Likewise Mini Y Packings, they are compatible with the grooves for O-rings specified by JIS B2401 P-line. By adopting an improved wear resistant material, they provide durable and stable sealing performance despite of the small cross sectional size.
PPY-Packings Piston packings		RN713 (RF704)	1 {10}	1	-15~60 ⁽³⁾ (-5~150)	Improved wear resistant PPY piston packings & PRY rod packings are applicable to miniature cylinders. Greater abrasion resistance with superior friction properties is obtainable, comparing with O-rings.
PRY-Packings Rod packings		RN713 (RF704)	1 {10}	1	-15~60 ⁽³⁾ (-5~150)	
Grid-Surface Gaskets Rubber sheet gaskets		RN917 RD911 RD914 ⁽²⁾	1 {10}	—	-30~80	Unique and deep grid pattern of Grid-Surface Gaskets minimizes protrusion of the gasket sheet when squeezed in the assembly process offering optimum sealing performance.

● The temperature ranges specified in () are of heat resistant materials.
⁽¹⁾ The profiles of MYN and MYH are variant.
⁽²⁾ RD914 is a green material and does not contain PVC.
 RD914 is recommended for the replacement of RD911 (NBR+PVC).
⁽³⁾ Operation temperature ranges have been redefined.

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Wipers

Product name	Profiles (Left section)	Standard Material			Operating fluid	
		Material codes	Service range			
Application			Pressure MPa (kg/cm ²)	Max. speed (m/s)	Temperature range (°C)	
SCK-Wipers		RN814	—	1	-45~100	Mineral oils Mineral oils for low temperature applications
Rod wipers						
SDR-Wipers		RN906 (RF905)	—	1 (0.5)	-25~100 (-5~150)	Mineral oils Water polyglycol solutions Water-in-oil emulsions (Mineral oils Phosphoric ester)
Rod wipers						
SDB-Wipers		RN819 (RF903)	—	1	-25~100 (-5~150)	Water soluble cutting oil Cutting oil of sulfide lines Industrial water (Cutting oil of chloride lines)
Rod wipers						
SCB-Wipers		RN807	—	1	-40~100	Mineral oils Water polyglycol solutions Water-in-oil emulsions (Mineral oils Phosphoric ester)
Rod wipers						
SER-Wipers		RN906 (RF905)	—	0.5	-25~100 (-5~150)	Mineral oils Water polyglycol solutions Water-in-oil emulsions (Mineral oils Phosphoric ester)
Rod wipers						
SFR-Wipers		RN912	—	1	-30~100	—
Rod Wipers						

Wear rings & Bearings

SW-Wear Rings		PB201	—	3	-55~120	Mineral oils Mineral oils for low temperature applications Phosphoric ester
Piston wear rings						
SWA-Wear Rings		PB201	—	3	-55~120	
Piston wear rings						
SWB-Wear Rings		PB251	—	3	-55~120	
Piston wear rings						
S-LEEVE (WPB type)		PN104	21 {210}	1	-25~80	Mineral oils Water polyglycol solutions Water-in-oil emulsions Phosphoric ester
Piston bearings						
S-LEEVE (WRB type)		PN104	21 {210}	1	-25~80	
Rod bearings						
PWL-Bearings		PN104	21 {210}	1	-25~80	
Piston bearings						

Cushion Seals

PCS-Cushion Seals		RN803 (RF903)	1 {10}	0.5	-5~80 (-5~150)	—
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- For the material codes, the temperature ranges and applicable fluid specified in (), heat resistant materials are used.
- Aqueous based hydraulic fluids may not allow packings to achieve enough durability at the temperature of 70°C or over.