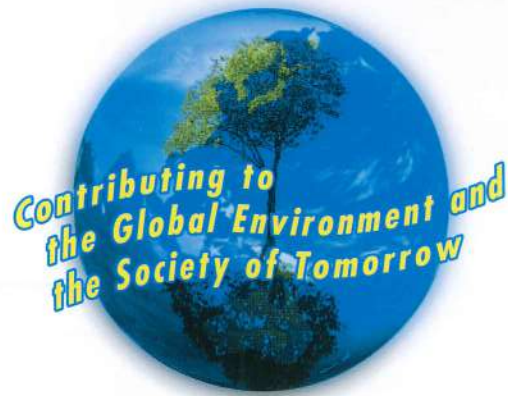
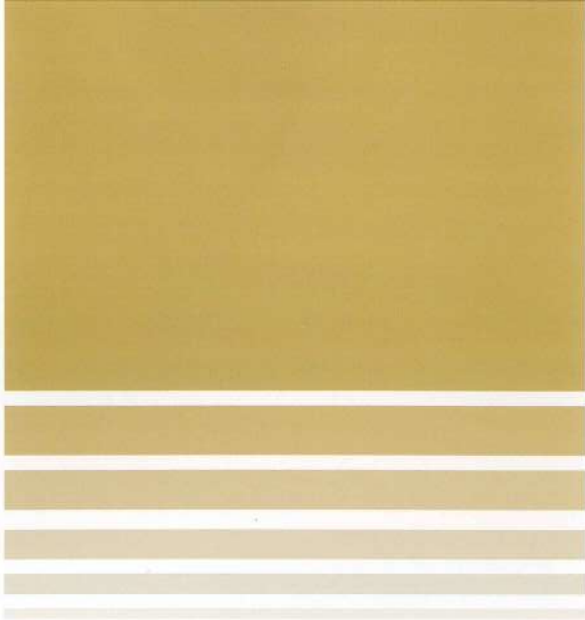




Marine
Machine
Motor Car



Electronics
Energy
Ecology



Pillar Products for **POWER PLANT**



Since 1924, Nippon Pillar Packing Co.,Ltd has contributed to the growth of industries with our total sealing technology. In our long and glorious history, we have always put emphasis on Research and Development, and served the-state-of-the-art products in the field of leak preventive products such as mechanical seals, gland packings, gaskets and Pilaflon® products.

PILLAR mechanical seals, by using the superior sealing materials based on our advanced technology and abundant experience, have been employed in much severe applications such as for nuclear power stations. PILLAR packings/gaskets are available with our differential raw material to the requirements of fugitive emission control and of low torque in the valves. Pilaflon® products has used the best suitable material in our integral manufacturing process from raw material.

“Quality first” is our company motto, and we are the first seal manufacturer in Japan to be certified ISO 9001. Also, we were certified ISO 14001 for environmental concern.

To power stations, where most reliable products are required and environmental protection concerns badly, we provide total sealing technology with our innovative products to nuclear, hydraulic and thermal power stations.

This catalogue was prepared to help you select the best suitable products to your specifications in power stations. It shows only typical products to cover the specifications as much as possible to minimize the inventory stock. But, our products are not shown exhaustively here. We have PILLAR distributors worldwide to serve you, so please contact us for any further information.



BRAIDING OF GLAND PACKING



LAPPING OF MECHANICAL SEAL



DRY GAS SEAL TEST BENCH

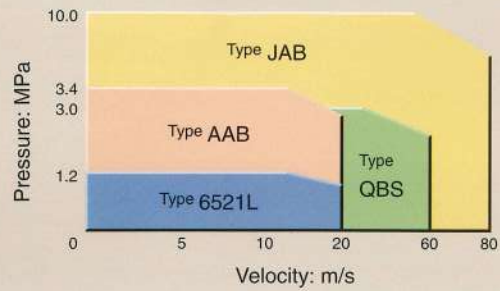


ELECTRON MICROSCOPE



SANDA FACTORY

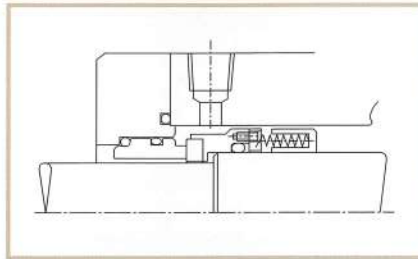
Selection of seal and packing for pump



Mechanical Seals

Type AAB

Rotating multi-spring seal



Features & Benefits

For General application

This type is widely used for wide application in many industries.

Performance

Pressure: 3.43MPa, Velocity: 20m/s, Nom.size: ϕ 20-250
Application: General pumps

Code: MS-AAB30-KEB00 - (Size), Tungsten Carbide (SiC) vs. Carbon & Fluoro Elastomer, 316 SS

Type QBS

Welded metal bellows seal

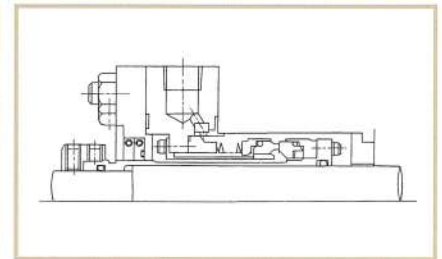
Features & Benefits

For High Temperature

This type is stationary type using welded double metal bellows which has superior pressure resistance. This has no stick-slip and superior heat resistance as no shaft packing is employed.

Performance

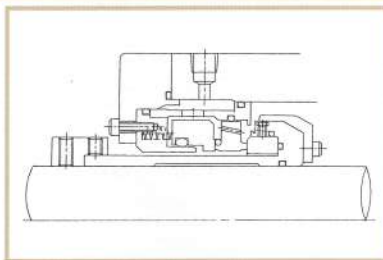
Pressure: 3.0MPa, Velocity: 60m/s, Nom.size: ϕ 23-136
Application: Oil feed pump, Fuel transfer pump



Code: MS-QBS20-PXK00 - (Size), Tungsten Carbide (SiC) vs. Premium carbon & Fluoro Elastomer, 316 SS

Type JAB

Stationary floating ring seal (For heavy duty)



Features & Benefits

For High Load Application

This type is widely used for high speed, high pressure and big pressure fluctuation.

Carbon floating ring can accommodate big pressure fluctuation owing to its symmetrical shape. The pump fluid can be flushed effectively through lots of holes on this ring to dissipate the heat generated on the faces.

Performance

Pressure: 10.0MPa, Velocity: 80m/s, Nom.size: ϕ 50-250
Application: Boiler feed pump, Main pump for nuclear power plant

Code: MS-JAB25-R - (Size), Tungsten Carbide (SiC) vs. Premium carbon & Fluoro Elastomer, 316 SS

Gland Packings

Type 6521L

Carbonized fiber packing

Features & Benefits

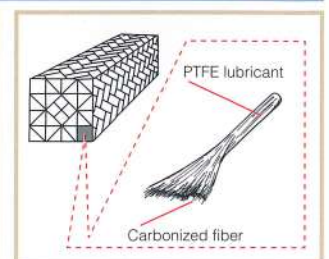
For General Pump

This is made of carbonized fiber impregnated with PTFE dispersion, and lattice braided with special lubricant. This has much enhanced performance than our popular type 6501L. This packing can accommodate big pressure fluctuation, so can be used widely in rotating/reciprocating equipment.

Performance

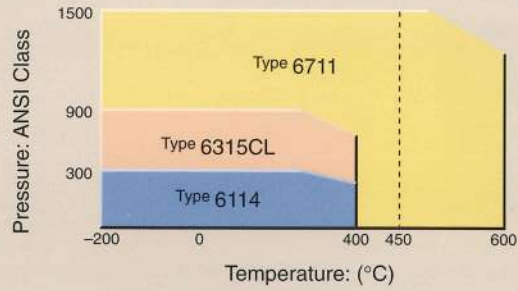
Temperature: 200°C, Pressure: 1.2MPa, Velocity: 20m/s, PV value: 9.8MPa·m/s
Application: Sea water pump

*Cooling is required for liquid over 80°C



Code: GP-6521L - (Size)

Selection of valve packing

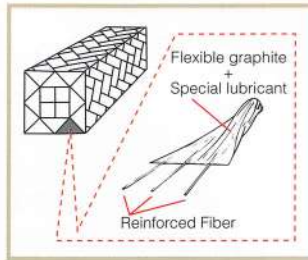


Type 6114*

Pillarfoil® Braided Packing (Mark VII)



Code: GP-6114 - (Size)



Features & Benefits

Non-metal Valve Packing for Low Torque

This is made of flexible graphite yarn reinforced by organic fiber and braided. This flexible graphite material is pre-treated on its surface to obtain low torque properties as well as sealability.

(Pat.No.US 5370405, Pat.No.EP 466923, Pat.No.KR74981, Pat.No.Canada 2029303, Pat.No.Ireland 71684)

Performance

Temperature: -200-400°C (Packing area up to 350°C)

Pressure: ANSI Class 300

Application: General application valves, for manhole packing

Type 6315CL*

Pillarfoil® Braided Packing for low torque (Mark V)



Features & Benefits

For regulating and control valve to comply CAAA regulation

This is made of flexible graphite yarn reinforced by stainless steel wire, and braided over braid then treated with special lubricant. This has superior performance for regulating and control valves.

(Pat.No.US 5134030, 5240769, Pat.No.EP 340303, Pat.No.KR 63539)

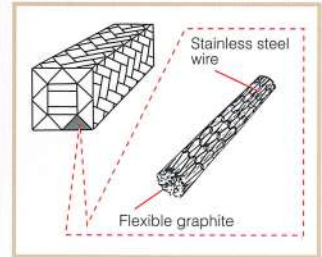
Performance

Temperature: -200-400°C (Packing area up to 350°C), Pressure: ANSI Class 900

Application: Regulating valve, Control valve



Code: GP-6315CL - (Size)

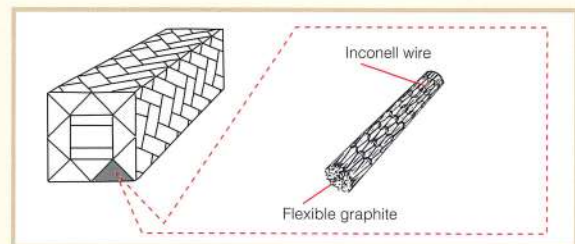


Type 6711*

Pillarfoil® Braided Packing (Mark III®)



Code: GP-6711 - (Size)



Features & Benefits

For High Pressure High Temperature Valves

This is made of flexible graphite yarn reinforced by inconel wire, and braided over braid then treated with flexible graphite on its surface. This packing can be used without end rings.

(Pat.No.US 4705722, Pat.No.EP 253031, Pat.No.KR42430)

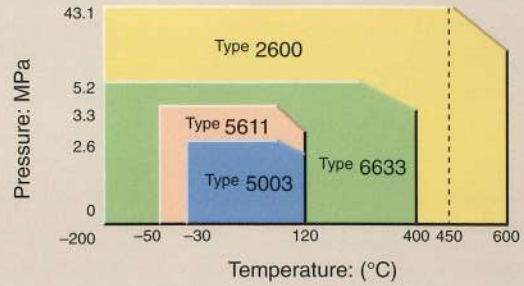
Performance

Temperature: -200-600°C, Pressure: ANSI Class 1500

Application: High pressure high temperature valves, for packing

*Maximum Temperature in oxidizing atmosphere : 450°C

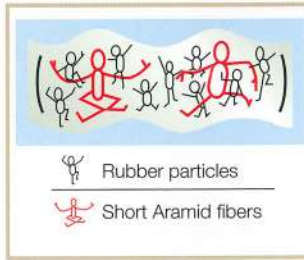
Selection of gasket



Gaskets

Type 5003

Aramid fiber hybrid rubber sheet



Features & Benefits

Hybrid rubber sheet gasket

Aramid fiber hybrid rubber sheet gasket.

This has superiority in sealability, no permeation leakage, excellent reversion for compressibility and minimized stress relaxation.

Performance

Temperature: -30~120°C, Pressure: 2.6MPa
Application: Lining pipe, Sea water intake pipe

Code: VG-5003 - (thickness) × (width) × (length)

Type 5611

Non Asbestos Joint Sheet (For general application)

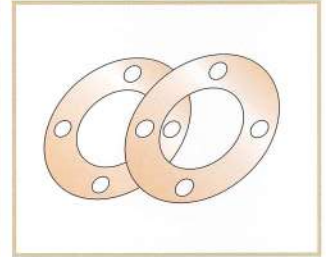
Features & Benefits

For general application

High strength synthetic fiber, inorganic fiber and NBR are combined evenly, and formed into sheet.

Performance

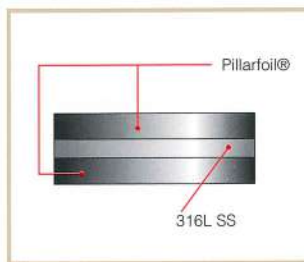
Temperature: -50~120°C, Pressure: 3.3MPa
Application: Flanges for pipe, Equipment



Code: VG-5611 - (thickness) × (width) × (length)

Type 6633

Metalfoil inserted Pillarfoil® Sheet



Features & Benefits

Flexible Graphite sheet reinforced by stainless steel foil.

This has superior heat resistance and flexibility as well as sealability, and easy to handle.

Performance

Temperature: -200~400°C, Pressure: 5.2MPa (ANSI Class 300)
Application: Flanges for pipe, Equipment

Code: VG-6633 - (thickness) × (width) × (length)

Type 2600

Pillarfoil® Spiral Wound Gasket

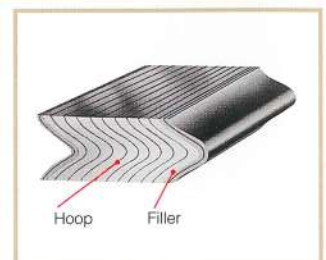
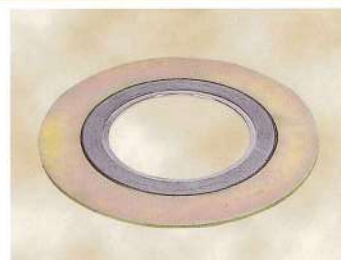
Features & Benefits

Spiral wound gasket using Pillarfoil® filler

It is superior in gas sealability, heat resistance and chemical resistance.
It can be used in vacuum, LNG, nuclear application as well as general application.

Performance

Temperature: -200~600°C (450°C for oxidizing atmosphere)
Pressure: 43.1MPa (ANSI Class 2500)
Application: Flanges for pipe, Equipment



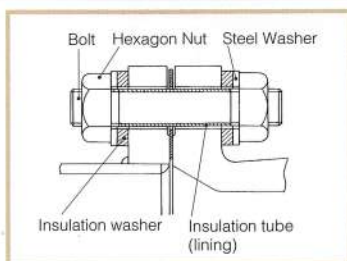
Code: Standard
With inner ring
With inner/outer ring

VG-2600-EEO-ANSI (Size) LB-00°
VG-2601-EEO-ANSI (Size) LB-00°
VG-2603-EEE-ANSI (Size) LB-00°

PTFE Products

Type 4650(H)

AC Bolts



Features & Benefits

Lined with hard Pilaflon®

With insulation washers and gaskets, it is to prevent galvanic corrosion which may be generated on different metal flanges. PFA insulation diameter is smaller than thread diameter, so enabling easy insertion work.

Performance

Temperature: -196~200°C, Application: Flanges for pipe, Equipment

Code: PF-4650(H)-ANSI - (Size)

Type 4801

FLUOROGOLD® Slide Bearing

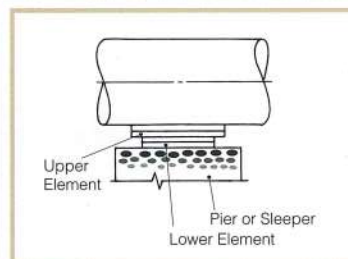
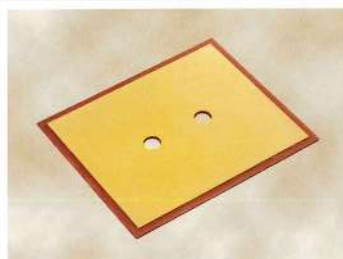
Features & Benefits

Fluorogold® is a high load slide bearing to accommodate relative movement by earthquakes, temperature difference, wind and so on.

Performance

Temperature: -200~260°C

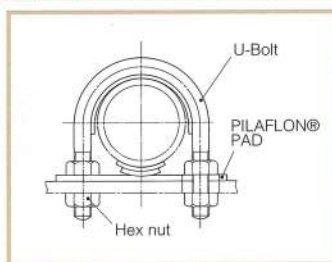
Application: Support for pipe, Equipment, Iron structure and apparatus



Code: PF-FC-1010-CS 15L - (width) × (length). Carbon steel + PTFE

Type 4811, 4812

Pilaflon® U-bolt and pad



Features & Benefits

To accommodate relative movement of piping

Filled PTFE is fitted firmly on the pipe-contacting face of U-bolt. Size is available of 1-1/4"-36" as standard.

Performance

Temperature: -200~260°C, Application: Pipe support

Code: PF-4811-U - (number)
PF-4812-P - (number)

Type 8612

Damper bearing

Features & Benefits

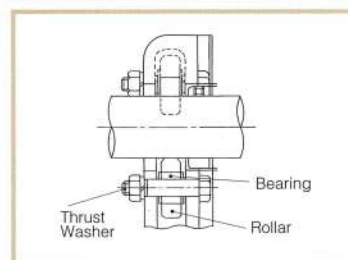
Oilless metal bearing

Developed for damper bearing on duct, and long stable performance can be obtained under severe condition.

Performance

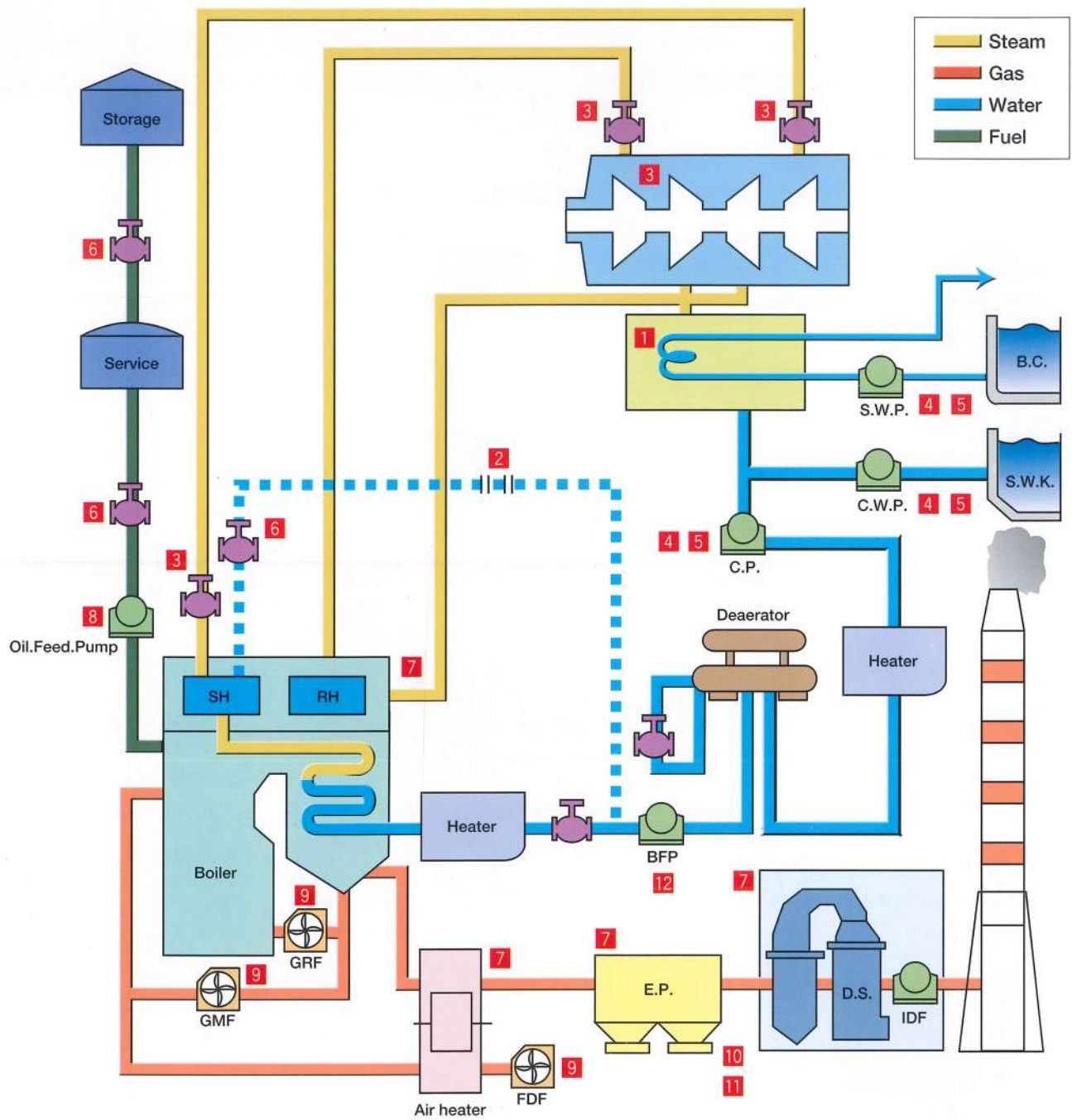
Load: 34.3MPa, Temperature: 350°C

Application: Damper



Code: PF-8612-DB1- (number)

PILLAR Products in Process of Power Plants



Type 5003



Type 2600



Type 6711



Type 6521L



Type AAB



Type 6315CL



Type 6114



Type QBS



Type 8612



Type 4801



Type 4650(H)



Type JAB



NIPPON PILLAR PACKING CO., LTD.

<http://www.pillar.co.jp/>

E-mail : info@pillar.co.jp

*Specifications and dimensions are subject to change without prior notice.
*The data on this catalogue are solely for your reference and are not to be construed as constituting a warranty.



CAUTION

Read through and follow the instructions on the manual before installation and operation for your safety.