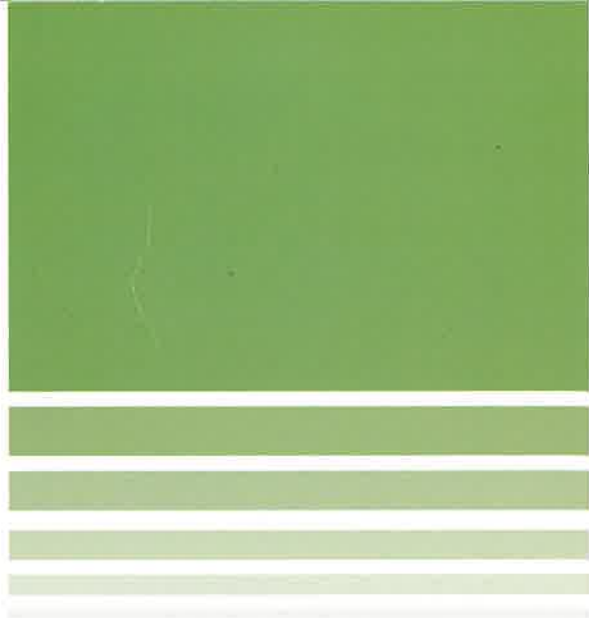




Marine  
Machine  
Motor Car



Electronics  
Energy  
Ecology



# Pillar Products for PULP and PAPER 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.

In pulp and paper industries, a lot of resources such as electric powers, fuels, steam and water are consumed and many difficult fluid to handle with are used. So, save-energy and measure to prevent leakage are very important.

This catalogue was prepared to help you select the best suitable products to your specifications in pulp and paper industry. 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

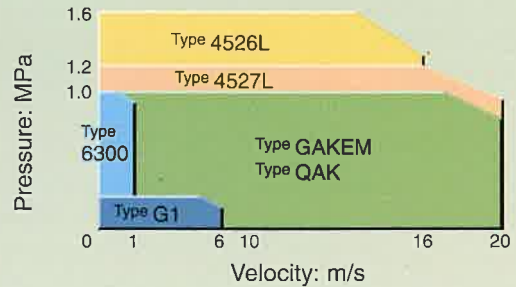


ELECTRON MICROSCOPE



SANDA FACTORY

## Selection of seal and packing for pump



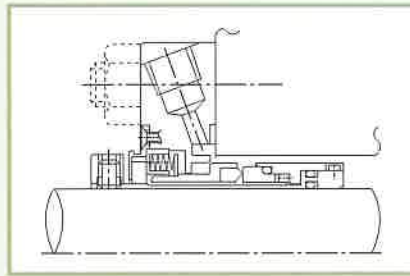
## Mechanical Seals

### Type **GAKEM**

Cassette seal® (Knife edge)



Code: MS-GAKEM-TF022 - (Size), SiC vs SiC & Fluoro Elastomer, 316 SS



#### Features & Benefits

##### Easy installation

This is cassette type seal providing easy installation. Replacement from gland packing is not required any modification.

Since this seal uses knife edge mating ring, it provides the stable performance against high viscosity and slurry liquid.

#### Performance

Pressure: 1.0MPa,

Temperature: -20-150°C, Size: φ20-100

Application: High viscosity liquid, Polymeric liquid

### Type **QAK**

Formed metal bellows knife edge seal



#### Features & Benefits

##### High viscosity liquid, polymeric liquid, coagulating liquid

Since this type uses a formed metal bellows and its sealing material is designed for sharp knife edge at one end, it provides the stabilized performance against the high viscosity liquid, polymeric liquid, coagulating liquid, etc.

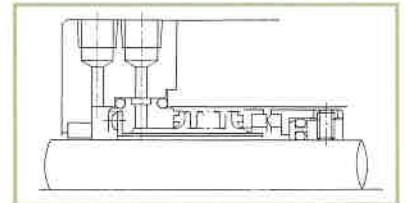
#### Performance

Pressure: 1.0MPa, Velocity: 20m/s, Nom.size: φ20-106

Application: High viscosity liquid, Polymeric liquid



Code: MS-QAK - (Size), Tungsten Carbide vs Tungsten Carbide & 316 SS

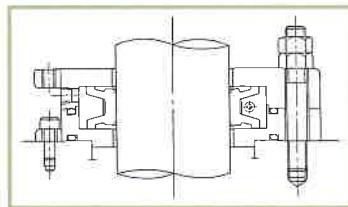


### Type **G1**

Rubber End-face type



Code: MS-G1 - (Type) - (Size), Special rubber vs Ceramic & Fluoro Elastomer, Bronze



#### Features & Benefits

##### Simplified U-shape rubber seal

The mechanical seal of this type is an end face type seal which uses the simplified U-shape rubber. It is suitable for low velocity equipment which has the axial movement by the excellent follow-up performance.

#### Performance

Pressure: 0.2MPa, Velocity: 6m/s, Temperature: -10-60°C

Application: Flotator, Agitator

## Gland Packings

### Type **6300\***

Live seal unit®



#### Features & Benefits

##### For low velocity equipment

This is the new packing system consists of the gland packing, spring and collar. The live loading system (spring pressing system) enables no stress relaxation for a long period of time, reduces leakage amount and maintenance cost.

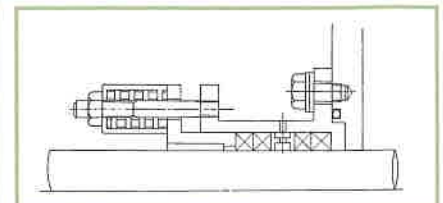
(US, EP, Korea, Taiwan, China pending)

#### Performance

Application: Mixer, Kneader, Dryer

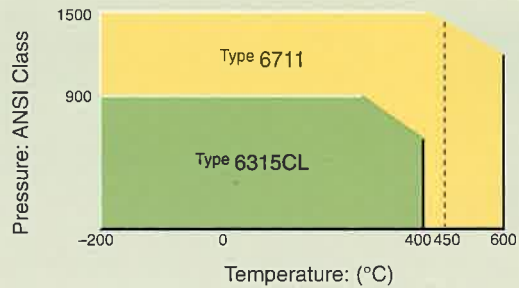


Code: GP-6300 - (Size)





## Selection of valve packing

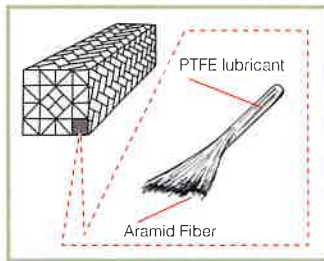


## Type 4526L

### Aramid fiber packing



Code: GP-4526L - (Size)



#### Features & Benefits

##### Aramid fiber packing

This is a packing consisting of the aramid fiber impregnated with PTFE dispersion and heat resistant lubricant. It is interlocking braided packing and creates a stable sealing ability and stability for a long period of time.

#### Performance

Temperature: 260°C, Pressure: 1.6MPa, Velocity: 16m/s, PV value: 14.7MPa·m/s  
Application: Slurry liquid, Boiler feed pump

※Cooling is required for liquid over 80°C

## Type 4527L

### Special Pilaflon® fiber packing



#### Features & Benefits

##### Special Pilaflon® super packing for chemical

This is an interlocked braided packing, consists of the PTFE fiber and containing highly pure graphite and special lubricant. The original interlocked braiding system enables uniform contact with shaft and creates a stable sealing effect for a long period of time.

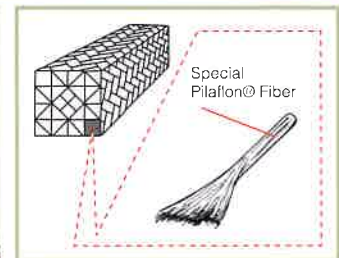
#### Performance

Temperature: 260°C, Pressure: 1.2MPa, Velocity: 20m/s, PV value : 12.3MPa·m/s  
Application: Slurry liquid

※Cooling is required for liquid over 80°C



Code: GP-4527L - (Size)

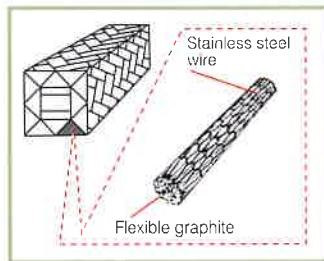


## Type 6315CL\*

### Pillarfoil® braided packing for low torque



Code: GP-6315CL - (Size)



#### Features & Benefits

##### For regulating and control valve to comply CAAA regulation

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

(Pat.No.US5134030, 5240769, EP340303, Korea635399)

#### Performance

Temperature: -200~400°C (Packing area up to 350°C), Pressure: ANSI Class 900  
Application: Regulating valve, Control valve

## Type 6711\*

### Pillarfoil® Braided Packing (Mark III®)



#### Features & Benefits

##### For high temperature & pressure valve

This is Pillarfoil® packing reinforced by inconel wire. It's recommended in high temperature and high pressure valves.

(US4705722, EP253031, KR42430)

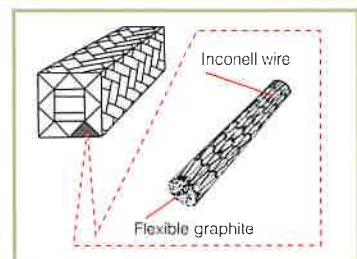
#### Performance

Temperature: -200~600°C, Pressure: ANSI Class 1500  
Application: High temperature and high pressure valve

※Maximum Temperature in oxidizing atmosphere : 450°C

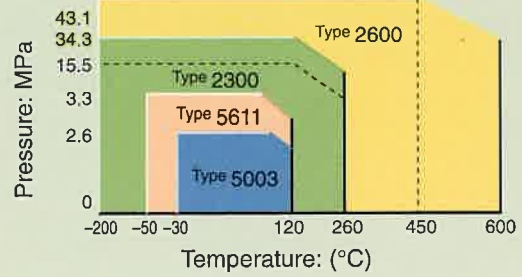


Code: GP-6711 - (Size)



\* These products have gotten the patent

## Selection of gasket



## Gaskets



### Type 5003

#### Aramid fiber hybrid rubber sheet



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



-  Rubber particles
-  Short Aramid fibers

#### Features & Benefits

##### Hybrid rubber sheet gasket

This is aramid fiber hybrid rubber sheet gasket. It has superiority in sealability, no penetration leakage, excellent reversion for compressibility and minimized stress relaxation.

#### Performance

Temperature: -30~120°C, Pressure: 2.6MPa  
Application: Flanges for pipe, Equipment

### Type 5611

#### Non-asbestos joint sheet (For general application)

#### Features & Benefits

##### For general application

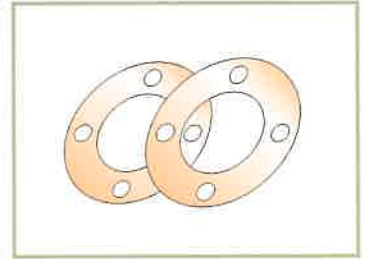
High strength synthetic fiber, inorganic fiber and NBR are combined evenly, and formed into sheet.

#### Performance

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

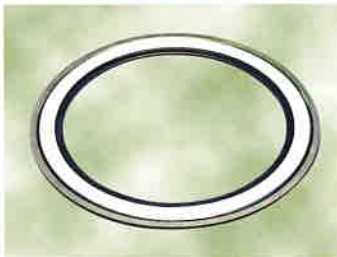


Code: VG-5611 - (thickness) × (width) × (length)

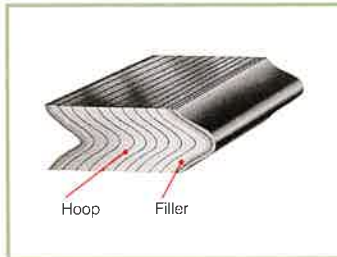


### Type 2300

#### Pilaflon® spiral wound gasket



Code: Standard  
With inner ring  
With inner/outer ring



VG-2300-EEO-ANSI (Size) LB-00"  
VG-2301-EEO-ANSI (Size) LB-00"  
VG-2303-EEE-ANSI (Size) LB-00"

#### Features & Benefits

##### Spiral wound gasket using Pilaflon® filler

This is using 100% PTFE Pilaflon®, a highly pliable and elastic soft tape. It is superior in gas sealability and chemical resistance. It can be used for any kind of fluid.

#### Performance

Temperature: -200~260°C, Pressure: 34.3MPa (for liquid), 15.5MPa (for gas)  
Application: Flanges for pipe, Equipment

### Type 2600

#### Pillarfoil® spiral wound gasket

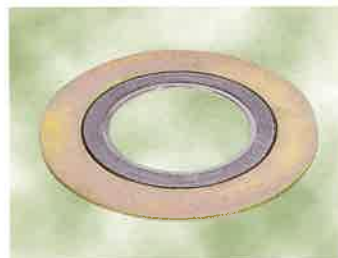
#### Features & Benefits

##### Spiral wound gasket using Pillarfoil® filler

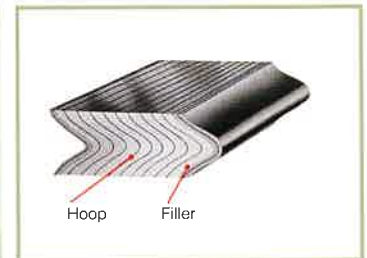
It is superior in gas sealability, heat resistance and chemical resistance. It can be used in vacuum, LNG, nuclear application as well as general application.

#### 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

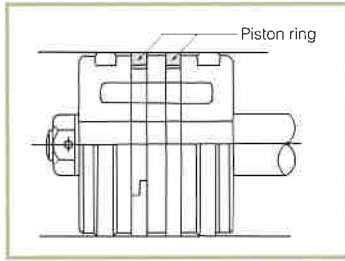


VG-2600-EEO-ANSI (Size) LB-00"  
VG-2601-EEO-ANSI (Size) LB-00"  
VG-2603-EEE-ANSI (Size) LB-00"

## PTFE Products

### Type 4370

#### Piston ring



#### Features & Benefits

##### New material for piston ring

This is a lubricant-free piston ring made of filled Pilaflon®, ensuring a stable sealing effect for a long time.

#### Performance

Temperature: -100~220°C, Pressure: 9.8MPa, Velocity: 4m/s  
Application: Oil-free compressor, Reciprocating equipment

Code: PF-4370 - (Material) - (ID) × (OD) × (T)

### Type 4391~4394

#### Rod packing

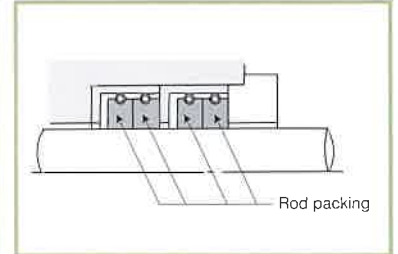
#### Features & Benefits

##### New material for rod packing

This is a lubricant-free rod packing made of filled Pilaflon®, ensuring a stable sealing effect for a long time.

#### Performance

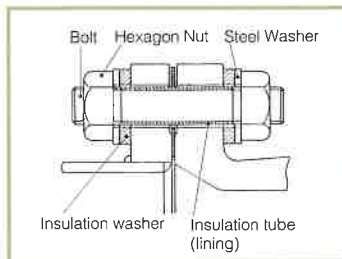
Temperature: -100~220°C, Pressure: 2.9MPa, Velocity: 4m/s  
Application: Oil-free compressor, Reciprocating equipment



Code: PF-439\* - (Type) - (Material) × (ID) × (OD) × (T)

### Type 4650(H)

#### AC bolts



#### Features & Benefits

##### TLined 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.

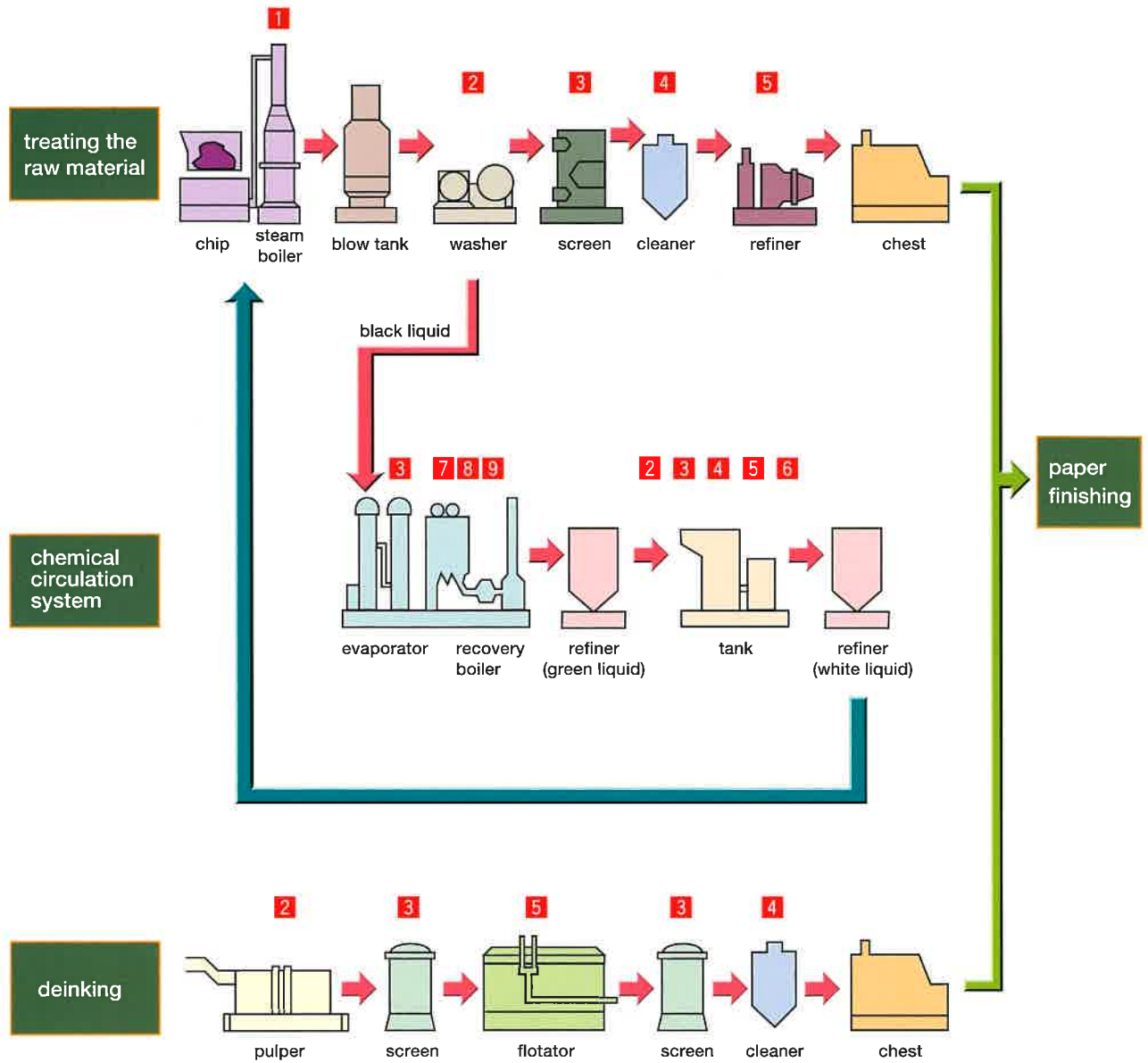
#### Performance

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

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



# Pillar products for paper products, pulp





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\*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.



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