

**TRUE SEAL  
PACIFIC**



One Stop  
Buying For  
Global Sourcing

And Local Service.



<http://www.truesealcorp.com>

## Company Profile

**TrueSeal Pacific** is a company, 100% own and managed by Thai, who is the center of Sealing and relates product including sourcing service according to customers' requirement from all over the world. We have policy to deliver quality product with the latest technology in order to be one of the leader in the market with the motto "ONE STOP BUYING GLOBAL SOURCING AND LOCAL SERVICING"

**TrueSeal Pacific** has international business partner to coordinate and support in consultancy service, product and business development, and quality assurance. These are our international Partners


1. TrueSeal Corporation
2. Shinko - Tec Engineering co., Ltd.
3. Meiwa Industry co., Ltd.

moreover, we get great honor from Mr. Matsumura Yoshiyuki, Japanese specialist, to be our senior consultant.

**TrueSeal Pacific** has over 10 years experiences staff, who are experts on industrial factory, will be able to provide great consultancy and support to customers' requirement. In addition, with their professional and sincere in sell and service, we believe that they can deliver highest satisfaction to every customer. However, we also encourage employee to have more training and acquire new knowledge in order to have better support company and customer.

**TrueSeal Pacific** management and all employees believe and follow our Royal Word in the subject of Sufficient Economy by offering fair and reasonable price. We also have policy to return to society in various way and occasion.

### TrueSeal Pacific Co., Ltd.



(YOSHIYUKI MATSUMURA)  
Executive Adviser



(WITOON JIAMSIRIKARN)  
President

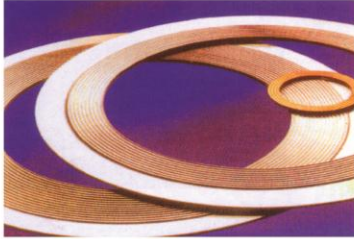
**TRUE SEAL**  
**PACIFIC**

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## Spiral Wound Gasket

## TS-S2000

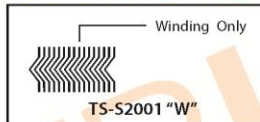


**Made through** winding of quality SUS316, SUS304 and other alloy materials alternatively with graphite, asbestos, PTFE, and other asbestos-free flexible materials, and fixed with inner ring, outer ring, inner and outer ring

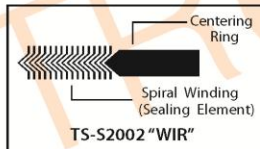
**Applications:** Seals for Flange connections of pipelines, Valves, Pressure Vessels, Condensers, Heat exchanger, Towers, Man-holes and Hand holes in petroleum, chemical metallurgy, power generation, ship and machine industry.

TrueSeal Spiral wound gaskets can be manufactured in accordance with all relevant gasket standards to suit various flange designations such as ASME/ANSI B16.5, API 605 (ASME B16.47 SERIES B) MSS SP44 (ASME B16.47 SERIES A), (AWWA), CNS, DIN, and JIS. The size is available from OD 1/2" to 5000mm. Please note that gaskets for non-standard flanges or heat exchanger with partitions are also readily available.

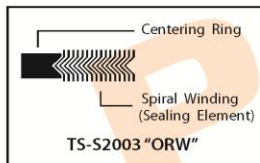
### Type of Spiral Wound



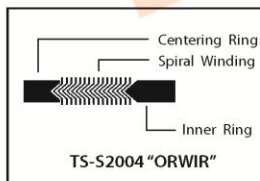
**Style "W"** is a Spiral Wound sealing component only that is normally use on tongue and groove joints, male and female flange facings and groove to flat flange facings.



**Style "WIR"** is identical with the addition of an inner ring. The inner ring serves several function. It provides radial support for the gasket on the I.D. prevent the occurrence of bukling or imploding.



**Style "ORW"** is a spiral wound gasket whose windings and construction are similar to the type "W" but where the sealing element is securely fitted into a machined groove in a bore of a solid metal ring. This ring acts as both a centering device for easy location within the flange bolt circle and also a limit compression stop to prevent the gasket from being overloaded and crushed.



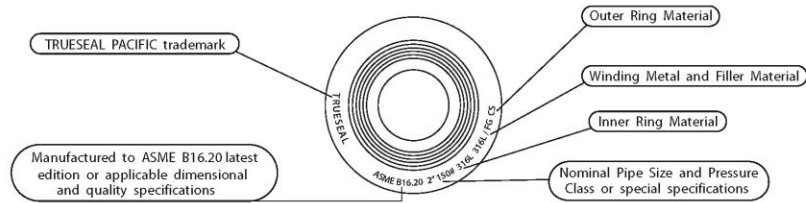
**Style "ORWIR"** gaskets consist of a spiral wound sealing component with a solid metal outer guide ring. These gaskets are used on plain flat face flanges and an raised face flanges. The outer guide ring serves to center the gasket properly in flange joint, acts as an anti-blowout device, provides radial support for the spiral-wound component, from being crushed.

### Selection Guide

Flange Face	 Raised Face	 Flat Face	 Male and Female	 Tongue and Groove	 Flat Face to Recess
Recommended Gasket Style					



## Material for Spiral wound gasket :



**STANDARD SIZE :** Thickness 3.2, 4.5, 6.4, 7.2 mm.

Filler Material
Flexible Graphite
PTFE
Non - asbestos
Other - Asbestos + Flexible Graphite, Flexible Graphite + Mica, Ceramic fiber

Style
Basic
With Outer Ring
With Inner Ring
With Inner and Outer Ring

Inner Ring Material	
Low Carbon Steel	Nickel 200
304SS	Inconel 600, 625
304LSS	Incoloy 800, 825
316SS	Titanium
316LSS	Hastelloy B2, B3
310SS	Hastelloy C276
316Ti SS	Hastelloy C22
317LSS	Aluminum
321SS	Copper
347SS	Bronze
410SS	Zirconium
430SS	Duplex 31803/32205
904LSS	Alloy 20
Monel 400	Others

Outer Ring Material	
Low Carbon Steel	Nickel 200
304SS	Inconel 600, 625
304LSS	Incoloy 800, 825
316SS	Titanium
316LSS	Hastelloy B2, B3
310SS	Hastelloy C276
316Ti SS	Hastelloy C22
317LSS	Aluminum
321SS	Copper
347SS	Bronze
410SS	Zirconium
430SS	Duplex 31803/32205
904LSS	Alloy 20
Monel 400	Others

Winding strip Material	
Low Carbon Steel	Nickel 200
304SS	Inconel 600, 625
304LSS	Incoloy 800, 825
316SS	Titanium
316LSS	Hastelloy B2, B3
310SS	Hastelloy C276
316Ti SS	Hastelloy C22
317LSS	Aluminum
321SS	Copper
347SS	Bronze
410SS	Zirconium
430SS	Duplex 31803/32205
904LSS	Alloy 20
Monel 400	Others

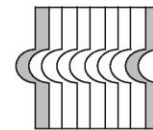
## Hand Hole & Man Hole Cover

### TS-M2100

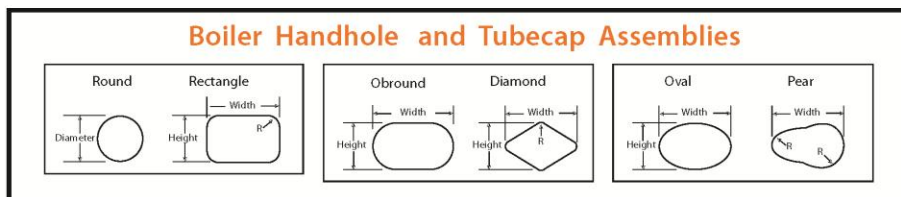


Designed for standard manhole cover assemblies  
These gaskets:

1. provide for adequate compression factors within the defined limits of service pressure ratings
2. Compensate for rough or worn seating surfaces

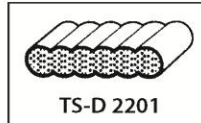
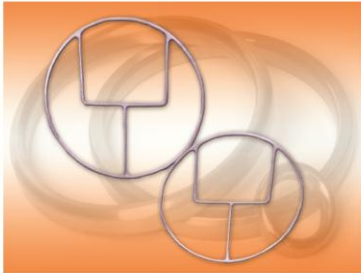


## Boiler Handhole and Tubecap Assemblies



## Double Jacket Gasket

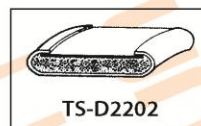
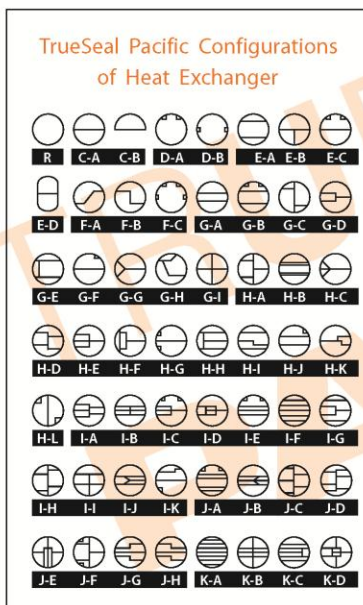
TS-D2200



### Double Jacketed Corrugated

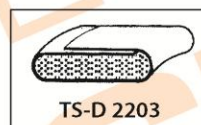
This gasket is an improvement on a plain jacketed gasket in

that the corrugations on the gasket will provide an additional labyrinth seal. It also provide the advantage of reducing the contact area of the gasket, enhancing its compressive characteristics. A double-Jacketed corrugated gasket still relies on the primary seal on the inner lap.



### Double Jacketed

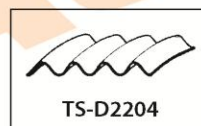
The double - jacketed gasket has good compressibility and resilience and is the most popular metal - clad gasket manufactured.



### Double Jacketed Overlap

Construction of this gasket offers more filler protection than the standard single jacketed design. Although constructed like a singlejacket

gasket, is has the added benefit of totally encasing the filler material.



### Double Corrugated Solid Metal

A plain, all - metal corrugated gasket for use in low pressure applications that require a thin line contact because space or weight limitations.

Corrugated gaskets are a versatile sealing element where the available bolt loads are low.

**Main Use :** Suitable for flange sealing of piping and different kinds of equipment suitable for sealing of different kinds of mechanical pump, pipe valve, heat exchanger for various media.

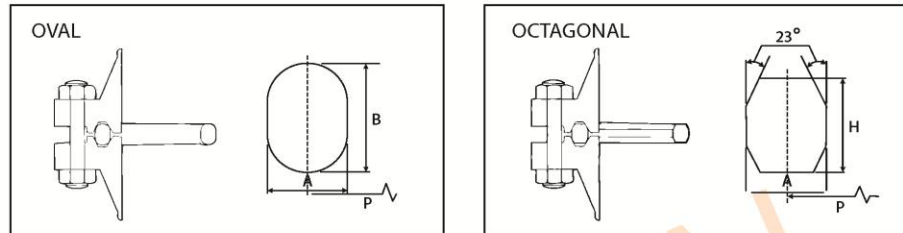
**Raw Material :** Stainless 304,316, Copper, Aluminum, Carbon Steel

**Filling Material :** Rubber, Asbestos, Flexible Graphite, PTTE, Non - Abestos

**Properties :** Working Temperature - 200 - 800°C  
 Working Pressure: up to 25 MPa

## TS-R2300

## Ring Joint Gasket



**Main Use :** The Ring Type Joint was initially developed for high pressure / temperature applications found in the petroleum industry and is primarily used in the oil field on drilling and completion equipment. However, today this product range can also be found on valves and pipework assemblies, along with some high integrity pressure vessel joints.

Standard Style R Ring Type Joints are manufactured in accordance with both API 6A and ASME B16.20 size / ratings. Available in both oval and octagonal configurations, both types are interchangeable on the modern octagonal type grooved flanges.

**Raw Material :** Soft Iron, Inconel, Low carbon, Stainless 304, 316, Alloy, Hastelloy and Other.

**Style :** OVAL Type, Octagonal Type, RX, BX, Delta, Lens



## TS-C2400

## Cam Profile Gasket



Serrated solid metal core

**TrueSeal®** Cam is a solid metal ring gasket with serrations on both sealing surfaces and covered with a soft material. It is the preferred gasket when needing improved performance at low seating stresses. The simultaneous action of a high compression material on the outside of grooved metal in combination with limited penetration solid metal core enhance the interaction of the two materials. This allows the component to perform individually to their optimum capabilities.

- Solid metal core resists cold flow, overcompression and blowout
- Rigid core provides exceptional stability even in large sizes, and facilitates handling and installation
- Available in wide variety of metals

### Main Use :

- Under compression, fills seating surface imperfections to form a tight, metal-to-metal connection.
- Seals under low stress - ideal for weaker flanges
- Withstands extreme fluctuations in temperatures and pressures
- Parallel root core is standard design
- Convex root core compensates for weaker flanges and resultant flange rotation.

**Raw Material :**

Metallic material	soft sealing layer			
	Soft sealing material	Temperature (°C)		Pressure Bar
		Min.	Max.	
SOFT IRON				
CARBON STEEL				
304SS				
304LSS				
316SS				
316LSS				
316TISS				
317LSS				
321SS				
347SS				
410SS				
940LSS				
5Cr-0.5Mo(F5)	Graphite	-196	600	250
MONEL 400				
NICKET 200				
INCONET 600 625				
INCOLOY 800 825	ePTFE	-268	315	200
TITANIUM				
HASTELLOY B2/B3				
HASTELLOY C276				
HASTELLOY C22	Mica	-100	1000	20
ALUMINUM				
COPPER				
BRONZE				
ZIRCONIUM				
DUPLEX 31803/32205				
ALLOY 20				
OTHERS				

**Style of Camprofile :**

TS - C2401  
Parallel root core without centering ring



TS - C2402  
Parallel root core with integral centering ring



TS - C2403  
Parallel root core with floating centering ring, Attached outside the sealing area



**Recommended application :**

Flange profile	 Flat Face	 Raised Face	 Tongue and Groove
Recommended gasket style			



## TS-GR3000

## Graphite Products

## TS-GR3100

## Graphite Sheet



- TS - GR3101** Graphite Foil insert with SS316
- TS - GR3102** Graphite Foil insert with SS304
- TS - GR3103** Graphite Foil insert with Carbon Steel
- TS - GR3104** Graphite Tanged insert with SS316
- TS - GR3105** Graphite Tanged insert with SS304
- TS - GR3106** Graphite Tanged insert with Carbon Steel
- TS - GR3107** Pure Graphite

### Main Use :

- Made from standard industrial grade sheet of 98% typical carbon content, less than 50 ppm typical leachable chloride content and with 550 ppm typical sulfur content
- Laminate with flat carbon steel, 304, 316L stainless steel insert
- Laminate with Tanged 304, 316L stainless steel insert

### Properties :

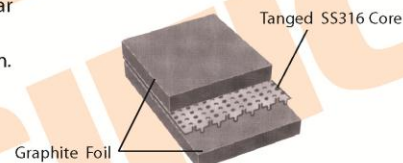
- Max. Service Temperature 650°C
- Max. Pressure 100 - 120 Bar

### Standard Size :

1 m. x 1 m., 1.5 m. x 1.5 m.

### Thickness :

1 mm., 1.5 mm., 2 mm., 3 mm.



## TS-GR3200

## Graphite Ring



**TrueSeal :** graphite ring can produce dieformed ring in more than sizes. when placing your order, specify the I.D. the O.D., the ring / set height

**Properties :** Service Temp. - 250 to 500°C  
2500°C in non oxidizing



## TS-GR3300

## Graphite Tape



- TS - GR3301 :** Pure Graphite Tape
- TS - GR3302 :** Pure Graphite Tape with adhesive one side

**Main Use :** The physical chemical properties are the same, however the tape has a peel-off back adhesive to allow the tape to stick directly onto flanges.

- Properties :**
- Resilience
  - Volumetric stability
  - Temperature capability

Permanent resilience coupled with the ability to handle extremes of temperature and the universal ease of use render this product an extremely effective maintenance tool. Results in leak free terms are excellent.

## PTFE PRODUCTS

### PTFE Sheet

**Made from** quality PTFE resin, powdered  
**Properties:** Sealing under ambient temperature  
-180 ~ 260°C  
**Standard Size** 1.2 m.x 10 m.  
**Thickness** 1 mm. up to 10 mm.

TS-PT4000

TS-PT4100



### PTFE Joint Sealant

**Made from** quality PTFE resin, powdered  
**Properties:**  
➢ Sealing under ambient temperature  
- 180 ~ 260°C  
➢ Pure PTFE is chemically inert with  
stands a wide range chemical pH 0-14  
➢ Conforms to FDA regulation

**Standard Size** 3 mm. - 25 mm.  
**Thickness** 1 mm. up to 8 mm.

TS-PT4200



### PTFE Cord Sealant

**Made from** quality PTFE resin, powdered  
**Properties:** Sealing under ambient temperature  
- 180 ~ 260°C pH 0-14  
**Standard Size** Dai: 3 mm. to 12.5 mm.

TS-PT4300



### Enveloped Gasket

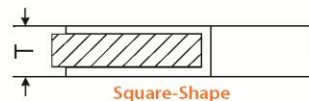
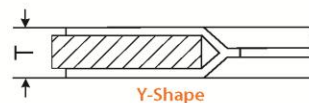
**Made from:** quality virgin PTEE and inserted with  
Asbestos or Non-Asbestos  
**Properties:** Suitable for sealing application and  
corrosion environment

Y-Shape gasket enveloping is machined from virgin PTFE and inserted with Asbestos or Non-asbestos filler. It is one of the most popular gaskets and well suited to general application except for corrosive media.

Round-Shape gasket enveloping is cut from virgin PTFE and inserted with Asbestos or Non-asbestos filler. It is mainly shaped into large diameter and used in toxic chemical environment.

Square-Shape gasket enveloping is cut from virgin PTFE and inserted with Asbestos or Non-asbestos filler. It is suitable for thicker sealing application and corrosive environment.

TS-PT4400



## Insulating Textiles Products

### Ceramic Product

#### TS-C5000

#### TS-C5100



TS - C5101 Ceramic Tape

**Properties:**  
**Standard Size**  
**Thickness**

Temperature 1260°C  
W 25 mm.- 400 mm. x L 30 m./ Roll  
3 mm.



TS - C5102 Ceramic Cloth

**Properties:**  
**Standard Size**  
**Thickness**

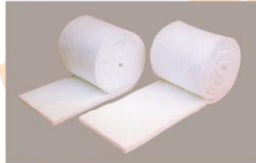
Temperature 1260°C  
W 1 m. x L 30 m./ Roll  
3 mm.



TS - C5103 Ceramic Round Braided  
TS - C5104 Ceramic Square Braided

**Properties:**  
**Standard Size**  
**Standard Size**  
**Length**

Temperature 1260°C  
Dia. 5 mm.-25 mm.  
Ø 5 mm.-50 mm.  
10 - 100 m. (available each size)



TS - C5105 Ceramic Blanket

**Properties:**  
**Standard Size**

Temperature 1260°C, 1400°C  
Thk 25 \* 610 \* 7200 mm / Roll  
Thk 50 \* 610 \* 3600 mm / Roll  
128 ± 15 (kg / m<sup>3</sup>)

**Density**

TS - C5106 Ceramic Bulk

**Standard Size**

20 kgs / Box

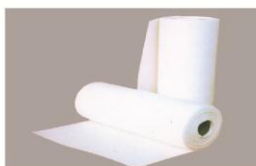


TS - C5107 Ceramic Board

**Properties:**  
**Standard Size**

Temperature 1260°C, 1400°C  
Thk 25 \* 600 \* 900 mm / 4 Sheet / Box  
Thk 50 \* 600 \* 900 mm / 2 Sheet / Box  
280 ± 15 (kg / m<sup>3</sup>)

**Density**



TS - C5108 Ceramic Paper

**Properties:**  
**Standard Size**

Temperature 1260°C, 1400°C  
Thk 3 x 610 \* 10000 mm / Roll  
Thk 5 x 610 \* 10000 mm / Roll  
200 ± 15 (kg / m<sup>3</sup>)

**Density**



## Fiberglass Product

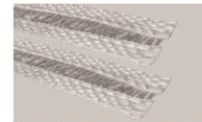
**Properties:** Temperature 538°C  
**Standard Size** W 25 mm. - 100 mm. x L 30 m./ Roll  
**Thickness** 0.8 mm., 1.5 mm., 3 mm.

TS-F5200



TS - F5201 Fiberglass Tape

**Properties:** Temperature 538°C  
**Standard Size** W 25 mm. - 100 mm. x L 30 m./ Roll  
**Thickness** 3 mm.



TS - F5202 Fiberglass Ladder Tape

**Properties:** Temperature 538°C  
**Standard Size** W 1 m. x L 30 m./ Roll  
**Thickness** 1.5 mm., 3 mm.



TS - F5203 Fiberglass Cloth

**Properties:** Temperature 538°C  
**Standard Round Size** Dia 5 mm -25 mm.  
**Standard Square Size** 5 mm. -50 mm.  
**Length** 10 - 100 m. (available each size)



TS- F5204 Fiberglass Round Braided  
 TS- F5205 Fiberglass Square Braided

**Properties:** Temperature 538°C  
**Standard Size** W 1 m. x L 30 m./ Roll  
**Thickness** 1.5 mm., 3 mm.



TS - F5206 Fiberglass Welding Cloth

## Asbestos Product

**Properties:** Temperature 500°C  
**Standard Size** W 25 mm. - 100 mm. x L 30 m./ Roll  
**Thickness** 3 mm.

TS-A5300



TS - A5301 Asbestos Tape

**Properties:** Temperature 500°C  
**Standard Size** W 1 m. x L 30 m./ Roll  
**Thickness** 3 mm.



TS - A5302 Asbestos Cloth

**Properties:** Temperature 500°C  
**Standard Round Size** Dia 5 mm -25 mm.  
**Standard Square Size** 5 mm. -25 mm.  
**Length** 10 - 100 m. (available each size)

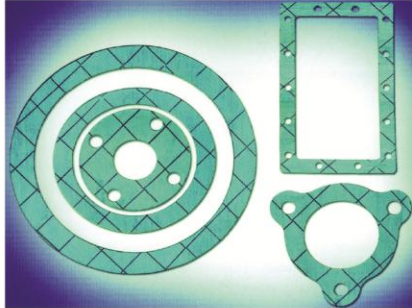


TS - A5303 Asbestos Round Braided  
 TS - A5304 Asbestos Square Braided



## TS-6000

## Gasket Sheet



TS-NG6001

### Non - Asbestos Sheet Products

**Description:** Medium quality material containing from Non-asbestos fibre jointing

**Service:** General purpose material suitable for use in a wide range of applications, including hot and cold water, steam, Oil, fuels gases and wide range of general chemicals.

**Standard Size:** 1.5 m. x 2 m.

**Thickness:** 0.5, 1, 1.5, 2, 3 mm.

**Colour:** Green / White

Density	g / cm <sup>3</sup>	1.9 ± 2.0
Tensile Strength	Mpa	9
Compressibility	%	12 ± 5
Recovery	%, ≥	45
Aging coefficient	≥	0.9
Stress relaxation	%, ≥	45
Steam Sealing		T - max: 300°C
		P - max: 4 - 5 Mpa
		30 min
T max	°C, ≥	300
P max	Mpa, ≥	3

### Cork Gasket



TS-NG6002

Made from Cork

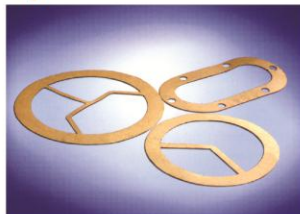
**Properties:** It is a highly compressible material suitable for low and medium both pressure, with good flexibility and resilience.

These unique characteristics will meet or exceed gasketing requirements in automotive, aerospace, marine, gas, electrical and many other industries. Service Temperature -30°C to 110°C

**Standard Size:** 1 m. x 1 m.

**Thickness:** 1 - 5 mm

### Paper Gasket



TS-NG6003

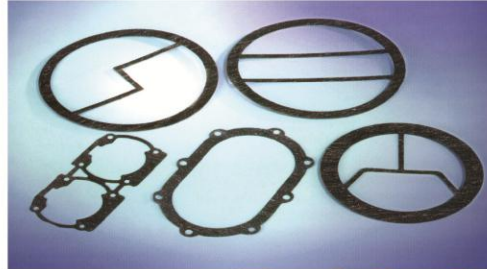
Made from Paper

**Properties:** The cellulose based paper gasket is made of plasticized gelatin impregnated material.

This Jointing Sheet Gasket is one of the most economic solution for the automobile and engineering industries due to its excellent oil and fuel resistance up to 120°C

**Standard Size:** 1 m. x 1 m.

**Thickness:** 0.4, 0.7, 1.4, 2, 3 mm



**TS - AG7201**

**Description:** Medium quality material containing from asbestos fibre jointing.

**Service:** General service material suitable for water, seawater, steam, diluted, acid & alkali, gases alcohols, salt, solutions and ect.

**Standard Size:** 1.3 m.x 1.5 m.  
**Thickness:** 0.5, 1, 1.5, 2, 3 mm.  
**Colour:** Red

Tensile Strength	Mpa	13.48
Recovery	%, ≥	42.8
Ignition loss	%, ≤	22
Stress relaxion	%, ≥	50
T max	°C, ≤	300
P max	Mpa ≤	2.5
Density	g / cm <sup>3</sup>	1.9 ± 0.3
Compressibility	%	8.79 ~ 16.52
Aging coefficient	≥	0.92
Creep relaxion	%, ≤	50

**TS - AG7202**

**Description:** High quality material containing from asbestos fibre jointing with wire insert.

**Service:** Suitable for use in a wide range of application, including hot water, seawater, with good steam, diluted, acid & alkali, gases, alcohols, salt, solutions and ect.

**Standard Size:** 1.3 m.x 1.5 m.  
**Thickness:** 1.5, 3 mm.  
**Colour:** Black

Tensile Strength	Mpa	19
Recovery	%, ≥	42.8
Ignition loss	%, ≤	22
Stress relaxion	%, ≥	50
T max	°C, ≤	400
P max	Mpa ≤	9.3
Density	g / cm <sup>3</sup>	1.9 ± 0.5
Compressibility	%	12 ± 5
Aging coefficient	≥	0.92
Creep relaxion	%, ≤	50

**TS - AG7203**

**Description:** Medium quality material containing from asbestos fibre jointing One side coat graphite.

**Service:** Suitable for use in a wide range of application, including hot water, seawater Steam, diluted, acid & alkali, gases, alcohols, salt, solutions and ect.

**Standard Size:** 1.3 m.x 1.5 m.  
**Thickness:** 0.5, 1, 1.5, 2, 3 mm.  
**Colour:** Black

Tensile Strength	Mpa	14.49
Recovery	%, ≥	43.5
Ignition loss	%, ≤	21
Stress relaxion	%, ≥	50
T max	°C, ≤	350
P max	Mpa ≤	3.8
Density	g / cm <sup>3</sup>	1.9 ± 0.3
Compressibility	%	8.79 ~ 16.52
Aging coefficient	≥	0.92
Creep relaxion	%, ≤	50

### TS - AG7204

**Description:** High quality material containing from asbestos fibre jointing.  
**Service:** Suitable for use in a wide range of application, including hot water, seawater, steam, diluted, acid & alkali, gases, alcohols, salt, solutions and ect.

**Standard Size:** 1.3 m.x 1.5 m.  
**Thickness:** 0.5, 1, 1.5, 2, 3 mm.  
**Colour:** Violet



Tensile Strength	Mpa	19
Recovery	%, ≥	42.8
Ignition loss	%, ≤	22
Stress relaxation	%, ≥	50
T max	°C, ≤	400
P max	Mpa ≤	9.3
Density	g / cm <sup>3</sup>	1.9 ± 0.5
Compressibility	%	12 ± 5
Aging coefficient	≥	0.92

### TS - AG7205

**Description:** High quality material containing from asbestos fibre jointing with one side coat graphite.  
**Service:** Suitable for use in a wide range of application, including hot water, seawater, with good steam, diluted, acid & alkali, gases, alcohols, salt, solutions and ect.

**Standard Size:** 1.3 m.x 1.5 m.  
**Thickness:** 0.5, 1, 1.5, 2, 3 mm.  
**Colour:** Black



Tensile Strength	Mpa	20
Recovery	%, ≥	43.5
Ignition loss	%, ≤	21
Stress relaxation	%, ≥	50
T max	°C, ≤	450
P max	Mpa ≤	10.5
Density	g / cm <sup>3</sup>	1.9 ± 0.5
Compressibility	%	12 ± 5
Aging coefficient	≥	0.92

### TS - AG7206

**Description:** High quality material containing from asbestos fibre jointing with wire insert and one side coat graphite.

**Service:** Suitable for use in a wide range of application, including hot water, seawater, steam, diluted, acid & alkali, gases, alcohols, salt, solutions and ect.







**Standard Size:** 1.3 m.x 1.5 m.  
**Thickness:** 1.5, 3 mm.  
**Colour:** Black



Tensile Strength	Mpa	25
Recovery	%, ≥	53.4
Ignition loss	%, ≤	15
Stress relaxation	%, ≥	40
T max	°C, ≤	550
P max	Mpa ≤	12.8
Density	g / cm <sup>3</sup>	1.9 ± 0.5
Compressibility	%	12 ± 5
Aging coefficient	≥	0.92



## Gland Packings

	<b>Style : TS-3231 / L</b> PTFE with lubricate braided packing								
	<table border="0"> <tr> <td>Pressure</td> <td>15 MPa</td> <td>Temperature</td> <td>-200 ~ 260°C</td> </tr> <tr> <td>Linear speed (m/s)</td> <td>0~10</td> <td>pH range</td> <td>0~14</td> </tr> </table> <p>Braided with PTFE fibre yarn braided and Treated with high temperature - resistant Lubricants, minimizing shaft worn - out due to best self - lubrication, applicable for dynamic seal at high linear speed.</p>	Pressure	15 MPa	Temperature	-200 ~ 260°C	Linear speed (m/s)	0~10	pH range	0~14
Pressure	15 MPa	Temperature	-200 ~ 260°C						
Linear speed (m/s)	0~10	pH range	0~14						
	<b>Style : TS-3231 / V</b> Pure PTFE braided packing								
	<table border="0"> <tr> <td>Pressure</td> <td>15 MPa</td> <td>Temperature</td> <td>-200 ~ 260°C</td> </tr> <tr> <td>Linear speed (m/s)</td> <td>0~8</td> <td>pH range</td> <td>0~14</td> </tr> </table> <p>Braided with PTFE fibre yarn, applicable for seal packing of valves, vessels and pumps of corrosive medium in chemical, medicine, food, petrochemical and power Industry.</p>	Pressure	15 MPa	Temperature	-200 ~ 260°C	Linear speed (m/s)	0~8	pH range	0~14
Pressure	15 MPa	Temperature	-200 ~ 260°C						
Linear speed (m/s)	0~8	pH range	0~14						
	<b>Style : TS-3233 / GF</b> PTFE graphite braided packing								
	<table border="0"> <tr> <td>Pressure</td> <td>20 MPa</td> <td>Temperature</td> <td>-200 ~ 280°C</td> </tr> <tr> <td>Linear speed (m/s)</td> <td>0~20</td> <td>pH range</td> <td>0~14</td> </tr> </table> <p>Braided with PTFE fibre yarn, with ultra pure graphite powder, having high strength, Applicable for packing seal of valves and pumps in petrochemical, Chemical, medicine, and power industry.</p>	Pressure	20 MPa	Temperature	-200 ~ 280°C	Linear speed (m/s)	0~20	pH range	0~14
Pressure	20 MPa	Temperature	-200 ~ 280°C						
Linear speed (m/s)	0~20	pH range	0~14						
	<b>Style : TS-5491</b> Ramie impregnated PTFE								
	<table border="0"> <tr> <td>Pressure</td> <td>10 MPa</td> <td>Temperature</td> <td>-50 ~ 260°C</td> </tr> <tr> <td>Linear speed (m/s)</td> <td>0~10</td> <td>pH range</td> <td>4~12</td> </tr> </table> <p>Made through braiding of basic material ramie Filament, Impregnated with PTFE and shaping, Highly wearing resistant, an ideal substitute for asbestos packing, especially applicable of ship Industry.</p>	Pressure	10 MPa	Temperature	-50 ~ 260°C	Linear speed (m/s)	0~10	pH range	4~12
Pressure	10 MPa	Temperature	-50 ~ 260°C						
Linear speed (m/s)	0~10	pH range	4~12						
	<b>Style : TS-5292</b> Synthetic fiber impregnated with PTFE								
	<table border="0"> <tr> <td>Pressure</td> <td>20 MPa</td> <td>Temperature</td> <td>-100 ~ 250°C</td> </tr> <tr> <td>Linear speed (m/s)</td> <td>0~12</td> <td>pH range</td> <td>2~12</td> </tr> </table> <p>Made of polyacrylonitrile filament through reinforcing, braiding and impregnated with PTFE, having high strength, wear-and impact and applicable for packing seal of pump, Valves and vessels at a high line speed and pressure.</p>	Pressure	20 MPa	Temperature	-100 ~ 250°C	Linear speed (m/s)	0~12	pH range	2~12
Pressure	20 MPa	Temperature	-100 ~ 250°C						
Linear speed (m/s)	0~12	pH range	2~12						
	<b>Style : TS-6332</b> Aramid fiber impregnated with PTFE								
	<table border="0"> <tr> <td>Pressure</td> <td>25 MPa</td> <td>Temperature</td> <td>-100 ~ 280°C</td> </tr> <tr> <td>Linear speed (m/s)</td> <td>0~15</td> <td>pH range</td> <td>2~12</td> </tr> </table> <p>Made of basic materials Kevlar aramid fibre yarn and impregnated with PTFE, having strength, especially applicable for packing seal of rotary or reciprocating mechanisms for particle bearing high pressure.</p>	Pressure	25 MPa	Temperature	-100 ~ 280°C	Linear speed (m/s)	0~15	pH range	2~12
Pressure	25 MPa	Temperature	-100 ~ 280°C						
Linear speed (m/s)	0~15	pH range	2~12						







### Selection of Materials

The proper selection of packing materials is dependent on the operating conditions of the equipment. Six parameters of the Equipment must.

Be known before a proper packing recommendation Can be made. The acronym "STAMPS" is used to Gather this information :-

S = Size	(Cross section)
T = Temperature	(of media being sealed)
A = Application	(type of equipment)
M = Media	(material being sealed)
P = Pressure	(of media being sealed)
S = Speed	(Shaft speed MPa)

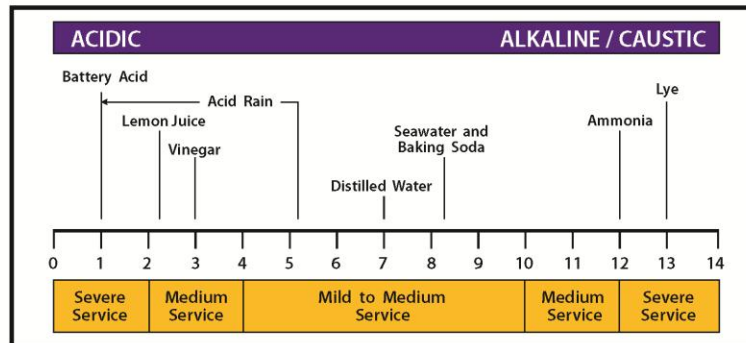


	<b>Style : TS-4301</b> Flexible graphite braided packing	Pressure Linear speed (m/s)	25 MPa 0~8	Temperature pH range	-250 ~ 650°C 0~14
General purpose flexible fibre yarn with Corrosion inhibitors. Applicable for static Packing seal under high temperature.					
	<b>Style : TS-4301 / i</b> Inconel wire reinforced flexible graphite	Pressure Linear speed (m/s)	30 MPa 0~8	Temperature pH range	-250 ~ 650°C 0~14
Made of flexible graphite yarn and reinforced with several high temperature resistant inconel wire, and much stable performances, applicable for static seal packing under high temperature and pressure.					
	<b>Style : TS-4305 / C</b> Flexible graphite with carbon in corners	Pressure Linear speed (m/s)	40 MPa 0~10	Temperature pH range	-250 ~ 650°C 0~14
Specially blended and braided with pure graphite and quality high strength carbon fiber, wrapped with carbon fiber at 4 corners, much resistant to wearing, fluid scouring and expelling, applicable for static seal packing of valves, vessels and pumps under high temperature and pressure at low linear speed.					
	<b>Style : TS-6331</b> Carbon fibre with graphite dipped	Pressure Linear speed (m/s)	25 MPa 0~8	Temperature pH range	-250 ~ 650°C 0~14
Made of carbon fibre impregnated with fine Graphite powdered and applying of lubricants having high strength and modulus, good self lubrication especially applicable for packing seal of rotary or reciprocating mechanisms in corrosive, high (low) temperature and pressure.					
	<b>Style : TS-7100</b> Asbestos impregnated with PTFE	Pressure Linear speed (m/s)	30 MPa 0~12	Temperature pH range	-50 ~ 260°C 2~12
Made of asbestos yarn of which each strand has been impregnated with PTFE, having high wear and scouring resistance and compactness applicable for packing seal of pump, valves and vessels.					
	<b>Style : TS-2900</b> Asbestos impregnated with graphite	Pressure Linear speed (m/s)	25 MPa 0~12	Temperature pH range	-100 ~ 280°C 2~12
Made of asbestos yarn impregnated with a high flash point lubricant with graphite. Applicable for packing seal of rotary shafts for water, dilute alkali and for low speed rotating pump.					

### Table of pH Values

Scientific shorthand for measuring the level of acidity or alkalinity of a substance. The scale is logarithmic, Equipment must.

Making Lye at 13, ten times as alkaline as Ammonia at 12.



## Rubber Products

### Sheet & Slab / Cut Gaskets / 'O' - Rings / Oil Seals / Fenders



Sheet



Cut - Gaskets



O -Ring

- Natural Rubber Sheet:** high flexibility, good comprehensive physical mechanic performance.
- SBR Rubber Sheet:** better wear - resistant and anti - aging function than NR, low prices.
- Neoprene Rubber Sheet:** good climate resistant, ozone proof, hot resistance and chemical resistant.
- EPDM Rubber Sheet:** good anti - aging, ozone proof, polar liquid resistant, good electric performance, lightest rubber.
- NITRILE Rubber Sheet:** good general purpose, superior to Neoprenes resistant to petroleum based fluids.
- Butyl Rubber Sheet:** low permeability, good anti - aging very good weathering resistance, good physical properties. poor resistance to petroleum based fuels.
- Silicone Rubber Sheet:** Excellent oil and fats resistance and for high temperature up to 260 °C. high resistant one can reach to 250 - 270 °C.
- Viton Rubber Sheet:** For high temperature up to 300°C.

#### Physical Performance of Rubber Sheet:

Item	Tensile Strength (Mpa $\geq$ )	Elongation at break (% $\geq$ )	Hardness (ShA)	Permanent set (% $\geq$ )	Aging coefficient (70 $\square$ *72h)
Natural Rubber Sheet (NR)	3.9	280	60 - 80	35	0.65
Nitrile Rubber Sheets (NBR)	6.5	250	60	25	0.75
Rubber Insertion Sheets (Smooth surface)	3.9	280	60 - 80	35	0.65
Neoprene Rubber Sheets (CR)	6.0	350	60	35	0.75
EPDM Rubber Sheet	5.0	300	60-80	30	0.70
Fluoroelastomer Rubber Sheet (Viton)	8.0	300	70-80	35	0.75

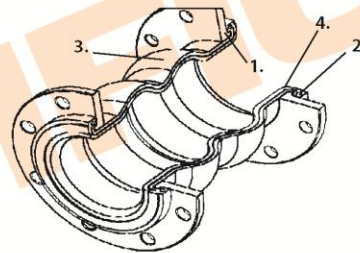
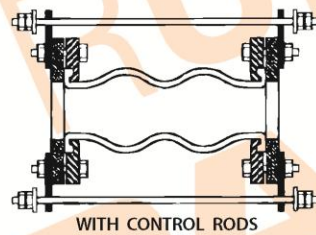
	CR Rubber Sheet	NBR Rubber Sheet	NR Rubber Sheet	EPDM Rubber Sheet	VITON Rubber Sheet
Specific Gravity	1.50g/ cm3	1.50g/ cm3	1.60g/ cm3	1.40g/ cm3	2.00g/ cm3

## Expansion Joint

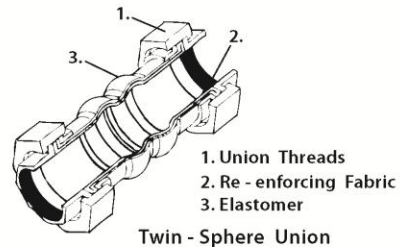
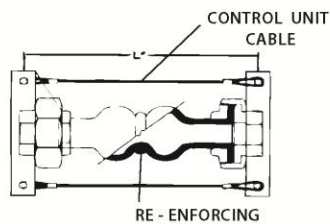


### SERIES TS SERIES - SPHERE CONNECTORS

TrueSeal Series TS, Series TT & Series TU are designed for tough demanding industrial applications, as found in: Air - Conditioning / Heating and Ventilating systems. Chemical Petrochemical and Industrial Process Systems, Water / Wastewater Sewage and Pollution control systems. Installed next to mechanical equipment or between the anchor points of a piping system. Specify one of the TrueSeal pacific range of Expansion Joints.



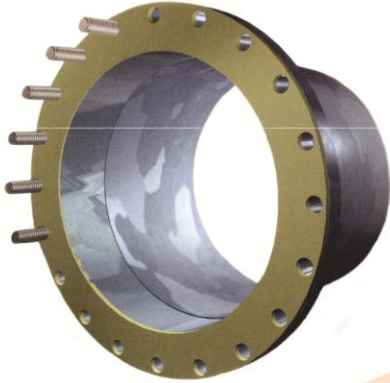
ITEM	PART	MATERIAL
1	Flanges	SS41 (Changeable)
2	Wire	Carbon Steel wire strands
3	Elastomer	Compound synthetic rubber
4	Re-enforcing fabric	Synthetic fiber



ITEM	PART	MATERIAL
1	UNION	FB32
2	Re-enforcing Cloth	Nylon Fabric
3	Elastomer	Compound synthetic rubber



## Insulation Kit

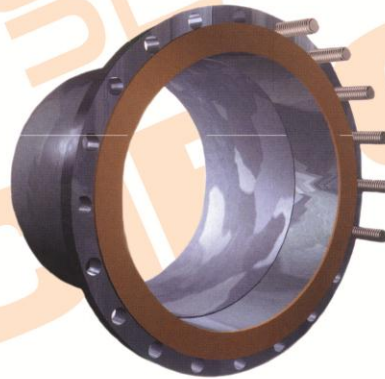


### Type 'E' Gaskets

Type 'E' gaskets extend the outside diameter of the flange. They feature precision located bolt holes, to automatically centre the gasket, and offer maximum protection against foreign material 'shorting - out' the flange. Type 'E' gaskets may be ordered in any one of the following configurations:

### Type 'F' Gaskets

Type 'F' gaskets are made to fit with in the bolt hole circle of the flange. The O.D. of the gasket extended out to the I.D. of the bolt hole circle for good protection against foreign material 'shorting - out' the flange. Type 'F' gaskets may be ordered in any one of the following configurations:



Before tightening



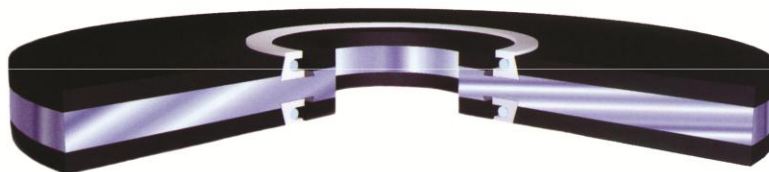
After tightening



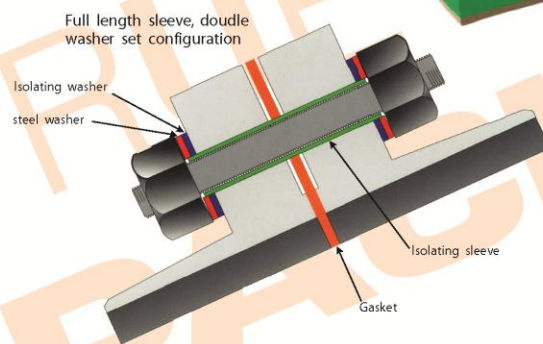
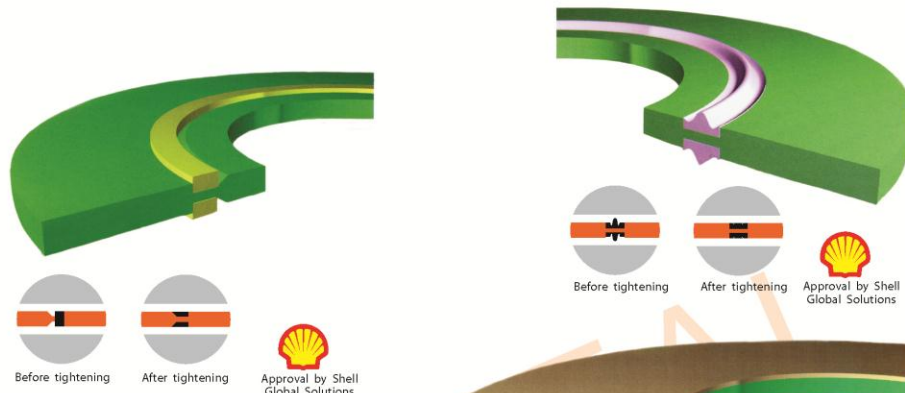
Approval by Shell  
Global Solutions

### Type 'D' Gaskets

Type 'D' gaskets are available for RTJ flanges but the LineBacker® sealing gasket is an excellent alternative to 'D' gaskets because the sealing element may be positioned anywhere between the I.D. of the gasket and I.D. of the ring groove. Teflon is a registered trademark of DuPont Dow Elastomer.

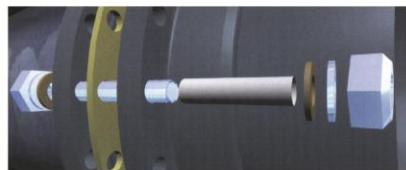






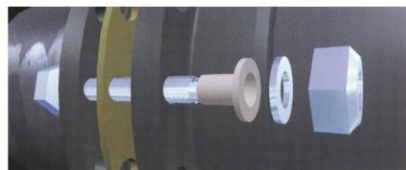
### Single Washer Set

In buried applications, single washer configurations may be used to allow the cathodic protection (CP) current to reach the nuts and bolts. If desired, nuts on the opposite side of the cathodically protected flange may be included as part to the CP system.



### Double Washer Set

Double washer configurations may be used for added protection against the possibility of 'shorting out' the nuts and bolts. In addition, double washer sets electrically isolate the nuts and bolts from both flanges.



### One-piece Washer Set

Easier to install, one-piece sleeves also allow the inspector a visual indication of sleeve usage. Due to the relatively low compressive strength of this material, its use is not recommended for high pressure or large diameter flanges that require high torque loads.

## Wrap it



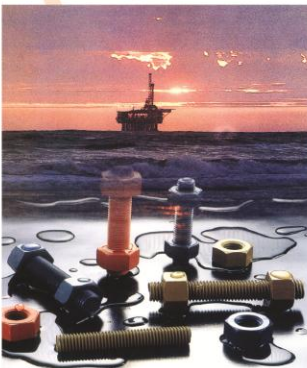
## Pipe Repair Bandages

Wrap it an instant emergency pipe repair system that is simple to use with no mixing or measuring required. Wrap it Bandages have a woven fiberglass substrate impregnated with a water-activated polyurethane resin.

## Pigs



## Stud - Bolts



## Status Coat

is unique non-stick and highly durable fluorocarbon polymer-based coating which offers superior resistance to chemicals, corrosion and abrasion.

## Applications :

Status - Coat is ideal for bolts and nuts, washers and other fastener related products made of steel or aluminium. It is particularly useful to industrial plants operating in hot humid tropical and marine atmosphere where high corrosion rates occur.

## Repair Clamp



## Repair Clamp

stainless steel repair clamps are used for permanent repairs of broken and damaged pipes.



1. Rope lagging



2. Abrasion collars



## Marine Corrosion Protection

### Central Plastic Company

Innovation solutions through diversified technologies

- PolyCoat Anti Corrosion Coating System
- Splash Pro System
- Stac System



The raw materials of gaskets are imported

Rubber gasket adopts latch - locked design, with observation holes of leakage. The fixed and seal functions are separate, therefore, even if there are some problems in fixed function, its seal function can still work.

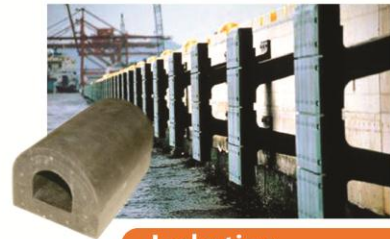
## Heat Exchanger



Our products can be divided into three series: rubber fender for harbor docks and vessels, engineering rubber product for road bridges and other rubber accessories. Rubber fender is a kind of lashproff equipment for harbor docks and vessels with the characteristics of low reaction force, high energy absorption, corrosion resistance and long service life.

Our rubber fenders have passed the certification of ISO9001-2000 quality system. It contains: D-Type, Cylindrical Fender, Super Cell Fender, Super Arch Fender, Cone Fender Unit Element Fender, Pneumatic Fender, Rubber Ladder, etc.

## Fender



## The Revolution of Insulation cladding

### 50 % Faster

Lenzing Jackting can be installed up to 50 % faster than metal cladding. This is giving insulation contractors and end users a considerable cost advantage.

## Jacketing





WORLDWIDE



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PACIFIC**

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แขวง/เขตวังทองหลาง กรุงเทพฯ 10310  
Tel. (66)02-559-2425-7  
(66)02-559-0174-5  
Fax. (66)02-559-2314

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