

# PSI RUBBER STEEL FLANGE GASKETS



**HIGH RESILIENCE COMPENSATES  
PRESSURE CHANGES AND VARIATIONS  
IN TEMPERATURE**

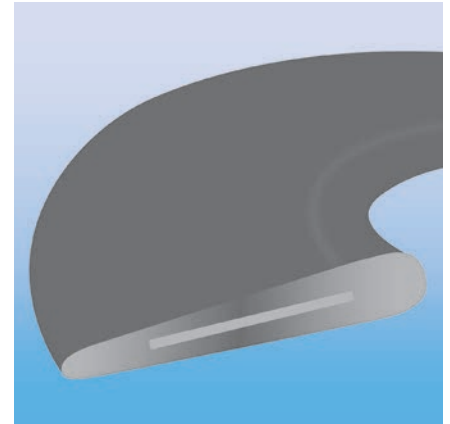
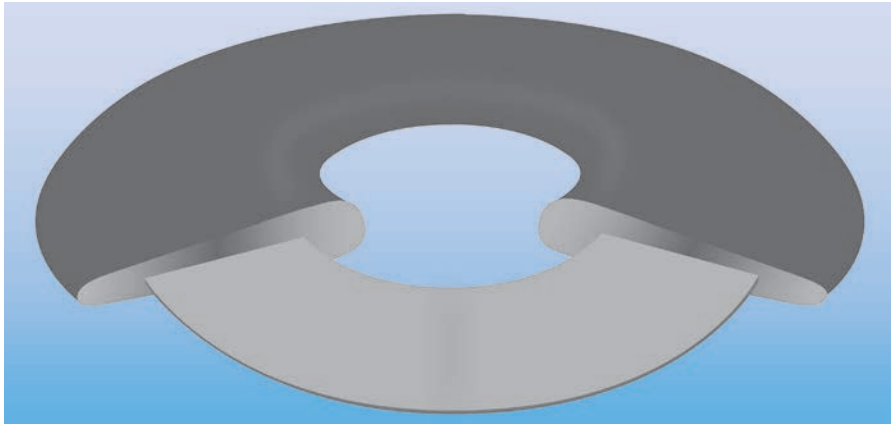
**HIGH OPERATIONAL SAFETY  
AND MAINTANANCE FREE**

**LEAKPROOF FOR MANY  
FLANGE SURFACES**



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## GENERAL INFORMATION



Rubber steel gasket type G-S-S with vulcanized steel ring for greater dimensional stability, safe centring and perfect sealing according to DIN EN 1514-1 (PN6-40).

### Gaskets according to DIN 1514-1 / 2690

For dimensions from ND 15 up to ND 1200 (up to ND 2000 upon request)

Suitable for pressure ratings PN 6 up to PN 40

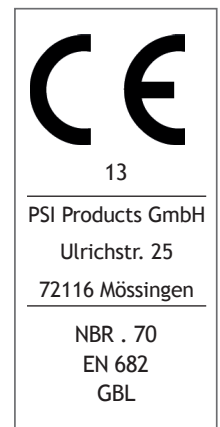


### Advantages

- Low tightening torque
- No retightening of flange bolts required
- Even distribution of longitudinal pressing along bending or misaligned flanges
- High resilience compensates pressure changes and variations in temperature
- Cost-effective due to high operational safety and low maintenance requirements
- Resistant due to a wide range of elastomers to choose from
- Leakage protection for flanges with rough surfaces, damaged flange gasket surfaces, as well as enamelled and rubberized flange faces

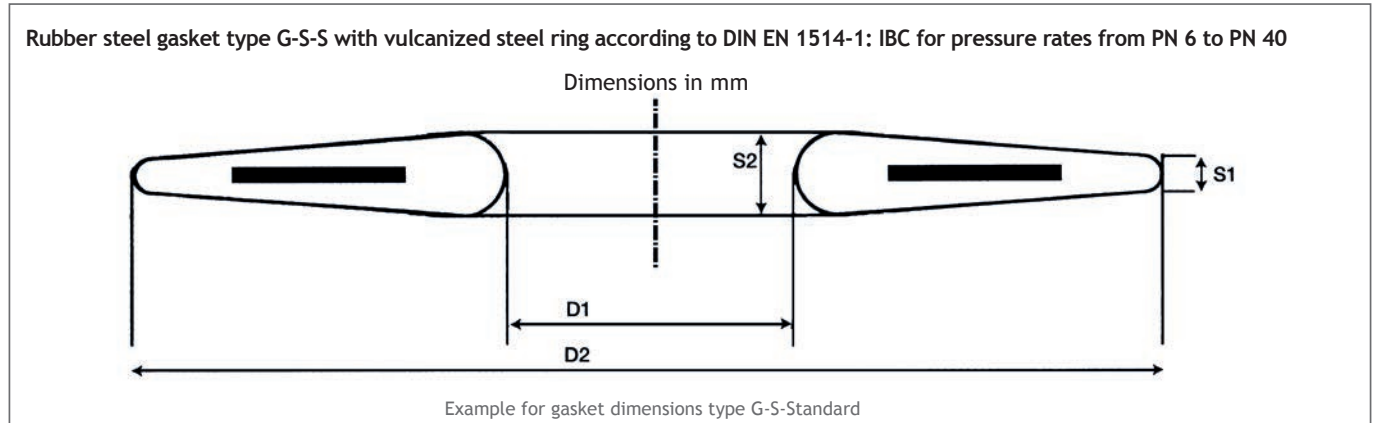
### The fields of application

- General pipeline construction, plant construction: gas, water, sewage, oil and chemicals (under examination of the resistances)
- Industry: enamelled and rubberized pipelines
- Apparatus engineering and mining
- Not suitable for use in electrical/galvanic separation.  
Our flange insulation products are available for this purpose.



More content can be found on  
[www.psi-products.com](http://www.psi-products.com)

## TECHNICAL DATA



Value S1, S2, D1 and D2 please take out of the price list

### Elastomer materials according to ISO R 1629

Materials	Shore hardness A	Temperature range
NBR / DVGW <sup>(1)</sup>	70 +/- 5	-25 °C to +90 °C
EPDM / UBA ELL, W270 <sup>(2)</sup>	70 +/- 5	-25 °C to +120 °C

<sup>(1)</sup> NBR is used as a sealing material for gas supply pipelines and their components, certified with quality mark DIN-DVGW Reg. NG-5113BR0477 according to EN 682 type GB (temperature range -5 °C to +50 °C)

<sup>(2)</sup> In compliance with KTW D1 / D2, 1.3.13 BFA for potable water and W270 physical properties of elastomer material according to DIN EN 681-1.

Other dimensions and materials available upon request

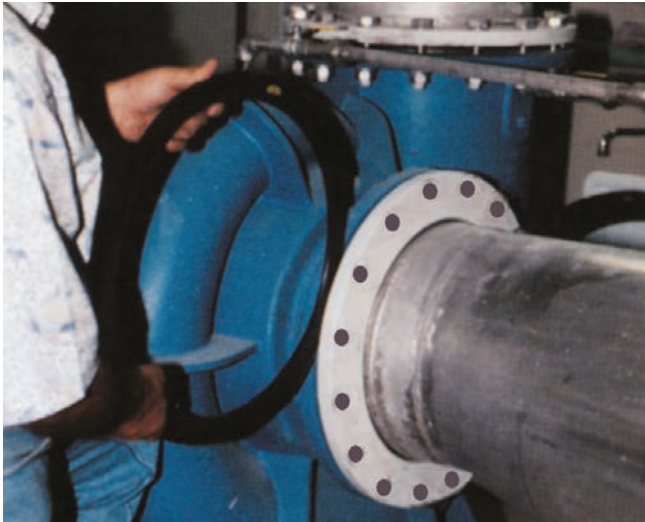
### Two in one

Due to its wedge shape, the the PSI Rubber Steel Gasket Type G-S-S can be used as an alternative to the so-called 'O-ring' seal and as a standard rubber/steel gasket.



Thanks to the gasket's thicker inner diameter facing the medium, a sealing effect is achieved very quickly.

## INSTALLATION INSTRUCTIONS



- The sealing surfaces of the flanges must be dry, clean, free of burrs and in the order of magnitude of the DIN EN standardized roughness.
- The flanges need to be prepared clean, dry and aligned in parallel.
- The seal must not be damaged.
- Greasy release agents or lubricants should not come into contact with the rubber seal.
- Place the gasket between the flange surfaces.
- Tighten the bolts crosswise and evenly in several passes.
- Check that the connecting bolts are well lubricated.
- Always use a torque wrench to ensure even tightening of the connecting bolts.
- The pipeline must be prevented from settling by appropriate mounting, otherwise the rubber seal will be squeezed on one side.
- Rubber steel gaskets should not be reused.

### Standard tightening torques (in Nm) for PSI rubber steel flange gaskets

ND	PN 6	PN 10	PN 16	PN 25	PN 40
15	6	11	11	11	11
20	10	16	16	16	16
25	13	21	21	21	21
32	22	36	36	36	36
40	28	45	45	45	45
50	31	58	58	58	58
65	42	77	77	38	38
80	70	45	45	45	45
100	74	49	49	70	70
125	50	64	64	105	105
150	54	89	89	124	124
200	76	123	82	123	155
250	65	102	127	177	234
300	105	105	160	177	245
350	136	133	177	264	345
400	111	160	223	340	515
500	120	188	316	370	437
600	173	250	480	500	-

### For flanges ND 15 - ND 600:

The values are based on a coefficient of friction of  $\mu = 0.12$  and a maximum surface pressure of  $15 \text{ N/mm}^2$ . The number and sizes of bolts comply with DIN standards 2632 to 2635.

The guide values for tightening torques for flanges larger than ND 600 can be calculated according to the following rule of thumb:

PN 10:  $\text{ND} / 3 = \text{torque in Nm}$   
 PN 16:  $\text{ND} / 1.5 = \text{torque in Nm}$   
 PN 25:  $\text{ND} = \text{torque in Nm}$   
 PN 40:  $\text{ND} * 2 = \text{torque in Nm}$

If the flange material consists of plastic, e.g. PE, please note that the tightening torques must be adjusted or reduced according to the respective flange material.



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