



# **WILLIAM JOHNSTON** **& COMPANY LIMITED**

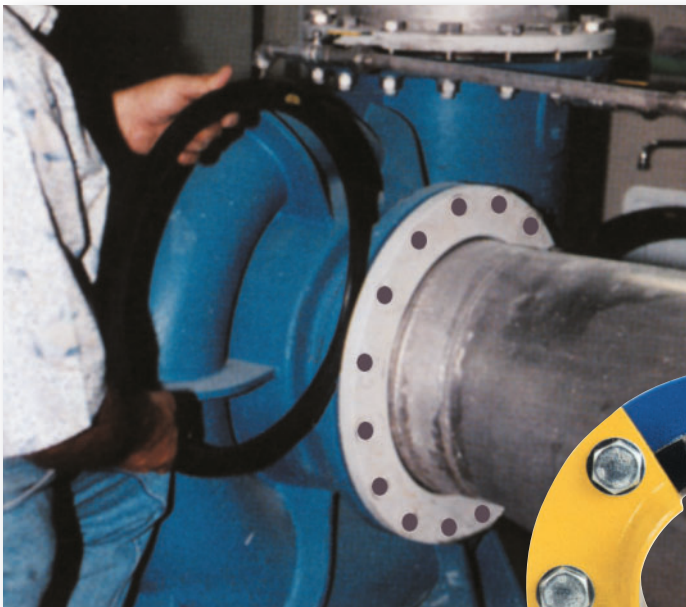
Glasgow Tel: +44 (0) 141 620 1666 |  
[sales@williamjohnston.co.uk](mailto:sales@williamjohnston.co.uk)

Inverness Tel: +44 (0) 1463 238 673 |  
[www.williamjohnston.co.uk](http://www.williamjohnston.co.uk)

## Pipeline Accessories



### Rubber/Steel Flange Gaskets



**WRAS**  
APPROVED  
PRODUCT

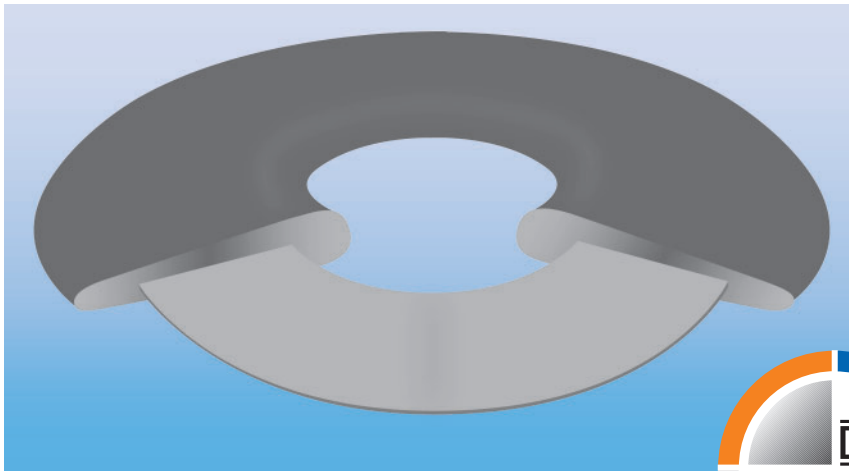


POTABLE WATER  
KTW/W270



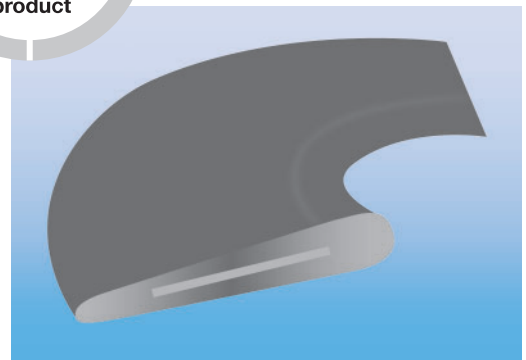
# Rubber Steel Gaskets Type G-S-S

## General Information



**WRAS**  
APPROVED  
PRODUCT

POTABLE WATER  
KTW/W270



Rubber steel gasket with vulcanised steel ring for safe centring and perfect sealing according to **DIN EN 1514-1 (PN6-40)**.

**Gasket according to DIN 2690, ANSI and for plastic flanges on request.**

Available for ND 15 up to 1200 (up to ND 2000 on request)

Suitable for pressure ratings PN 6 up to PN 40

### Advantages

- Low torque
- No retorquing required
- Owing to the versatility of the gasket material, it can be used on mis-matched or misaligned flanges as the pressure is dispersed evenly.
- The rubbers utilised have excellent energising properties and ensure, regardless of fluctuating pressures and temperatures that a perfect seal remains.
- Different rubber types are available to suit any application.
- The durability of the rubber offers a perfect seal even on rough faced flanges and enamel coatings.

### General use

- Pipeline construction: water, gas, sewage, oil and chemicals.
- Industry: enamel coated flanges.
- Plastic flanges
- Mining



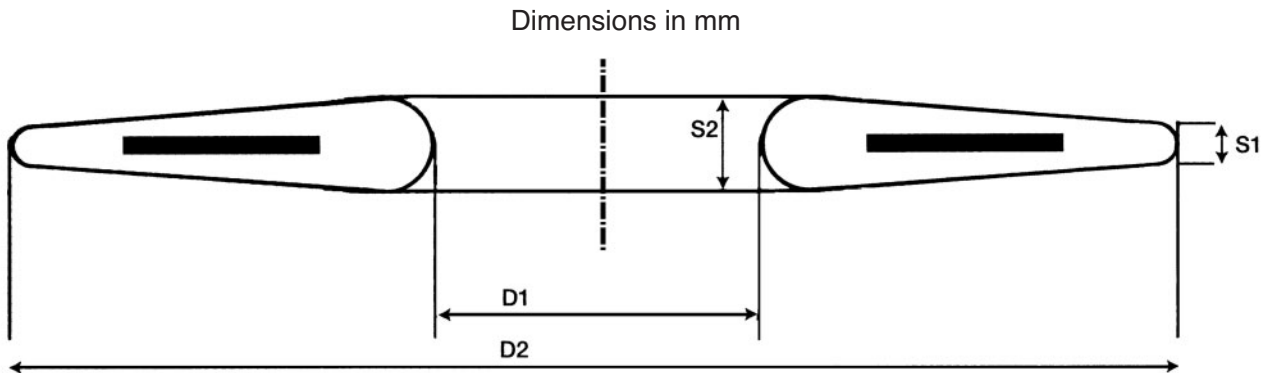
### Rubber-steel gasket with PTFE sleeve as a protection against chemicals

- EPDM rubber qualities  
EPDM service temperature: -25°C to +120°C
- Dimensions according to DIN EN 1514-1
- Fields of application:  
Glass fibre reinforced plastic tanks, plastic welding necks, stat. sealing systems.

Other dimensions (e.g. according to DIN 2690 or ANSI B 16.5) and materials (NBR, Viton, CR and NR) on request.



**Rubber steel gasket type G-ST with vulcanised steel ring according to DIN EN 1514-1: Form IBC for pressure rates from PN 6 to PN 40**



Example for gasket dimensions type G-ST

**Elastomeric material according to ISO R 1629**

Material	Shore hardness A	Temperature range
NBR / DVGW (1)	70 +/- 5	- 25° C to + 90° C
EPDM / KTW, W270 (2)	70 +/- 5	- 25° C to +120° C
FPM / VITON	75 +/- 5	- 20° C to +200° C

(1) The material of the NBR is approved as a sealing for gas pipelines and fittings and is certified DIN-DVGW Reg. no. NG-5113BRD477 according to EN 682 Type GB (Temperature range -5°C up to +50°C)

(2) in compliance with KTW D1 / D2, I.3.13 BFA for potable water WRAS 1302524 and W270  
Test basis: according to DIN EN 681-1

**Other dimensions and rubber qualities available on request**

## 2 in 1

### Wedge-type flange gasket

Due to its shape, the wedge-type rubber/steel gasket can be used as an alternative to the so-called 'O-ring' seal, and as a standard rubber/steel gasket.



Thanks to the thick bead on the side facing the medium, a rapid sealing effect is achieved with little tightening torque.

# Technical Data



ND	Dimension EN 1514-1 ISO 7483 (mm) D1xD2 / S1-S2	Pressure rating PN					Art. no.	Art. no.
		6	10	16	25	40	NBR*	EPDM**
15	22 x 51/3 - 4		x	x	x	x	1-008-01287	1-008-02462
20	27 x 61/3 - 4		x	x	x	x	1-008-01288	1-008-03463
25	34 x 71/3 - 4		x	x	x	x	1-008-01289	1-008-01464
32	43 x 76/3 - 4	x					1-008-03241	1-008-01417
32	43 x 82/3 - 4		x	x	x	x	1-009-03242	1-008-03418
40	49 x 92/3 - 4		x	x	x	x	1-008-03263	1-009-03439
50	61 x 96/4 - 5	x					1-008-03284	1-008-01460
50	61 x 107/4 - 5		x	x	x	x	1-008-03286	1-008-03462
65	77 x 116/4 - 5	x					1-008-03307	1-008-01482
65	77 x 127/4 - 5		x	x	x	x	1-008-03308	1-008-03483
80	89 x 142/3 - 4		x	x	x	x	1-008-03309	1-008-01465
100	115 x 152/5 - 6	x					1-008-03310	1-008-03485
100	115 x 162/4 - 5		x	x			1-008-03312	1-008-01466
100	115 x 168/5 - 6				x	x	1-008-03313	1-008-01488
125	141 x 182/5 - 6	x					1-008-03314	1-008-01489
125	141 x 192/4 - 5		x	x			1-008-03316	1-008-03491
125	141 x 194/5 - 6				x	x	1-008-03317	1-008-01492
150	169 x 207/6 - 7	x					1-008-03318	1-008-01493
150	169 x 218/4 - 5		x	x			1-008-03320	1-008-03495
150	169 x 224/6 - 7				x	x	1-008-03321	1-008-03496
200	220 x 262/6 - 7	x					1-008-03322	1-008-01497
200	220 x 273/5 - 6		x	x			1-008-03324	1-008-03499
200	220 x 284/6 - 7				x		1-008-03325	1-008-01500
200	220 x 290/6 - 7					x	1-008-03326	1-008-01501
250	273 x 317/6 - 7	x					1-008-03327	1-008-01502
250	273 x 328/5 - 6		x				1-008-03329	1-008-03504
250	273 x 329/6 - 7			x			1-008-03330	1-008-03505
250	273 x 340/6 - 7				x		1-008-03331	1-008-01506
250	273 x 352/6 - 7					x	1-008-03332	1-008-01507
300	324 x 373/6 - 7	x					1-008-03333	1-008-01508
300	324 x 378/5 - 6		x				1-008-03335	1-008-03510
300	324 x 384/6 - 7			x			1-008-03336	1-008-03511
300	324 x 400/6 - 7				x		1-008-03337	1-009-01512
300	324 x 417/6 - 7					x	1-008-03338	1-008-03513
350	368 x 423/7 - 9***	x					1-008-03339	1-008-01514
350	356 x 438/6 - 7		x				1-008-01297	1-008-03515
350	368 x 445/7 - 9***			x			1-008-01341	1-008-01516
350	368 x 458/7 - 9***				x		1-009-01342	1-008-01517
350	368 x 475/7 - 9***					x	1-008-03343	1-008-01518
400	420 x 473/7 - 9***	x					1-009-03344	1-009-03519
400	407 x 489/6 - 7		x				1-009-03345	1-009-03520

\* NBR  
 \*\* EPDM-KTW  
 \*\*\* DIN 2690

DVGW approval for gas acc. EN682  
 drinking water approved KTW/W270  
 dimensions

Other sizes pressurates and gaskets according to DIN 2690 or ANSI flanges on request.



ND	Dimension EN 1514-1 ISO 7483 (mm) D1xD2 / S1-S2	Pressure rating PN					Art. no.	Art. no.
		6	10	16	25	40	NBR*	EPDM**
400	407 x 495/7 - 9			x			1-009-03346	1-009-03521
400	420 x 515/7 - 9***				x		1-009-01347	1-009-01522
400	420 x 547/7 - 9 ***					x	1-009-01348	1-009-01523
450	470 x 528/7 - 9***	x					1-009-01349	1-009-01524
450	470 x 540/7 - 9***		x				1-009-03350	1-009-03525
450	470 x 557/7 - 9***			x			1-009-01351	1-009-01526
450	470 x 565/7 - 9***				x		1-009-01352	1-009-01527
450	470 x 572/7 - 9***					x	1-009-01353	1-009-01528
500	520 x 578/7 - 9***	x					1-009-01354	1-009-01529
500	508 x 594/6 - 7		x				1-009-03356	1-009-01474
500	508 x 617/7 - 9			x			1-009-03358	1-009-03532
500	520 x 625/7 - 9***				x		1-009-01359	1-009-01533
600	620 x 680/7 - 9***	x					1-009-01360	1-009-01534
600	610 x 695/6 - 7		x				1-009-03362	1-009-01475
600	610 x 734/7 - 9			x			1-009-03363	1-009-03537
600	620 x 730/7 - 9***				x		1-009-01364	1-009-01538
700	720 x 785/8 - 10***	x					1-009-01365	1-009-01539
700	712 x 810/7 - 8		x				1-009-03366	1-009-01476
700	712 x 804/7 - 8			x			1-009-03400	1-009-03450
700	720 x 830/8 - 10***				x		1-009-01368	1-009-01542
800	820 x 890/8 - 10***	x					1-009-01369	1-009-01543
800	813 x 917/7 - 8		x				1-009-01302	1-009-01477
800	813 x 911/8 - 10			x			1-009-03401	1-009-03451
800	820 x 940/8 - 10***				x		1-009-01372	1-009-01546
900	920 x 990/8 - 10***	x					1-009-01373	1-009-01547
900	915 x 1017/7 - 8		x				1-009-01374	1-009-01548
900	915 x 1011/7 - 8			x			1-009-03402	1-009-03452
900	920 x 1040/8 - 10***				x		1-009-01376	1-009-01550
1000	1020 x 1090/8 - 10***	x					1-009-01377	1-009-01551
1000	1016 x 1124/7 - 8		x				1-009-01304	1-009-01479
1000	1016 x 1128/7 - 8			x			1-009-03403	1-009-03453
1000	1020 x 1150/8 - 10***				x		1-009-01380	1-009-01554
1200	1220 x 1305/8 - 10***	x					1-009-01381	1-009-01555
1200	1220 x 1341/8 - 10		x	x			1-009-01382	1-009-01556
1200	1220 x 1360/8 - 10***				x		1-009-01383	1-009-01557
1400	1420 x 1548/7 - 8		x				1-009-01306	1-009-01481
1600	1620 x 1772/8 - 10		x				–	1-009-03562
1800	1820 x 1972/8 - 10		x				–	1-009-03563
2000	2020 x 2182/8 - 10		x				–	1-009-03564

\* NBR  
 \*\* EPDM-KTW  
 \*\*\* DIN 2690

DVGW approval for gas acc. EN682  
 drinking water approved KTW/W270  
 dimensions

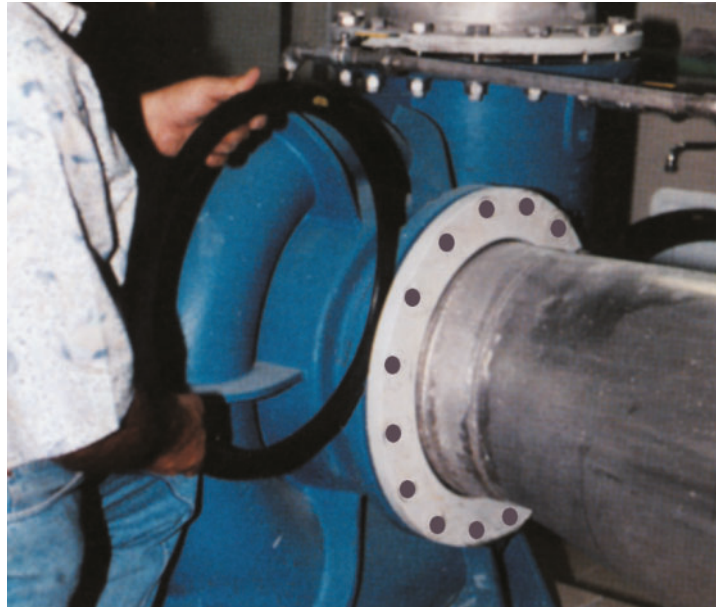
Other sizes pressurates and gaskets according to DIN 2690 or ANSI flanges on request.



# Rubber Steel Gaskets Type G-ST Installation Instruction



- Flanges must be clean, dry and aligned in parallel before work starts.
- The gasket must not be damaged.
- Separating agents or lubricants containing grease should not come into contact with the rubber gasket.
- Tighten the screws evenly (crosswise) in multiple passes.
- The pipeline must be prevented from settling by the use of appropriate supporting material, otherwise the rubber gasket will be pinched on one side.
- Rubber/steel gaskets should not be used more than once.



**Standard tightening torques (in Nm) for wedge-type 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 torque specifications 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 screws comply with DIN standards 2632 to 2635.

**The guideline values for tightening torques for flanges larger ND 600 can be calculated according to the following empirical formula:**

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 raw materials consist of plastic, e.g. PE flanges, please note that the tightening torques must be adjusted or reduced according to the respective flange material.

#### Disclaimer

Please note, failure to select the correct materials or products we supply (“the Products”) may result in damage to plant, equipment or property. In some instances, it may cause death or personal injury. We are not designers and do not give advice about design related matters concerning the Products. We can help and assist with the technical specifications for the Products. In specific applications, particularly where critical conditions exist, we will try to assist you within the limitations of the services that we offer. All information supplied by us is intended as technical co-operation outlining the specifications of the different Products which we supply. To the extent permitted in law, no warranty is given in respect of any information supplied by us. The customer must satisfy themselves as to the suitability of the Products for their intended application and use. The correct fitting of Products is the responsibility of the customer. Your statutory rights remain unaffected. Save in respect of death, personal injury or fraud, our entire liability to you, however arising from the supply of Products shall be limited to the £10M indemnity amount provided by our insurers.