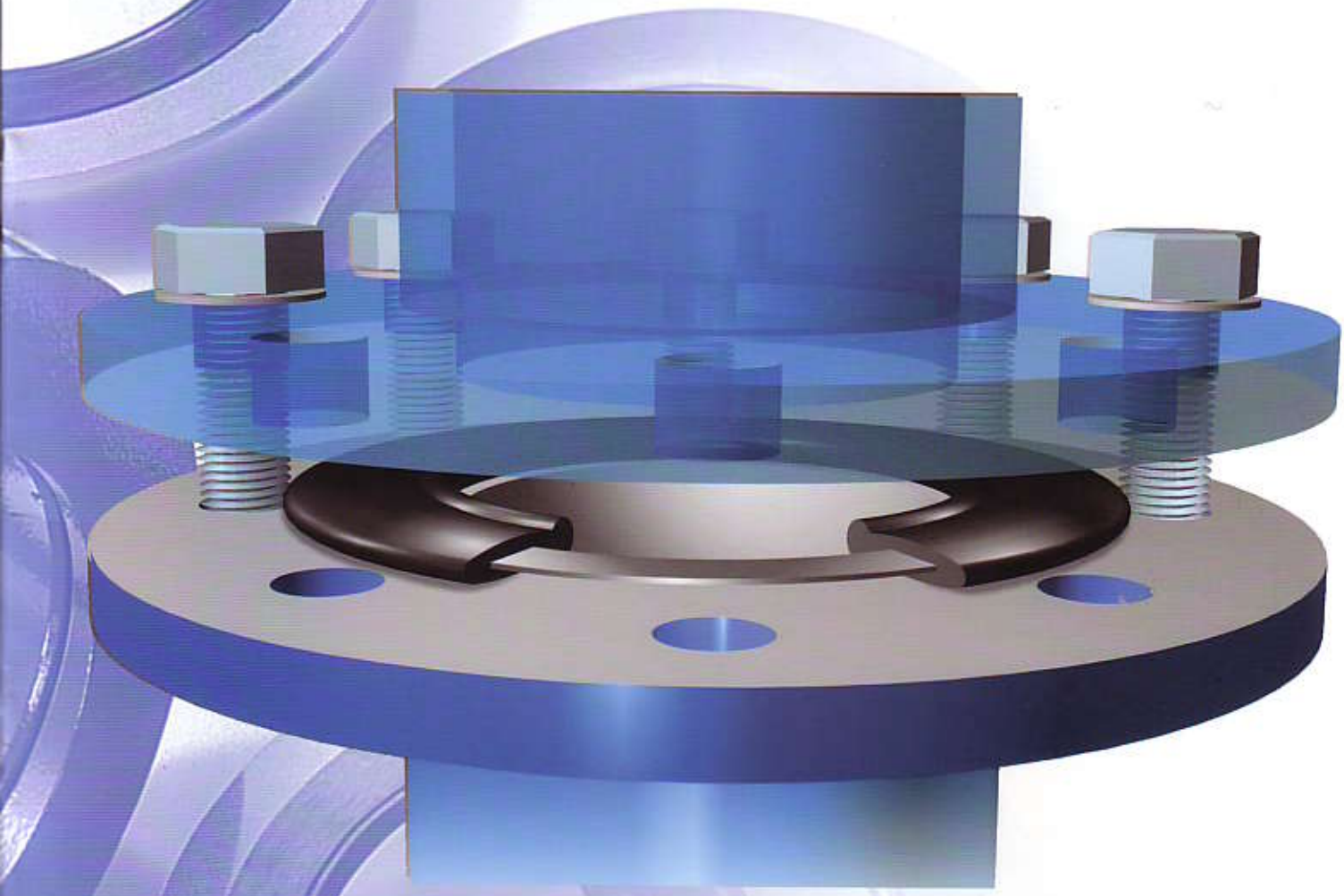
SEALED TIGHT!



G-ST-Flange Gaskets
G-ST-Profile Gaskets
G-ST-Wedge Rings

QM-System
zertifiziert durch:
TÜV CERT
ISO 9001

KROLL & ZILLER

The gasket people

G-ST-Flange Gaskets
G-ST-Profile Gaskets
G-ST-Wedge Rings

Rubber-steel flange gaskets and adjustable wedge rings have been proven in use over many years in all areas of pipeline construction.

Steel mills, power plants, petrochemical, pharmaceutical industries as well as numerous gas and water companies at home and abroad value the advantages of **Kroll & Ziller** sealing products.

Product Range

Page

G-ST
For various applications.

10

G-ST/GUSS
In special dimensions.
For total covering of flange face.

13

G-ST-P/S
For various applications, top choice for joints connecting non-metallic (plastics or GRP) and steel flanges.

14

G-ST-P/K
To suit flange joints connecting pairs of plastic stub ends.

16

G-ST-P/KN
For various applications, top choice for partially coated flanges and heavy duty services.

18

G-ST-P/HTB
For steel flange connections in Fire Safe pipelines.

23

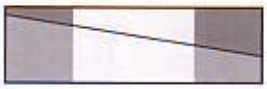
G-ST-P/OE
Flexible design gasket with visible stainless steel insert.

24

G-ST-P/GR
To suit pipework with soft rubber lining and flange faces with soft/hard rubber coating.

25

G-ST-Wedge Ring
Infinitely variable from 0° to 8°.



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G-ST-Profile Gaskets

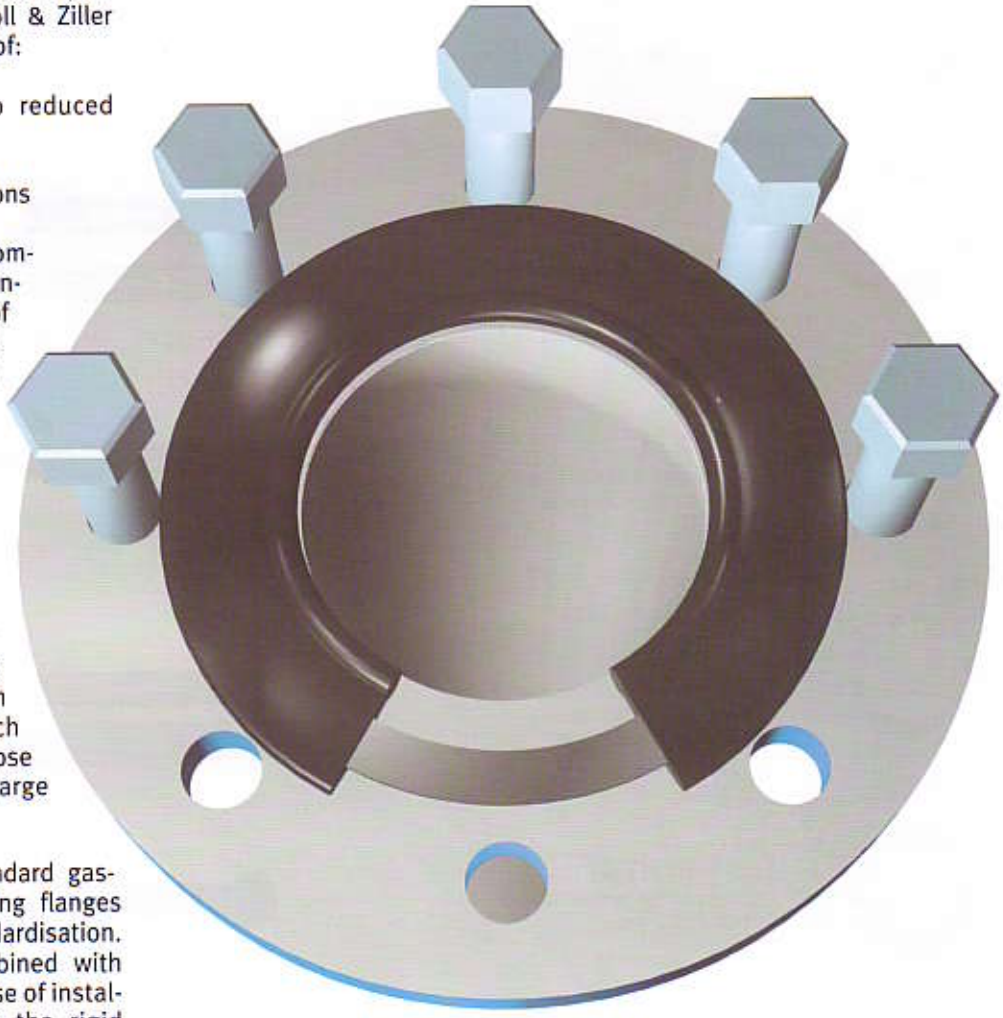
With 40 years of experience in solving individual sealing problems, we can provide you with a range of flange gaskets of exceptional operating reliability. With Kroll & Ziller gaskets you can be sure of:

- high efficiency due to reduced operating costs
- reduced fugitive emissions

Growing international competition makes cost minimisation in all areas of production necessary. Production disruptions and rejections, maintenance and repair costs must be prevented by choosing the best possible construction materials. The risk of possible environmental pollution must be eliminated. The policy of Kroll & Ziller over the last 15 years has been specialisation, research and development in close collaboration with a large number of customers.

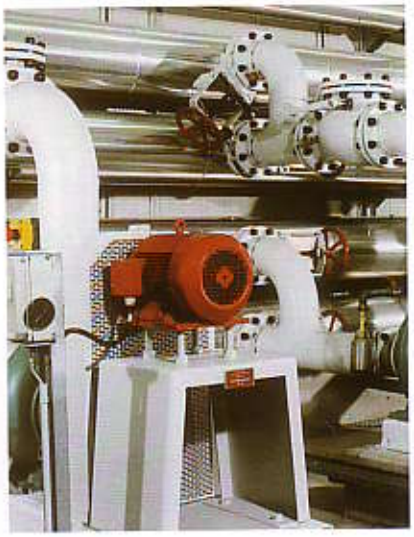
The wide range of standard gaskets available for sealing flanges allows top quality standardisation. High efficiency is combined with superb handling. The ease of installation is attributed to the rigid steel core even with large nominal widths and undesirable stresses. If you have a problem in choosing suitable gaskets, the experienced KROLL & ZILLER sales team is here to assist you.

With steel insert
Flange bolts center the gaskets



G - ST - P / *

S	for Steel pipes
K	for Plastic pipes
KN	for non-load bearing flange joints
OE	visible SS insert
HTB	for Fire safe
GR	for Rubber lined pipes
P	for Profile
ST	with Steel insert
G	for Rubber material

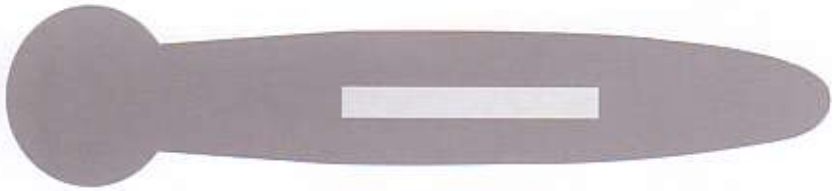


G-ST-Profile Gaskets

Proven in practice

Reliable sealing of flanged joints on pipelines has been made possible by the development of KROLL & ZILLER G-ST gaskets. Vulcanization provides an extremely good adhesion between the steel insert and the rubber sheath. Even when stressed to extremes, separation or blow-outs are not possible. Dimensions in accordance with standards prevents unnecessary flowrate reductions due to part-blocked cross-sections. Additionally, there is optimum handling during installation, since the gasket is self-centering on the bolt circle. The combination of these features makes the G-ST gasket the right choice for you.

The new generation



The G-ST-P profile gasket range illustrates the technological progress of KROLL & ZILLER. The basic concept is very clear in the graphic illustration of the gasket cross-section. The G-ST main body is combined with a round cord ring. This "O-ring" is the most static sealing element. The performance of this O-ring is almost miraculous even without a cost-intensive groove. The G-ST-P profile gasket combines the advantages of its individual parts. High surface pressures transmitted from the main force of the flow are absorbed by the rigid body of the G-ST gasket. The flat steel-ring, corrosion protected by being vulcanized in, absorbs the required test pressure with ease. The O-ring lying parallel to the main force of the flow is ideally compressed against the sealing faces even at low surface pressures. Irregularities and grooves, even slight misalignments are compensated. Also, the gasket shows insensitivity to the minimum torques required during installation which spares the material. A degree of operating reliability - never before reached - is assured. Once in position - it is **sealed tight!** These advantages are especially important for flange joints of thermoplastics (PVC, PE, PP, PVDF). The special KROLL & ZILLER gasket G-ST-P/S has the following advantages:

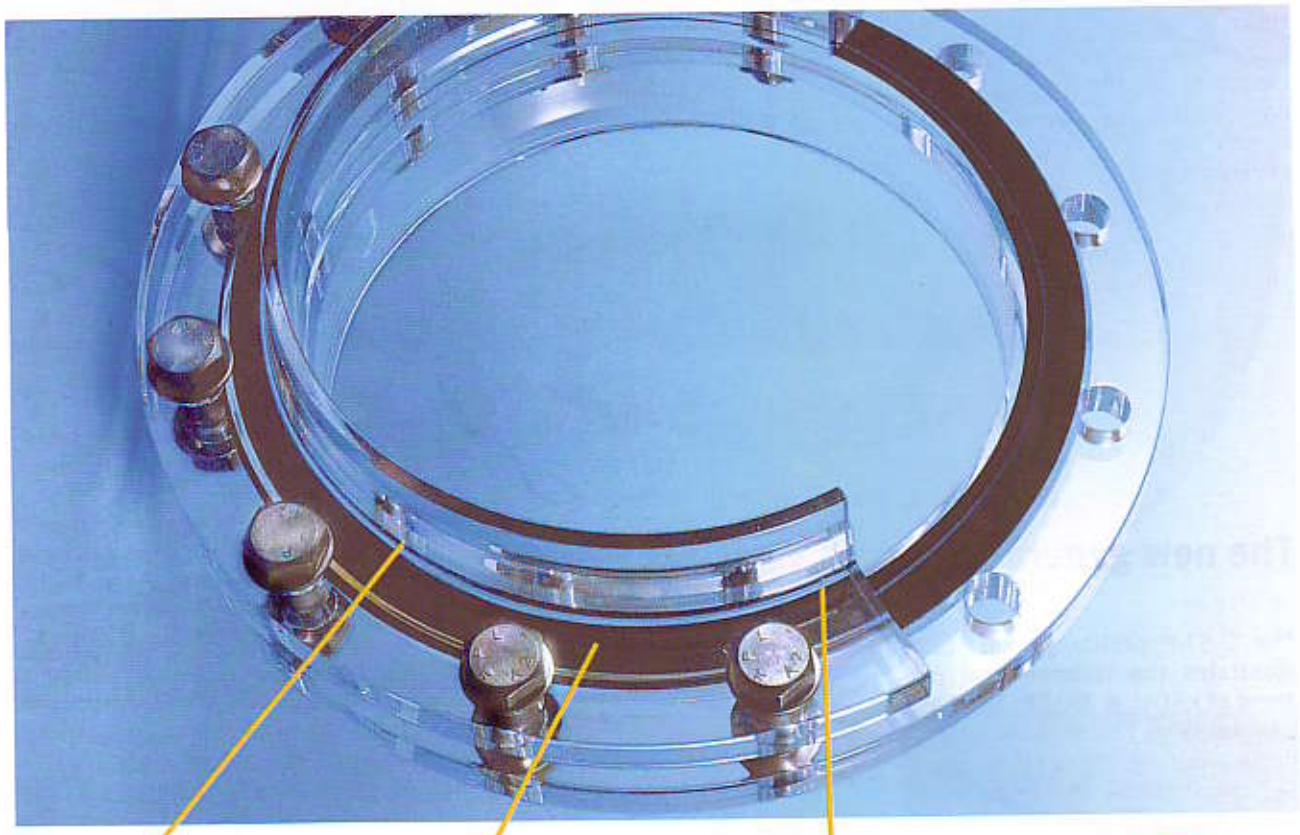
- wide sealing surface area
- rectangular instead of round cross-section near the O-ring

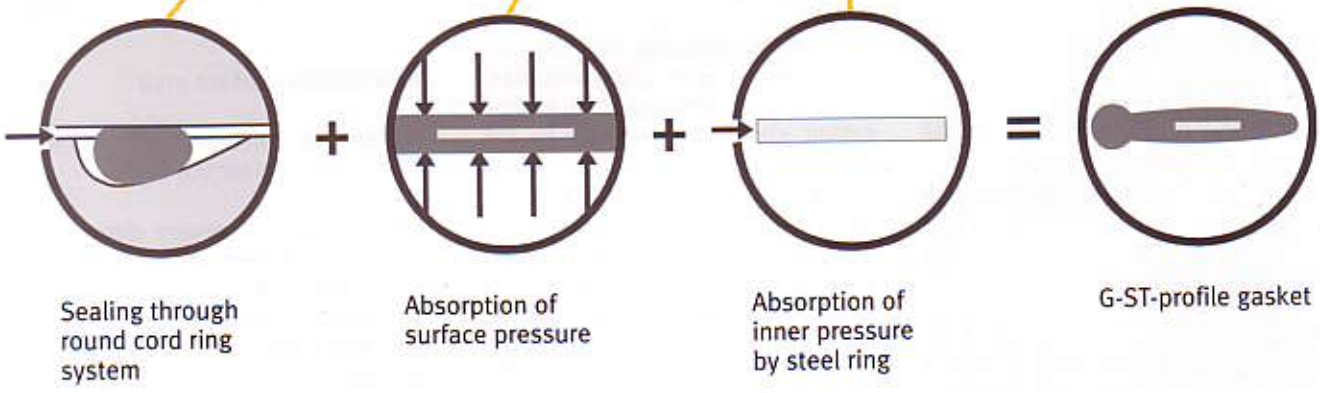
These attributes prevent deformation of the flange adapters. The round cord ring fills the enlarged gap reliably. Minimum required tightening torques protect the joining elements from being overloaded.

G-ST-Profile Gaskets

Benefits linked to G-ST-P gasket applications:

- sealing under minimum bolt tightening
- compensation of surface imperfections
- flange and bolt designs can be more lightweight
- higher durability of plastic flange joints
- angle differences are more easily compensated compared to simple flat gaskets
- expensive machining of an O-ring groove on the flange is unnecessary





Sealing through round cord ring system

Absorption of surface pressure

Absorption of inner pressure by steel ring

G-ST-profile gasket

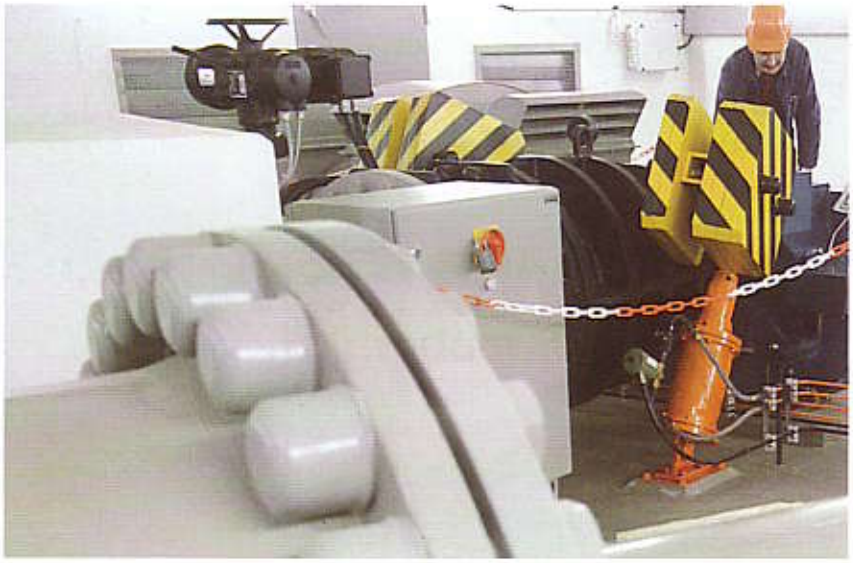
Electrical characteristics of material used for gaskets

The surface resistance R_D and the isolation resistance ρ_D has been determined according to DIN 53482, arrangement of electrodes style "C".

The desruptive voltage U_d has been tested due to DIN IEC 243-2/VDE 0303, part 22 with direct current.

(An electrode with a diameter of 25 mm combined with grounded electrode with a diameter of 75 mm in accordance with DIN VDE 0303, part 21.)

The tests involved items with a thickness of 1 and 5 mm.



material	R_D (Ω) 1mm	R_D (Ω) 5mm	ρ_D (Ω) 1mm	ρ_D (Ω) 5mm	Test voltage (V)	U_d (kV) 1mm	U_d (kV) 5mm
EPDM	0.45×10^3	0.85×10^3	0.5×10^3	0.6×10^3	1	nb	nb
NBR-DUO	3.30×10^3	5.35×10^3	1.5×10^3	3.2×10^3	10	nb	nb
CSM	2.55×10^{12}	1.15×10^{12}	5.5×10^{10}	8.9×10^{10}	100	>15	>15
FPM-S	2.45×10^{11}	2.35×10^{10}	6.2×10^9	7.4×10^9	100	>6	>15

nb = without results

Gasket parameters

due to DIN 28 090-1

due to ASME Code Section VIII Div. 1 Table UA. 49.1

Profile			G-ST, P/S P/K, P/OE	G-ST, P/S P/K, P/OE	P/KN	P/KN	G-ST, P/S, P/K, P/OE		
materials			NBR CR, NR, EPDM, IIR	FPM-S, CSM	NBR, CR, NR EPDM, IIR	FPM-S, CSM	NBR, CR NR, EPDM IIR, CSM FPM-S		
recommended flange face roughness R_a	µm	max.	160	160	160	160	R_a	µ inch	500
surface pressure limits for 20° C	N/mm²	$\delta_{VU/L}$	2	2	2	15	m	-	1.00
		δ_{VO}	15	9	450	450	y	psi	200
surface pressure limits for 150° C	N/mm²	$\delta_{BU/L}$	-	2	-	(15)			
		δ_{BO}	-	5	-	(435)			

G-ST-Profile Gaskets

Extra reliability

The KROLL & ZILLER gasket range was proven in the testing.

Test parameters:

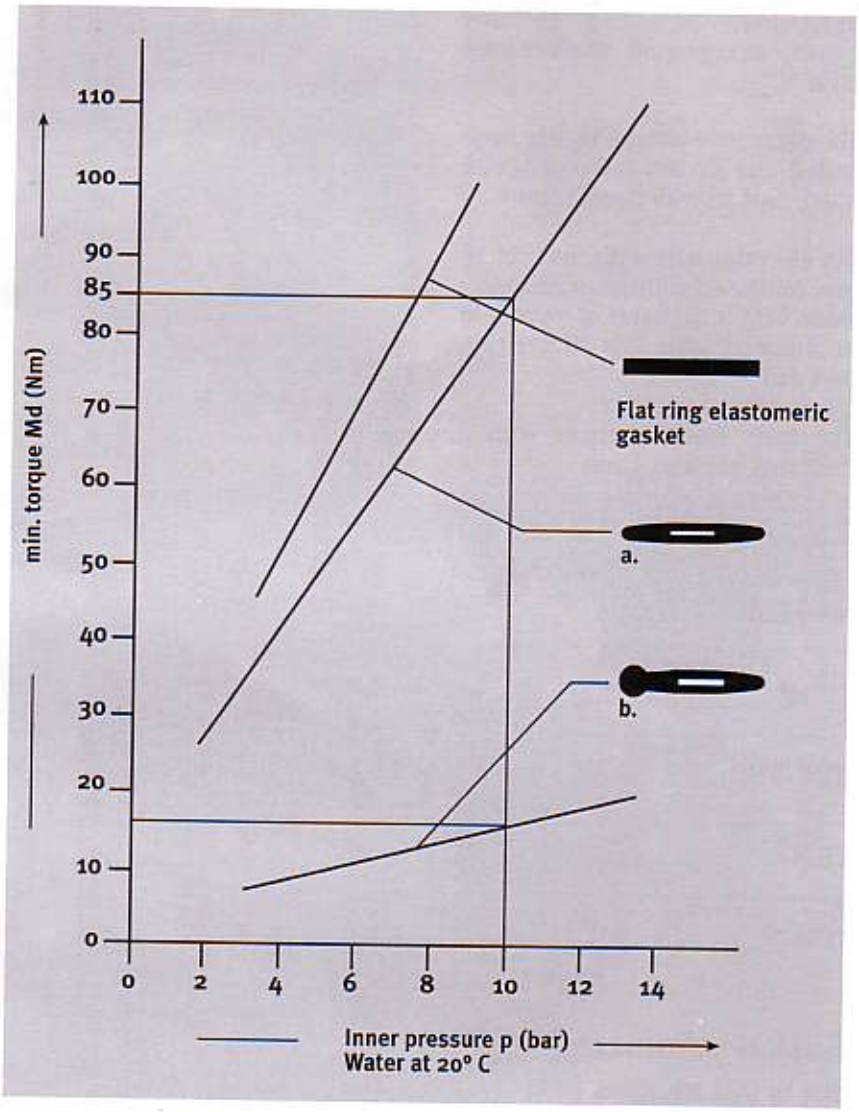
· medium: water

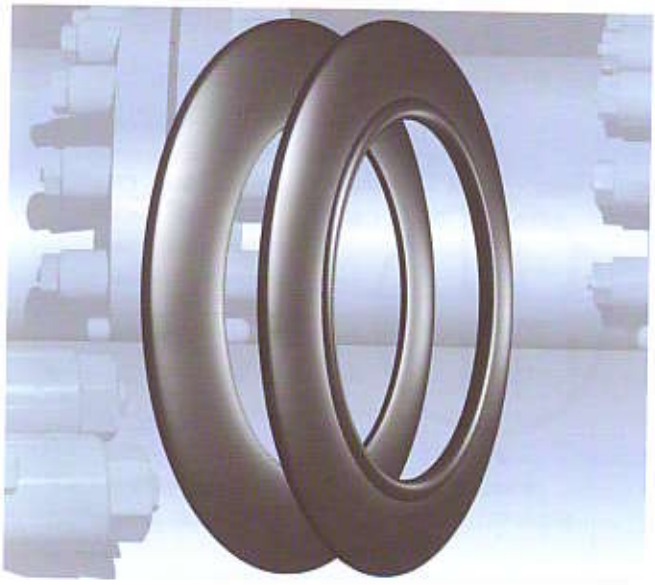
· temperature: 20° C / 68° F

· test pressure: 10 bar / 143 psi

Test samples
20" Gasket
a = G-ST flange gasket
NBR-DUO
b = G-ST-P/S-profile flange gasket
NBR-DUO
c = Flat rubber gasket with textile insert NBR

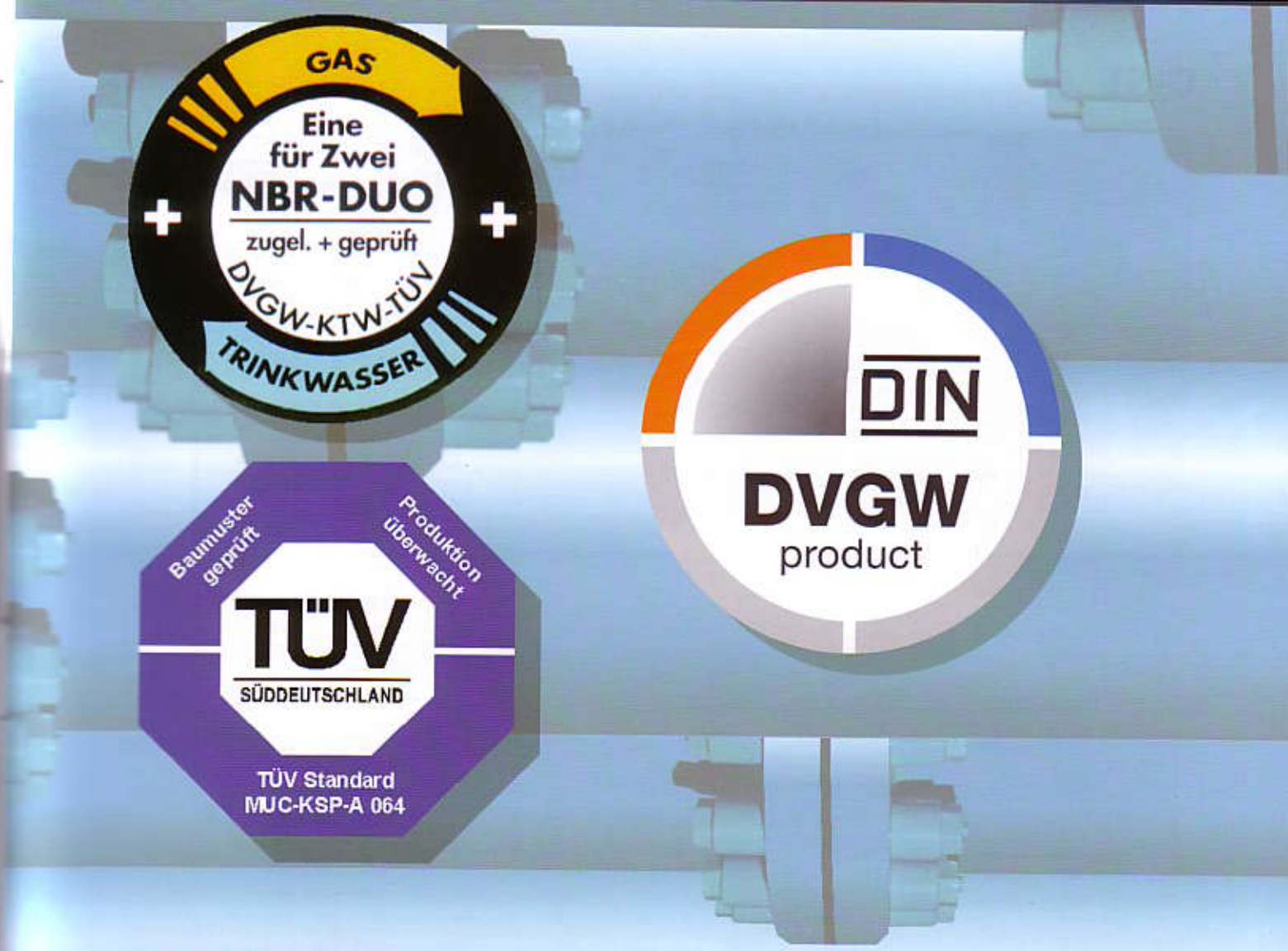
The result of the test series is shown in the graph:
With a pressure of 10 bar / 143 psi only a fraction of the required tightening torque calculated for the G-ST flange gasket is necessary for the G-ST-P/S profile gasket. However, use of the G-ST gasket with the higher value is recommended during installation. The extra reliability offsets many uncertainties in practice.





a. = G-ST-Flange Gaskets

b. = G-ST-Profile Gaskets



Materials:

NR = Natural rubber
Temp. tmax. -30...+ 60° C, Shore -A-hardness 60 ± 5
Temp. Tmax. -22...+ 140° F

NBR-DUO = Acrylonitrile Butadiene rubber
DIN-DVGW test mark, reg.no. NV-5261AP1125

DRINKING WATER
-Test approval by DVGW / TÜV Süddeutschland according to DIN EN 681-1
-KTW recommendation 1.3.13 in the areas D1 and D2, as well as hygienic test in accordance with DVGW code of practice W 270
-FDA, 21 CFR Ch.I (04/2000), § 177.2600

NATURAL GAS
-Test approval by DVGW according to DIN EN 682 substitutes DIN 3535, Part 3 reg.no. NG-5113AP1125
Temp. tmax. -25...+ 70° C, Shore-A-hardness 80 ± 5
Temp. tmax. -13...+ 158° F

HNBR = Hydrogenated Acrylonitrile Butadiene rubber
Temp. tmax. -25...+ 150° C, Shore-A-hardness 75 ± 5
Temp. tmax. -13... + 302° F

CR = Chloroprene rubber
Temp. tmax. -25...+ 95° C, Shore-A-hardness 63 ± 5
Temp. tmax. -13...+ 203° F

CSM = Chlorosulphonated Monomer rubber
Temp. tmax. -20...+ 120° C, Shore-A-hardness 70 ± 5
Temp. tmax. -4...+ 248° F

EPDM* = Ethylene Propylene Diene Monomer rubber
-KTW recommendation 1.3.13 in the areas D1 and D2,
-FDA approved acc.to 21 CFR Ch.I (04/2000), § 177.2600
Temp. tmax. -30...+ 120° C, Shore-A-hardness 70 ± 5
Temp. tmax. -22...+ 248° F

FPM-S* = Fluorinated rubber acid proof
Temp. tmax. -20...+ 200° C, Shore-A-hardness 80 ± 5
Temp. tmax. -4...+ 392° F

IIR = Isobutene Isoprene rubber (Butyle rubber)
Temp. tmax. -25...+ 120° C, Shore-A-hardness 55 ± 5
Temp. tmax. -13...+ 248° F

Steel Insert
Standard: Carbon Steel
Optional: Stainless Steel

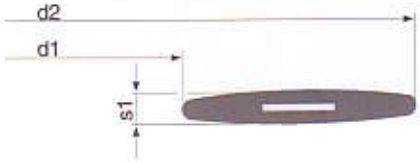
* also available as
"HP" (high purity)

G-ST

EN 1514-1

G-ST-Flange Gaskets

Nominal Diameter DN	Nominal Pressure PN	Dimensions in mm d_1	x	d_2	x	s_1
15	10-40	22	x	51	x	4
20	10-40	27	x	61	x	4
25	10-40	34	x	71	x	4
32	10-40	43	x	82	x	4
40	10-40	49	x	92	x	4
50	10-40	61	x	107	x	4
65	10-40	77	x	127	x	4
80	10-40	89	x	142	x	4
100	6	115	x	152	x	5
100	10-16	115	x	162	x	5
100	25-40	115	x	168	x	5
125	10-16	141	x	192	x	5
125	25-40	141	x	194	x	5
150	10-16	169	x	218	x	5
150	25-40	169	x	224	x	5
200	10-16	220	x	273	x	6
200	25	220	x	284	x	6
200	40	220	x	290	x	6
250	10	273	x	328	x	6
250	16	273	x	329	x	6
250	25	273	x	340	x	6
250	40	273	x	352	x	6
300	6	324	x	373	x	6
300	10	324	x	378	x	6
300	16	324	x	384	x	6
300	25	324	x	400	x	6
300	40	324	x	417	x	6
350	10	356	x	438	x	7
400	10	407	x	489	x	7
400	16	407	x	495	x	7
400	25	407	x	514	x	7
400	40	407	x	546	x	7
500	10	508	x	594	x	7
500	40	508	x	628	x	7
600	10	610	x	695	x	7
700	10	712	x	810	x	8
800	10	813	x	917	x	8
1000	10	1016	x	1124	x	8
1200	1-2.5	1220	x	1290	x	8
1200	6	1220	x	1307	x	8
1200	10	1220	x	1341	x	8
1200	16	1220	x	1342	x	8
1600	2,5	1620	x	1700	x	8
1600	10	1620	x	1772	x	8
1800	10	1820	x	1972	x	8
2000	10	2020	x	2182	x	8



similar to DIN 2690

G-ST-Flange Gaskets

Nominal Diameter DN	Nominal Pressure PN	Dimensions in mm d_1	x	d_2	x	s_1
50	10-40	57	x	107	x	4
100	10-16	108	x	162	x	5
100	25-40	108	x	167	x	5
125	6	141	x	182	x	5
125	10-16	133	x	192	x	5
150	6	169	x	207	x	5
150	10-16	159	x	218	x	5
175	10-16	195	x	248	x	5
175	40	195	x	267	x	5
200	10-16	216	x	273	x	6
200	25	216	x	285	x	6
250	10	267	x	328	x	6
300	10	318	x	378	x	6
350	6	368	x	423	x	7
350	10	368	x	438	x	7
350	16	368	x	445	x	7
350	25	368	x	458	x	7
350	40	368	x	475	x	7
400	6	420	x	473	x	7
400	10	420	x	490	x	7
400	16	420	x	497	x	7
400	25	420	x	515	x	7
400	40	420	x	547	x	7
450	10	470	x	540	x	7
500	6	520	x	575	x	7
500	10	520	x	595	x	7
500	16	520	x	618	x	7
500	25	520	x	625	x	7
600	10	620	x	695	x	7
600	16	620	x	735	x	7
600	25	620	x	730	x	7
600	40	620	x	745	x	7
700	6	720	X	785	X	8
700	10	720	x	810	x	8
800	6	820	x	890	x	8
800	10	820	x	915	x	8
800	16	820	x	910	x	8
800	25	820	x	940	x	8
900	6	920	x	990	x	8
900	10	920	x	1015	x	8
900	16	920	x	1010	x	8
900	25	920	x	1040	x	8
1000	6	1020	x	1090	x	8
1000	10	1020	x	1120	x	8
1000	16	1020	x	1125	x	8
1000	25	1020	x	1150	x	8
1000	40	1020	x	1190	x	8
1100	16	1120	x	1225	x	8
1100	25	1120	x	1260	x	8
1200	25	1220	x	1360	x	8
1200	40	1220	x	1395	x	8
1300		1320	x	1435	x	8
1400	10	1420	x	1545	x	8
1500		1520	x	1645	x	8

Quality requested by the trained Technicians

Quality for skilled technological progress does not stop in front of the pipe trench. However the stakes of an assembly job of a flange joint are still high. That is why the approved rubber steel gasket concept cannot be matched by alternative products.

G-ST

G-ST-Flange Gaskets
in special dimensions

Nominal Diameter DN	Dimensions in mm d_1	x	d_2	x	s_1
15	15	x	54	x	3
20	23	x	54	x	3
20	23	x	60	x	3
25	28	x	43	x	3
25	28	x	53	x	3
25	28	x	65	x	3
25	30	x	48	x	4
25	30	x	71	x	4
25	33	x	70	x	3
25	36	x	50	x	5
32	38	x	82	x	4
40	43	x	55	x	3
40	45	x	85	x	4
40	45	x	92	x	4
40	45	x	102	x	4
50	50	x	100	x	8
50	52	x	70	x	3
50	52	x	78	x	3
50	55	x	69	x	3
50	55	x	112	x	4
50	57	x	87	x	3
50	57	x	95	x	4
50	57	x	118	x	3
50	62	x	118	x	3
50	63	x	75	x	4
65	65	x	85	x	4
65	70	x	107	x	4
65	71	x	91	x	3
65	71	x	137	x	4
80	80	x	104	x	3
80	80	x	118	x	3
80	85	x	147	x	5
80	87	x	105	x	3
80	92	x	124	x	3
80	95	x	121	x	4
80	100	x	148	x	5
100	102	x	138	x	3
100	105	x	127	x	4
100	108	x	149	x	4
100	108	x	173	x	5

Nominal Diameter DN	Dimensions in mm d_1	x	d_2	x	s_1
100	110	x	150	x	4
100	110	x	160	x	10
100	115	x	149	x	4
100	116	x	218	x	5
100	120	x	170	x	5
100	125	x	170	x	4
125	125	x	172	x	5
125	130	x	151	x	4
125	132	x	175	x	5
125	133	x	210	x	5
125	150	x	208	x	5
150	150	x	210	x	5
150	150	x	212	x	5
150	152	x	177	x	5
150	152	x	194	x	3
150	152	x	210	x	3.5
150	154	x	258	x	5
150	156	x	177	x	4
150	158	x	188	x	4
150	159	x	203	x	5
150	160	x	215	x	3.5
150	160	x	247	x	5
150	169	x	203	x	5
150	170	x	195	x	5
150	170	x	285	x	5
150	175	x	228	x	5
175	180	x	240	x	5
175	187	x	238	x	6
175	192	x	228	x	4
190	192	x	277	x	5
190	203	x	239	x	5
200	203	x	273	x	6
200	204	x	305	x	6
200	205	x	270	x	5
200	208	x	242	x	5
200	210	x	258	x	6
200	215	x	270	x	4
200	220	x	259	x	5
200	220	x	309	x	6
200	225	x	239	x	5

Nominal Diameter DN	Dimensions in mm d_1	x	d_2	x	s_1
225	225	x	280	x	5
225	230	x	267	x	5
250	255	x	295	x	4
250	255	x	312	x	5
250	267	x	342	x	6
250	274	x	364	x	6
300	300	x	345	x	6
300	300	x	349	x	6
300	300	x	365	x	6
300	300	x	378	x	5
300	307	x	353	x	5
300	310	x	358	x	8
300	310	x	363	x	5
350	344	x	403	x	6
350	350	x	410	x	7
350	350	x	435	x	7
350	370	x	450	x	5
400	400	x	490	x	6
400	400	x	455	x	5
400	420	x	470	x	6
450	470	x	570	x	7
450	480	x	574	x	7
450	485	x	535	x	7
450	490	x	540	x	5
500	500	x	580	x	7
500	504	x	542	x	7
500	508	x	585	x	7
500	520	x	585	x	6
500	552	x	625	x	6
550	595	x	643	x	6
600	620	x	710	x	7
600	622	x	674	x	7
650	650	x	710	x	8
650	676	x	736	x	8
650	650	x	810	x	8
700	704	x	746	x	8
700	720	x	895	x	8
800	800	x	840	x	8
950	982	x	1050	x	8

G-ST-Flange Gaskets
in special dimensions, to suit pressure class PN 10
Outer diameter according to DIN 2690, special inner diameter

Nominal Diameter DN	Dimensions in mm d_1	x	d_2	x	s_1
25	17	x	70	x	4
40	34	x	92	x	4
50	44	x	107	x	4
65	61	x	127	x	4
80	72	x	142	x	4
100	97	x	162	x	5
125	121	x	192	x	5
150	149	x	218	x	5
200	196	x	273	x	6
250	250	x	328	x	6

Nominal Diameter DN	Dimensions in mm d_1	x	d_2	x	s_1
300	299	x	378	x	7
350	329	x	438	x	7
400	378	x	490	x	7
500	485	x	595	x	7
600	587	x	695	x	7
700	687	x	810	x	8
800	786	x	915	x	8
900	884	x	1015	x	8
1000	986	x	1120	x	8

G-ST/GUSS

G-ST/GUSS-Flange Gaskets

in special dimensions. For total covering of flange face.

The right gasket for utility

Flange gaskets for flange joints used in pipeline and facility construction works had been produced to match standards and directives precisely naming dimensions for inner and outer diameter.

The way to determine the inner diameter generally means that due to its size a considerabely big partition of the face will not be covered.

Typical scenery:

- **FFG-Pipe made of ductile cast iron with casted flanges and cement coating according to DIN 28 614, DN 80, PN 10-25**
- I/D_{pipe} = 78 mm
- O/D_{pipe} = 133 mm
- area of flange face= 9.115 mm²

- **Flange gasket DN 80, PN 10-40 according to DIN EN 1514-1**
- $I/D_{pipe\ pipe}$ = 89 mm
- O/D_{pipe} = 142 mm
- contact face with O/D_{pipe} = 7.672 mm²

Résumé: approx. 16% of the flange face will not be covered!

Due to insufficient corrosion protection especially to be found in old installations an agglomeration of rust might occur occasionally while dealing with aggressive water quality.

The usage of KROLL & ZILLER-gaskets style **TYP G-ST/GUSS** shoots that problem!

The inner diameter will be determined by the nominal pipe size of commodity pipe and fitting:

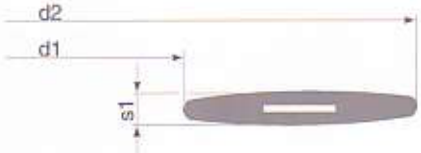
Nominal Diameter DN	Nominal Pressure PN	Dimensions in mm d_1	x	d_2	x	s_1
40	10-40	40	x	91	x	4
50	10-40	50	x	106	x	4
60	10-40	60	x	117	x	4
65	10-40	65	x	126	x	4
80	10-40	80	x	142	x	4
100	10-16	100	x	162	x	5
125	10-16	125	x	192	x	5
150	10-16	150	x	218	x	5
200	10-16	200	x	273	x	6
250	10-16	250	x	328	x	6
300	10	300	x	378	x	7
300	16	300	x	384	x	7
350	16	350	x	444	x	7
400	10	400	x	489	x	7
400	16	400	x	495	x	7
500	10	500	x	594	x	7
500	16	500	x	617	x	7

Naturally there are no additional restrictions caused by substitution. Of course the gaskets will be made of NBR-DUO. This material is approved for water and natural gas application (see DVGW or other international documents).

A stressmark is linked to the extended KTW requirements.

The worksheet W 270 "Approval against microbiological disease" is mandatory!

KROLL & ZILLER is again offering the tailor made solution.



G-ST-P/S

EN 1514-1

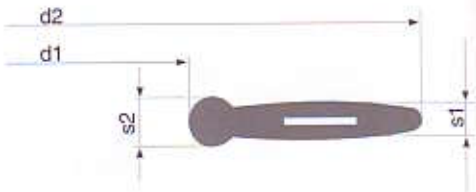
G-ST-P/S-Profile Gaskets

Nominal Diameter DN	Nominal Pressure PN	Dimensions in mm d_1	x	d_2	x	s_1/s_2
* 15	10-40	22	x	51	x	3/4
* 20	6	27	x	54	x	3/4
* 20	10-40	27	x	61	x	3/4
* 25	10-40	34	x	71	x	3/4
* 32	6	43	x	76	x	3/4
* 32	10-40	43	x	82	x	3/4
* 40	10-40	49	x	92	x	3/4
* 50	6	61	x	96	x	4/5
* 50	10-40	61	x	107	x	4/5
* 65	6	77	x	116	x	4/5
65	10-40	77	x	127	x	4/5
80	10-40	89	x	142	x	4/5
100	6	115	x	152	x	5/6
100	10-16	115	x	162	x	5/6
100	25-40	115	x	168	x	5/6
125	6	141	x	182	x	5/6
125	10-16	141	x	192	x	5/6
125	25-40	141	x	194	x	5/6
150	6	169	x	207	x	6/8
150	10-16	169	x	218	x	6/8
150	25-40	169	x	224	x	6/8
200	6	220	x	262	x	6/8
200	10-16	220	x	273	x	6/8
200	25	220	x	284	x	6/8
200	40	220	x	290	x	6/8
250	6	273	x	317	x	6/8
250	10	273	x	328	x	6/8
250	16	273	x	329	x	6/8
250	25	273	x	340	x	6/8
250	40	273	x	352	x	6/8
300	6	324	x	373	x	6/8
300	10	324	x	378	x	6/8
300	16	324	x	384	x	6/8
300	25	324	x	400	x	6/8
300	40	324	x	417	x	6/8
350	10	356	x	438	x	7/10
350	16	356	x	444	x	7/10
400	10	407	x	489	x	7/10
400	16	407	x	495	x	7/10
450	10	458	x	539	x	7/10
450	16	458	x	555	x	7/10
500	10	508	x	594	x	7/10
500	16	508	x	617	x	7/10
600	10	610	x	695	x	7/10
600	16	610	x	734	x	7/10
700	10	712	x	810	x	8/11
700	16	712	x	804	x	8/11
800	10	813	x	917	x	8/11
800	16	813	x	911	x	8/11
900	10	915	x	1017	x	8/11
900	16	915	x	1011	x	8/11
1000	10	1016	x	1124	x	8/11
1000	16	1016	x	1128	x	8/11
1200	2.5	1220	x	1290	x	8/11
1200	6	1220	x	1307	x	8/11
1200	10	1220	x	1341	x	8/11
1200	16	1220	x	1342	x	8/11
1400	2.5	1420	x	1490	x	8/11

DIN 2690

G-ST-P/S-Profile Gaskets

Nominal Diameter DN	Nominal Pressure PN	Dimensions in mm d_1	x	d_2	x	s_1/s_2
350	6	368	x	423	x	7/10
350	10	368	x	438	x	7/10
350	16	368	x	445	x	7/10
350	25	368	x	458	x	7/10
350	40	368	x	475	x	7/10
400	6	420	x	473	x	7/10
400	10	420	x	490	x	7/10
400	16	420	x	497	x	7/10
400	25	420	x	515	x	7/10
400	40	420	x	547	x	7/10
450	6	470	x	528	x	7/10
450	10	470	x	540	x	7/10
450	16	470	x	557	x	7/10
450	25	470	x	565	x	7/10
450	40	470	x	572	x	7/10
500	6	520	x	578	x	7/10
500	10	520	x	595	x	7/10
500	16	520	x	618	x	7/10
500	25	520	x	625	x	7/10
500	40	520	x	628	x	7/10
600	6	620	x	680	x	7/10
600	10	620	x	695	x	7/10
600	16	620	x	735	x	7/10
600	25	620	x	730	x	7/10
600	40	620	x	745	x	7/10
700	6	720	x	785	x	8/11
700	10	720	x	810	x	8/11
700	16	720	x	805	x	8/11
700	25	720	x	830	x	8/11
700	40	720	x	850	x	8/11
800	6	820	x	890	x	8/11
800	10	820	x	915	x	8/11
800	16	820	x	910	x	8/11
800	25	820	x	940	x	8/11
800	40	820	x	970	x	8/11
900	6	920	x	990	x	8/11
900	10	920	x	1015	x	8/11
900	16	920	x	1010	x	8/11
900	25	920	x	1040	x	8/11
900	40	920	x	1080	x	8/11
1000	6	1020	x	1090	x	8/11
1000	10	1020	x	1120	x	8/11
1000	16	1020	x	1125	x	8/11
1000	40	1020	x	1190	x	8/11
1100		1120	x	1215	x	8/11
1200		1215	x	1285	x	5.5/7
1200	40	1220	x	1395	x	8/11
1200		1280	x	1380	x	8/11
1400		1454	x	1540	x	8/11



G-ST-P/S

Similar to ASME -B 16.21
G-ST-P/S

G-ST-P/S-Profile Gaskets

Nominal Pipe Size NPS	Dimensions in mm Pressure Class **150** lbs d_1 x d_2 x s_1/s_2	Dimensions in mm Pressure Class **300** lbs d_1 x d_2 x s_1/s_2
1/2"	21 x 45 x 3 / 4	20 x 51 x 3 / 4
3/4"	27 x 54 x 3 / 4	27 x 64 x 3 / 4
1"	33 x 64 x 3 / 4	33 x 70 x 3 / 4
1 1/4"	42 x 73 x 3 / 4	42 x 80 x 3 / 4
1 1/2"	48 x 83 x 3 / 4	48 x 92 x 3 / 4
2"	60 x 102 x 4 / 5	60 x 108 x 4 / 5
2 1/2"	73 x 121 x 4 / 5	73 x 127 x 4 / 5
3"	89 x 133 x 4 / 5	89 x 146 x 4 / 5
3 1/2"	102 x 159 x 4 / 5	102 x 162 x 4 / 5
4"	115 x 171 x 5 / 6	115 x 178 x 5 / 6
5"	140 x 193 x 5 / 6	140 x 213 x 5 / 6
6"	168 x 219 x 6 / 8	168 x 247 x 6 / 8
8"	219 x 276 x 6 / 8	219 x 305 x 6 / 8
10"	273 x 337 x 6 / 8	273 x 359 x 6 / 8
12"	325 x 406 x 6 / 8	325 x 419 x 6 / 8
14"	356 x 448 x 7 / 10	356 x 482 x 7 / 10
16"	406 x 512 x 7 / 10	406 x 537 x 7 / 10
18"	457 x 547 x 7 / 10	457 x 594 x 7 / 10
20"	508 x 604 x 7 / 10	508 x 651 x 7 / 10

Nominal Pipe Size NPS	Dimensions in mm Pressure Class **150** lbs d_1 x d_2 x s_1/s_2	Dimensions in mm Pressure Class **300** lbs d_1 x d_2 x s_1/s_2
24"	610 x 715 x 7 / 10	610 x 772 x 7 / 10
26"	665 x 771 x 7 / 10	665 x 832 x 7 / 10
28"	720 x 829 x 8 / 11	720 x 895 x 8 / 11
30"	770 x 880 x 8 / 11	770 x 949 x 8 / 11
32"	820 x 937 x 8 / 11	820 x 1003 x 8 / 11
34"	865 x 987 x 8 / 11	865 x 1054 x 8 / 11
36"	920 x 1045 x 8 / 11	920 x 1114 x 8 / 11
38"	965 x 1108 x 8 / 11	965 x 1051 x 8 / 11
40"	1020 x 1159 x 8 / 11	1020 x 1111 x 8 / 11
42"	1070 x 1216 x 8 / 11	1070 x 1162 x 8 / 11
44"	1120 x 1273 x 8 / 11	1120 x 1216 x 8 / 11
46"	1170 x 1324 x 8 / 11	1170 x 1270 x 8 / 11
48"	1220 x 1381 x 8 / 11	1220 x 1321 x 8 / 11
50"	1270 x 1432 x 8 / 11	1270 x 1375 x 8 / 11
52"	1320 x 1489 x 8 / 11	1320 x 1425 x 8 / 11
54"	1370 x 1546 x 8 / 11	1370 x 1489 x 8 / 11
56"	1430 x 1603 x 8 / 11	1430 x 1540 x 8 / 11
58"	1120 x 1273 x 8 / 11	1475 x 1590 x 8 / 11
60"	1530 x 1711 x 8 / 11	1530 x 1641 x 8 / 11

G-ST-P/S

G-ST-P/S-Profile Gaskets
special dimensions

Nominal Diameter DN	Dimensions in mm d_1 x d_2 x s_1
40	38 x 92 x 3 / 4
50	50 x 107 x 4 / 5
65	66 x 127 x 4 / 5
80	76 x 142 x 4 / 5
80	81 x 142 x 4 / 5
80	84 x 133 x 4 / 5
100	100 x 162 x 4 / 5
125	125 x 192 x 5 / 6
150	150 x 218 x 5 / 6
150	156 x 218 x 6 / 8
150	144 x 218 x 6 / 8
175	175 x 235 x 6 / 8
200	182 x 275 x 6 / 8
200	200 x 273 x 6 / 8
250	228 x 328 x 6 / 8
250	250 x 328 x 6 / 8
300	275 x 378 x 6 / 8

Nominal Diameter DN	Dimensions in mm d_1 x d_2 x s_1
300	300 x 378 x 6 / 8
350	285 x 438 x 7 / 10
350	330 x 438 x 7 / 10
350	340 x 490 x 7 / 10
350	340 x 617 x 7 / 10
350	396 x 444 x 6 / 8
400	372 x 490 x 7 / 10
400	324 x 490 x 7 / 10
400	400 x 490 x 7 / 10
500	465 x 595 x 7 / 10
600	586 x 695 x 7 / 10
600	630 x 680 x 7 / 10
700	661 x 810 x 8 / 11
700	690 x 755 x 8 / 11
800	749 x 915 x 8 / 11

G-ST-P/S-Profile Gaskets
Dimensions for flanges of VCI-tanks,
in accordance with code of practice C2.1.1

Nominal Diameter DN	Dimensions in mm d_1 x d_2 x s_1
500	510 x 577 x 7/10
600	610 x 677 x 7/10
600	610 x 717 x 7/10
700	710 x 782 x 8/11
800	810 x 887 x 8/11

G-ST-P/K

G-ST-P/K to suit flange joints made of thermoplastics (PVC, PP, PE, PVDF)

Type A
For pressure pipelines made of PVC with solvent cemented flange adaptors and backing flanges, manufactured in accordance with DIN 8063 part 4, and also for pressure pipelines made of PE, PP and PVDF with electrofused flange adaptors and backing flanges manufactured in accordance with DIN 16962 part 12 (PP) and DIN 16963 part 11 (PE), also usable for fixed flanges made of PVC, PP and PVDF. Can also be used for intermediate flange valves. Dimensions according to DIN ISO 2501 PN 10.

Flange DN [1]	Outer Ø of pipe (mm)	Dimensions mm d_1 x d_2 x s_1/s_2
10	16	16 x 46 x 3 / 4
15	20	20 x 51 x 3 / 4
20	25	25 x 61 x 3 / 4
25	32	32 x 71 x 3 / 4
32	40	40 x 82 x 3 / 4
40	50	50 x 92 x 3 / 4
50	63	63 x 107 x 4 / 5
65	75	75 x 127 x 4 / 5
80	90	90 x 142 x 4 / 5
100	110	110 x 162 x 5 / 6
125	125	125 x 192 x 5 / 6
125	140	140 x 192 x 5 / 6
150	160	160 x 218 x 6 / 8
200	200	200 x 273 x 6 / 8
200	225	225 x 273 x 6 / 8
250	250	250 x 303 x 6 / 8
250	250	250 x 328 x 6 / 8
250	280	280 x 328 x 6 / 8
300	315	315 x 378 x 6 / 8
350	355	355 x 438 x 7 / 10
400	400	400 x 489 x 7 / 10

DIN / ISO (PVDF)

G-ST-P/K-Profile Gaskets

For pressure pipelines made of PVDF with butt-fused flange adaptors and backing flanges. Flange dimensions according to DIN ISO 2501 PN 10.

Flange DN [1]	PN	Outer Ø of pipe (mm)	SDR [2]	Dimensions in mm d_1 x d_2 x s_1/s_2
20	16	25	21	24 x 61 x 3 / 4
25	16	32	21	30 x 71 x 3 / 4
32	16	40	21	37 x 82 x 3 / 4
40	16	50	21	46 x 92 x 3 / 4
50	16	63	21	61 x 107 x 4 / 5
65	16	75	21	73 x 127 x 4 / 5
65	10	75	33	69 x 127 x 4 / 5
80	10-16	90	33	84 x 142 x 4 / 5
100	16	110	21	104 x 162 x 5 / 6
100	10	125	33	123 x 162 x 5 / 6
125	10	140	33	137 x 192 x 5 / 6
125	16	140	21	127 x 192 x 5 / 6
150	10	160	33	156 x 218 x 6 / 8
150	16	160	21	146 x 218 x 6 / 8
150	10	180	33	177 x 218 x 6 / 8
200	10	200	33	196 x 273 x 6 / 8
200	16	200	21	181 x 273 x 6 / 8
200	10	225	33	220 x 273 x 6 / 8
200	16	225	21	203 x 273 x 6 / 8
250	10	280	33	274 x 328 x 6 / 8