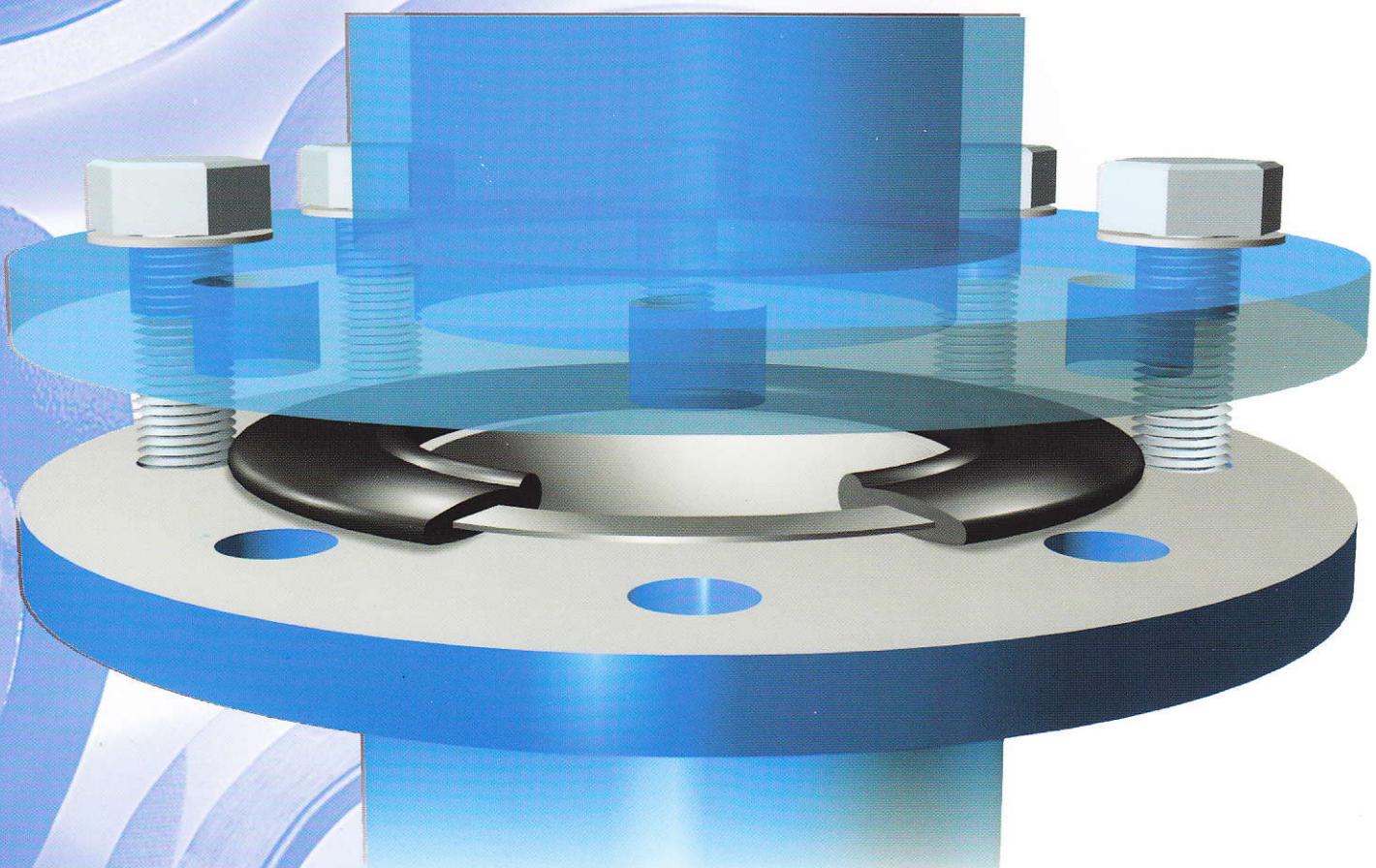


SEALED TIGHT!



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

QM-System
zertifiziert durch:



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, petro-chemical 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.

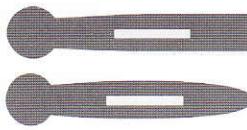


13



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°.



26

G-ST-Profile Gaskets

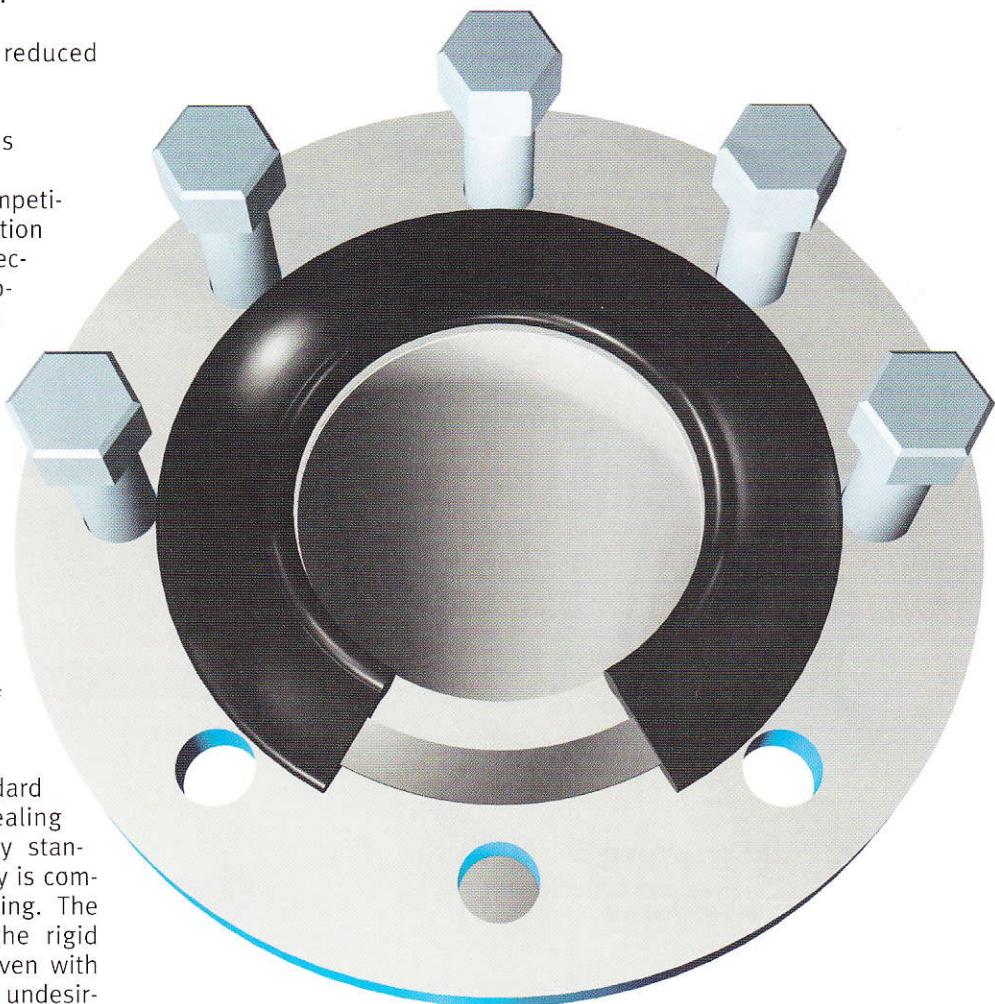
With 40 years of experience in solving individual sealing problems, we can provide you with a range of flange gaskets of exceptional operating reliability. With Kroll & Ziller gaskets you can be sure of:

- 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.

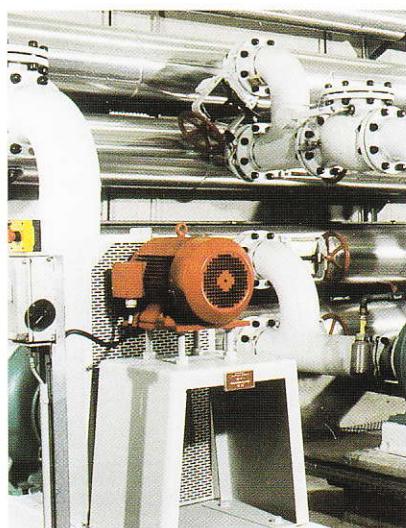
The wide range of standard gaskets available for sealing flanges allows top quality standardisation. High efficiency is combined with superb handling. The ease of installation to the rigid steel is attributed core even with large nominal widths and undesirable stresses. If you have a problem in choosing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

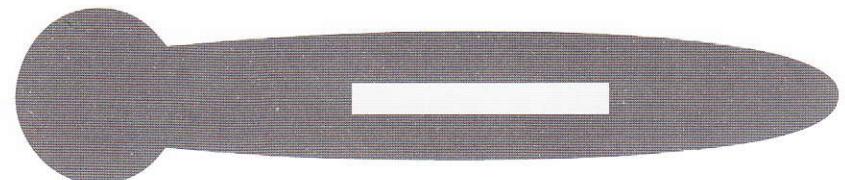
Proven in practice

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 with ease the required test pressure. 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. As well, 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:

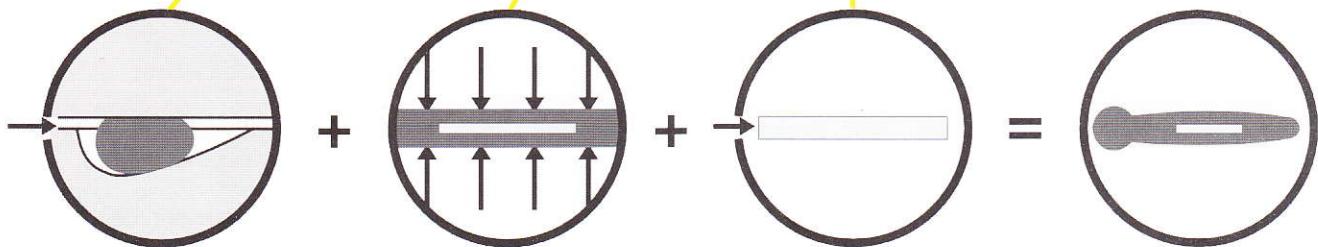
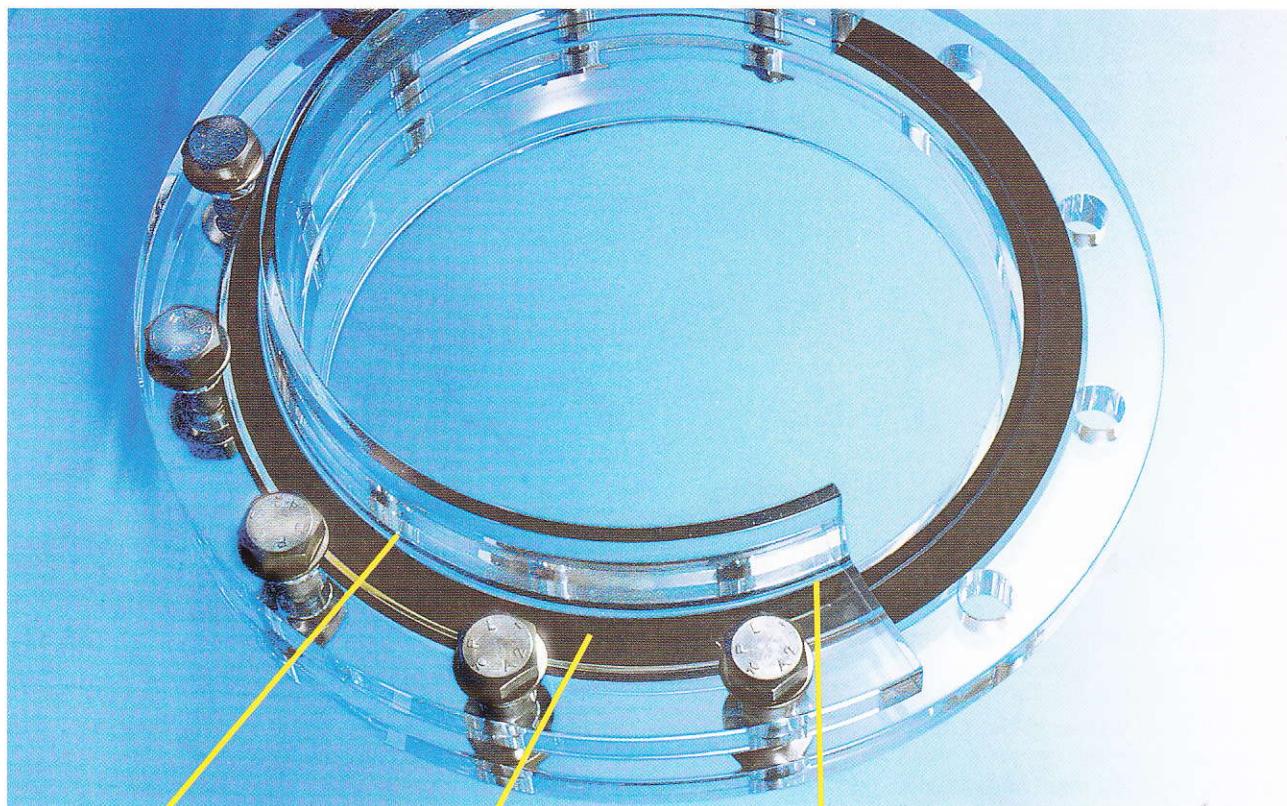
- wide sealing surface area
- rectangular instead of round cross-section near the O-ring

These attributes prevent deformation of the flange adapters. The round cord ring reliably fills the enlarged gap. 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 a 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

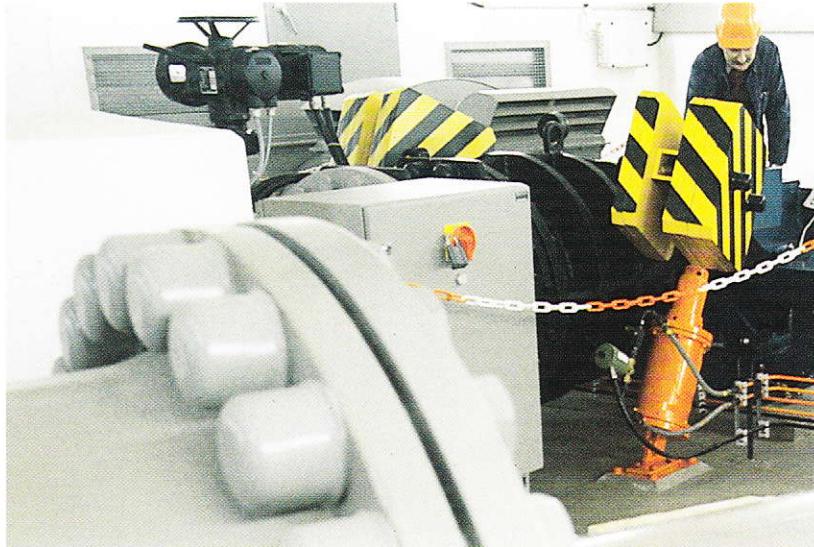
Electric characteristics of material used for gaskets

The surface resistance R_0 and the isolation resistance ρ_D has been determined according to DIN 53482, arrangement of electrodes style „C“.

The disruptive 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_0 (Ω) 1mm	R_0 (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	R_a
surface pressure limits for 20° C	N/mm ²	$\delta_{VU/L}$ δ_{VO}	2 10	2 9	2 450	m y
surface pressure limits for 150° C	N/mm ²	$\delta_{BU/L}$ δ_{BO}	- -	(2) (5)	- (15) (435)	- psi
						500
						1.00 200

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

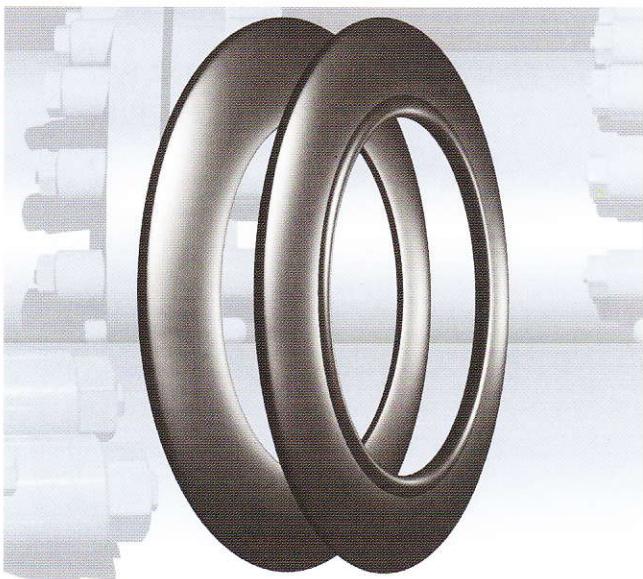
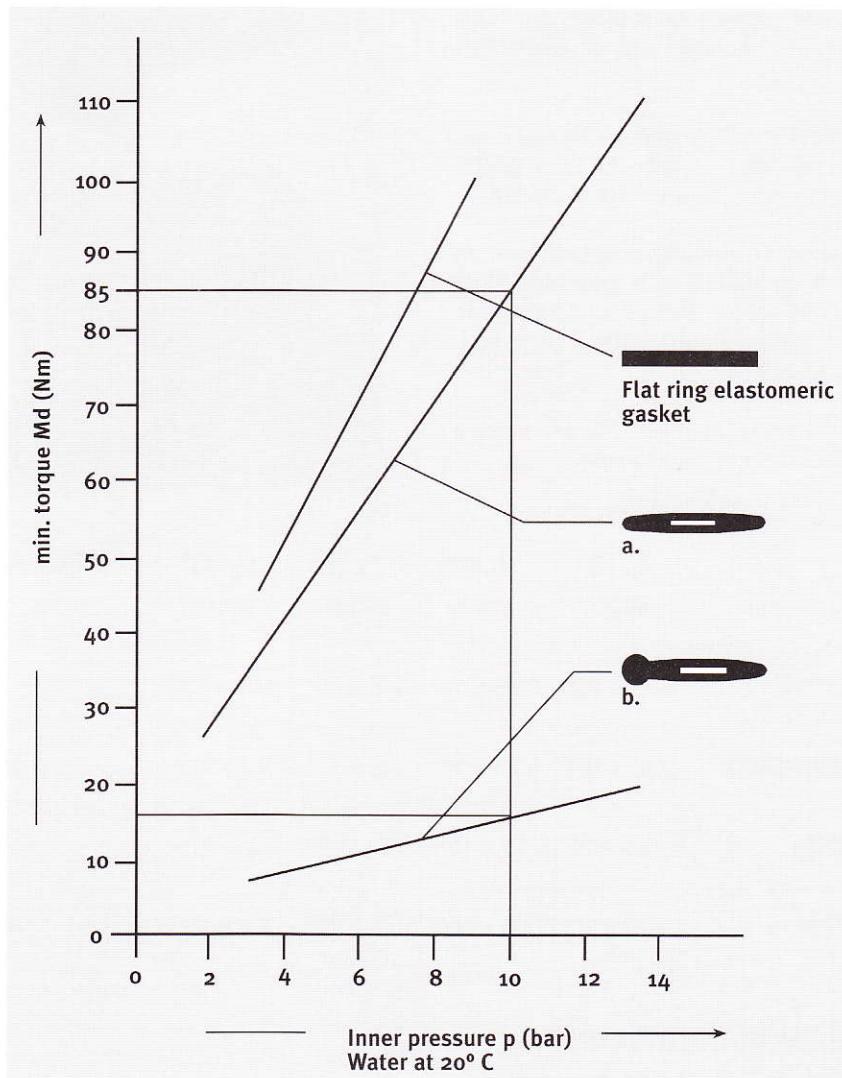
b = G-ST-P/S-profile flange gasket

NBR-DUO

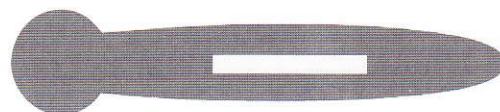
c = Flat rubber gasket with textile insert NBR

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

-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 in accordance with DIN EN 3535, Part 3 (prEN 682)

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)

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/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 considerably 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
- $I/D_{\text{pipe}} = 78 \text{ mm}$
- $O/D_{\text{pipe}} = 133 \text{ mm}$
- area of flange face = 9.115 mm^2
- Flange gasket DN 80, PN 10-40 according to DIN EN 1514-1
- $I/D_{\text{gasket}} = 89 \text{ mm}$
- $O/D_{\text{gasket}} = 142 \text{ mm}$
- contact face with $O/D_{\text{gasket}} = 7.672 \text{ mm}^2$

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:



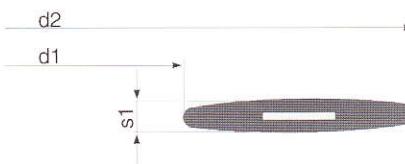
Naturally there are no additional restrictions caused by substitution. Of course the gaskets will be made of NBR-DUO. This material is approved for water and natural gas application (see DVGW or other international documents).

A stressmark is linked to the extended KTW requirements.

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

KROLL & ZILLER again is offering the tailor made solution.

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	206	x	273	x	6
250	10-16	250	x	328	x	6
300	10	300	x	378	x	7
400	10	400	x	489	x	7
500	10	500	x	594	x	7



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.

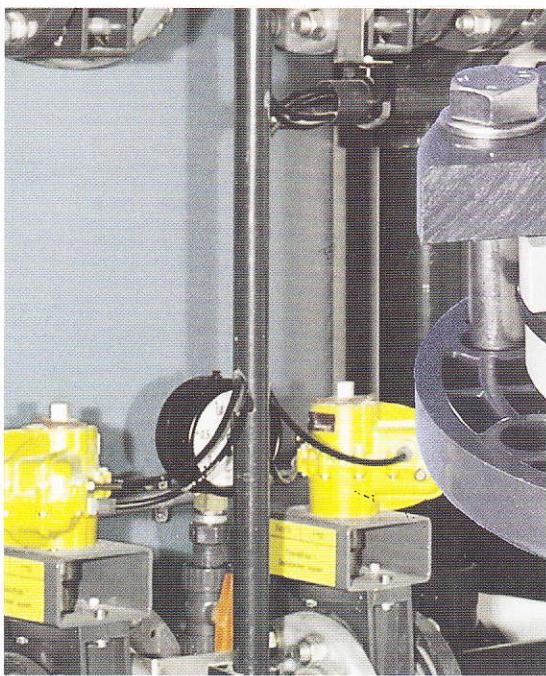
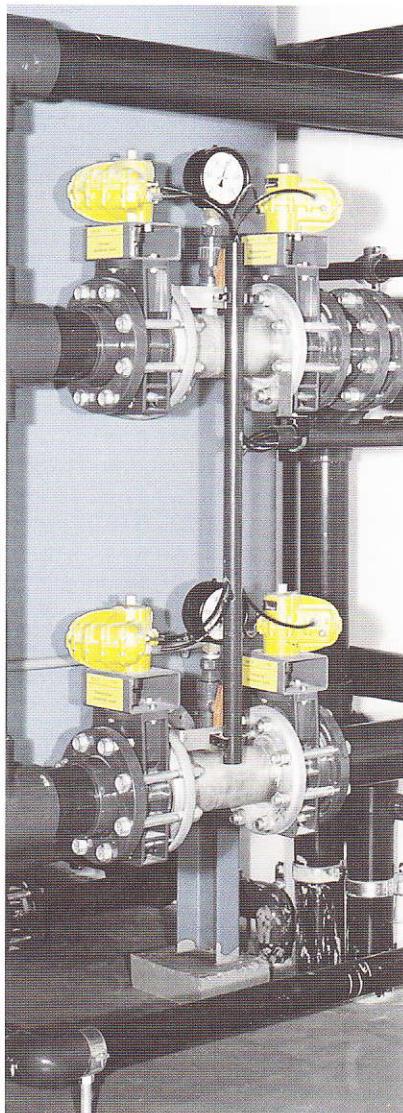
Flange	Outer Ø of pipe	Dimensions mm
DN ¹⁾	(mm)	d ₁ x d ₂ x s ₁ /s ₂
10	16	16 x 46 x 3 / 4
15	20	20 x 51 x 3 / 4
20	25	25 x 61 x 3 / 4
25	32	32 x 71 x 3 / 4
32	40	0 x 82 x 3 / 4
40	50	50 x 92 x 3 / 4
50	63	63 x 107 x 4 / 5
65	75	75 x 127 x 4 / 5
80	90	90 x 142 x 4 / 5
100	110	110 x 162 x 5 / 6
125	125	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	Outer Ø of pipe	Dimensions in mm		
DN ¹⁾	PN	(mm)	SDR ²⁾	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



G-ST-P/K

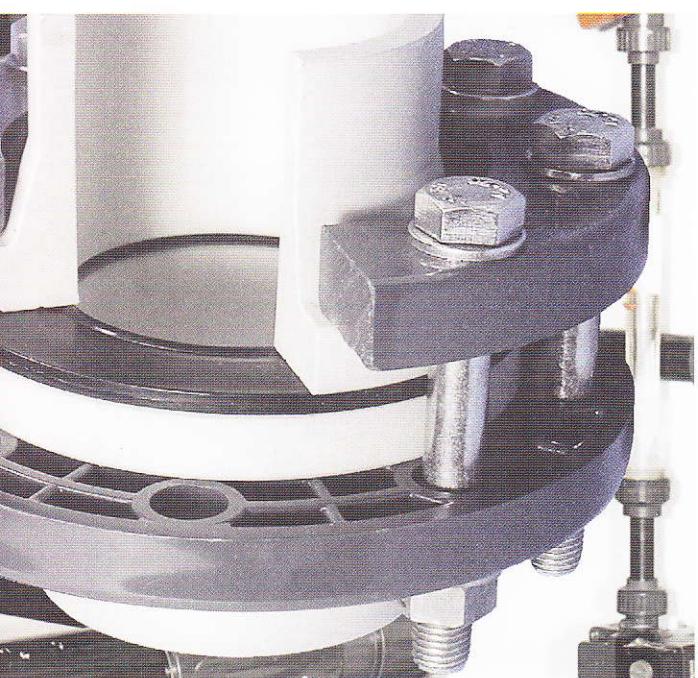
DIN 16962 part 4 (PP)
DIN 16963 part 4 (PE)

G-ST-P/K Profile Gaskets



For pressure pipelines made of PE and PP with butt-fused flange adaptors and backing flanges to suit DIN 16962 part 4 (PP) and DIN 16963 part 4 (PE). Flange dimensions according to DIN ISO 2501 PN10.

Flange DN ¹⁾	Outer Ø of pipe (mm)	SDR ²⁾	Dimensions in mm				
			d ₁	x	d ₂	x	s ₁ /s ₂
20	25	11	22	x	61	x	3 / 4
20	25	7.4	24	x	61	x	3 / 4
25	32	11	28	x	71	x	3 / 4
25	32	7.4	23	x	71	x	3 / 4
32	40	11	34	x	82	x	3 / 4
32	40	7.4	29	x	82	x	3 / 4
40	50	17	46	x	92	x	3 / 4
40	50	11	42	x	92	x	3 / 4
40	50	7.4	36	x	92	x	3 / 4
50	63	17	58	x	107	x	4 / 5
50	63	11	53	x	107	x	4 / 5
50	63	7.4	45	x	107	x	4 / 5
65	75	17	69	x	127	x	4 / 5
65	75	11	63	x	127	x	4 / 5
65	75	7.4	54	x	127	x	4 / 5
80	90	17	84	x	142	x	4 / 5
80	90	11	76	x	142	x	4 / 5
80	90	7.4	65	x	142	x	4 / 5
100	110	33	104	x	162	x	5 / 6
100	110	17	100	x	162	x	5 / 6
100	110	11	93	x	162	x	5 / 6
100	110	7.4	80	x	162	x	5 / 6
100	125	33	123	x	162	x	5 / 6
100	125	17	114	x	162	x	5 / 6
100	125	11	105	x	162	x	5 / 6
100	125	7.4	90	x	162	x	5 / 6
125	140	33	137	x	192	x	5 / 6
125	140	17	127	x	192	x	5 / 6
125	140	11	117	x	192	x	5 / 6



DIN 16962 part 4 (PP)
DIN 16963 part 4 (PE)

G-ST-P/K Profile Gaskets

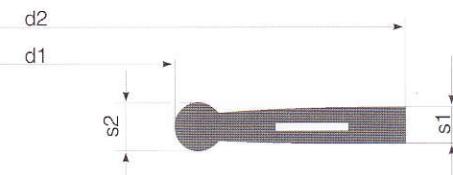


For pressure pipelines made of PE and PP with butt-fused flange adaptors and backing flanges to suit DIN 16962 part 4 (PP) and DIN 16963 part 4 (PE).

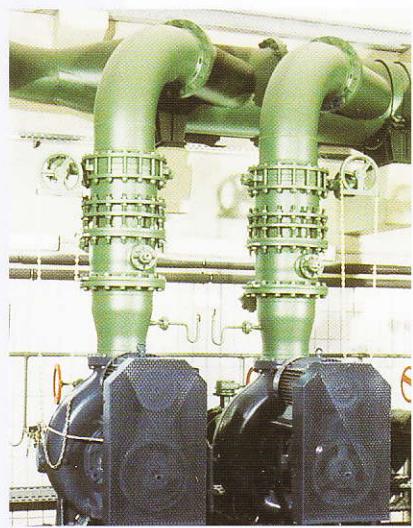
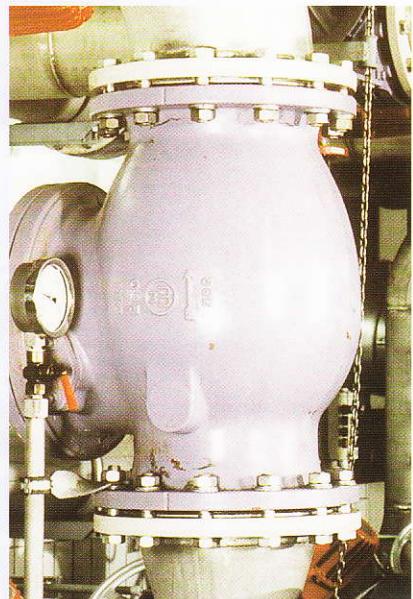
Flange DN ¹⁾	Outer Ø of pipe (mm)	SDR ²⁾	Dimensions in mm				
			d ₁	x	d ₂	x	s ₁ /s ₂
125	140	7.4	101	x	192	x	5 / 6
150	160	33	156	x	218	x	6 / 8
150	160	17	146	x	218	x	6 / 8
150	160	11	135	x	218	x	6 / 8
150	160	7.4	116	x	218	x	6 / 8
150	180	33	177	x	218	x	6 / 8
150	180	17	164	x	218	x	6 / 8
150	180	11	151	x	218	x	6 / 8
150	180	7.4	130	x	218	x	6 / 8
200	200	33	196	x	273	x	6 / 8
200	200	17	181	x	273	x	6 / 8
200	200	11	168	x	273	x	6 / 8
200	200	7.4	145	x	273	x	6 / 8
200	225	33	220	x	273	x	6 / 8
200	225	17	203	x	273	x	6 / 8
200	225	11	188	x	273	x	6 / 8
250	250	33	243	x	328	x	6 / 8
250	250	17	226	x	328	x	6 / 8
250	250	11	208	x	328	x	6 / 8
250	280	33	274	x	328	x	6 / 8
250	280	17	252	x	328	x	6 / 8
250	280	11	233	x	328	x	6 / 8
300	315	33	306	x	378	x	6 / 8
300	315	17	283	x	378	x	6 / 8
300	315	11	262	x	378	x	6 / 8
350	355	17	319	x	435	x	6 / 8
350	355	11	294	x	438	x	6 / 8
400	400	17	359	x	489	x	6 / 8
400	400	11	331	x	489	x	6 / 8
500	450	17	403	x	594	x	7/10
500	450	11	372	x	594	x	7/10
500	500	17	447	x	594	x	7/10
500	500	11	413	x	594	x	7/10
600	560	17	494	x	695	x	7/10
600	560	11	462	x	695	x	7/10
600	560	11	451	x	695	x	7/10
600	630	17	555	x	695	x	7/10
600	630	11	519	x	695	x	7/10

¹⁾Nominal flange size may not be similar to nominal pipe size.

²⁾SDR = Standard Dimension Ratio (ratio between outer Ø of pipe / wall thickness)



G-ST-P/KN for non-load bearing flange joints



G-ST-P/KN for non-load bearing flange joints



The successful merging of two opposing sealing philosophies.

The G-ST profile gasket exhibits deforming and moulding characteristics with minimum surface pressure.

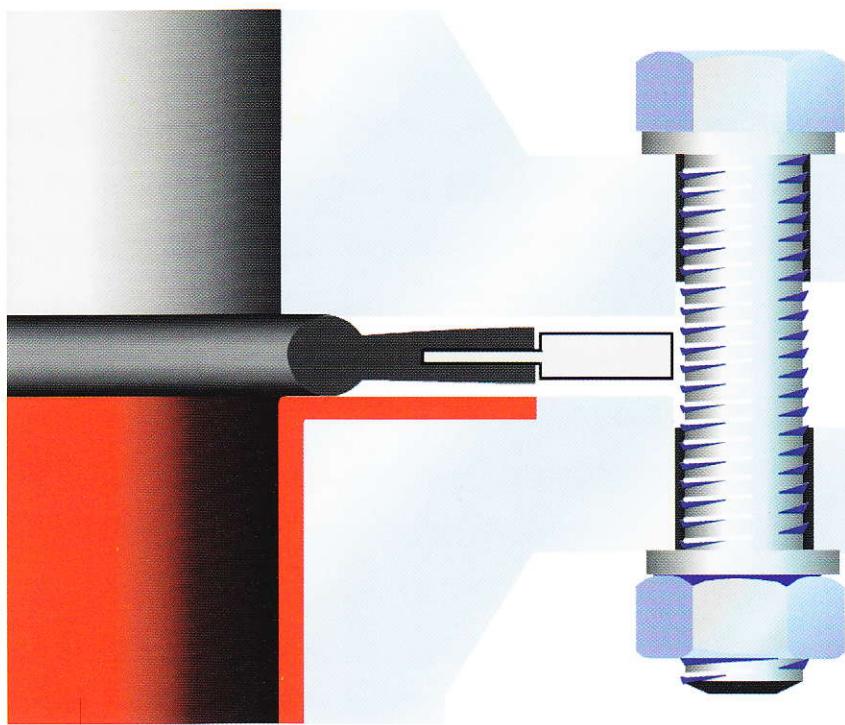
When extreme stresses occur during installation, the G-ST-P/KN offers the best solution.

The outer steel ring on the outside boxes in the surface lip and protects it fully.

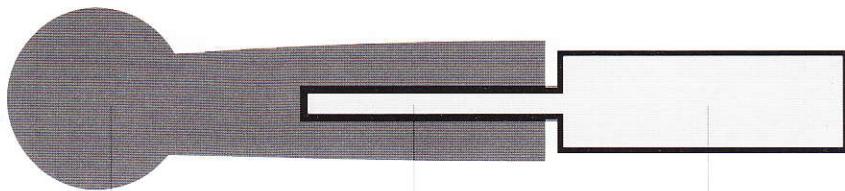
High surface pressures on the rubber lip or blow-outs under high operating pressure are not possible. In the case of partcoated flanges the sensitive faces are protected.

Typical applications are therefore:

Systems operating at high pressure or Rubber-coated sub-assemblies in chemical works and power stations.



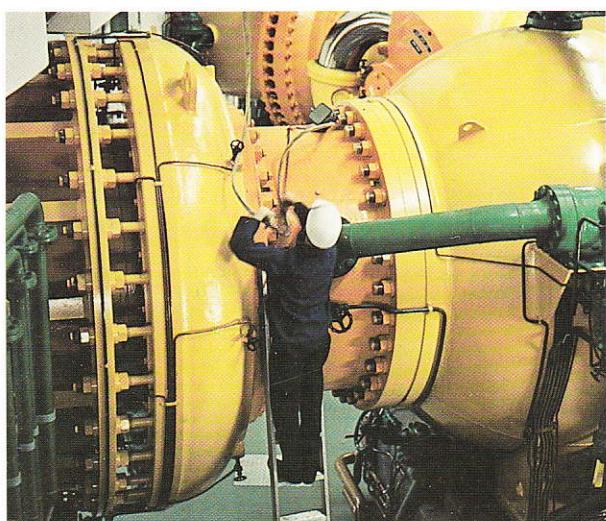
Soft rubber



O-Ring

Flatt ring section

Steel support ring



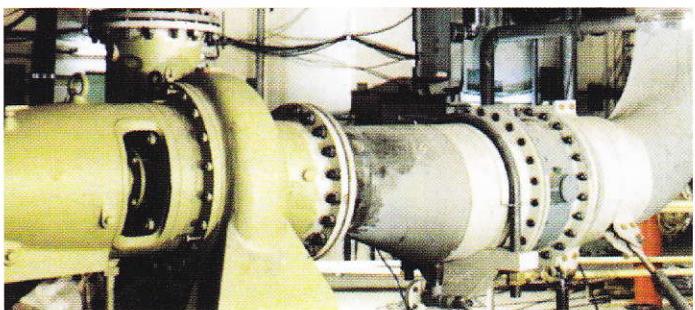
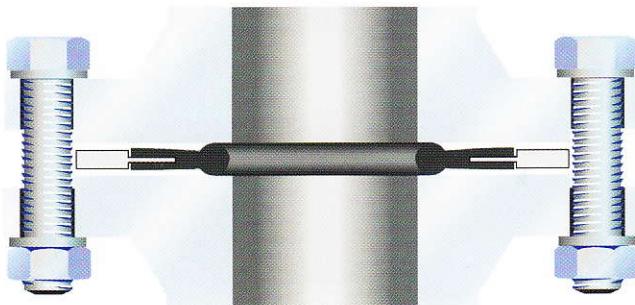
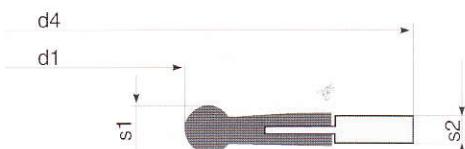
G-ST-P/KN for non-load bearing flange joints



PN 10 - PN 100

Dimensions in mm

DN	10	16	25	40	64	100	s ₁ /s ₂
d ₁	d ₄						
10	18	45	45	45	56	56	5 / 3
15	22	50	50	50	61	61	5 / 3
20	28	60	60	60			5 / 3
25	35	70	70	70	82	82	5.5/3.5
32	43	82	82	82			5.5/3.5
40	49	92	92	92	103	103	5.5/3.5
50	61	107	107	107	113	119	5.5/3.5
65	77	127	127	127	137	143	5.5/3.5
80	90	142	142	142	148	154	5.5/3.5
100	115	162	162	168	174	180	8 / 5
125	141	192	192	195	210	217	8 / 5
150	169	218	218	225	247	257	8 / 5
175	195	248	248	255	277	287	8 / 5
200	220	273	273	285	309	323	8 / 5
250	274	328	330	342	364	391	8 / 5
300	325	378	385	402	424	458	8 / 5
350	368	438	445	458	486	512	8 / 5
400	420	490	497	515	543	572	8 / 5
450	470	540	557	565	572		10/6.5
500	520	595	618	625	628	704	10/6.5
600	620	695	735	730	745	813	10/6.5
700	720	810	805	830	850	950	10/6.5
800	820	915	910	940	970		10/6.5
900	920	1015	1010	1040	1080	1108	10/6.5
1000	1020	1120	1125	1150	1190	1220	10/6.5
1200	1220	1340	1340	1360	1395	1452	10/6.5
1400	1420	1545	1540	1575	1615		12 / 8
1600	1620	1770	1760	1795	1830		12 / 8
1800	1820	1970	1960	2000			12 / 8
2000	2020	2180	2165	2230			12 / 8
2200	2220	2380	2375				12 / 8
2400	2420	2590	2585				12 / 8
2600	2620	2790	2785				12 / 8
2800	2820	3010					12 / 8
3000	3020	3225					12 / 8



G-ST-P/KN

similar to ASME B 16.21 for ASME B 16.47 Series A flanges
(previous MSS SP - 44)

G-ST-P/KN for non-load bearing flange joints



Class 150 lbs - 600 lbs
Dimensions in mm

NPS	Class	150	300	400	600	s_1/s_2
	d_1	d_4	d_4	d_4	d_4	
26"	665	774	835	831	866	10/6.5
28"	720	831	898	892	914	10/6.5
30"	770	882	952	946	971	10/6.5
32"	820	939	1006	1003	1022	10/6.5
34"	865	990	1057	1054	1073	10/6.5
36"	920	1047	1117	1117	1130	10/6.5
38"	965	1111	1054	1073	1104	10/6.5
40"	1020	1162	1114	1132	1155	10/6.5
42"	1070	1219	1165	1178	1219	10/6.5
44"	1120	1276	1219	1231	1270	10/6.5
46"	1170	1327	1273	1289	1327	10/6.5
48"	1220	1384	1323	1346	1390	10/6.5
50"	1270	1435	1378	1403	1447	12/8
52"	1320	1492	1428	1454	1498	12/8
54"	1370	1549	1492	1517	1555	12/8
56"	1430	1606	1543	1568	1612	12/8
58"	1475	1663	1593	1619	1663	12/8
60"	1530	1714	1644	1682	1720	12/8

G-ST-P/KN

similar to ASME B 16.21 für ASME B 16.47 Series B flanges
(previous API 605)

G-ST-P/KN for non-load bearing flange joints



Class 150 lbs - 600 lbs
Dimensions in mm

NPS	d_1	d_4	d_4	d_4	d_4	s_1/s_2
26"	665	725	771	746	765	10/6.5
28"	720	776	825	800	819	10/6.5
30"	770	827	886	857	879	10/6.5
32"	820	881	939	911	933	10/6.5
34"	865	935	993	962	997	10/6.5
36"	920	987	1047	1022	1047	10/6.5
38"	965	1044	1098			10/6.5
40"	1020	1095	1149			10/6.5
42"	1070	1146	1200			10/6.5
44"	1120	1196	1251			10/6.5
46"	1170	1255	1317			10/6.5
48"	1220	1306	1368			10/6.5
50"	1270	1357	1419			12/8
52"	1320	1408	1470			12/8
54"	1370	1463	1555			12/8
56"	1430	1514	1593			12/8
58"	1475	1579	1655			12/8
60"	1530	1630	1704			12/8

G-ST-P/KN

G-ST-P/KN for non-load bearing flange joints

similar to ASME B 16.21 for ASME B 16.5 flanges



Class 150 lbs - 900 lbs
Dimensions in mm

NPS	Class	150	300	400	600	900	s_1/s_2
	d_1	d_4	d_4	d_4	d_4	d_4	
1/2"	22	47	53	53	53	63	5 / 3
3/4"	27	57	66	66	66	69	5 / 3
1"	34	66	73	73	73	79	5 / 3
1 1/4"	43	76	82	82	82	88	5.5/3.5
1 1/2"	49	85	95	95	95	98	5.5/3.5
2"	61	104	111	111	111	142	5.5/3.5
2 1/2"	74	124	130	130	130	165	5.5/3.5
3"	90	136	149	149	149	168	5.5/3.5
3 1/2"	102	162	165	162	162		8 / 5
4"	115	174	180	177	193	206	8 / 5
5"	141	196	215	212	241	247	8 / 5
6"	169	222	251	247	266	289	8 / 5
8"	220	279	307	304	320	358	8 / 5
10"	274	339	362	358	400	434	8 / 5
12"	325	409	422	419	457	498	8 / 5
14"	356	450	485	482	492	520	8 / 5
16"	407	514	539	536	565	574	8 / 5
18"	458	549	596	593	612	638	10/6.5
20"	508	606	654	647	682	698	10/6.5
24"	610	717	774	768	790	838	10/6.5

Available materials

EPDM

NBR-DUO

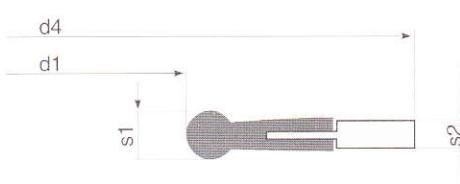
FPM-S

Thrust Ring

Stainless Steel
1.4301 / AISI 304

Low Carbon Steel
1.0038 / St 37
zincplated and galvanized

other materials on request





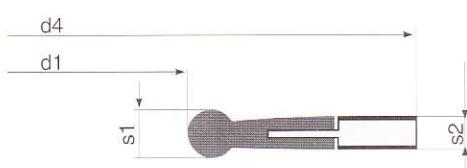
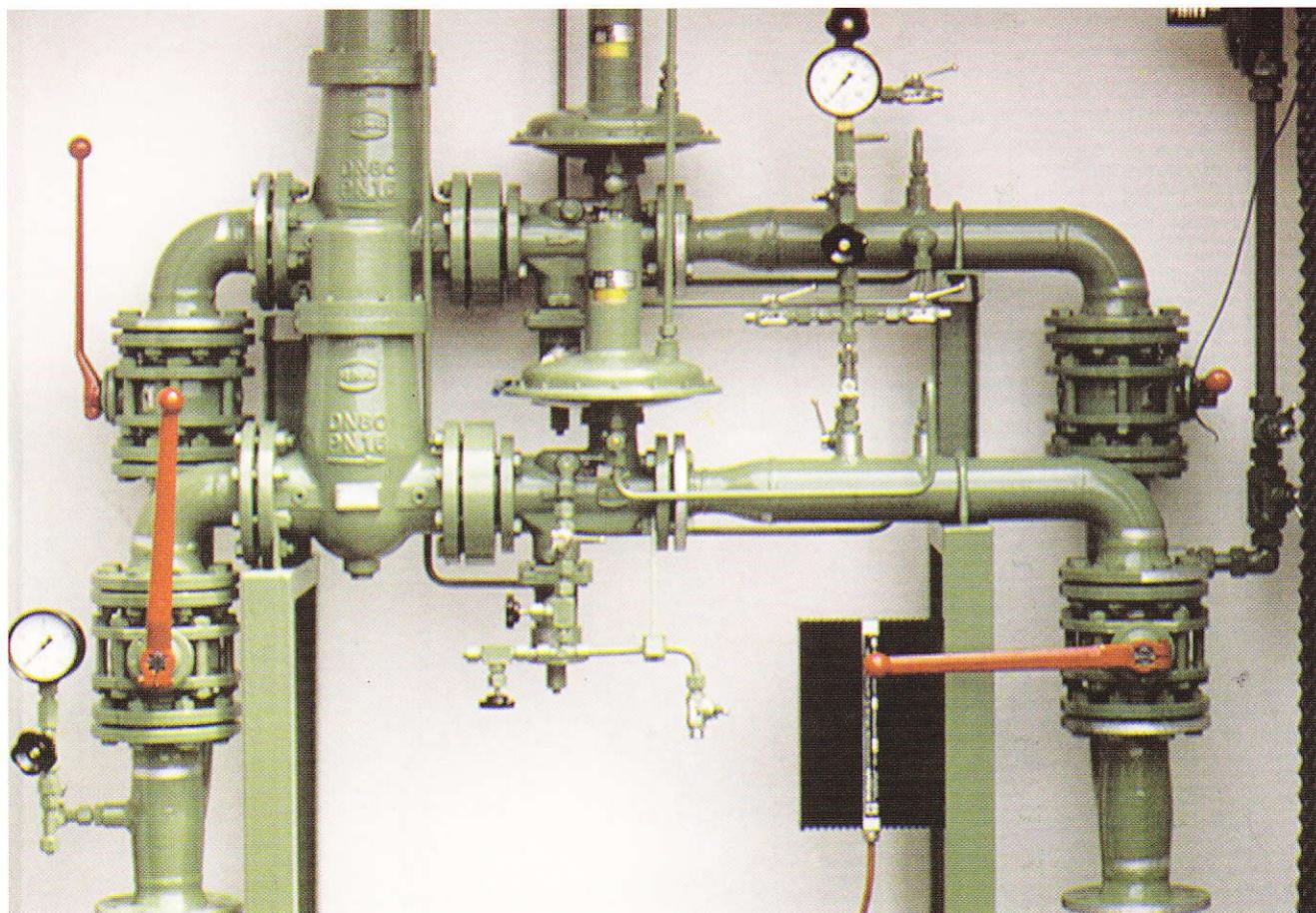
G-ST-Profile Gaskets

Designed for steel flange joints in Fire – Safe pipesystems as well as connected fire fighting systems.

DVGW approved up to 5 bar
according to VP 401

Thrust ring style "Kammprofil", 1.4571/AISI 316 Ti, layers of expanded graphite on both faces. Sealing lip made of NBR-DUO.

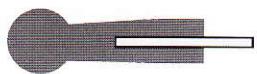
Nominal Diameter DN	Nominal Pressure Class PN	Dimensions in mm				
		d ₁	x	d ₂	x	s ₁ /s ₂
25	10-40	34	x	71	x	5.5/4.5
32	10-40	43	x	82	x	5.5/4.5
40	10-40	49	x	92	x	5.5/4.5
50	10-40	61	x	107	x	5.5/4.5
65	10-40	77	x	127	x	5.5/4.5
80	10-40	89	x	142	x	5.5/4.5
100	10-16	115	x	162	x	8/6
125	10-16	141	x	192	x	8/6
150	10-16	169	x	218	x	8/6
200	10-16	220	x	273	x	8/6
200	25	220	x	284	x	8/6
250	16	273	x	329	x	8/6



G-ST-P/OE-Profile Gaskets

Profiles available currently

G-ST-P/OE



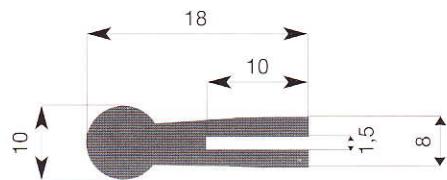
Due to their innovative design, profile gaskets are the first choice to provide reliable sealing for flange joints with low static capacity.

For example, the construction of an apparatus and containers will often combine slim flange faces with a small amount of bolts.

Those and similar applications are perfectly covered by the type G-ST-P/OE.

We will match your request through the right combination of elastomerlips and stainless steel inserts.

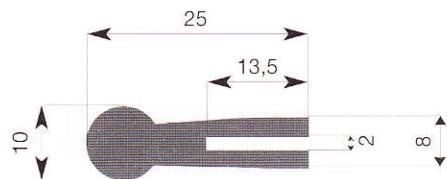
Profiles



Elastomerlips

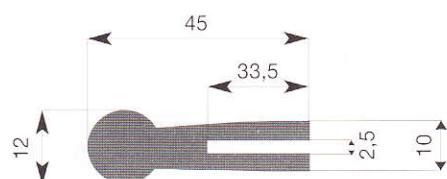
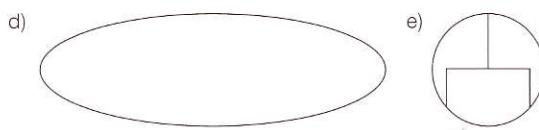
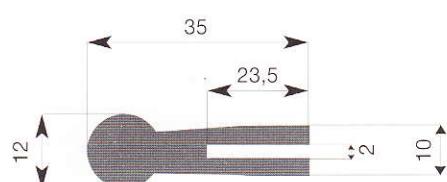
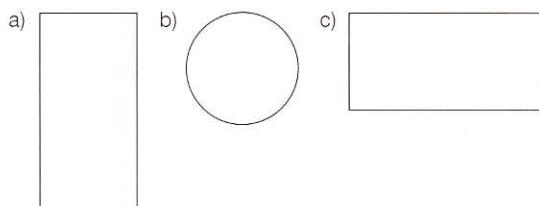
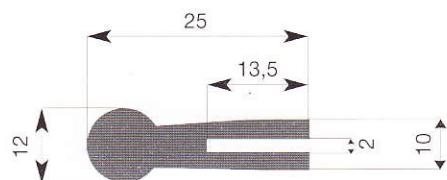
Available materials

EPDM NBR-DUO FPM-S



Steel insert made of 1.4301/AISI 304
Others on request

Minimum inner diameter = 200 mm



G-ST-P/GR-Profile Gaskets

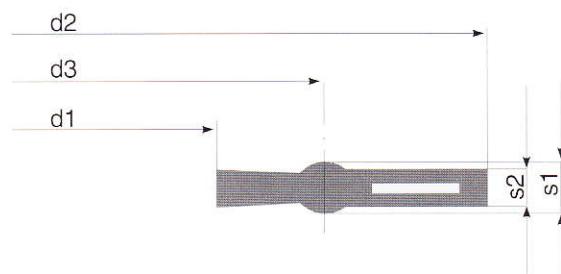
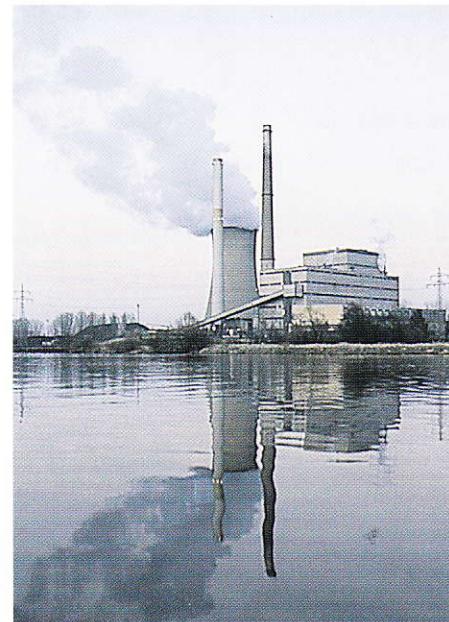
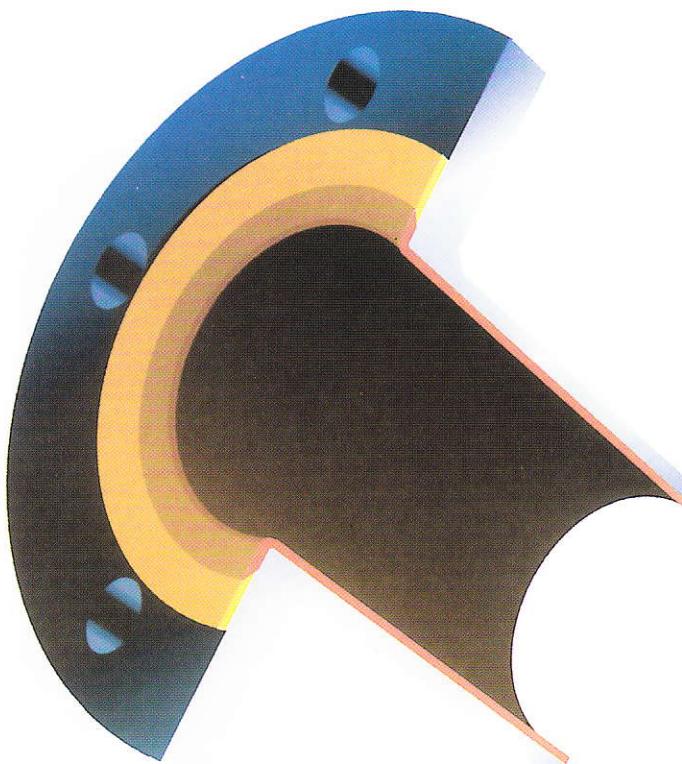
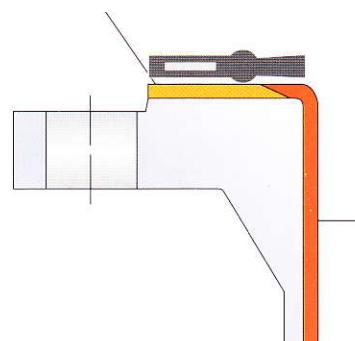
in accordance with directive FDG - 0389
to suit flange joints with soft/hard rubber lining.



Nominal Diameter

Dimensions in mm

DN	d ₁	x	d ₂	x	d ₃	x	s ₁	/	s ₂
25	28	x	74	x	54	x	3.5	/	3
32	37	x	85	x	64	x	3.5	/	3
40	43	x	95	x	70	x	3.5	/	3
50	54	x	110	x	82	x	4.5	/	4
65	70	x	130	x	102	x	4.5	/	4
80	82	x	145	x	114	x	4.5	/	4
100	107	x	165	x	140	x	4.5	/	4
125	132	x	195	x	163	x	5.5	/	5
150	159	x	221	x	192	x	5.5	/	5
200	207	x	276	x	240	x	5.5	/	5
250	260	x	330	x	293	x	5.5	/	5
300	310	x	380	x	342	x	5.5	/	5
350	341	x	440	x	373	x	8	/	7
400	392	x	491	x	430	x	8	/	7
500	494	x	596	x	532	x	8	/	7
600	595	x	698	x	635	x	8	/	7
700	695	x	813	x	735	x	9	/	8
800	800	x	920	x	840	x	9	/	8
900	895	x	1020	x	940	x	9	/	8
1000	1000	x	1127	x	1040	x	9	/	8
1200	1200	x	1344	x	1245	x	9	/	8



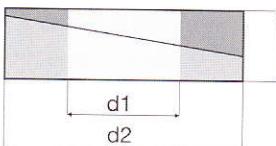
G-ST-Wedge Ring

G-ST-Wedge Ring

PN 10

Wedge Ring
infinitely variable

Outer diameter according to
DIN 2632, ASME B 16.5



Nominal Diameter		Dimensions in mm						weight kg
DN	d ₂	x	d ₁	x	s at 0°	s at 8°		
40	89	x	45	x	23	29	0.6	
50	102	x	58	x	24	31	0.8	
65	127	x	71	x	25	34	1.4	
80	142	x	89	x	27	37	1.7	
100	162	x	108	x	27	38	2.0	
125	192	x	133	x	30	43	3.2	
150	218	x	163	x	33	48	4.1	
200	273	x	216	x	37	56	5.4	
250	328	x	267	x	41	64	7.7	
300	378	x	318	x	45	71	9.7	
350	438	x	368	x	53	84	17.6	
400	490	x	420	x	57	91	19.3	
500	595	x	520	x	66	108	32.1	
600	695	x	622	x	73	120	40.3	
700	810	x	710	x	84	141	76.0	
800	917	x	808	x	92	156	99.0	
900	1015	x	910	x	100	171	121.0	

The quick answer to sealing problems

The Kroll & Ziller G-ST wedge ring is ideally suited for solving alignment problems during assembly or for filling large gaps in installation. The shell structure with inner elastomeric flat gasket - combined into one unit with pins - provides the possibility to solve misalignments from 0° to 8° without steps.

The ideal combination with G-ST-P gaskets is approved for gas and drinking water and is a must for the practical engineer.

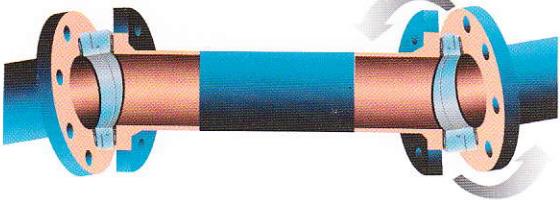
Time is saved during assembly and flanges can be reliably sealed for service.

G-ST-Wedge Ring

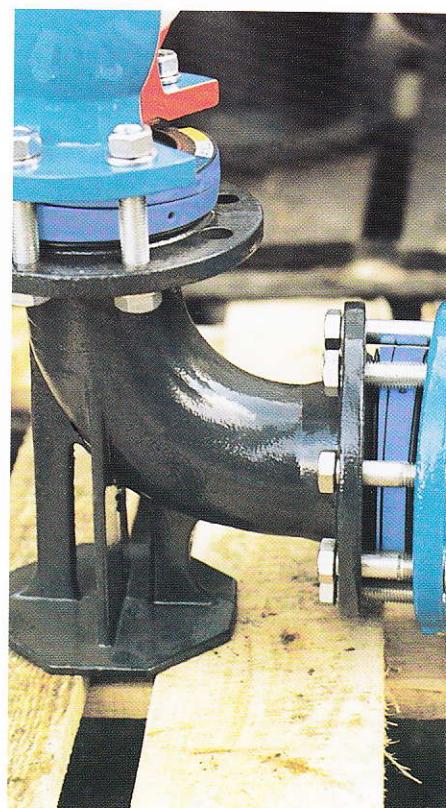
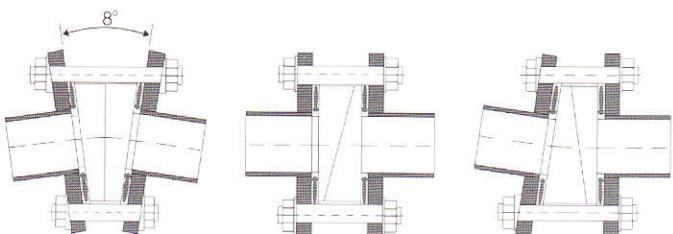
Class 150

Wedge Ring
infinitely variable

Nominal Pipe Size		Dimensions in mm						weight kg
NPS	d ₂	x	d ₁	x	s at 0°	s at 8°		
2"	102	x	55	x	24	31	0.92	
2 1/2"	121	x	68	x	27	35	1.39	
3"	133	x	84	x	28	37	1.54	
4"	171	x	110	x	29	41	2.61	
6"	219	x	163	x	35	50	3.89	
8"	276	x	214	x	39	58	6.16	
10"	337	x	268	x	43	67	9.50	
12"	406	x	320	x	49	77	15.90	



Material: Carbon steel (1.0037), galvanized, electro-coated with epoxy polyester powder coating (potable water approval), colour acc. to RAL 5010, blue.



The companies within the ZILLER-Group

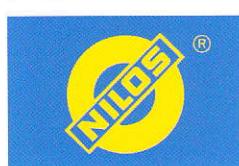
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NILOS® HANS ZILLER GMBH & CO. KG Conveyor belt - equipment

Conveyor belts and connections, vulcanising equipment, cold bonding adhesives TOPGUM, NILOS friction, reflex and wear protection coatings, knife-cleaning devices, moulded articles, sieve floors, sieve machines with new processing technology, planning and supply of complete conveyor belt repair workshops.

NILOS-RING



ZILLER GMBH & CO. KG Roller bearing gaskets

NILOS rings for ball and roller bearings, Z and RS bearings, labyrinth gaskets NILOS ring LSTO, spacer rings.

KROLL & ZILLER



KROLL & ZILLER GMBH & CO. KG G-ST flange and profile gaskets, other flange gaskets and packings

Ask for the complete brochure.

The gasket people



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KROLL & ZILLER



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