

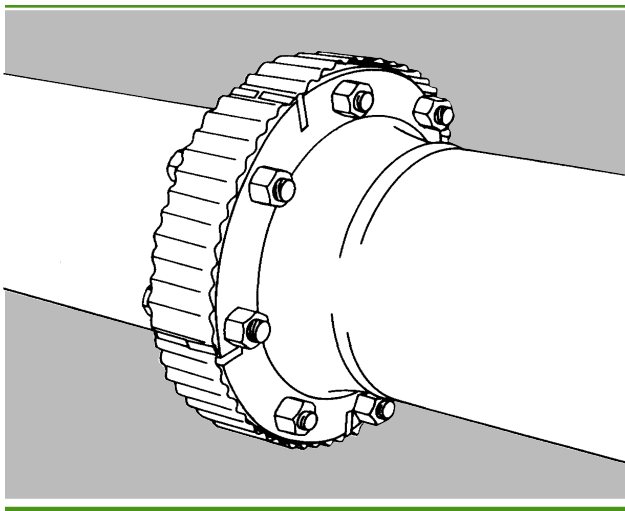
# Splatter-shield strips

Dangerous, hot or pressurised media are transported through pipelines in many branches of industry. Wherever these pipelines are connected to each other with bolted flanges, there is a danger that a leakage of the dangerous medium will occur, leading to an accident.

This can involve acids or alkalis, high-pressure steam or boiling water, high-pressure hydraulic oil or heat-carrying oil, compressed air or water, to name the most important sources of danger.

### Design and operation

Splatter-shield strips in Profile BWQ are made from 0.2 mm thick stainless steel strip of material 1.4541. They are corrugated at right angles to the length. When used with a flange connection, the corrugation along the strip creates many small openings to the outside.



This means that the dangerous medium cannot stream out directly onto a person standing in front of the flange connection. Instead, the stream of acid, alkali or water will hit the interior of the splatter-shield strip and then flow at low pressure through the opening.

### Selection criteria for a splatter-shield strip for a 4 mm thick gasket

The strip width $b_s$ as relates to the flange thickness is:					
Flange thickness $b$ [mm]	10-23	24-26	27-39	40-44	45-78
Strip width $b_s$	40	40 (60)	60	60 (100)	100

The length of the splatter shield strip  $L_s$  is determined as follows:

Single wrap	$D < 160$ mm	$LS = \pi \cdot D + 50$ mm
	$D > 160$ mm	$LS = 1,1 \cdot \pi \cdot D$ mm
Double wrap	$D < 320$ mm	$LS = 2 \cdot \pi \cdot D + 50$ mm
	$D > 320$ mm	$LS = 2,05 \cdot \pi \cdot D$ mm

### Number of security fastener required

To correctly attach the splatter-shield strips you need the following number of security fasteners, as a security fastener must be attached just before the outer end of the wrapping.

Diameter D [mm]	Security fasteners	Diameter D [mm]	Security fasteners
10 - 50	2	1194 - 1273	16
65 - 100	3	1274 - 1353	17
125 - 150	4	1354 - 1432	18
175 - 200	5	1433 - 1511	19
225 - 250	6	1512 - 1591	20
275 - 300	7	1592 - 1671	21
350 - 600	8	1642 - 1750	22
635 - 715	9	1751 - 1830	23
716 - 795	10	1831 - 1909	24
796 - 875	11	1910 - 1989	25
876 - 955	12	1990 - 2069	26
956 - 1035	13	2070 - 2148	27
1036 - 1115	14	2149 - 2228	28
1116 - 1193	15	2229 - 2307	29
		2308 - 2387	30

### Installation

For security, a flange of approx.  $1,1 \cdot D \cdot \pi$  mm, but  $D \cdot \pi + 50$  mm as a minimum for small flanges, is required, so that there is sufficient overlap. From PN 100, particularly with water or other heavy liquids, there should be a double wrapping of the flange. For this  $2,05 \cdot D \cdot \pi$  mm is required. To securely attach it, the splatter-shield strip with security fasteners Profile BWS, which is wrapped around the flange, is secured to the flange in such a way that, starting at the overlap, one end of the security fastener is bent downwards towards the flange plate and one end is bent upwards by 180°.

### Supplied as:

We supply splatter-shield strips for all profile sizes in rolls of 25 m each. This includes security fasteners from stainless steel material 1.4541, Profile BWS 40, BWS 60 or BWS 100.

# Splatter-shield strips

Nominal flange diameter	PN 6						PN 10							
	A (Stck.)	L <sub>s</sub> (mm)	DIN 2527, 2631		DIN 2641		A (Stck.)	L <sub>s</sub> (mm)	DIN 2527, 2632, 2566		DIN 2642, 2653, 2673		DIN 2576, DIN 28115	
DN			b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)			b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)
10	3	290	40	40	40	40	3	335	40	40	40	40	40	
15	3	305	40	40	40	40	3	350	40	40	40	40	40	
20	3	335	40	40	40	40	3	380	40	40	40	40	40	
25	3	365	40	40	40	40	3	415	40	40	40	40	40	40
32	4	430	40	40	40	40	4	490	40	40	40	40	40	40
40	4	460	40	40	40	40	4	525	40	40	40	40	40	40
50	4	490	40	40	40	40	4	575	40	40	40	40	40	40
65	5	555	40	40	40	40	5	640	40	40	40	40	40	40
80	5	660	40	40	40	40	5	695	40	40	40	40	40	40
100	5	730	40	40	40	40	6	765	40	40	40	40	40	40
125	6	830	40	40	40	40	6	865	40	40	40	40	40	40
150	6	920	40	40	40	40	7	985	40	40	40	40	40	40
200	7	1110	40	40	40	40	7	1175	40 (60)	40 (60)	40 (60)	40 (60)	40 (60)	40 (60)
250	8	1300	40	40	40	40	8	1365	40 (60)	40 (60)	40 (60)	40 (60)	40 (60)	40 (60)
300	8	1525	40	40	40 (60)	40	8	1540	40 (60)	40 (60)	100	40	40 (60)	
350	8	1700	40	40	40 (60)	40	8	1750	40 (60)	40 (60)	100	60	40	
400	8	1870	40	40	60	40	8	1955	40 (60)	40 (60)	100	60	40	
500	9	2230	40 (60)	60	60	9	2320	60	60	100	60	40	40	
600	10	2610	40 (60)	60	60	10	2700	60	60	100	60	40	40	
700	11	2975	40 (60)	60 (100)	60 (100)	12	3095	60	60	100	60	40	40	
800	13	3370	40 (60)	60 (100)	60 (100)	13	3510	60	60					
900	14	3715	40 (60)	100	100	15	3855	60	60					
1000	15	4065	40 (60)	100	100	16	4255	60	60					
1200	18	4860	60	100	100	19	5030	60	60					
1400	21	5635	60	100	100	22	5790	60 (100)	60 (100)					
1600	23	6325	60	100	100	25	6620	100	100					
1800	26	7070	60	100	100	27	7310	100	100					
2000	29	7830	60	100	100	30	8035	100	100					

Nominal flange diameter	PN 16						PN 25						PN 40							
	A	L <sub>s</sub> (mm)	DIN 2527, 2566, 2633		DIN 28115		A	L <sub>s</sub> (mm)	DIN 2527, 2634		DIN 2655		DIN 28115		A	L <sub>s</sub> (mm)	DIN 2527, 2635		DIN 2656, DIN 28115	
DN			b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)			b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)			b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	
10	3	335	40	40	40	40	3	335	40	60	60	60	60	3	335	40	40	40	40	40
15	3	350	40	40	40	40	3	350	40	60	60	60	60	3	350	40	40	40	40	40
20	3	380	40	40	40	40	3	380	40	60	60	60	60	3	380	40	40	40	40	40
25	3	415	40	40	40	40	3	415	40	60	60	60	60	3	415	40	40	40	40	40
32	4	490	40	40	40	40	4	490	40	60	60	60	60	4	490	40	40	40	40	40
40	4	525	40	40	40	40	4	525	40	60	60	60	60	4	525	40	40	40	40	40
50	4	575	40	40	40	40	4	575	40	60	60	60	60	4	575	40	40	40	40	40
65	5	640	40	40	40	40	5	640	40	60	60	60	60	5	640	40	40	40	40	40
80	5	690	40	40	40 (60)	40	5	695	40 (60)	60 (100)	60 (100)	40 (60)	5	690	40 (60)	40 (60)	60 (100)	40 (60)	40 (60)	40 (60)
100	6	765	40	40	40 (60)	40	6	815	40 (60)	60 (100)	60 (100)	40 (60)	6	815	40 (60)	40 (60)	60 (100)	40 (60)	40 (60)	40 (60)
125	6	865	40	40	40 (60)	40	6	935	40 (60)	100	100	60	6	935	40 (60)	60	100	40	40	40
150	7	985	40	40	60	40	7	1040	60	100	100	60	7	1040	60	60	100	40	40	40
200	7	1175	40 (60)	60	60	60	8	1245	60	100	100	60	8	1300	60	60	100	40	40	40
250	8	1400	40 (60)	60	60	60	8	1470	60	100	100	60	8	1555	60	60	100	40	40	40
300	8	1590	60	60	60	60	8	1680	60	100	100	60	8	1780	60 (100)	60	100	40	40	40
350	8	1800	60	60	60	60	8	1920	60	100	100	60	8	2005	100	60	100	40	40	40
400	8	2005	60	60	60	60	8	2145	60 (100)	100	100	60	9	2285	100	60	100	40	40	40
500	9	2475	60	60	60	60	10	2525	60 (100)	longer fasteners	100	60	10	2610	100	60	100	40	40	40
600	11	2905	60	60	60	60	11	2925	100	100	100	60								
700	12	3145	60	60	60	60	13	3320	100	100	100	60								
800	13	3545	60	60	60	60	14	3750	100	100	100	60								
900	15	3890	60 (100)	60	60	60	15	4100	100	100	100	60								
1000	16	4340	60 (100)	60	60	60	17	4565	100	100	100	60								

Nominal flange diameter	PN 63						PN 100						PN 160						PN 250					
	A	L <sub>s</sub> (mm)	DIN 2636		DIN 2637		A	L <sub>s</sub> (mm)	DIN 2637		DIN 2638		A	L <sub>s</sub> (mm)	DIN 2638		A	L <sub>s</sub> (mm)	DIN 2638		DIN 2638			
DN			b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)		b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)			b <sub>s</sub> (mm)	b <sub>s</sub> (mm)			b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)			
10	3	365	40	40	40	40	3	365	680	40	40	3	365	680	40	40	4	460	870	40	40	40	40	
15	3	380	40	40	40	40	3	380	710	40	40	3	380	710	40	40	4	460	870	40	40	40	40	
25	4	490	40 (60)	40	40	40	4	490	930	40 (60)	40	4	490	930	40 (60)	40	4	525	995	60	60	60	60	
32	4	540	40 (60)	40	40	40	4	540	1025	40 (60)	40	4	540	1025	40 (60)	40	4	525	995	60	60	60	60	
40	5	590	40 (60)	40	40	40	5	590	1120	40 (60)	40	4	590	1120	60	5	640	1215	60	60	60	60		
50	5	625	40 (60)	40	40	40	5	675	1280	60	5	675	1280	60	5	695	1310	60	60	60	60	60		
65	5	710	60	5	765	1435	60	5	765	1435	60	5	765	1435	60	6	795	1500	60	60	60	60		
80	5	745	60	6	795	1500	60	6	795	1500	60	6	795	1500	60	6	885	1655	60	60	60	60		
100	6	865	60	6	920	1715	60	6	920	1715	60	6	920	1715	60 (100)	7	1040	1935	60	60	60	60		
125	7	1020	60	7	1090	2030	60 (100)	7	1090	2030	60 (100)	8	1175	2190	60 (100)	8	1175	2190	60	60	60	60		
150	8	1200	60 (100)	8	1230	2290	60 (100)	8	1230	2290	60 (100)	8	1350	2516	100	8	1350	2516	100	60	60	60		
200	8	1435	60 (100)	8	1490	2770	100	8	1490	2770	100	8	1680	3125	100	8	1680	3125	100	60	60	60		
250	8	1625	100	8	1750	3255	100	8	1780	3320	100	8	2025	3770	100	8	2025	3770	100	60	60	60		
300	8	1835	100	8	2025	3770	100	8	2025	3770	100	8	2025	3770	100	8	2025	3770	100	60	60	60		
350	8	2075	100	8	2265	4220	100	8	2265	4220	100	8	2265	4220	100	8	2265	4220	100	60	60	60		
400	9	2320	100	8	2320	4220	100	8	2320	4220	100	8	2320	4220	100	8	2320	4220	100	60	60	60		

Nominal flange diameter	ANSI Class 150						Class 300						Class 400						Class 600						Class 900						Class 1500					
	A	L <sub>s</sub> (mm)	b <sub>s</sub> (mm)		b <sub>s</sub> (mm)		A	L <sub>s</sub> (mm)	b <sub>s</sub> (mm)		b <sub>s</sub> (mm)		A	L <sub>s</sub> (mm)	b <sub>s</sub> (mm)		b <sub>s</sub> (mm)		A	L <sub>s</sub> (mm)	b <sub>s</sub> (mm)		b <sub>s</sub> (mm)		A	L <sub>s</sub> (mm)	b <sub>s</sub> (mm)		b <sub>s</sub> (mm)							
NPS			b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)		b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)			b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)			b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)			b <sub>s</sub> (mm)	b <sub>s</sub> (mm)	b <sub>s</sub> (mm)							
1/2	3	330	40	3	350	40	3	350	40	3	350	650	40	4	430	810	40	4	430	810	40	4	430	810	40	4	430	810	40	4	430	810	40			
3/4	3	360	40	4	420	40	4	420	40	4	420	790	40	4	460	870	40 (60)	4	460	870	40 (60)	4	4													