

spiral wound gasket SPW03

gasket spec

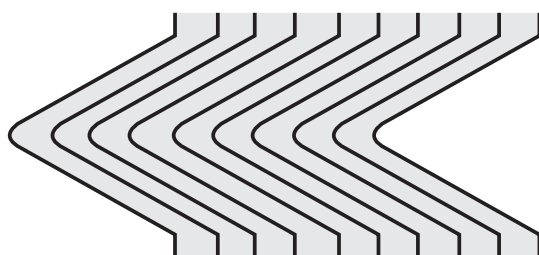


description

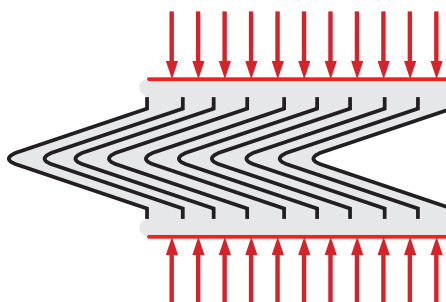
spiral wound gaskets are extremely versatile and offer an excellent seal in a wide variety of applications. spiral wound gaskets may be used over the complete temperature range from cryogenic to about 550°C, with a special sealant up to 1000°C. this type gasket withstands all pressures up to the 400 bars. gaskets are of great resilience and corrosion resistance thanks to the broad range of the metallic and non-metallic construction materials. spiral wound gaskets are manufactured by winding the metal strip in combination with the film from sealing material. spiral wound gasket with winding and outer ring is suitable for flanges with raised face sealing surface. the outer ring is for centring to bolts.

principle of sealing

the metallic strip has V-profile. during tightening are V-profile compressed and the intermediate film flow out. the flowed material prevents the touch the metallic strip and the sealing surfaces. how is to see on the figure below, the bigger tightening pressures means more material from intermediate film is between the gasket and the flange.



before tightening



after tightening

level of sealing surfaces

3,2 - 12,5 $\mu\text{m Ra}$

the sealing surfaces would be in a parallel way together, so as the deviation value wasn't greater then 0,4mm per all sealing surface. the sealing surfaces would be uniplanar, so as the deviation value wasn't greater then 0,2mm per width of gasket.

materials

metallic strip - winding	stainless steel 316L
outer ring	stainless steel 316L
	carbon steel
intermediate film	PTFE up to temperature 260°C, for very aggressive media and to food and farmaceutical media
	expanded graphite up to temperature 550°C
	mica up to temperature 1000°C

pressure using

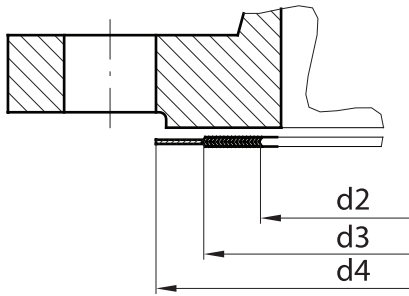
up to 40 Mpa

using

spiral wound gaskets are used in flanges in boilers, heat exchangers, vessels, tubes, valves, pumps, compressors etc and also for sealing manhole and handhole covers. these gaskets are popular in many industrial areas such as petrochemical industry, power generation, oil and gas industry. they are suitable for steam, oil, many different chemicals, gases and other aggressive media.



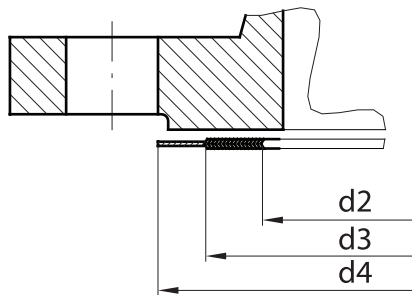
dimensions of spiral wound gasket
according to EN 1514-2 type IBC - raised face



EN 1514-2 type IBC, DIN 2690									
DN	d2	d3		d4					
		PN10 - PN40	PN63 - PN160	PN10	PN25	PN40	PN63	PN100	PN160
10	24	34	34	46	46	46	56	56	56
15	29	39	39	51	51	51	61	61	61
20	34	46	-	61	61	61	-	-	-
25	41	53	53	71	71	71	82	82	82
32	49	61	-	82	82	82	-	-	-
40	56	68	68	92	92	92	103	103	103
50	70	86	86	107	107	107	113	119	119
65	86	102	106	127	127	127	137	143	143
80	99	115	119	142	142	142	148	154	154
100	127	143	147	162	168	168	174	180	180
125	152	172	176	192	194	194	210	217	217
150	179	199	203	217	224	224	247	257	257
200	228	248	252	272	284	290	309	324	324
250	279	303	307	327	340	352	364	391	388
300	330	354	358	377	400	417	424	458	458
350	376	400	404	437	457	474	486	512	
400	422	450	456	488	514	546	543	572	
500	522	550	556	593	624	628	657	704	
600	622	650	656	695	731	747	764	813	
700	722	756	762	810	833	852	879	950	
800	830	864	870	917	942	974	988		
900	930	964	970	1017	1042	1084	1108		
1000	1030	1074	-	1124	1154	1194	-		
900	910	930	964	970					
1000	1010	1030	1074	1080					



according to ASME B16.5 type tongue groove



ASME B16.5 type RF														
DN	d2					d3		d4						
	pressure classes													
	150, 300	400, 600	900	1500	2500	150 - 600	900 - 2500	150	300	400	600	900	1500	2500
1/2"	19,1	19,1	19,1	19,1	19,1	31,8	31,8	47,8	54,1	54,1	54,1	63,5	63,5	69,9
3/4"	25,4	25,4	25,4	25,4	25,4	39,6	39,6	57,2	66,8	66,8	66,8	69,9	69,9	76,2
1"	31,8	31,8	31,8	31,8	31,8	47,8	47,8	66,8	73,2	73,2	73,2	79,5	79,5	85,9
1 1/4"	47,8	47,8	39,6	39,6	39,6	60,5	60,5	76,2	82,6	82,6	82,6	88,9	88,9	104,9
1 1/2"	54,1	54,1	47,8	47,8	47,8	69,9	69,9	85,9	95,3	95,3	95,3	98,6	98,6	117,6
2"	69,9	69,9	58,7	58,7	58,7	85,9	85,9	104,9	111,3	111,3	111,3	143	143	146
2 1/2"	82,6	82,6	69,9	69,9	69,9	98,6	98,6	124	130,3	130,3	130,3	165,1	165,1	168,4
3"	101,6	101,6	95,3	92,2	92,2	120,7	120,7	136,7	149,4	149,4	149,4	168,4	174,8	196,9
4"	127	120,7	120,7	117,6	117,6	149,4	149,4	174,8	181,1	177,8	193,8	206,5	209,6	235
5"	155,7	147,6	147,6	143	143	177,8	177,8	196,9	215,9	212,9	241,3	247,7	254	279,4
6"	182,6	174,8	174,8	171,5	171,5	209,6	209,6	222,3	251	247,7	266,7	289,1	282,7	317,5
8"	233,4	225,6	222,3	215,9	215,9	263,7	257,3	279,4	308,1	304,8	320,8	358,9	352,6	387,4
10"	287,3	274,6	276,4	266,7	270	317,7	311,2	339,9	362	358,9	400,1	435,1	435,1	476,3
12"	339,9	327,2	323,9	323,9	317,5	374,7	368,3	409,7	422,4	419,1	457,2	498,6	520,7	549,4
14"	371,6	362	355,6	362		406,4	400,1	450,9	485,9	482,6	492,3	520,7	577,9	
16"	422,4	412,8	412,8	406,4		463,6	457,2	514,4	539,8	536,7	565,2	574,8	641,4	
18"	474,7	469,9	463,6	463,6		527,1	520,7	549,4	596,9	593,9	612,9	638,3	704,9	
20"	525,6	520,7	520,7	514,4		577,9	571,5	606,6	654,1	647,7	682,8	698,5	755,7	
24"	628,7	628,7	628,7	616		685,8	679,5	717,6	774,7	768,4	790,7	838,2	901,7	