


**METAL JACKETED
GASKETS**


“High pressure suitability and blow out resistance”

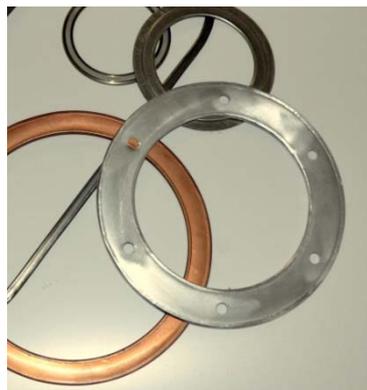
Characteristics

- Fabricated to customer’s specification, with pass partition bars when needed.
- Soft Iron, SS304L, SS316L and other materials available.
- Oval, rectangular or other shapes on request.
- The filler material gives the gasket **resilience**, while the metal jacket **resists pressures, temperatures and corrosion**.
- Proven sealing elements for use in **apparatus construction, heat exchanger applications, pumps or valves**.

Gasket Profiles and limiting values

Profile	Cross-section	Materials	K ₀	K ₁	R _z [*]
			[N/mm]	[mm]	[mm]
FW3		Al	50 bD	1,4 bD	25 to 50
F3					
F4					
F6		Cu	60 bD	1,6 bD	12,5 to 25
F8		Ni	70 bD	1,8 bD	6,3 to 12,5
F10		CrNi - Steel	100 bD	2,0 bD	2,5 to 6,3
F12					
F17		Steel	60 bD	1,6 bD	12,5 to 25

* Recommended surface roughness of flange sealing surfaces



Surface Pressure

In order to avoid collapse, the sealing surface pressure must be between σ_{\min} and σ_{\max} :

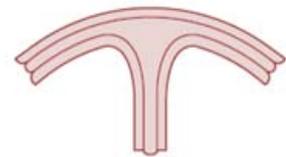
Profile	Materials	Surface Pressure (N/mm ²)			
		T = 20°C		T = 300°C	
		σ_{\min}	σ_{\max}	σ_{\min}	σ_{\max}
F3 to F8	Carbon Steel/A.F. Nickel/A.F.	70	180	80	150
	Stainless Steel/A.F.	100	250	115	200
	Copper/A.F. Brass/A.F.	60	150	70	120
	Aluminium/A.F.	30	100	-40	-60

Characteristics and Details

Metal Jacketed Gaskets comprise of a metallic outer shell with soft compressible filler materials. The metal sheet coating should be as soft and flexible as possible, but to prevent corrosion it is often made from a stainless steel jacket. The inlay is selected according to the flange irregularities that need to be covered. The filler material gives the gasket **resilience**, while the metal jacket **resists pressures, temperatures and corrosion**. Graphite layers on both sides for use where the gasket sealing area is not perfect.

These gaskets can be manufactured in a wide specter of types and shapes, including single, double or corrugated covering. Fabricated to customer's specification: with or without pass partition bars.

Integrated Construction

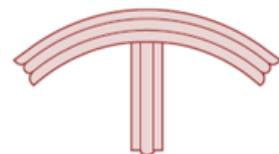


Pass Partition Bars

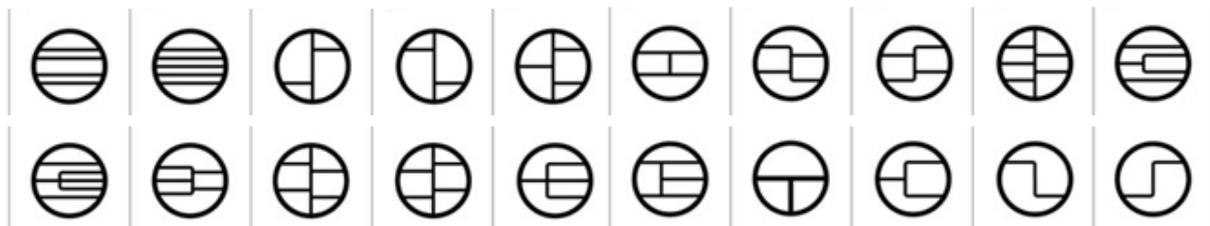
Metal Jacketed Gaskets used for heat-exchanger's applications traditionally are manufactured with partition bars.

There are two types of partition bar: integrated construction and welded construction. Welded construction in metal jacketed gasket should be preferred instead of one piece metal jacketed gasket, because primary sealing is added to the gasket, is more cost effective due to reduced metal consumption and offer a longer sealing life.

Welded Construction



Different shapes and configurations are available




**METAL JACKETED
GASKETS**
TECHNICAL DATA

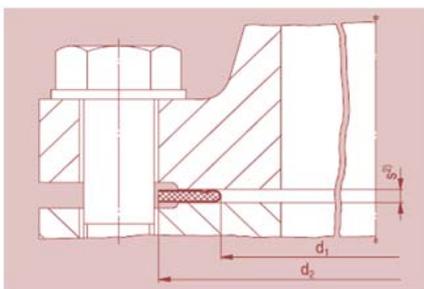
In accordance with ASME B16.20
for flanges in accordance with ASME/ANSI B16.5
ASME B 16.20

d₁: Int. diameter (mm)
d₂: Ext. diameter (mm)



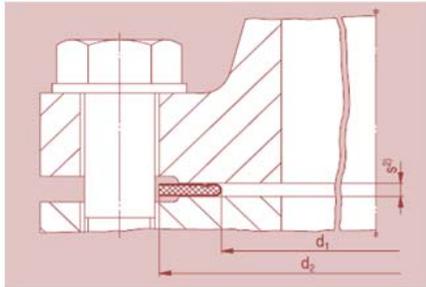
NPS	d ₁	d ₂						
		150 Lbs	300 Lbs	400 Lbs	600 Lbs	900 Lbs	1500 Lbs	2500 Lbs
1/2"	22,35	44,45	50,8	50,8	50,8	60,45	60,45	66,8
3/4"	28,7	54,1	63,5	63,5	63,5	66,8	66,8	73,15
1"	38,1	63,5	69,85	69,85	69,85	76,2	76,2	82,55
1 1/4"	47,75	73,15	79,5	79,5	79,5	85,85	85,85	101,6
1 1/2"	54,1	82,55	92,2	92,2	92,2	95,25	95,25	114,3
2"	73,15	101,6	107,95	107,95	107,95	139,7	139,7	143
2 1/2"	85,85	120,65	127	127	127	162,05	162,05	165
3"	107,95	133,35	146,05	146,05	146,05	165,1	171,45	193,8
4"	131,83	171,45	177,8	174,75	190,5	203,2	206,5	231,9
5"	152,4	193,8	212,85	209,55	238,25	244,6	250,95	276,35
6"	190,5	219,2	247,65	244,6	263,65	285,75	279,4	314,45
8"	238,25	276,35	304,8	301,75	317,5	355,6	349,25	384,3
10"	287,75	336,55	358,9	355,6	397	431,8	431,8	473,2
12"	342,9	406,4	419,1	416,05	454,15	495,3	517,65	546,1
14"	374,65	447,8	482,6	479,55	488,95	517,65	574,8	-
16"	425,45	511,3	536,7	533,4	562,1	571,5	638,3	-
18"	488,95	546,1	593,85	590,55	609,6	635	701,8	-
20"	533,4	603,25	651	644,65	679,45	695,45	752,6	-
24"	641,35	714,5	771,65	765,3	787,4	835,15	898,65	-

In accordance with ASME B16.20
For flanges in accordance with ASME B16.47
Series A



NPS (")	d ₁	d ₂				
		150 Lbs	300 Lbs	400 Lbs	600 Lbs	900 Lbs
26	673,1	771,7	831,9	828,8	863,6	879,6
28	723,9	828,8	895,4	889	911,4	943,1
30	774,7	879,6	949,5	943,1	968,5	1006,6
32	825,5	936,8	1003,3	1000,3	1019,3	1070,1
34	876,3	987,6	1054,1	1051,1	1070,1	1133,6
36	927,1	1044,7	1114,6	1114,6	1127,3	1197,1
38	977,9	1108,2	1051,1	1070,1	1101,9	1197,1
40	1028,7	1159	1111,3	1124	1152,7	1247,9
42	1079,5	1216,2	1162,1	1174,8	1216,2	1298,7
44	1130,3	1273,3	1216,2	1228,9	1267	1365,5
46	1181,1	1324,1	1270	1286	1324,1	1432,1
48	1231,9	1381,3	1320,8	1343,2	1387,6	1482,9
50	1282,7	1432,1	1374,9	1400,3	1444,8	-
52	1333,5	1489,2	1425,7	1451,1	1495,6	-
54	1384,3	1546,4	1489,2	1514,6	1552,7	-
56	1435,1	1603,5	1540	1565,4	1603,5	-
58	1485,9	1660,7	1590,8	1616,2	1660,7	-
60	1536,7	1411,5	1641,6	1679,7	1730,5	-

In accordance with ASME B16.20
 For flanges in accordance with ASME B16.47
 Series B



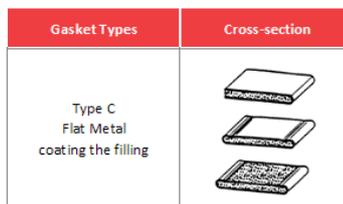
NPS	d ₁	d ₂				
		150 Lbs	300 Lbs	400 Lbs	600 Lbs	900 Lbs
26	673,1	722,4	768,4	743	762	835,1
28	723,9	773,2	822,5	797,1	816,1	898,7
30	774,7	824	882,7	854,2	876,3	955,8
32	825,5	877,8	936,8	908,1	930,4	1013
34	876,3	931,9	990,6	958,9	993,9	1070,1
36	927,1	984,3	1044,7	1019,3	1044,7	1120,9
38	977,9	1041,4	1095,4	1070,1	1101,9	1197,1
40	1028,7	1092,2	1146,3	1124	1152,7	1247,9
42	1079,5	1143	1197,1	1174,8	1216,2	1298,7
44	1130,3	1193,8	1247,9	1228,9	1267	1365,5
46	1181,1	1252,5	1314,5	1286	1324,1	1432,1
48	1231,9	1303,3	1365,3	1343,2	1387,6	1482,9
50	1282,7	1354,1	1415,1	1400,3	1444,8	-
52	1333,5	1404,9	1466,9	1451,1	1495,6	-
54	1384,3	1460,5	1527,3	1514,6	1552,7	-
56	1435,1	1511,1	1590,8	1565,4	1603,5	-
58	1485,9	1576,3	1652,5	1631,2	1660,7	-
60	1536,7	1627,1	1703,3	1679,7	1730,5	-

Conforms to EN 1514-4 for DIN flanges

(PN 10 to PN 100)

d₁: Int. diameter (mm)

d₂: Ext. diameter (mm)



DN	d ₁	PN 10	d ₂				
			16	25	40	63	100
10	18	48	48	48	48	58	58
15	22	53	53	53	53	63	63
20	27	63	63	63	63	74	74
25	34	73	73	73	73	84	84
32	43	84	84	84	84	90	90
40	49	94	94	94	94	105	105
50	61	109	109	109	109	115	121
65	77	129	129	129	129	140	146
80	89	144	144	144	144	150	156
100	115	164	164	170	170	176	183
125	141	194	194	196	196	213	220
150	169	220	220	226	226	250	260
200	220	275	275	286	293	312	327
250	273	330	331	343	355	367	394
300	324	380	386	403	420	427	461
350	356	440	446	460	477	489	515
400	407	491	498	517	549	546	575
450	458	541	558	567	574	-	-
500	508	596	620	627	631	660	708
600	610	698	737	734	750	768	819
700	712	813	807	836	-	883	956
800	813	920	914	945	-	994	-
900	915	1020	1014	1045	-	1114	-

EN 1514-4

Flanges and their joints. Dimensions of gaskets for PN-designed flanges.

Part 4: Corrugated, flat or grooved metallic and **filled metallic gaskets** for use with steel flanges

