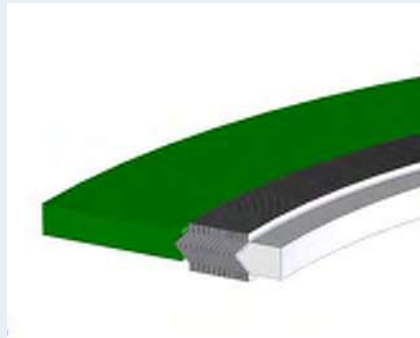


Maxiflex



MAXIFLEX SPIRAL WOUND GASKETS



Spiral wound gaskets have the ability to recover under the action of fluctuating loads caused by process fluid pressure and temperature changes, flange face temperature variations, flange rotation, bolt stress relaxation and creep.

The gasket sealing element consists of a pre-formed metallic winding strip with layers of a softer, more compressible sealing material which, during compression, is densified and flows to fill imperfections in the flange surfaces when the gasket is seated. The metal strip holds the filler giving the gasket mechanical resistance and resilience.

Maxiflex gaskets can be manufactured from a range of filler materials according to different service conditions :

Filler Material	Maximum Temperature	ASME B16.20 Colour Coding
Graphite	550°C	Grey Stripe
PTFE	260°C	White Stripe
Mica	1000°C	Light Green Stripe
Mica and Graphite	900°C	-

Winding Material	Maximum Temperature	ASME B16.20 Colour Coding
Carbon Steel	500°C	Silver
304 Stainless Steel	650°C	Yellow
316L Stainless Steel	800°C	Green
Duplex UN S31803	800°C	N/A
347 Stainless Steel	870°C	Blue
321 Stainless Steel	870°C	Turquoise
Monel 400	800°C	Orange
Nickel 200	600°C	Red
Titanium Gr 2	500°C	Purple
Hastelloy B-2/B-3	700°C	Brown
Hastelloy C-276	700°C	Beige
Inconel 600	1000°C	Gold
Inconel 625	1000°C	Gold
Inconel X-750	1000°C	N/A
Incoloy 825	600°C	N/A
Zirconium	500°C	N/A
Super Duplex	600°C	N/A
254 SMO	600°C	N/A
Titanium Gr7	500°C	N/A
Hastelloy C-22	700°C	N/A
Hastelloy G-31	800°C	N/A
Alloy 20	600°C	N/A

Please note:

These temperatures given above are guidelines only and do not apply in all fluids, Please contact Technical Department for advice.



This is the “Maxiflex” spiral wound gasket basic sealing element. Several layers of specially formed continuous V-shaped metal strip are spirally wound with alternate plies of soft filler strip. The “V” profile allows the gasket to act as a spring and the depth is carefully controlled to bestow the sealing element with the best compression and recovery characteristics. In order to further enhance the mechanical and sealing properties of the gasket, it is normal practice to apply several layers of the metal strip only to the inner and outer diameters.

Computer-controlled winders carefully monitor and adjust the tension of the winding strips. A uniform density throughout the product is produced. This provides the spring-like action within the gasket which enables it to maintain a seal even when subject to fluctuating compressive loads.

Flange Surface Finish

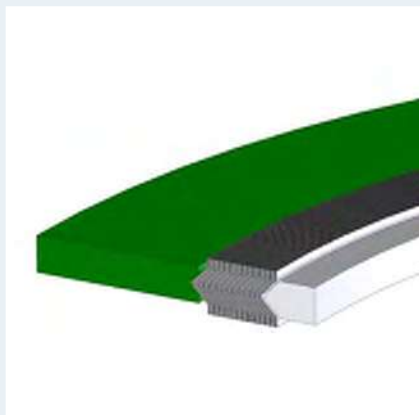
Maxiflex gaskets are capable of giving an excellent seal over a wide range of flange surface finishes, but as a general guide we suggest the following:

Duty	Roughness	
General	3.2-6 μm	125-200 μm
Critical	3 μm	125 μm
Vacuum	2.0 μm	80 μm

MAXIFLEX SPIRAL WOUND GASKETS

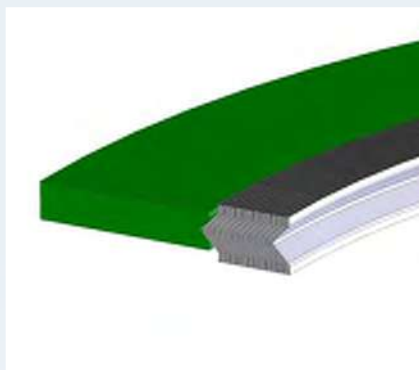
Maxiflex Spiral Wound Gaskets are available in a range of configurations and materials. Below are the most common gasket types.

Metallic



Type CRIR

- Maxiflex spiral wound sealing element
- Solid metal inner & outer ring
- Suitable for high pressure and temperature applications
- Raised face or flat flanges
- Prevents turbulence and erosion damage to flange
- Prevents damage to the gasket bore and inner windings
- Inner ring acts as a heat shield
- Inner ring acts as a corrosion barrier
- Wide choice of materials for filler and metal strip
- General and critical duties



Type CR

- Maxiflex spiral wound sealing element
- Solid metal outer ring used as a centering device and compression stop.
- Used mainly on raised face and flat face flanges
- Wide choice of materials for filler and metal strip
- General Duties



Type RIR

- Maxiflex spiral wound sealing element
- Solid metal inner ring
- High pressure & high temperature capability
- Male to female flanges
- Wide choice of materials for filler and metal strip
- General and critical duties

Type R

- Maxiflex spiral wound sealing element
- Wide choice of materials for filler and metal strip
- Suitable for high pressure and temperature applications
- Recommended flanges - tongue & groove, male to female and flat face to recess
- General and critical duties



Type R Graflex Faced

- Maxiflex spiral wound sealing element
- Covered with 0.5mm Graflex facings
- Used on manhole covers
- Low bolt load applications
- Uneven sealing faces
- Used in tongue & groove, male to female and flat face to recess flanges



Type HTX (for heat exchanger applications)

- Maxiflex spiral wound sealing element
- A combination of inner and outer rings
- The inner ring could have pass bars or could carry either a metal clad or soft gasket with pass bars
- Manufactured to customer designs
- Wide choice of materials for filler and metal strip
- Manufactured with thin outer windings to create stable, large diameter gaskets for narrow heat exchanger applications





Graphite Filled

Applications:

- Used for a wide range of media including steam, oil, hydrocarbons and many chemicals
- Used for applications requiring high integrity sealing performance

Typical Properties:

- High pressure gasket designed for raised face and flat face applications
- Excellent tightness properties even under fluctuating load
- Easy to handle and install
- Inner ring protects windings against media and adds stability at higher pressures and for larger gasket diameters.

Typical Specifications:

Material :	Sealing element :	Graphite/316L
	Centering ring :	Carbon steel
	Inner ring :	316L
Max. temperature :	500°C.	
Max. pressure	>400 bar.	
Suitability	For flanges to ASME B16.5, DIN standards and BS 10, can also be manufactured in custom sizes.	

Winding strip and inner & outer guide rings are available in a wide range of metallic materials shown on page 42.

PTFE Filled**Applications:**

- Used for applications demanding outstanding chemical resistance

Typical Properties:

- High integrity gasket designed for raised and flat face applications
- Resistant to virtually all chemicals
- Robust and easy to handle and install
- Inner rings must be used with PTFE sealing material
- Inner ring protects windings against media and adds stability at higher pressures

Typical Specifications:

Material :	Sealing element :	PTFE/316L
	Centering ring :	Carbon steel
	Inner ring :	316L
Max. temperature :	260°C.	
Max. pressure	100 bar.	
Suitability	For flanges to ANSI B16.5, DIN standard, BS 10 can also be manufactured to suit custom flanges	

Winding strip and inner & outer guide rings are available in a wide range of metallic materials shown on page 42.





Mica Filled

Applications:

- High temperature and high pressure applications

Typical Properties:

- High pressure gasket designed for raised face and flat face applications
- Excellent tightness properties even under fluctuating load
- Easy to handle and install
- Inner ring protects windings against media and adds stability at higher pressures and for larger gasket diameters.

Typical Specifications:

Material :	Sealing element :	Mica/ Inconel 600
	Centering ring :	Inconel 600
	Inner ring :	Inconel 600
Max. temperature :	1000°C.	
Max. pressure	>100 bar.	
Suitability	For flanges to ANSI B16.5, DIN standard, BS 10 can also be manufactured to suit custom flanges	

Winding strip and inner & outer guide rings are available in a wide range of metallic materials shown on page 42.

MaxiZonal**Applications:**

- Used for high temperature applications where high levels of tightness are required

Typical Properties:

- The Klinger MaxiZonal spiral wound gasket combines mica and graphite in one sealing element
- Mica provides excellent thermal properties and protects the graphite from oxidation
- Expanded graphite imparts excellent sealing characteristics
- Unaffected by most chemicals
- Excellent tightness even under fluctuating loads

Typical Specifications:

Material :	Sealing element :	Mica-Graphite- Mica/Inconel 600
	Centering ring :	Inconel 600
	Inner ring :	Inconel 600
Max. temperature :	900°C.	
Max. pressure	>160 bar.	
Suitability	For flanges to ANSI B16.5, DIN standard, BS 10 can also be manufactured to suit custom flanges	

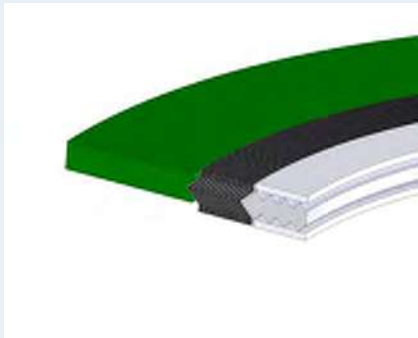
Winding strip and inner & outer guide rings are available in a wide range of metallic materials shown on page 42.



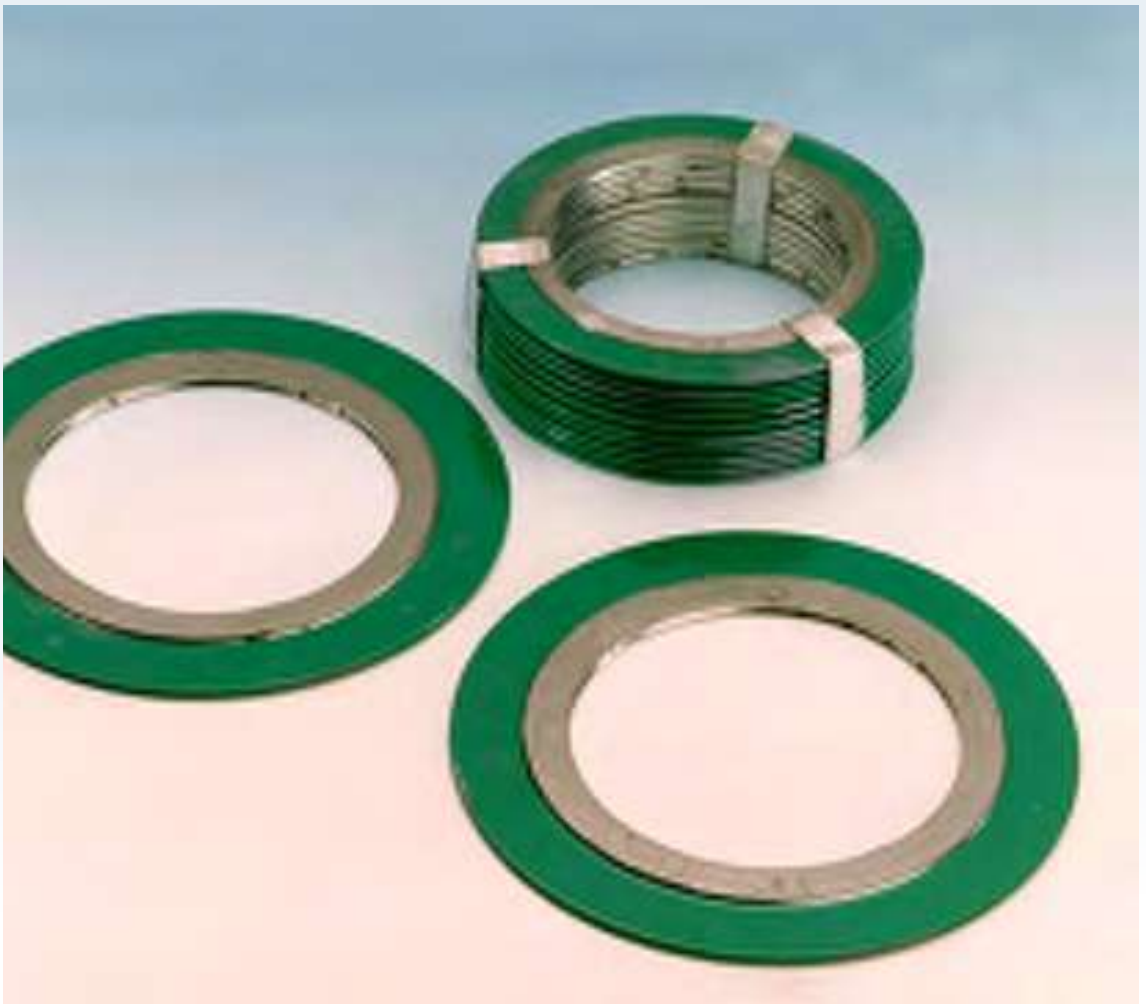
Klinger Maxiflex Pro

A high-integrity, dual-seal gasket specially designed for service in high-criticality, corrosive applications where sealing performance is of paramount importance.

- The Klinger Maxiflex Pro gasket is designed for use in highly aggressive chemical applications
- The inner ring of a standard Maxiflex can allow media to accumulate between the flange and inner ring which could promote corrosion. Maxiflex Pro prevents this, the conformable facing material enables the gasket seal at the flange bore eliminating media build-up.
- The incorporation of a Maxiprofile inner ring creates a gasket with two sealing regions. The Maxiprofile also acts as a compression stop needed for high integrity gaskets and also enables a seal to be created inward of the spiral wound sealing element.



Dimensions for Maxiflex Gaskets



Dimensions to suit ANSI Standard Flanges

Class 150 ASME B16.20

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	48 x 32 x 19 x 14	3 "	137 x 121 x 102 x 81	14 "	451 x 406 x 372 x 349
3/4"	57 x 40 x 25 x 21	4 "	175 x 149 x 127 x 106	16 "	514 x 464 x 422 x 400
1 "	67 x 48 x 32 x 27	5 "	197 x 178 x 156 x 132	18 "	549 x 527 x 475 x 449
1 1/4"	76 x 60 x 48 x 38	6 "	222 x 210 x 183 x 157	20 "	607 x 578 x 526 x 500
1 1/2"	86 x 70 x 54 x 44	8 "	279 x 264 x 233 x 216	24 "	718 x 686 x 629 x 603
2 "	105 x 86 x 70 x 56	10 "	340 x 318 x 287 x 268		
2 1/2"	124 x 99 x 83 x 67	12 "	410 x 375 x 340 x 318		

Class 300 ASME B16.20

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	54 x 32 x 19 x 14	3 "	149 x 121 x 102 x 81	14 "	486 x 406 x 372 x 349
3/4"	67 x 40 x 25 x 21	4 "	181 x 149 x 127 x 106	16 "	540 x 464 x 422 x 400
1 "	73 x 48 x 32 x 27	5 "	216 x 178 x 156 x 132	18 "	597 x 527 x 475 x 449
1 1/4"	83 x 60 x 48 x 38	6 "	251 x 210 x 183 x 157	20 "	654 x 578 x 526 x 500
1 1/2"	95 x 70 x 54 x 44	8 "	308 x 264 x 233 x 216	24 "	775 x 686 x 629 x 603
2 "	111 x 86 x 70 x 56	10 "	362 x 318 x 287 x 268		
2 1/2"	130 x 99 x 83 x 67	12 "	422 x 375 x 340 x 318		

Class 600 ASME B16.20

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	54 x 32 x 19 x 14	3 "	149 x 121 x 102 x 79	14 "	492 x 406 x 362 x 343
3/4"	67 x 40 x 25 x 21	4 "	194 x 149 x 121 x 103	16 "	565 x 464 x 413 x 390
1 "	73 x 48 x 32 x 27	5 "	241 x 178 x 148 x 128	18 "	613 x 527 x 470 x 438
1 1/4"	83 x 60 x 48 x 38	6 "	267 x 210 x 175 x 155	20 "	683 x 578 x 521 x 489
1 1/2"	95 x 70 x 54 x 44	8 "	321 x 264 x 226 x 206	24 "	791 x 686 x 629 x 591
2 "	111 x 86 x 70 x 56	10 "	400 x 318 x 275 x 255		
2 1/2"	130 x 99 x 83 x 67	12 "	457 x 375 x 327 x 307		

Class 900 ASME B16.20

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	64 x 32 x 19 x 14	3 "	168 x 121 x 95 x 79	14 "	521 x 400 x 356 x 321
3/4"	70 x 40 x 25 x 21	4 "	207 x 149 x 121 x 103	16 "	575 x 457 x 413 x 375
1 "	80 x 48 x 32 x 27	5 "	248 x 178 x 148 x 128	18 "	638 x 521 x 464 x 425
1 1/4"	89 x 60 x 40 x 33	6 "	289 x 210 x 175 x 155	20 "	699 x 572 x 521 x 483
1 1/2"	99 x 70 x 48 x 41	8 "	359 x 257 x 222 x 197	24 "	838 x 679 x 629 x 591
2 "	143 x 86 x 59 x 52	10 "	435 x 311 x 276 x 246		
2 1/2"	165 x 99 x 70 x 64	12 "	499 x 368 x 324 x 292		

Class 1500 ASME B16.20

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	64 x 32 x 19 x 14	3 "	175 x 121 x 92 x 79	14 "	578 x 400 x 362 x 321
3/4"	70 x 40 x 25 x 21	4 "	210 x 149 x 118 x 98	16 "	641 x 457 x 406 x 368
1 "	80 x 48 x 32 x 27	5 "	254 x 178 x 143 x 124	18 "	705 x 521 x 464 x 425
1 1/4"	89 x 60 x 40 x 33	6 "	283 x 210 x 171 x 147	20 "	756 x 572 x 514 x 476
1 1/2"	99 x 70 x 48 x 41	8 "	353 x 257 x 216 x 197	24 "	902 x 679 x 616 x 578
2 "	143 x 86 x 59 x 52	10 "	435 x 311 x 267 x 246		
2 1/2"	165 x 99 x 70 x 64	12 "	521 x 368 x 324 x 292		

Class 2500 ASME B16.20

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	70 x 32 x 19 x 14	2 "	146 x 86 x 59 x 52	6 "	318 x 210 x 171 x 147
3/4"	76 x 40 x 25 x 21	2 1/2"	168 x 99 x 70 x 64	8 "	387 x 257 x 216 x 197
1 "	86 x 48 x 32 x 27	3 "	197 x 121 x 92 x 79	10 "	476 x 311 x 270 x 246
1 1/4"	105 x 60 x 40 x 33	4 "	235 x 149 x 118 x 98	12 "	549 x 368 x 318 x 292
1 1/2"	118 x 70 x 48 x 41	5 "	279 x 178 x 143 x 124		

Class 150 ASME B16.47 Series A

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
26"	775 x 705 x 673 x 654	38"	1111 x 1019 x 978 x 959	50"	1435 x 1334 x 1283 x 1264
28"	832 x 756 x 724 x 705	40"	1162 x 1070 x 1029 x 1010	52"	1492 x 1384 x 1334 x 1314
30"	883 x 806 x 775 x 756	42"	1219 x 1124 x 1080 x 1060	54"	1549 x 1435 x 1384 x 1359
32"	940 x 861 x 826 x 806	44"	1276 x 1178 x 1130 x 1111	56"	1607 x 1486 x 1435 x 1410
34"	991 x 911 x 876 x 857	46"	1327 x 1229 x 1181 x 1162	58"	1664 x 1537 x 1486 x 1461
36"	1048 x 969 x 927 x 908	48"	1384 x 1280 x 1232 x 1213	60"	1715 x 1588 x 1537 x 1511

Class 300 ASME B16.47 Series A

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
26"	835 x 737 x 686 x 654	38"	1054 x 1016 x 978 x 953	50"	1378 x 1346 x 1295 x 1245
28"	899 x 787 x 737 x 705	40"	1115 x 1070 x 1022 x 1003	52"	1429 x 1403 x 1346 x 1321
30"	953 x 845 x 794 x 756	42"	1165 x 1121 x 1073 x 1054	54"	1492 x 1454 x 1397 x 1353
32"	1007 x 902 x 851 x 806	44"	1219 x 1181 x 1130 x 1105	56"	1543 x 1505 x 1454 x 1403
34"	1057 x 953 x 902 x 857	46"	1273 x 1229 x 1178 x 1153	58"	1594 x 1562 x 1511 x 1448
36"	1118 x 1007 x 956 x 908	48"	1324 x 1286 x 1235 x 1210	60"	1645 x 1613 x 1562 x 1524

Class 600 ASME B16.47 Series A

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
26"	867 x 737 x 686 x 648	38"	1105 x 1041 x 991 x 953	50"	1448 x 1372 x 1321 x 1270
28"	914 x 787 x 737 x 699	40"	1156 x 1099 x 1048 x 1010	52"	1499 x 1422 x 1372 x 1321
30"	972 x 845 x 794 x 756	42"	1219 x 1156 x 1105 x 1067	54"	1556 x 1480 x 1429 x 1378
32"	1022 x 902 x 851 x 813	44"	1270 x 1213 x 1162 x 1111	56"	1613 x 1530 x 1480 x 1429
34"	1073 x 953 x 902 x 864	46"	1327 x 1264 x 1213 x 1162	58"	1664 x 1588 x 1537 x 1473
36"	1130 x 1007 x 956 x 918	48"	1391 x 1321 x 1270 x 1219	60"	1734 x 1645 x 1594 x 1530

Class 900 ASME B16.47 Series A

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
26"	883 x 737 x 686 x 660	34"	1137 x 953 x 902 x 864	42"	1302 x 1200 x 1149 x 1111
28"	946 x 787 x 737 x 711	36"	1200 x 1010 x 959 x 921	44"	1369 x 1257 x 1207 x 1156
30"	1010 x 845 x 794 x 768	38"	1200 x 1086 x 1035 x 1010	46"	1435 x 1321 x 1270 x 1219
32"	1073 x 902 x 851 x 813	40"	1251 x 1149 x 1099 x 1060	48"	1486 x 1372 x 1321 x 1270

Metallic

Class 150 ASME B16.47 Series B

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
26"	725 x 699 x 673 x 654	38"	1045 x 1010 x 975 x 959	50"	1357 x 1326 x 1283 x 1264
28"	776 x 749 x 724 x 705	40"	1096 x 1064 x 1022 x 1010	52"	1408 x 1376 x 1334 x 1314
30"	827 x 800 x 775 x 756	42"	1146 x 1115 x 1080 x 1060	54"	1464 x 1422 x 1384 x 1365
32"	881 x 851 x 826 x 806	44"	1197 x 1165 x 1124 x 1111	56"	1515 x 1478 x 1445 x 1422
34"	935 x 908 x 876 x 857	46"	1256 x 1224 x 1181 x 1162	58"	1580 x 1529 x 1500 x 1478
36"	988 x 959 x 927 x 908	48"	1307 x 1270 x 1232 x 1213	60"	1630 x 1586 x 1557 x 1535

Class 300 ASME B16.47 Series B

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
26"	772 x 711 x 673 x 654	38"	1099 x 1048 x 1010 x 972	50"	1419 x 1356 x 1318 x 1267
28"	826 x 762 x 724 x 705	40"	1149 x 1099 x 1060 x 1022	52"	1470 x 1407 x 1369 x 1318
30"	886 x 813 x 775 x 756	42"	1200 x 1149 x 1111 x 1086	54"	1530 x 1454 x 1403 x 1365
32"	940 x 864 x 826 x 806	44"	1251 x 1200 x 1162 x 1124	56"	1594 x 1524 x 1480 x 1429
34"	994 x 914 x 876 x 857	46"	1318 x 1254 x 1216 x 1178	58"	1656 x 1573 x 1535 x 1484
36"	1048 x 965 x 927 x 908	48"	1369 x 1311 x 1264 x 1232	60"	1707 x 1630 x 1589 x 1557

Class 600 ASME B16.47 Series B

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
26"	765 x 715 x 664 x 645	38"	1105 x 1041 x 991 x 953	50"	1448 x 1372 x 1321 x 1270
28"	819 x 756 x 705 x 699	40"	1156 x 1099 x 1048 x 1010	52"	1499 x 1422 x 1372 x 1321
30"	880 x 829 x 778 x 753	42"	1219 x 1156 x 1105 x 1067	54"	1556 x 1480 x 1429 x 1378
32"	933 x 883 x 832 x 794	44"	1270 x 1213 x 1162 x 1111	56"	1613 x 1530 x 1480 x 1429
34"	997 x 940 x 889 x 851	46"	1327 x 1264 x 1213 x 1162	58"	1664 x 1588 x 1537 x 1473
36"	1048 x 991 x 940 x 902	48"	1391 x 1321 x 1270 x 1219	60"	1734 x 1645 x 1594 x 1530

Class 900 ASME B16.47 Series B

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
26"	838 x 749 x 705 x 667	34"	1073 x 971 x 921 x 895	42"	1302 x 1200 x 1149 x 1111
28"	902 x 800 x 743 x 718	36"	1124 x 997 x 946 x 921	44"	1369 x 1257 x 1207 x 1156
30"	959 x 857 x 806 x 781	38"	1200 x 1086 x 1035 x 1010	46"	1435 x 1321 x 1270 x 1219
32"	1016 x 914 x 864 x 838	40"	1251 x 1149 x 1099 x 1060	48"	1486 x 1372 x 1321 x 1270

Dimensions to suit DIN Standard Flanges

PN10

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
10	46 x 36 x 24 x 18	175	247 x 221 x 195 x 183	1200	1341 x 1280 x 1230 x 1210
15	51 x 40 x 28 x 22	200	272 x 251 x 225 x 213	1400	1548 x 1510 x 1450 x 1420
20	61 x 47 x 33 x 27	250	327 x 307 x 286 x 267	1600	1772 x 1720 x 1660 x 1630
25	71 x 54 x 40 x 34	300	377 x 358 x 337 x 318	1800	1972 x 1920 x 1860 x 1830
32	82 x 65 x 49 x 43	350	437 x 405 x 375 x 363	2000	2182 x 2120 x 2050 x 2020
40	92 x 70 x 54 x 48	400	488 x 458 x 426 x 414	2200	2384 x 2330 x 2260 x 2230
50	107 x 84 x 66 x 57	500	593 x 566 x 530 x 518	2400	2594 x 2530 x 2460 x 2430
65	127 x 102 x 82 x 73	600	695 x 666 x 630 x 618	2600	2794 x 2730 x 2660 x 2630
80	142 x 115 x 95 x 86	700	810 x 770 x 730 x 718	2800	3014 x 2930 x 2860 x 2830
100	162 x 140 x 120 x 108	800	917 x 874 x 830 x 818	3000	3228 x 3130 x 3060 x 3030
125	192 x 168 x 146 x 134	900	1017 x 974 x 930 x 910		
150	217 x 196 x 174 x 162	1000	1124 x 1078 x 1030 x 1010		

PN16

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
10	46 x 36 x 24 x 18	125	192 x 168 x 146 x 134	700	804 x 770 x 730 x 718
15	51 x 40 x 28 x 22	150	217 x 196 x 174 x 162	800	911 x 874 x 830 x 818
20	61 x 47 x 33 x 27	175	247 x 221 x 195 x 183	900	1011 x 974 x 930 x 910
25	71 x 54 x 40 x 34	200	272 x 251 x 225 x 213	1000	1128 x 1078 x 1030 x 1010
32	82 x 65 x 49 x 43	250	328 x 307 x 286 x 267	1200	1342 x 1280 x 1230 x 1210
40	92 x 70 x 54 x 48	300	383 x 358 x 337 x 318	1400	1542 x 1510 x 1450 x 1420
50	107 x 84 x 66 x 57	350	443 x 405 x 375 x 363	1600	1764 x 1720 x 1660 x 1630
65	127 x 102 x 82 x 73	400	495 x 458 x 426 x 414	1800	1964 x 1920 x 1860 x 1830
80	142 x 115 x 95 x 86	500	617 x 566 x 530 x 518	2000	2168 x 2120 x 2050 x 2020
100	162 x 140 x 120 x 108	600	734 x 666 x 630 x 618	2200	2378 x 2330 x 2260 x 2230

PN25

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
10	46 x 36 x 24 x 18	125	193 x 168 x 146 x 134	700	833 x 770 x 730 x 718
15	51 x 40 x 28 x 22	150	223 x 196 x 174 x 162	800	942 x 874 x 830 x 818
20	61 x 47 x 33 x 27	175	253 x 221 x 195 x 183	900	1042 x 974 x 930 x 910
25	71 x 54 x 40 x 34	200	283 x 251 x 225 x 213	1000	1154 x 1078 x 1030 x 1010
32	82 x 65 x 49 x 43	250	340 x 307 x 286 x 267	1200	1364 x 1280 x 1230 x 1210
40	92 x 70 x 54 x 48	300	400 x 358 x 337 x 318	1400	1578 x 1510 x 1450 x 1420
50	107 x 84 x 66 x 57	350	457 x 405 x 375 x 363	1600	1798 x 1720 x 1660 x 1630
65	127 x 102 x 82 x 73	400	514 x 458 x 426 x 414	1800	2000 x 1920 x 1860 x 1830
80	142 x 115 x 95 x 86	500	624 x 566 x 530 x 518	2000	2230 x 2120 x 2050 x 2020
100	167 x 140 x 120 x 108	600	731 x 666 x 630 x 618		

PN40

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
10	46 x 36 x 24 x 18	100	167 x 140 x 120 x 108	500	628 x 566 x 530 x 518
15	51 x 40 x 28 x 22	125	193 x 168 x 146 x 134	600	747 x 666 x 630 x 618
20	61 x 47 x 33 x 27	150	223 x 196 x 174 x 162	700	852 x 770 x 730 x 718
25	71 x 54 x 40 x 34	175	265 x 221 x 195 x 183	800	974 x 874 x 830 x 818
32	82 x 65 x 49 x 43	200	290 x 251 x 225 x 213	900	1084 x 974 x 930 x 910
40	92 x 70 x 54 x 48	250	352 x 307 x 286 x 267	1000	1194 x 1078 x 1030 x 1010
50	107 x 84 x 66 x 57	300	417 x 358 x 337 x 318	1200	1398 x 1280 x 1230 x 1210
65	127 x 102 x 82 x 73	350	474 x 405 x 375 x 363	1400	1618 x 1510 x 1450 x 1420
80	142 x 115 x 95 x 86	400	546 x 458 x 426 x 414	1600	1830 x 1720 x 1660 x 1630

Metallic

PN64

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
10	56 x 36 x 24 x 18	100	173 x 144 x 120 x 108	500	657 x 574 x 530 x 518
15	61 x 40 x 28 x 22	125	210 x 172 x 146 x 134	600	764 x 674 x 630 x 618
20	74 x 47 x 33 x 27	150	247 x 200 x 174 x 162	700	879 x 778 x 730 x 718
25	82 x 54 x 40 x 34	175	277 x 227 x 195 x 183	800	988 x 882 x 830 x 818
32	90 x 65 x 49 x 43	200	309 x 257 x 225 x 213	900	1108 x 982 x 930 x 910
40	102 x 70 x 54 x 48	250	364 x 315 x 286 x 267	1000	1220 x 1086 x 1030 x 1010
50	112 x 84 x 66 x 57	300	424 x 366 x 337 x 318	1200	1452 x 1290 x 1230 x 1210
65	137 x 104 x 82 x 73	350	486 x 413 x 375 x 363		
80	147 x 119 x 95 x 86	400	543 x 466 x 426 x 414		

PN100

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
10	56 x 36 x 24 x 18	65	143 x 104 x 82 x 73	250	391 x 315 x 286 x 267
15	61 x 40 x 28 x 22	80	153 x 119 x 95 x 86	300	458 x 366 x 337 x 318
20	74 x 47 x 33 x 27	100	180 x 144 x 120 x 108	350	512 x 413 x 375 x 363
25	82 x 54 x 40 x 34	125	217 x 172 x 146 x 134	400	572 x 466 x 426 x 414
32	90 x 65 x 49 x 43	150	257 x 200 x 174 x 162	500	704 x 574 x 530 x 518
40	102 x 70 x 54 x 48	175	287 x 227 x 195 x 183	600	813 x 674 x 630 x 618
50	118 x 84 x 66 x 57	200	324 x 257 x 225 x 213		

PN160

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
10	56 x 36 x 24 x 18	50	118 x 84 x 66 x 57	175	284 x 227 x 195 x 183
15	61 x 40 x 28 x 22	65	143 x 104 x 82 x 73	200	324 x 257 x 225 x 213
20	74 x 47 x 33 x 27	80	153 x 119 x 95 x 86	250	388 x 315 x 286 x 267
25	82 x 54 x 40 x 34	100	180 x 144 x 120 x 108	300	458 x 366 x 337 x 318
32	90 x 65 x 49 x 43	125	217 x 172 x 146 x 134		
40	102 x 70 x 54 x 48	150	257 x 200 x 174 x 162		

Dimensions to suit BS 10 Standard Flanges

Table D

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	54 x 37 x 26 x 14	5 "	194 x 165 x 149 x 129	16 "	498 x 467 x 445 x 408
3/4"	60 x 43 x 32 x 21	6 "	219 x 191 x 175 x 154	17 "	530 x 498 x 473 x 433
1 "	70 x 52 x 40 x 27	7 "	244 x 219 x 200 x 179	18 "	562 x 524 x 498 x 459
1.1/4"	75 x 60 x 48 x 33	8 "	276 x 244 x 225 x 205	19 "	587 x 549 x 524 x 484
1.1/2"	86 x 67 x 54 x 40	9 "	308 x 270 x 251 x 230	20 "	619 x 575 x 549 x 510
2 "	98 x 79 x 67 x 52	10 "	337 x 295 x 276 x 256	21 "	651 x 603 x 575 x 535
2.1/2"	111 x 98 x 83 x 65	11 "	362 x 321 x 302 x 281	22 "	673 x 629 x 600 x 560
3 "	130 x 113 x 97 x 78	12 "	387 x 349 x 327 x 306	23 "	699 x 654 x 625 x 586
3.1/2"	149 x 125 x 110 x 90	13 "	419 x 391 x 368 x 332	24 "	730 x 679 x 651 x 611
4 "	162 x 140 x 124 x 103	14 "	448 x 416 x 394 x 357		
4.1/2"	175 x 152 x 137 x 116	15 "	473 x 441 x 419 x 383		

Table E

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	54 x 37 x 26 x 14	5 "	194 x 165 x 149 x 129	16 "	498 x 467 x 445 x 408
3/4"	60 x 43 x 32 x 21	6 "	216 x 191 x 175 x 154	17 "	527 x 498 x 473 x 433
1 "	70 x 52 x 40 x 27	7 "	241 x 219 x 200 x 179	18 "	562 x 524 x 498 x 459
1.1/4"	75 x 60 x 48 x 33	8 "	273 x 244 x 225 x 205	19 "	587 x 549 x 524 x 484
1.1/2"	86 x 67 x 54 x 40	9 "	305 x 270 x 251 x 230	20 "	619 x 575 x 549 x 510
2 "	98 x 79 x 67 x 52	10 "	337 x 295 x 276 x 256	21 "	648 x 603 x 575 x 535
2.1/2"	111 x 98 x 83 x 65	11 "	362 x 321 x 302 x 281	22 "	673 x 629 x 600 x 560
3 "	130 x 113 x 97 x 78	12 "	384 x 349 x 327 x 306	23 "	699 x 654 x 625 x 586
3.1/2"	149 x 125 x 110 x 90	13 "	416 x 391 x 368 x 332	24 "	727 x 679 x 651 x 611
4 "	162 x 140 x 124 x 103	14 "	448 x 416 x 394 x 357		
4.1/2"	175 x 152 x 137 x 116	15 "	473 x 441 x 419 x 383		

Table F

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	54 x 39 x 26 x 14	5 "	216 x 171 x 149 x 129	16 "	527 x 476 x 445 x 408
3/4"	60 x 44 x 32 x 21	6 "	241 x 197 x 175 x 154	17 "	559 x 505 x 470 x 433
1 "	71 x 56 x 40 x 27	7 "	273 x 225 x 200 x 179	18 "	581 x 530 x 495 x 459
1.1/4"	83 x 64 x 48 x 33	8 "	305 x 251 x 225 x 205	19 "	613 x 562 x 524 x 484
1.1/2"	89 x 70 x 54 x 40	9 "	333 x 276 x 251 x 230	20 "	645 x 587 x 549 x 510
2 "	111 x 83 x 67 x 52	10 "	359 x 305 x 279 x 256	21 "	670 x 619 x 575 x 535
2.1/2"	130 x 102 x 83 x 65	11 "	384 x 330 x 305 x 281	22 "	695 x 645 x 600 x 560
3 "	149 x 116 x 97 x 78	12 "	416 x 359 x 330 x 306	23 "	724 x 670 x 625 x 586
3.1/2"	162 x 129 x 110 x 90	13 "	445 x 391 x 362 x 332	24 "	749 x 695 x 651 x 611
4 "	175 x 143 x 124 x 103	14 "	470 x 416 x 387 x 357		
4.1/2"	191 x 159 x 137 x 116	15 "	495 x 441 x 413 x 383		

Table H

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	67 x 39 x 26 x 14	5 "	216 x 171 x 149 x 129	16 "	527 x 476 x 445 x 408
3/4"	67 x 44 x 32 x 21	6 "	241 x 197 x 175 x 154	17 "	559 x 505 x 470 x 433
1 "	71 x 56 x 40 x 27	7 "	273 x 225 x 200 x 179	18 "	581 x 530 x 495 x 459
1.1/4"	83 x 64 x 48 x 33	8 "	305 x 251 x 225 x 205	19 "	613 x 562 x 524 x 484
1.1/2"	89 x 70 x 54 x 40	9 "	333 x 276 x 251 x 230	20 "	645 x 587 x 549 x 510
2 "	111 x 83 x 67 x 52	10 "	359 x 305 x 279 x 256	21 "	670 x 619 x 575 x 535
2.1/2"	130 x 102 x 83 x 65	11 "	384 x 330 x 305 x 281	22 "	695 x 645 x 600 x 560
3 "	149 x 116 x 97 x 78	12 "	416 x 359 x 330 x 306	23 "	724 x 670 x 625 x 586
3.1/2"	162 x 129 x 110 x 90	13 "	445 x 391 x 362 x 332	24 "	749 x 695 x 651 x 611
4 "	175 x 143 x 124 x 103	14 "	470 x 416 x 387 x 357		
4.1/2"	191 x 159 x 137 x 116	15 "	495 x 441 x 413 x 383		

Metallic

Table J

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	67 x 39 x 26 x 14	5 "	213 x 171 x 149 x 129	16 "	524 x 476 x 445 x 408
3/4"	67 x 44 x 32 x 21	6 "	238 x 197 x 175 x 154	17 "	556 x 505 x 470 x 433
1 "	71 x 56 x 40 x 27	7 "	270 x 225 x 200 x 179	18 "	578 x 530 x 495 x 459
1.1/4"	83 x 64 x 48 x 33	8 "	302 x 251 x 225 x 205	19 "	610 x 562 x 524 x 484
1.1/2"	89 x 70 x 54 x 40	9 "	330 x 276 x 251 x 230	20 "	641 x 587 x 549 x 510
2 "	108 x 83 x 67 x 52	10 "	356 x 305 x 279 x 256	21 "	667 x 619 x 575 x 535
2.1/2"	127 x 102 x 83 x 65	11 "	381 x 330 x 305 x 281	22 "	692 x 645 x 600 x 560
3 "	146 x 116 x 97 x 78	12 "	413 x 359 x 330 x 306	23 "	721 x 670 x 625 x 586
3.1/2"	159 x 129 x 110 x 90	13 "	441 x 391 x 362 x 332	24 "	746 x 695 x 651 x 611
4 "	171 x 143 x 124 x 103	14 "	467 x 416 x 387 x 357		
4.1/2"	187 x 159 x 137 x 116	15 "	492 x 441 x 413 x 383		

Table K

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	67 x 39 x 26 x 14	4 "	175 x 143 x 124 x 103	12 "	403 x 359 x 330 x 306
3/4"	67 x 44 x 32 x 21	4.1/2"	187 x 159 x 137 x 116	13 "	451 x 391 x 362 x 332
1 "	79 x 56 x 40 x 27	5 "	213 x 171 x 149 x 129	14 "	476 x 416 x 387 x 357
1.1/4"	83 x 64 x 48 x 33	6 "	238 x 197 x 175 x 154	15 "	508 x 441 x 413 x 383
1.1/2"	95 x 70 x 54 x 40	7 "	267 x 225 x 200 x 179	16 "	533 x 476 x 445 x 408
2 "	111 x 83 x 67 x 52	8 "	292 x 251 x 225 x 205	17 "	565 x 505 x 470 x 433
2.1/2"	127 x 102 x 83 x 65	9 "	330 x 276 x 251 x 230	18 "	619 x 530 x 495 x 459
3 "	146 x 116 x 97 x 78	10 "	356 x 305 x 279 x 256	20 "	673 x 587 x 549 x 510
3.1/2"	162 x 129 x 110 x 90	11 "	384 x 330 x 305 x 281	22 "	730 x 645 x 600 x 560

Table R

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	67 x 39 x 26 x 14	4 "	175 x 143 x 124 x 103	12 "	429 x 359 x 330 x 306
3/4"	67 x 44 x 32 x 21	4.1/2"	187 x 159 x 137 x 116	13 "	464 x 391 x 362 x 332
1 "	79 x 56 x 40 x 27	5 "	213 x 171 x 149 x 129	14 "	495 x 416 x 387 x 357
1.1/2"	95 x 70 x 54 x 40	6 "	238 x 197 x 175 x 154	15 "	521 x 441 x 413 x 383
1.1/4"	83 x 64 x 48 x 33	7 "	267 x 225 x 200 x 179	16 "	552 x 476 x 445 x 408
2 "	111 x 83 x 67 x 52	8 "	298 x 251 x 225 x 205	17 "	578 x 505 x 470 x 433
2.1/2"	127 x 102 x 83 x 65	9 "	330 x 276 x 251 x 230	18 "	638 x 530 x 495 x 459
3 "	146 x 116 x 97 x 78	10 "	362 x 305 x 279 x 256	20 "	692 x 587 x 549 x 510
3.1/2"	162 x 129 x 110 x 90	11 "	403 x 330 x 305 x 281	22 "	756 x 645 x 600 x 560

Table S

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	70 x 32 x 19	3.1/2"	168 x 121 x 98	10 "	394 x 302 x 267
3/4"	70 x 40 x 25	4 "	178 x 137 x 111	11 "	435 x 327 x 292
1 "	83 x 48 x 32	4.1/2"	191 x 149 x 124	12 "	470 x 356 x 321
1.1/4"	89 x 56 x 38	5 "	213 x 162 x 137	13 "	502 x 384 x 346
1.1/2"	102 x 64 x 44	6 "	248 x 187 x 162	14 "	540 x 410 x 371
2 "	114 x 79 x 57	7 "	289 x 219 x 187	15 "	581 x 438 x 400
2.1/2"	127 x 95 x 73	8 "	324 x 244 x 213	16 "	616 x 467 x 425
3 "	143 x 108 x 86	9 "	359 x 273 x 241		

Metallic

Table T

Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)	Nominal Size	Dimensions (mm)
1/2"	83 x 32 x 19	3 "	165 x 114 x 89	8 "	368 x 254 x 216
3/4"	83 x 40 x 25	3.1/2"	187 x 130 x 102	9 "	410 x 286 x 244
1 "	89 x 48 x 32	4 "	206 x 143 x 114	10 "	451 x 311 x 270
1.1/4"	98 x 59 x 41	4.1/2"	229 x 159 x 127	11 "	489 x 337 x 295
1.1/2"	114 x 67 x 48	5 "	244 x 171 x 140	12 "	527 x 368 x 324
2 "	127 x 83 x 60	6 "	286 x 197 x 165	13 "	559 x 394 x 349
2.1/2"	143 x 98 x 76	7 "	333 x 229 x 191		

Note: If inner guide rings are required for Table S and T flanges then special dimensions are required.

