



Corrugasket® Technical Data Sheet



Precision Moulded Flange Gaskets - Corrugasket®

Simply, there is no better seal. VIP's Corrugasket® design is proven in terms of faster, easier fitting, longer life and the materials used are in accordance with the latest UK Water and Gas specifications. Developed for greater quality, security and precision, VIP's precision moulded flange gaskets offer greater performance over traditional flange gaskets, stamped from sheet.

Dimensional Accuracy

Each Corrugasket® is dimensionally accurate. Unlike cut or stamped gaskets, size and thickness do not vary since the gasket exactly reproduces the precise tolerances of the moulding tool.

Concentric Corrugations

Every Corrugasket® has at least 25 concentric corrugations across the surface, each acting as separate sealing planes to compensate for any defects in the flange, whether through corrosion, scores or even un-machined surfaces.

Consistent Thickness (Unlike Stamped Gaskets)

Cut or stamped gaskets are usually taken from calendared sheet material which by its very nature isn't flat and so can lead to uneven force requirements when tightening. In its uncompressed state, the Corrugasket is 4mm thick. Optimum sealing efficiency is achieved at approximately 0.4mm compression or 3.6mm gasket thickness.

Maximum Sealing Efficiency with Minimum Compression

The Corrugasket's corrugated surface not only gives exceptional sealing efficiency, it also significantly reduces the bolt-torque required to achieve an effective and long-term seal. This in turn leads to reduced compression on the gasket and to the increased life of the complete flange assembly.

Our unique multi drilling design means that Corrugaskets from 50mm to 300mm suitable for a range of pressure classes. Sizes from 350mm upwards are suitable for PN16 pressure classes and the simple but effective lugs retain the gasket in position whilst the bolts are being fitted.

Standards

Manufactured from EPDM, Corrugasket® meet all EU Water specifications and when manufactured from Nitrile, meet the requirements of EN682:2002. The European Standard EN681-1 (Elastomeric seals - Material requirements for pipe joint seals used in water and drainage applications) sets the specification for elastomeric seals for joints in pipework and pipe-lines. Corrugasket® for Water applications not only meets the drainage and drinking water sections of this Standard, but in many areas exceeds the minimum requirement stipulated. For Gas applications, VIP-Polymers Nitrile compound gasket meets the requirement of BS EN682:2002 (Elastomeric seals - Materials requirements for seals used in pipes and fittings carrying gas and hydrocarbon fluids). In addition, Corrugasket® meet the following national and international standards:

- BS EN 1092-1:2007
- BS EN 681-1:1996
- WRAS approved material
- ISO 3302-1:2014
- BS EN 682:2002
- ACS (France)
- Manufactured from EPDM accordance with BS EN 545: 2010 and BS EN 598: 2007*
- Hardness: 80 IRHD
- Recommended working temperature range: -10 / +60°C as per BS EN681-1:1996
- WRAS approved material



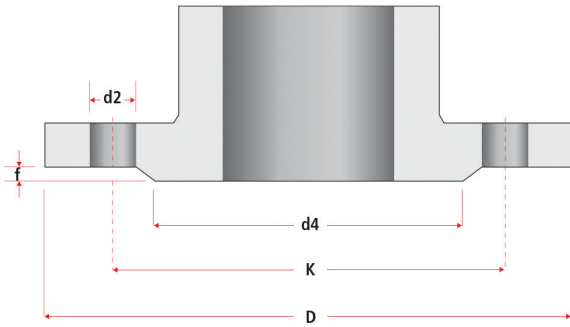
EN 681-1





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Flange Dimensions



Plan edge: Sizes up to 100mm



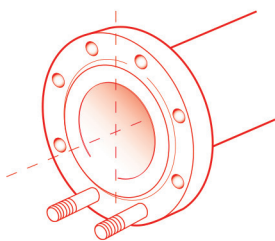
Scalloped edge: Sizes 125mm to 300mm



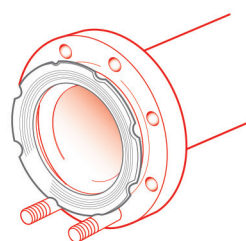
Locator type: Sizes DN350 to DN600

Nom Size mm	Gasket ID	Gasket OD	PN10						PN16						PN25						PN40					
			Flange			Drilling			Flange			Drilling			Flange			Drilling			Flange			Drilling		
			D	d4	f	No.	d2	K	D	d4	f	No.	d2	K	D	d4	f	No.	d2	K	D	d4	f	No.	d2	K
50	60	106	165	102	3	4	18	125	165	102	3	4	18	125	165	102	3	4	18	125	165	102	3	4	18	125
80	90	142	200	138	3	8	18	160	200	138	3	8	18	160	200	138	3	8	18	160	200	138	3	8	18	160
100	115	162	220	158	3	8	18	180	220	158	3	8	18	180	-	-	-	-	-	-	-	-	-	-	-	-
125	141	194	250	188	3	8	18	210	250	188	3	8	18	210	270	188	3	8	26	220	270	188	3	8	26	220
150	169	224	285	212	3	8	22	240	285	212	3	8	22	240	300	218	3	8	26	250	300	218	3	8	26	250
200	220	284	340	268	3	8	22	295	340	268	3	12	22	295	360	278	3	12	26	310	-	-	-	-	-	-
250	274	340	395	320	3	12	22	350	405	320	3	12	26	355	425	335	3	12	30	370	-	-	-	-	-	-
300	325	400	445	370	4	12	22	400	460	378	4	12	26	410	485	395	4	16	30	430	-	-	-	-	-	-
350	368	444	-	-	-	-	-	-	520	438	4	16	26	470	-	-	-	-	-	-	-	-	-	-	-	-
400	420	495	-	-	-	-	-	-	580	490	4	16	30	525	-	-	-	-	-	-	-	-	-	-	-	-
450	470	555	-	-	-	-	-	-	640	550	4	20	30	585	-	-	-	-	-	-	-	-	-	-	-	-
500	520	617	-	-	-	-	-	-	715	610	4	20	33	650	-	-	-	-	-	-	-	-	-	-	-	-
600	620	734	-	-	-	-	-	-	840	725	5	20	36	770	-	-	-	-	-	-	-	-	-	-	-	-

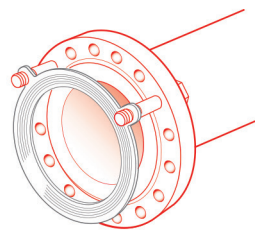
Installing the Corrugasket®



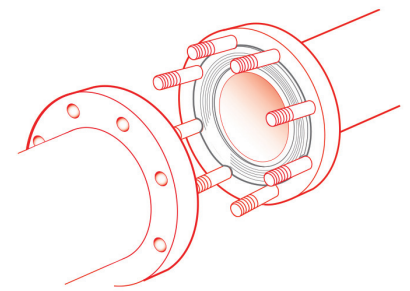
Align flange so that top two bolt holes are positioned evenly, one on each side of central vertical axis of flange. If using Plain edge or Scalloped edge Corrugaskets, put 2-3 bolts in place at bottom of flange to act as a prop for the Corrugasket.



Lay the Corrugasket in place with bottom edge resting bolts. On Scalloped edge Corrugaskets ensure that notches on gasket fit snugly around bolt holes. Match bore of Corrugasket to bore of flange.



On Locator type Corrugasket only, insert two bolts into holes on upper half of flange. Loop the locators on Corrugasket over the bolts to position the gasket on the flange.



Match opposite flange face to face with gasket and insert remaining bolts. Note all bolts should be inserted from the same side. Tighten bolts as normal, using a diametrical tightening sequence, maintaining the flanges parallel at all times.

NOTE: Due to the difference in dimensions for PN25 and PN40 flanges, Corrugaskets between 125mm and 300mm are located on the bolts using the plain outer edge and not the scallops.

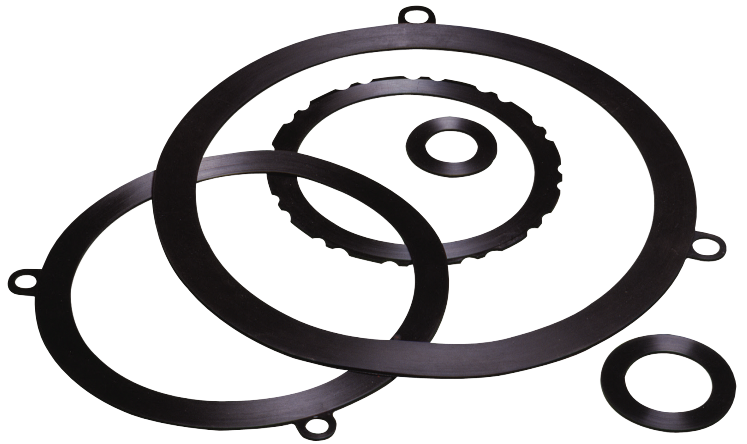


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Approximate Bolting Torques

(using 3mm thick 80 IRHD rubber gaskets)

Nom Size mm	PN10			PN16			
	Approximate Bolting Torque Nm			Approximate Bolting Torque Nm			
	To Seal at 5 bar	To Seal at 10 bar	To Seal at 16 bar	To Seal at 10 bar	To Seal at 16 bar	To Seal at 20 bar	To Seal at 25 bar
50	70	70	70	70	70	75	75
80	70	70	70	70	70	75	75
100	70	75	80	75	80	80	80
125	110	115	120	115	120	125	135
150	110	115	120	115	120	125	135
200	120	130	140	110	115	120	130
250	110	120	130	155	165	175	180
300	120	130	145	165	180	190	210
350	-	-	-	160	175	185	200
400	-	-	-	200	220	235	270
450	-	-	-	195	215	230	260
500	-	-	-	240	270	295	345
600	-	-	-	305	365	425	505



Nom Size mm	PN25					PN40				
	Approximate Bolting Torque Nm					Approximate Bolting Torque Nm				
	To Seal at 20 bar	To Seal at 25 bar	To Seal at 30 bar	To Seal at 35 bar	To Seal at 40 bar	To Seal at 25 bar	To Seal at 30 bar	To Seal at 35 bar	To Seal at 40 bar	To Seal at 45 bar
50	80	85	85	85	90	70	75	75	80	80
80	80	85	85	85	90	70	75	75	80	80
100	-	-	-	-	-	-	-	-	-	-
125	180	185	195	210	230	160	170	180	185	195
150	180	185	195	210	230	160	170	180	185	195
200	170	180	190	205	220	-	-	-	-	-
250	230	250	275	305	335	-	-	-	-	-
300	220	235	265	295	325	-	-	-	-	-
350	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-
450	-	-	-	-	-	-	-	-	-	-
500	-	-	-	-	-	-	-	-	-	-
600	-	-	-	-	-	-	-	-	-	-

Information contained in this data sheet is up-to-date and correct as at the date of issue. We reserve the right to change any information without prior notice.