



# Valves Instruments Plus Ltd

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## PN6 Flanged Rubber Flexible Connectors



**VIP Product Code**  
**00/0599**

VIP rubber pump flexible connectors are designed for installation onto vibrating equipment to reduce the transmission of noise and vibration to the attached pipeline system.

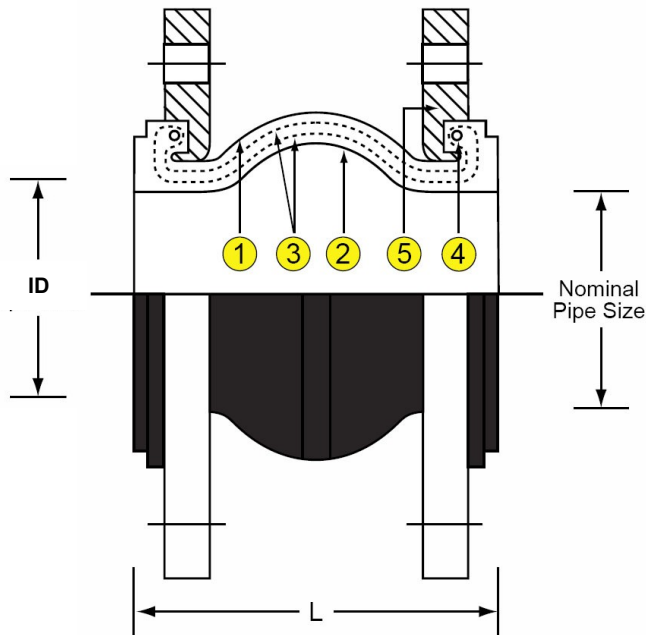
### SPECIFICATION

<b>Working Temperature:</b>	-10 to 90°C
<b>Max. Working Pressure:</b>	6 Bar at Ambient
<b>Vacuum Rating:</b>	700mm HG
<b>Applicable Fluids:</b>	Water, Warm Water, Sea Water, Air, Weak Acid
<b>Test Pressure:</b>	1.5 x Working Pressure (9 Bar Max.)
<b>Flanges Standard:</b>	EN1092-1, PN6 as standard

VIP rubber pump flexible connectors should not be used at both their maximum working temperature and pressure simultaneously.

### MATERIALS OF CONSTRUCTION

1.	<b>Body (Outer Layer):</b>	EPDM
2.	<b>Body (Inner Layer):</b>	EPDM
3.	<b>Reinforcing Fabric:</b>	Nylon Fabric
4.	<b>Wire:</b>	Hard Steel Wire
5.	<b>Flange:</b>	Mild Steel (Galvanised)



### Operating Temperature Against Operating Pressure

Operating Temp °C	Ambient	50	60	70	80	90
<b>Max Operating Pressure (Bar)</b>	6	6	6	6	6	5.2

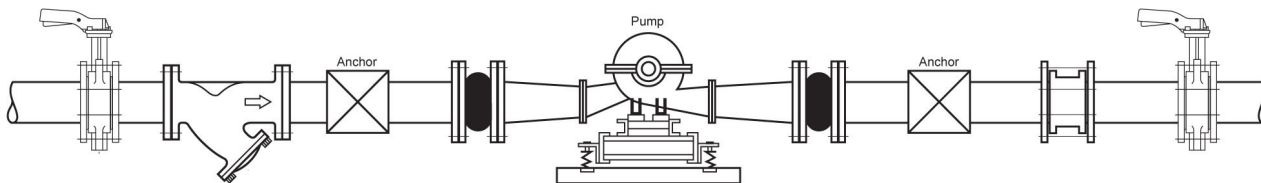
VIP Part No	Nominal Pipe Size (mm)	Neutral Length (L) (mm)	Internal Diameter (ID)	Axial Compression (mm)	Axial Elongation (mm)	Lateral Deflection (+ or - mm)	Angular Deflection (+ or - °C)
00/0599/040	40	130	37 ± 3	12	10	12	15
00/0599/050	50	130	47 ± 3	12	10	12	15
00/0599/065	65	130	62 ± 3	12	10	12	15
00/0599/080	80	130	77 ± 3	12	10	12	15
00/0599/100	100	130	95 ± 3	12	10	12	15

## INSTALLATION

Please refer to the VIP Expansion Joint Installation sheet for guidance as to the correct handling and installation of these flexible connectors.

**Please Note:** The above vacuum rating is based on the installation length without an external load. These products must not be installed 'elongated' on vacuum applications. Please contact the VIP office for further information.

For options such as alternative sizes, end fittings or materials, or to discuss a specific application requirement, please contact the VIP office.



VIP Ltd **strongly** recommend the need to switch from untied flexible connectors to tied flexible connectors in the following circumstances:

- In unanchored / unsupported systems
- When inertia bases or spring mounts / hangers are being used.

Additionally, tied units must only be used when the users is expecting to exceed the rated movements in Table 1, or the system operating pressure exceeds the values in Table 2.

### TABLE 1 - RATED MOVEMENT

Nominal Pipe Size			mm	40	50	65	80	100
			in	1½	2	2½	3	4
Travel Movement	Neutral Length (L)		130	130	130	130	130	130
	Axial Compression		12	12	12	12	12	12
	Axial Elongation		10	10	10	10	10	10

### TABLE 2

Tied units are recommended when the operating pressures achieve the following values:

Nominal Pipe Size	
15 to 100mm	8 Bar
125 to 250mm	6 Bar
300 to 350mm	4 Bar
400mm & Above	2.5 Bar

## NOTES

- Higher temperatures affect movement and pressure. As temperature increases, rated value must be reduced accordingly.
- Pressures shown are recommended 'operating' - test pressure is 1.5 times 'operating'
- Vacuum rating is based on neutral installed length without external load. Products shall not be installed 'elongated' on vacuum applications.
- Expansion joints may operate in pipelines or equipment carrying fluids at evaluated temperatures and pressures.
- Normal precautions shall be taken to make sure these parts are installed correctly and inspected regularly.
- Precautions should be taken to protect personnel in event of leakage or splash.
- Bellows for fluids other than those above are available on request.

