# Designed to perform, engineered to last



## **Puddle Flanges (VPF)**

Watertight up to 10 bar and easy to install, FRANK puddle flanges have been designed specifically for the pressure-tight installation of pipelines in concrete walls, tanks, shafts, foundation plates, manholes and basements.



Puddle flanges are suitable for all standard pipes in steel, plastic, stoneware, concrete and cast iron from 20 to 3200mm OD.

They have been specifically designed for the pressure-tight installation of pipelines in concrete walls, foundation plates and manholes and are pressure-tight up to 10 bar, preventing the ingress of pressurised water, diffusing media such as gases (e.g. radon) and hydrocarbons (e.g. oil, petrol).



| Product Specifications             |  |
|------------------------------------|--|
| VIPSeal® Product Reference         | VPF  |
| Size Range                         | 20mm>  |
| Material                           | EPDM Rubber (also available in NBR)                  |
| Steel                              | 1.4301 (304) Stainless Steel / 1.4401 (316)          |
| Tightening Torque                  | 6Nm (20 - 500mm)                                     |
| Pressure Rating                    | 20-559mm 10 bar / 145 psi<br>560mm > 8 bar / 116 psi |
| Constant Working Temperature Range | -10° to 60° (-50° to 140° internittent)              |

### **Applications:**

- To prevent water or gas getting into buildings via pipe penetrations
- Domestic and commercial developments
- Suitable for use with all smooth walled pipes provided that the pipe surface, at the point of installation, is clean, smooth and free of pores or surface imperfections
- Most pipe sizes can be accommodated from 20mm through to 3200mm diameter
- Installed on pipes during construction where water penetration has to be prevented

#### Benefits:

- ✓ Tested up to 10 bar water pressure
- ✓ Easy to install, cost effective solution
- ✓ Can be installed in walls, floors and ceilings
- ✓ Good general chemical resistance

#### Notes

- Puddle flanges are supplied with the ID smaller than the host pipe OD and are stretched over during installation.
- Concrete coverage should be at least 50mm against each surface of the puddle flange using waterproof concrete.
- Depending on the size, puddle flanges have an OD 75-100mm larger than the host pipe OD
- The pipe must be fully supported to withstand the concrete pouring process as puddle flanges do not provide any axial restraint.

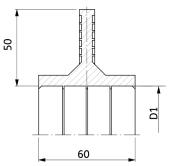
| Density                                | 1,030kg/m³            |
|--|-----------------------|
| Shore hardness                         | 40° Sh ± 3            |
| Tensile Strength                       | 10 N/mm <sup>2</sup>  |
| Elongation at fracture                 | 750%                  |
| Tear propagation strength              | 3.9 N/mm <sup>2</sup> |
| Deformation under pressure (72h, 70°C) | 32%                   |



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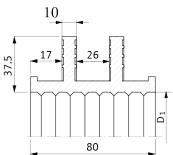


### **Product Range**



20-354mm 10 bar pressure rating Supplied with 2 x SS tension bands

| VIPSeal      | D1  | Range (Pipe O/D) |         |  |
|--------------|-----|------------------|---------|--|
| Reference D1 |     | From (mm)        | To (mm) |  |
| VPF20        | 16  | 18               | 24      |  |
| VPF25        | 21  | 23               | 29      |  |
| VPF32        | 29  | 31               | 37      |  |
| VPF40        | 38  | 40               | 46      |  |
| VPF50        | 48  | 50               | 56      |  |
| VPF63        | 60  | 62               | 69      |  |
| VPF75        | 71  | 73               | 82      |  |
| VPF90        | 84  | 86               | 97      |  |
| VPF100       | 95  | 98               | 109     |  |
| VPF110       | 105 | 108              | 121     |  |
| VPF125       | 120 | 123              | 136     |  |
| VPF145       | 132 | 136              | 155     |  |
| VPF160       | 154 | 158              | 177     |  |
| VPF180       | 173 | 177              | 197     |  |
| VPF200       | 195 | 199              | 224     |  |
| VPF225       | 215 | 220              | 249     |  |
| VPF250       | 245 | 250              | 279     |  |
| VPF280       | 275 | 280              | 314     |  |
| VPF315       | 310 | 315              | 354     |  |



355-559mm 10 bar pressure rating Supplied with 3 x SS tension bands

| VIPSeal   | D1  | Range (Pipe O/D) |         |  |
|-----------|-----|------------------|---------|--|
| Reference | וט  | From (mm)        | To (mm) |  |
| VPF355    | 310 | 355              | 399     |  |
| VPF400    | 353 | 400              | 449     |  |
| VPF450    | 400 | 450              | 499     |  |
| VPF500    | 448 | 500              | 559     |  |

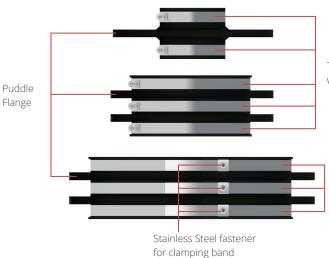
#### 560mm >

8 bar pressure rating

Supplied with clamping band (30m roll) and 3 x SS fasteners. Clamping tool supplied seperately.

| VIPSeal   | )1   | Clamping Band<br>Length (per<br>puddle flange) (m) | Range (Pipe O/D) |         |
|-----------|------|--|------------------|---------|
| Reference |      |  | From (mm)        | To (mm) |
| VPF560    | 505  | 12.3   | 560              | 629     |
| VPF630    | 571  | 13.8   | 630              | 709     |
| VPF710    | 648  | 16.2   | 710              | 799     |
| VPF800    | 733  | 17.1   | 800              | 899     |
| VPF900    | 828  | 18.0   | 900              | 999     |
| VPF1000   | 923  | 19.8   | 1000             | 1150    |
| VPF1200   | 1113 | 23.7   | 1200             | 1350    |
| VPF1400   | 1303 | 28.0   | 1400             | 1550    |
| VPF1600   | 1490 | 31.9   | 1600             | 1750    |
| VPF1800   | 1680 | 38.0   | 1800             | 1990    |

Larger sizes available on request



Tension bands with worm drive



355mm > Puddle flange

Galvanized clamping band

Edition 1.0

