

Designed to perform, engineered to last



# Craftsmanship Sealed In

## **VIP-Polymers Ltd**

With over 90 years of manufacturing heritage, VIP-Polymers Ltd has stayed on the cutting edge of materials technology by constantly looking to the future and driving product innovation through design.

As leading providers of high performance rubber mouldings and extrusion products to the water, utilities and infrastructure markets, we are a company that has a truly global reach with operations in Germany, India, China and the UAE.

### VIPSeal™ flexible couplings

Designed to perform and engineered to last – VIPSeal™ is a versatile range of flexible couplings and adaptors for joining and repairing low pressure and non-pressurised pipes of any material and size combination.

As the pipe technology market has diversified, the range of materials, sizes and designs has created ever more complex sealing challenges meaning no two installations are ever the same. Recognising this, VIP-Polymers has responded to the market by innovating in the area of materials, design and full in-house engineering profiles with VIPSeal\*.

Manufactured at our multi-million pound, state-of-the-art UK facility, every product in the robust VIPSeal™ range meets the requirements of UK and several international standards.

SEAL MANUFACTURING CELL ✓ Manufactured in the UK ✓ Constructed using the highest quality raw materials ✓ Tested to UK and international material and product performance standards ✓ Designed for ease of installation www.vipseal.co.uk



# **Materials**

### Tension and shear bands

Engineered for optimum resistance in most soil conditions, VIPSeal™ heavy duty tension bands and shear bands are manufactured from 1.4301(304) austenitic stainless steel for general applications.

For higher corrosion or contaminated ground areas and marine environments, grade 1.4401(316) stainless steel should be specified to eliminate the need for protective tape.



### **Elastomeric sleeves**

All VIPSeal<sup>™</sup> elastomeric sleeves are manufactured inhouse using the highest quality raw materials to create the finest EPDM, SBR, NBR and FKM synthetic rubber.

As such, the coupling sleeves offer excellent resistance to sewerage and drainage effluent. Where hydrocarbons, fats, oils or greases may be present, nitrile rubber (NBR) should be used.

VIPSeal™ also manufacture in FKM for applications where higher chemical resistance is required at special request. VIPSeal™ rubber components are kitemarked in compliance with BS EN 681-1.



BS EN 681-1



# **Performance**

### **Pressure Resistance**

Correctly installed VIPSeal™ couplings will withstand the following maximum pressures:

Range	Pressure up to
Standard couplings with or without bushes (VSC/VBC)	2.5 bar
Standard and extra wide couplings with or without bushes (VLC/VLCW/VBC)	1.5 bar
Standard extra wide couplings (VSCW)	2.5 bar
Wraparound couplings (VWRC)	0.6 bar
Drain couplings (VDC)	0.6 bar
Adaptor couplings (VAC)	0.6 bar

### Recommended Torque for VIPSeal™ Couplings

Coupling Size Range	Recommended Torque BS EN 295-4	WIS 4-41-01	Tightening Device
VSC/VSCW/VDC/VWRC			
Up to 100mm	6 N-m	6 N-m	
100 - 290mm	6 N-m	6 N-m	
310 - 385mm	10 N-m	10 N-m	<del></del>
410 - 620mm	13 N-m	13 N-m	<del></del>
VLC/VLCW/VWRC			
600 - 1200mm	20 N-m	N/A	<del></del>
1201 - 2000mm	25 N-m	N/A	<del></del>
VAC			
Up to 290mm	6 N-m	N/A	
310 - 385mm	10 N-m	N/A	
Above 390mm	13 N-m	N/A	<b>——</b>

Sales Order Hotline **0800 334 5547** 

Primarily used in sewers, drains and other low and non-pressurised applications, VIPSeal™ standard couplings join pipes of virtually any material or diameter.

Constructed from the highest quality elastomeric rubber, the standard coupling provides shear resistance under heavy earth loads and is bolstered by stainless steel tension bands that create a leak proof seal. All standard couplings comply with BS EN 295-4, WIS 4-41-01 and the new BS EN 16397 standards.

### Standard coupling applications:

- ✓ As a coupling to join plain ended pipes
- ✓ To repair damaged sections of pipe
- ✓ Where a post or lateral connection is required
- ✓ Where the diameters of pipe differ
- ✓ Joining short and cut lengths of pipe
- ✓ Introducing rocker pipes to an outside structure or manhole
- ✓ As a connection for soil, waste and vent applications

Ref No.	Size Range	Width
VSC115	100 - 115mm	100mm
VSC120	110 - 121mm	120mm
VSC125	110 - 125mm	120mm
VSC137	120 - 137mm	120mm
VSC150	125 - 150mm	120mm
VSC165	140 - 165mm	120mm
VSC175	150 - 175mm	120mm
VSC180	160 - 180mm	120mm
VSC200	175 - 200mm	150mm
VSC215	190 - 215mm	150mm
VSC225	200 - 225mm	150mm
VSC250	225 - 250mm	150mm
VSC265	240 - 265mm	150mm
VSC275	250 - 275mm	150mm
VSC290	265 - 290mm	150mm
VSC310	285 - 310mm	190mm
VSC320	295 - 320mm	190mm
VSC335	305 - 335mm	190mm

Ref No.	Size Range	Width
VSC345	315 - 345mm	190mm
VSC360	340 - 360mm	190mm
VSC385	355 - 385mm	190mm
VSC410	385 - 410mm	190mm
VSC425	400 - 425mm	190mm
VSC430	405 - 430mm	190mm
VSC445	420 - 445mm	190mm
VSC465	435 - 465mm	190mm
VSC490	465 - 490mm	190mm
VSC510	480 - 510mm	190mm
VSC525	495 - 525mm	190mm
VSC540	510 - 540mm	190mm
VSC550	520 - 550mm	190mm
VSC560	530 - 560mm	190mm
VSC570	540 - 570mm	190mm
VSC580	555 - 580mm	190mm
VSC600	570 - 600mm	190mm
VSC620	590 - 620mm	190mm



Also available with nitrile sleeves. Add 'N' to product code when ordering. Please contact our customer services team for technical guidance.





# Standard large couplings (VLC)

Whatever the scale of your sealing challenge, our large couplings are engineered, designed and custom built to solve it. Using bespoke extrusion profiles to enable us to manufacture custom seals for any diameter of pipe, our large couplings come with same day or next day delivery.

All standard couplings comply with BS EN 295-4, WIS 4-41-01 and the new BS EN 16397 standards.

#### Standard large coupling applications:

- ✓ As a coupling to join plain ended pipes
- ✓ Repair damaged sections of pipe
- ✓ Where a post or lateral connection is required
- ✓ Where the diameters of pipe differ
- ✓ Joining short and cut lengths of pipe
- ✓ Introducing rocker pipes to an outside structure or manhole

Ref No.	Size Range	Width
VLC600	601 - 699mm	190mm
VLC700	700 - 799mm	190mm
VLC800	800 - 899mm	190mm
VLC900	900 - 999mm	190mm
VLC1000	1000 - 1099mm	190mm
VLC1100	1100 - 1199mm	190mm
VLC1200	1200 - 1299mm	190mm
VLC1300	1300 - 1399mm	190mm
VLC1400	1400 - 1499mm	190mm
VLC1500	1500 - 1599mm	190mm
VLC1600	1600 - 1699mm	190mm
VLC1700	1700 - 1799mm	190mm
VLC1800	1800 - 1899mm	190mm
VLC1900	1900 - 1999mm	190mm
VLC2000	2000 - 2099mm	190mm



Also available with nitrile sleeves. Add 'N' to product code when ordering. Please contact our customer services team for technical guidance.

NB. VIPSeal™ VLC large couplings are site specific and therefore made to order.





# Extra wide couplings (VSCW and VLCW)

Engineered from the same exceptional materials as our standard seals, VIPSeal™ extra wide couplings seal large diameter DN200 pipes or above.

The 300mm width of the coupling allows for greater tolerance when cutting the pipe ends along with resistance to any ground movement caused by settlement and thermal effect.

#### Extra wide couplings applications:

- ✓ Connection of large diameter pipes
- ✓ Repair of cracked or damaged pipes
- ✓ Instances of great angular deflection
- ✓ For use in vertical drainage applications
- ✓ Greater flexibility on site



### **Standard Extra Wide Couplings**

Ref No.	Size Range	Width
VSC290W	265 - 290mm	300mm
VSC310W	285 - 310mm	300mm
VSC320W	295 - 320mm	300mm
VSC335W	305 - 335mm	300mm
VSC345W	315 - 345mm	300mm
VSC360W	340 - 360mm	300mm
VSC385W	355 - 385mm	300mm
VSC410W	385 - 410mm	300mm
VSC425W	400 - 425mm	300mm
VSC430W	405 - 430mm	300mm
VSC445W	420 - 445mm	300mm
VSC465W	435 - 465mm	300mm
VSC490W	465 - 490mm	300mm
VSC510W	480 - 510mm	300mm
VSC525W	495 - 525mm	300mm
VSC540W	510 - 540mm	300mm
VSC550W	520 - 550mm	300mm
VSC560W	530 - 560mm	300mm
VSC570W	540 - 570mm	300mm
VSC580W	555 - 580mm	300mm
VSC600W	570 - 600mm	300mm
VSC620W	590 - 620mm	300mm

### Large Diameter Extra Wide Couplings

Ref No.	Size Range	Width
VLC600W	600 - 699mm	300mm
VLC700W	700 - 799mm	300mm
VLC800W	800 - 899mm	300mm
VLC900W	900 - 999mm	300mm
VLC1000W	1000 - 1099mm	300mm
VLC1100W	1100 - 1199mm	300mm
VLC1200W	1200 - 1299mm	300mm
VLC1300W	1300 - 1399mm	300mm
VLC1400W	1400 - 1499mm	300mm
VLC1500W	1500 - 1599mm	300mm
VLC1600W	1600 - 1699mm	300mm
VLC1700W	1700 - 1799mm	300mm
VLC1800W	1800 - 1899mm	300mm
VLC1900W	1900 - 1999mm	300mm
VLC2000W	2000 - 2099mm	300mm

Also available with nitrile sleeves. Add 'N' to product code when ordering. Please contact our customer services team for technical guidance.

NB. VIPSeal  $^{\rm IM}$  VLCW large couplings are site specific and therefore made to order.





# **Drain couplings (VDC)**

Designed to perform in situations where resistance to heavy earth loads is reduced, VIPSeal™ drain couplings are made from the same elastomeric rubber sleeve as the standard coupling but come without the stainless steel shear band. They can join pipes in any material up to 275mm outside diameter.

#### Drain coupling applications:

- ✓ As a coupling to join plain ended pipes
- ✓ Repair damaged sections of pipes
- ✓ Joining short or cut lengths of pipes
- ✓ As an adaptor to join pipes of different material
- ✓ As a connection for soil waste and vent applications

Ref No.	Size Range	Width
VDC40	32 - 40mm	68mm
VDC50	40 - 50mm	68mm
VDC65	50 - 65mm	90mm
VDC75	60 - 75mm	108mm
VDC85	70 - 85mm	100mm
VDC95	80 - 95mm	100mm
VDC115	100 - 115mm	100mm
VDC125	110 - 125mm	100mm
VDC135	120 - 135mm	120mm
VDC150	125 - 150mm	120mm

Ref No.	Size Range	Width
VDC165	140 - 165mm	120mm
VDC175	150 - 175mm	120mm
VDC185	170 - 185mm	120mm
VDC195	180 - 195mm	120mm
VDC215	190 - 215mm	150mm
VDC225	200 - 225mm	150mm
VDC250	225 - 250mm	150mm
VDC275	250 - 275mm	150mm

Also available with nitrile sleeves. Add 'N' to product code when ordering. Please contact our customer services team for technical guidance.





# 0800 334 5547



Adaptor couplings (VAC)



Ref No.	Size Range	Width
VAC0752	75 - 89/53 - 63mm	90mm
VAC1001	100 - 115/ 40 - 50mm	100mm
VAC1002	100 - 115/ 50 - 64mm	100mm
VAC1003	100 - 115 / 75 - 90mm	95mm
VAC1201	105 - 120/35 - 45mm	100mm
VAC1225	110 - 122/ 48 - 56mm	100mm
VAC1226	110 - 122/ 61 - 68mm	120mm
VAC1221	110 - 122/ 80 - 95mm	100mm
VAC5144	110 - 125/100 - 115mm	100mm
VAC1361	121 - 136/ 80 - 95mm	120mm
VAC4000	121 - 136/ 110 - 121mm	100mm
VAC1362	121 - 136/ 100 - 115mm	100mm
VAC1452	130 - 145/110 - 125mm	120mm
VAC1552	140 - 155/ 90 - 105mm	120mm
VAC1602	144 - 160/ 110 - 122mm	120mm
VAC1603	144 - 160/ 121 - 136mm	120mm
VAC1701	153 - 168/ 100 - 115mm	150mm
VAC1702	155 - 170/ 110 - 125mm	120mm

Ref No.	Size Range	Width
VAC1703	155 - 170/ 130 - 145mm	120mm
VAC1801	160 - 180/100 - 115mm	150mm
VAC1922	170 - 192/ 110 - 122mm	120mm
VAC1923	170 - 192/ 121 - 136mm	120mm
VAC1924	170 - 192/ 144 - 160mm	120mm
VAC2000	180 - 200/ 130 - 145mm	150mm
VAC2001	180 - 200/ 155 - 170mm	150mm
VAC6000	180 - 200/ 160 - 180mm	150mm
VAC2105	185 - 210/144 - 160mm	150mm
VAC2101	185 - 216/ 160 - 180mm	150mm
VAC2100 o/s	185 - 212/ 100 - 115mm	150mm
VAC2154	190 - 215/ 150 - 165mm	150mm
VAC2203	195 - 220/155 - 170mm	150mm
VAC2254	200 - 225/ 160 - 175mm	150mm
VAC2352	210 - 235/ 110 - 122mm	150mm
VAC2353	210 - 235/ 121 - 136mm	150mm
VAC2354	210 - 235/ 144 - 160mm	150mm
VAC2355	210 - 235/ 170 - 192mm	150mm

Ref No.	Size Range	Width
VAC2356	210 - 235/ 190 - 215mm	150mm
VAC2654	240 - 265/ 144 - 160mm	150mm
VAC2655	240 - 265/ 170 - 192mm	150mm
VAC2656	240 - 265/ 190 - 215mm	150mm
VAC2657	240 - 265/ 210 - 235mm	150mm
VAC2754	250 - 275/ 160 - 175mm	150mm
VAC2756	250 - 275/ 200 - 225mm	150mm
VAC9001	260 - 285/ 180 - 205mm	150mm
VAC2904	265 - 290/ 144 - 160mm	150mm
VAC2906	265 - 290/190 - 215mm	150mm
VAC2907	265 - 290/ 210 - 235mm	150mm
VAC2908	265 - 290/ 235 - 260mm	150mm
VAC2956 o/s	270 - 295/185 - 210mm	150mm
VAC3003 o/s	275 - 300/180 - 200mm	150mm
VAC3204	295 - 320/ 144 - 160mm	165mm
VAC3205	295 - 320/ 170 - 192mm	150mm
VAC3207	295 - 320/ 210 - 235mm	150mm
VAC3208	295 - 320/ 240 - 265mm	150mm

For instances where there is a significant difference in the outside diameter of pipes, VIPSeal™ adaptor couplings are step moulded and fitted with two stainless steel tension bands providing a sealing solution that's as quick to fit as it is robust.

### **VAR Adaptor Couplings**

VAR VIPSeal™ adaptor couplings incorporate an extra wide tension band at one end to allow a secure connection from clay pipe to structured, twin wall or ribbed plastic pipe.

### Adaptor coupling applications:

- ✓ Connection of pipes with a significantly different outside diameter
- ✓ Connection of lateral to unadopted sewers
- ✓ Connection of pipes to prefabricated structures e.g. manholes, inspection chambers and
- ✓ Connection of clay pipes to structured/twin wall/ ribbed plastic pipes

Ref No.	Size Range	Width
VAC3209	295 - 320/ 265 - 290mm	150mm
VAC3351 o/s	310 - 335/ 180 - 205mm	150mm
VAC3608	335 - 360/ 240 - 265mm	165mm
VAC3609	335 - 360/ 265 - 290mm	165mm
VAC3600	335 - 360/ 295 - 320mm	165mm
VAC3858	360 - 385/ 240 - 265mm	165mm
VAC3859	360 - 385/ 265 - 290mm	165mm
VAC3850	360 - 385/ 300 - 325mm	165mm
VAC4208	395 - 420/ 240 - 265mm	165mm
VAC4209	395 - 420/ 265 - 290mm	165mm

### **VAR Adaptor Couplings**

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Ref No.	Size Range	Width
VAR1500	160 - 170/170 - 192mm	100mm
VAR2250	240 - 250/260 - 285mm	130mm
VAR3000	325 - 335/ 360 - 385mm	165mm

o/s = offset

Also available with nitrile sleeves. Add 'N' to product code when ordering. Please contact our customer services team for technical guidance.

# Wraparound couplings (VWRC)

Ideal for repairing large diameter pipes that can't be removed or are in confined spaces, VIPSeal<sup>™</sup> wraparound couplings allow you to repair with the damaged section in situ.

#### Wraparound coupling applications:

✓ As a repair to an isolated damage to the pipe e.g. a fracture or avoid in the pipe wall



Ref No.	Size Range	Width
VWRC300	300 - 399mm	190mm
VWRC400	400 - 499mm	190mm
VWRC500	500 - 599mm	190mm
VWRC600	600 - 699mm	190mm
VWRC700	700 - 799mm	190mm
VWRC800	800 - 899mm	190mm
VWRC900	900 - 999mm	190mm
VWRC1000	1000 - 1099mm	190mm
VWRC1100	1100 - 1199mm	190mm
VWRC1200	1200 - 1299mm	190mm
VWRC1300	1300 - 1399mm	190mm
VWRC1400	1400 - 1499mm	190mm
VWRC1500	1500 - 1599mm	190mm
VWRC1600	1600 - 1699mm	190mm
VWRC1700	1700 - 1799mm	190mm
VWRC1800	1800 - 1899mm	190mm
VWRC1900	1900 - 1999mm	190mm
VWRC2000	2000 - 2099mm	190mm

Also available with nitrile sleeves. Add 'N' to product code when ordering. Please contact our customer services team for technical guidance.

NB. VIPSeal™ VWRC wraparound couplings are site specific and therefore





1099mm

# Accessories

### **Pipe Lubricant**

Universal Pipe Lubricant from VIPSeal™ is a pipe-jointing compound that has been specially formulated for use with water pipes and mains.

Based on a vegetable soap lubricant it enables quick and easy repair of sealing joints on nearly all pipe materials including rubber, plastic, clay, cast iron and concrete.

Apply lubricant as per the pipe manufacturer's recommendation.

Comes in 0.5kg, 1.0kg and 2.5kg sizes. Available in full carton quantities only.





#### Pipe lubricant benefits:

- ✓ Fully WRAS approved
- ✓ Cost effective

✓ Minimal soap bleeding in hot climates

✓ Based on renewable vegetable

✓ Multipurpose and suitable for all piping materials

- ✓ Easy to apply on pipes
- ✓ Excellent lubrication and slip
- ✓ Mineral oil-free, for maximum material compatibility
- ✓ Free of Tallow and other animal fats

## **Wall Seals**

For the effective connection of pipes into manholes and other pre-cast structures, wall seals are used with pre-formed or cored holes.

They are particularly well suited to pre-cast structures or the post fitting of pipes. Wall Seals allow for angular and lateral misalignment of the pipes and provide an effective seal against water penetration along the pipe.







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For use where pipe diameters differ significantly, VIPSeal<sup>™</sup> bushes are engineered from the same high quality elastomeric rubber as our seals.

Available in varying thicknesses, the bush is put over the smaller pipe to create a larger diameter which can then fit a standard (VSC), large (VLC) or extra wide (VSCW/VLCW) coupling to create a watertight seal.

Most bushes are fabricated individually to meet the specific site requirement. Outside dimensions should be specified at time of ordering.

Also available with nitrile sleeves. Add 'N' to product code when ordering. Please contact our customer services team for technical guidance.



### **Moulded Bushes**

Rei No.	Jize Karige	Nominal O.D.
VBC19/17	11 - 16mm	55mm
VBC17/21	15 - 20mm	55mm
VBC14/26	20 - 25mm	55mm
VBC09/37	30 - 37mm	55mm
VBC06/43	35 - 40mm	55mm
VBC23/65	55 - 65mm	110mm
VBC17/76	65 - 76mm	110mm
VBC08/95	85 - 95mm	110mm
VBC27/65	55 - 65mm	120mm
VBC12/95	85 - 95mm	120mm
VBC06/102	92 - 102mm	115mm
VBC08/105	95 - 105mm	120mm
VBC20/105	95 - 105mm	145mm
VBC08/115	105 - 115mm	130mm
VBC15/115	105 - 115mm	145mm
VBC07/132	122 - 132mm	145mm
VBC19/132	122 - 132mm	170mm
VBC13/145	135 - 145mm	170mm
VBC16/164	154 - 164mm	196mm
VBC26/168	158 - 168mm	220mm
VBC08/170	160 - 170mm	185mm
VBC08/180	170 - 180mm	196mm
VBC08/200	190 - 200mm	215mm
VBC33/205	195 - 205mm	270mm
VBC08/265	255 - 265mm	280mm
VBC20/335	325 - 335mm	380mm



#### **Fabricated Bushes**

Ref No.	Size Range	Thickness
VBC0802	200 - 299mm	8mm
VBC0803	300 - 399mm	8mm
VBC0804	400 - 499mm	8mm
VBC0805	500 - 599mm	8mm
VBC0806	600 - 699mm	8mm
VBC0807	700 - 799mm	8mm
VBC0808	800 - 899mm	8mm
VBC0809	900 - 999mm	8mm
VBC0810	1000 - 1099mm	8mm
VBC0811	1100 - 1199mm	8mm
VBC0812	1200 - 1299mm	8mm
VBC0813	1300 - 1399mm	8mm
VBC0814	1400 - 1499mm	8mm
VBC1603	300 - 399mm	16mm
VBC1604	400 - 499mm	16mm
VBC1605	500 - 599mm	16mm
VBC1606	600 - 699mm	16mm
VBC1607	700 - 799mm	16mm

Ref No.	Size Range	Thickness
VBC1608	800 - 899mm	16mm
VBC1609	900 - 999mm	16mm
VBC1610	1000 - 1099mm	16mm
VBC1611	1100 - 1199mm	16mm
VBC1612	1200 - 1299mm	16mm
VBC1613	1300 - 1399mm	16mm
VBC1614	1400 - 1499mm	16mm
VBC2403	300 - 399mm	24mm
VBC2404	400 - 499mm	24mm
VBC2405	500 - 599mm	24mm
VBC2406	600 - 699mm	24mm
VBC2407	700 - 799mm	24mm
VBC2408	800 - 899mm	24mm
VBC2409	900 - 999mm	24mm
VBC2410	1000 - 1099mm	24mm
VBC2411	1100 - 1199mm	24mm
VBC2412	1200 - 1299mm	24mm
VBC2413	1300 - 1399mm	24mm

# **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.

Installed on the external pipe surface to act as a barrier, they diffuse gases and hydrocarbons and are suitable for all standard steel, plastic, clay, concrete and cast iron pipes from DN20 to DN3200mm making them a perfect solution for any application.

### Puddle flanges 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

#### Materials

FRANK puddle flanges are manufactured in EPDM and NBR. EPDM is chemically resistant to a wide range of substances and offers outstanding weather and ozone resistance. For applications in connection with oil and petrol, FRANK puddle flanges made in NBR are the preferred option.



Ref No.	Size Range
VPF20	20 - 24mm
VPF25	25 - 29mm
VPF32	32 - 36mm
VPF40	40 - 44mm
VPF50	50 - 55mm
VPF63	63 - 69mm
VPF75	75 - 82mm
VPF90	90 - 97mm
VPF100	98 - 109mm
VPF110	110 - 121mm
VPF125	125 - 137mm

Ref No.	Size Range
VPF145	138 - 155mm
VPF160	160 - 170mm
VPF180	180 - 190mm
VPF200	200 - 224mm
VPF225	225 - 249mm
VPF250	250 - 279mm
VPF280	280 - 314mm
VPF315	315 - 354mm
VPF355	355 - 399mm
VPF400	400 - 449mm
VPF450	450 - 499mm

#### Installation

Thanks to the easy-lock tension bands, installing a FRANK puddle flange takes only a few minutes. The puddle flange is mounted by hand on the pipe and secured with the supplied tension bands. A screwdriver or 6mm nut driver can be used to install the tension band on pipes of up to 315mm in diameter.

For larger pipes, use a clamping tool. Our puddle flange installation kits (DN20 to DN315mm) now come with an easy-lock function that allows for even faster installation on the pipe.

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

Ref No.	Size Range
VPF500	500 - 559mm
VPF560	560 - 629mm
VPF630	630 - 709mm
VPF710	710 - 799mm
VPF800	800 - 899mm
VPF900	900 - 999mm
VPF1000	1000 - 1150mm
VPF1200	1200 - 1350mm
VPF1400	1400 - 1550mm
VPF1600	1600 - 1750mm

Swimming pool drain pipes in walls and foundation plates

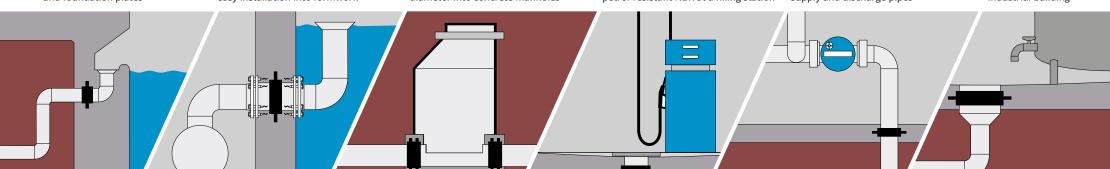
Pre-fabricated wall lead-through with flange connectors on both sides for easy installation into formwork

Integration of pipes of any outside diameter into concrete manholes

FRANK puddle flange made in oil- and petrol-resistant NBR at a filling station

House lead-ins for water supply and discharge pipes

Floor drain in industrial building



# Pipe Table (DN40-DN100/DN100-DN600)

Guidance figures for a variety of material diameters are provided in the tables.

# (NB: these are not intended to be a substitute for site measurements).

Adaptor couplings allow different diameter pipes to be connected. Bushes are also available in a variety of sizes and thicknesses to allow the standard range of couplings to connect pipes which may have a considerable difference in their outside diameters.

\* Also referred to as salt glazed ware or vitrified clay.



Pipe Type	Nomina	l Sizes	(DN)		Imper	Imperial Sizes							
Pipe Classification	40	50	65	70	75	80	82	100	2	2.5	3	3.5	4
Cast Iron BS416 (Soil)		63			89			114	63/65	73	89	99.2	114
Cast Iron BS437 (Drain)		65			92			119			92		120
Cast Iron SMU/Ensign/SML		60		80				112					
Cast (Spun) Iron BS1211 (A,B)	55.9	69.1	82.3			95.5		121.9					
Cast (Spun) Iron BS1211 (C,D)	55.9	69.1	82.3			95.5		121.9					
Copper		54.1		66.8	76.3			108.3		66.8	79.9		106.3
Galvanised Steel BS3868		60.2	76			88.7		113.9					
PVCu							82.8	110					
muPVC		54.3											
ABS	42.9	55.9											
Polypropylene	41/42.75	54.1											
Aluminium		63			76			102					



Pipe Type	Nominal Sizes (DN)													Imperial Sizes												
Pipe Classification	100	125	150	175	180	200	225	250	300	350	360	375	400	450	500	525	600	3	5	7	8	9	10	12	15	18
*HepSleve/HepSeal Densleeve/Denseal	130- 133		186- 190				269- 278		364- 380			451	480- 492	542- 544	602- 610		716	98	156	213	238	268	295	356	445	533
SuperSleve/SuperSeal	122		178				263		357																	
த F.P McCann									416			501		586		681	776									
Stanton Bonna									410			485		578		669	768									
S CPM							305		410			490		575		670	770									
Asbestos Cement L	125		182	208		232	260	288							547											
Asbestos Cement M									339			423	437	484	551											
Asbestos Cement H									246			429	440	490	559											
PVCu EN1401	110		160			200		250	315				400	450	500		630	ĺ								
Ultra-Rib			170		200		250		335		400															
Quantum Highway/Sewer	ĺ		160				250		330									ĺ								
Ridgidrain	118		178				266		354			435	460	514	571		675	ĺ								
Polysewer/Ridgisewer	ĺ		160				250		330				457	511	568		672	ĺ								
ABS	114.3		168.3	200		219.1		280	315									89	140		219		273	323		
Ductile Iron BSEN598	118		170			222		274	326	378			429		560			ĺ	148							
Cast Iron BS437 (Drain)	114		173				256																			
Cast Iron BS416 (Soil)	119																									
Cast (Spun) Iron BS1211 (A,B)	121.9	149.9	177.3	204.7		232.2	259.1	286	333.8	386.6														333.8	413	492.3
Cast (Spun) Iron BS1211 (C,D)	121.9	149.9	177.3	204.7		232.2	259.1	286	345.4	399.3														345.4	426.2	453.1
Grey Iron BS4622	118		170			222		274	326				429	480	532											
Stainless Steel	110		160																							
Pitch Fibre	125		181	238														ĺ								
Poleythylene	111	126	161		181	201	226	251	317	357			402	453	503											
Twinwall - PP/PE	119	150	178			235	268		355			429	455	514	572		683									
Corrugated PVCu	110		170			250																				

# **Connection Table**

	4"/100mm HepSleve/ Densleeve	4"/100mm SuperSleve/ SuperSeal	6"/150mm HepSleve/ Densleeve	6"/150mm SuperSleve/ SuperSeal	9"/225mm HepSeal/ HepSleve Densleeve	9"/225mm SuperSleve/ SuperSeal	12"/300mm HepSeal/ HepSleve Densleeve	12"/300mm SuperSleve/ SuperSeal	110mm PVC-U BSEN1401	160mm PVC-U BSEN1401	200mm SewerDrain/ PVC-U BSEN1401	250mm SewerDrain/ PVC-U BSEN1401	315mm SewerDrain/ PVC-U BSEN1401	150mm UltraRib	225mm UltraRib	300mm UltraRib	150mm Twinwall*	225mm Twinwall*	300mm Twinwall*
4"/100mm HepSleve/ Densleeve	VSC137 / VDC135	VSC137 / VDC135	VAC1923	VAC1923					VAC4000		VAC2000			VAC1703			VAC1603		
4"/100mm SuperSleve/SuperSeal	VSC137 / VDC135	VSC120	VAC1922	VAC1922					VAC4000										
6"/150mm HepSleve/ Densleeve	VAC1923	VAC1922	VSC200 / VDC195	VSC200 / VDC195	VAC9001	VAC2655			VAC1922	VAC6000	VSC200	VAC2655	VAC3205		VAC2655			VAC2655	VAC3351
6"/150mm SuperSleve/SuperSeal	VAC1923	VAC1922	VSC200 / VDC195	VSC200 / VDC185		VAC2655			VAC1922										
9"/225mm HepSeal/ HepSleve Densleeve			VAC9001		VSC290	VSC290		VAC3609		VAC2904	VAC9001	VAC2908	VAC3209			VAC3609	VAC2904		VAC3609
9"/225mm SuperSleve/SuperSeal			VAC2655	VAC2655	VSC290	VSC275 / VDC275	VAC3858	VAC3608		VAC2654	VAC2656	VSC265	VAC3208	VAC2754	VSC265	VAC3608	VAC2654	VSC265	
12"/300mm HepSeal/ HepSleve Densleeve					VAC3859	VAC3858	VSC385	VSC385				VAC3858	VAC3850		VAC3858			VAC3858	
12"/300mm SuperSleve/SuperSeal					VAC3609	VAC3608	VSC385	VSC385				VAC3608	VAC3600		VAC3608			VAC3608	
110mm PVC-U BSEN1401	VAC4000	VAC4000	VAC1922	VAC1922					VSC115 / VDC115	VAC1602				VAC1702					
160mm PVC-U BSEN1401			VAC6000		VAC2904	VAC2654			VAC1602	VSC165 / VDC165	VAC2001	VAC2654	VAC3204	VSC175 / VDC175	VAC2654			VAC2654	
200mm SewerDrain/ PVC-U BSEN1401	VAC2000		VSC200		VAC2956	VAC2656				VAC2001	VSC215 / VDC215	VAC2656		VAC6000	VAC2656	VAC3351		VAC2656	VAC3351
250mm SewerDrain/ PVC-U BSEN1401			VAC2655		VAC2908	VSC265	VAC3858	VAC3608		VAC2654	VAC2656	VSC250	VAC3208	VAC2655	VSC250			VSC250	
315mm SewerDrain/ PVC-U BSEN1401			VAC3205		VAC3209	VAC3208	VAC3850	VAC3600		VAC3204		VAC3208	VSC320	VAC3205	VAC3208			VAC3208	
150mm UltraRib	VAC1703		VAR1500			VAC2754			VAC1702	VSC175 / VDC175	VAC6000	VAC2655	VAC3205	VSC175 / VDC175	VAC2655		VSC175 / VDC175	VAC2655	
225mm UltraRib			VAC2655		VAR2250	VSC265	VAC3858	VAC3608		VSC3654	VAC2656	VSC250	VAC3208	VAC2655	VSC250			VSC250	
300mm UltraRib					VAC3609	VAC3608	VAR3000				VAC3351					VSC335			VSC335
150mm Twinwall*	VAC1603				VAC2904	VAC2654								VSC175 / VDC175			VSC165 / VDC165	VAC2654	
225mm Twinwall*			VAC2655			VSC265	VAC3858	VAC3608		VSC2654	VAC2656	VSC250	VAC3208	VAC2655	VSC250		VAC2654	VSC250	VAC3608
300mm Twinwall*			VAC3351		VAC3609						VAC3351					VSC335		VAC3608	VSC335

12 \*e.g. Polysewer/Quantum www.vipseal.co.uk

# **Application Schedule**

#### Standard Couplings

VSC120	VSC137	VSC165	VSC175	VSC200	VSC225	VSC250	VSC265	VSC275	
□110mm pvcu □100mm cast iron (bs416) □100mm stainless steel □100mm cast iron (bs437) □100mm ductile iron □100mm supersleeve (see also vsc 137)	□ 100mm (4") salt glazed ware □ 100mm vitrified clay □ 100mm supersleve □ 100mm pitch fibre □ 100mm asbestos cement	□ 160mm pvcu □ 150mm cast iron (smu/ensign/sml) □ 150mm stainless steel □ 160mm polyethylene	□ 160mm pvcu □ 150mm ductile iron □ 150mm cast iron (bs416) □ 150mm cast iron (bs437) □ 150mm stainless steel □ 150mm ultra-rib □ 150mm quantum	□ 150mm (6") salt grazed ware □ 150mm vitrified clay □ 150mm supersleve □ 150mm soncrete □ 150mm asbestos cement □ 150mm pitch fibre □ 180mm ultra-rib □ 200mm pvcu	☐ 200mm ductile iron ☐ 200mm cast iron (bs416)	□ 175mm pitch fibre □ 200mm vitrified clay □ 200mm asbestos cement □ 225mm ultra-rib □ 225mm quantum □ 250mm pvcu	□ 225mm asbestos cement □ 225mm ductile iron □ 250mm cast iron □ 225mm supersleve	□ 225mm supersleve □ 250mm cast iron □ 250mm ductile iron	
VSC290	VSC310	VSC320	VSC335	VSC345	VSC385	VSC410	VSC425	VSC430	
□ 225mm (9") salt glazed ware □ 225mm vitrified clay □ 225mm concrete (o.d – up to 290mm) □ 250mm asbestos cement □ 250mm ductile iron	□ 225mm concrete (o.d – over 290mm)	□315mm pvcu	□ 300mm ductile iron □ 300mm cast iron	□ 300mm asbestos cement □ 300mm ultra-rib □ 300mm quantum □ 300mm ductile iron	□ 300mm (12") salt glazed ware □ 300mm vitrified clay □ 300mm concrete (o.d – up to 385mm) □ 300mm supersleve	□ 300mm concrete (o.d – over 385mm) □ 400mm pvcu	□ 300mm concrete (o.d – over 405mm)	☐ 400mm ductile iron ☐ 375mm asbestos cement	
VSC445	VSC465	VSC490	VSC510	VSC525	VSC560	VSC580	VSC600		
□ 375mm asbestos cement □ 400mm ductile iron □ 400mm cast iron	□ 375mm (15") salt glazed ware □ 375mm vitrified clay □ 375mm concrete (o.d – up to 465mm) □ 400mm asbestos cement □ 450mm pvcu	□ 375mm concrete (o.d – over 456mm up to 490mm) □ 450mm ductile iron □ 450mm asbestos cement	□ 375mm concrete (o.d – over 490mm up to 510mm) □ 400mm vitrified clay	□ 375mm concrete (o.d – over 510mm up to 525mm)	□ 450mm (18") salt glazed ware □ 450mm vitrified clay □ 450mm concrete (o.d – up to 560mm) □ 500mm asbestos cement	☐ 450mm concrete (o.d – over 560mm up to 580mm)	□ 450mm concrete (o.d – over 580mm up to 600mm)		

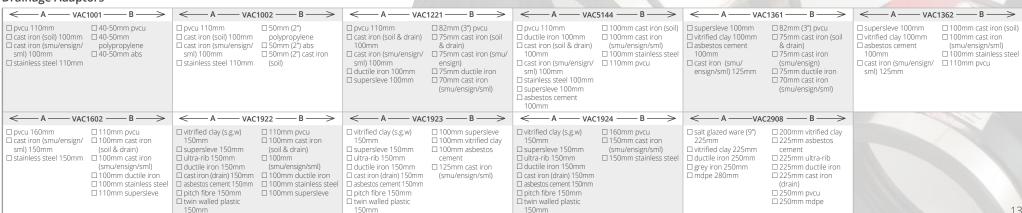
#### **Drain Couplings**

VDC115 VDC	C125	VDC135	VDC150	VDC165	VDC175	VDC185	VDC195
□ 100mm cast iron □ 10 (soil) (smu/ensign/sml) □ 10 □ 100mm stainless steel □ 100mm twin walled plastic □ 10 □ 110mm twin walled plastic □ 10 □ 110mm twin walled plastic □ 10 □ 10 □ 110mm twin walled plastic □ 10 □ 10 □ 110mm twin walled plastic □ 10 □ 10 □ 10 □ 10 □ 10 □ 10 □ 10 □ 1	00mm cast iron (drain) 00mm ductile iron 00mm grey iron		□ 125mm twin walled plastic	□ 150mm cast iron (smu/ensign/sml) □ 150mm stainless steel □ 160mm polyethylene	□ 150mm ductile iron □ 150mm cast iron (bs416)	☐ 150mm pitch fibre ☐ 150mm asbestos cement ☐ 150mm twin walled plastic	□ 150mm supersleve □ 150mm (6") salt glazed ware □ 150mm vitrified clay □ 150mm concrete □ 150mm asbestos cement □ 150mm pitch fibre

### **Universal Adaptors**



### **Drainage Adaptors**



# Installation

### Standard / Extra wide couplings

Insertion of a junction or repair of existing pipeline using standard or extra wide couplings.

- a. If repairing an existing section of pipe Cut section from the pipeline using pipe cutter or disc saw and remove. This should be about 20mm longer than the junction or new section of pipe to be installed.
- 1. Mark off half a coupling width from each joint on each pipe section.
- 2. Loosen the tension and shear bands on the coupling and then slide the coupling onto each end of the existing pipe line (lubricant not required).
- 3. Position the new junction or pipe length and centre a coupling over one joint at a time using the marks previously made then begin to tighten up the worm drives, starting with the tension bands followed by the shear band.
- 4. Check each tension and shear band with a torque wrench to the recommended torque shown on each coupling. Once completed, carefully tamp bedding under the pipeline if applicable.



### Adaptor / Drain couplings

#### **Drain Couplings**

- 1. Slide the coupling fully onto the pipe, position the next pipe.
- 2. Mark one pipe at half a coupling width from the joint.
- 3. Centre the coupling over the joint using the mark.
- 4. Tighten the tension bands to recommended torque and carefully tamp bedding under the pipeline.

#### Adaptor couplings

- 1. Slide coupling fully onto larger pipe.
- 2. Mark the smaller pipe at half a coupling width from the joint.
- 3. Insert smaller pipe up to the mark.
- 4. Tighten the tension bands to recommended torque and carefully tamp bedding under the pipeline.



### **Bushes**

#### Standard coupling using a bush

- Slide the bush over the end of the smaller pipe, loosen the clamps on the coupling and place over the larger pipe.
- 2. Butt pipes together and slide over the coupling until the ends are level (lubricant not required).
- 3. Tighten central shear band and the tension bands to recommended torque.

4. After assembly of joint carefully tamp bedding under the pipeline.



### **Products**

BS EN 295:2013 Company licence number KM 560418 Type 2B Standard Couplings (VSC and VLC) Type 1 Drain couplings (VDC) Adaptor couplings (VAC) Bushes (VBC) Extra Wide Couplings (VSCW and VLCW)

WIS 4-41-01 Company licence number KM 560419 Standard Couplings and Bushes to 600mm diameter (VSC and VBC)

### **Site Testing Specifications**

VIPSeal™ standard, extra wide, wraparound, adaptor and drain couplings are designed to withstand air and water tests in the construction and testing of drains and sewers as specified in BS EN 1610. These tests are required as part of sewers for Adoption (7th Edition) and Approved Document H of the Building Regulation April 2002.

Note: When used in conjunction with a water test, the end stopper should be securely braced.

### Designed for life

When installed correctly VIPSeal™ couplings have a design life of 100 years – exceeding that of the pipe. They are suitable for use above and below ground usually without additional protection due

to the high quality of materials used in their manufacture. In certain circumstances where high levels of chloride are present, either a protective tape or a coupling made from 1.4401(316) grade stainless steel will give satisfactory protection.

### **Sealing System**

In order for a coupling to perform well it needs to maintain an adequate sealing pressure between the coupling and the pipe. This is necessary to resist internal and external hydrostatic pressure as well as root intrusion. With VIPSeal™, this is achieved by a relatively simple system of applying pressure to the elastomeric sleeve through the use of tension bands. The use of a heavy duty single or multiple worm drive allows the radial sealing force to be equally spread around the circumference ensuring optimum sealing performance.

### **VIP-Polymers Ltd**

VIP Polymers Ltd operates a Quality Management System which complies with the requirements of **BS EN ISO 9001:2008**. Company certificate number FM01685.

### VIP Seal™

The elastomeric rubber used in VIPSeal™ couplings complies and is kitemarked to guidelines for pipework and pipelines under BS EN 681 Part1:1996. Company licence number KM 07729.



# Ordering & Delivery

Sales Order Hotline **0800 334 5547** 

VIPSeal's next day delivery service uses overnight carrier services direct from our factory with a choice of timeslots to suit your project needs anywhere in th UK.

Fax **0800 334 5548** 

Email sales@vipseal.co.uk



