

**AVK WATER AND  
WASTEWATER  
PIPELINE FITTING  
SOLUTIONS**

Expect... **AVK**



# WELCOME TO OUR WATER & WASTEWATER PIPELINE FITTING SOLUTIONS GUIDE



IN THE UK



Leading valve & fittings manufacturer for the Water, Wastewater, Gas & Firefighting industries. Expect... Quality.

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Boundary boxes for water meters, water fittings and valves for a range of service pipes.

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International leader in the design, manufacture and distribution of electrofusion fittings, PE ball valves and associated products and services.

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Survey, design, refurbishment, installation as well as commissioning and asset maintenance and management.

[www.glenfieldinvicta.co.uk](http://www.glenfieldinvicta.co.uk)

This document is designed to help engineers and installation teams learn more about AVK and its diverse range of innovative, resilient and technically supported products, which are manufactured to the highest quality to keep your pipeline networks safe, secure and leak free.

AVK UK is part of the globally renowned AVK Group who are based in over 100 countries and have over 4,500 employees worldwide.

To learn more, visit [www.avkuk.co.uk](http://www.avkuk.co.uk)

## The purpose of the brochure

This live document provides technical, innovative and visual information about our product range whilst showcasing best practice solutions to keep your pipelines resilient and leak free.

## Our service offers

We offer Water & Wastewater engineered solutions, emergency repair clamp service and a 24 hour emergency line, as seen below.

## Emergency Repair Clamp Service

We offer a 24/7 emergency same day leak repair clamp service for water mains.

From our facility at Hyde, we offer either a same day, next day, 2 to 3 day service or a delivery to suit your requirement.

## 24/7 EMERGENCY REPAIR FITTING SERVICE

0800 202 8282

## Water & Wastewater Engineered Solutions

Within our extensive scale of capabilities we can provide a comprehensive range of engineering and site solution packages. Our specialist teams come to you to identify the best solution - from feasibility and site audit to network leakage management and repair.

## Engineered Solutions

[enquiries@glenfieldinvicta.co.uk](mailto:enquiries@glenfieldinvicta.co.uk)  
+44 (0) 1563 521150



# OUR RANGE OF FITTINGS



## STRAIGHT COUPLINGS

Enable two plain ended pipes to be joined together.

Page 44



## STAINLESS STEEL REPAIR CLAMPS

Used to temporarily or permanently repair leaks or breaks on all ferrous, PVC and AC(sewage) pipes.

Page 84



## STEPPED COUPLINGS

Enable two plain ended pipes with size variations to be joined together.

Page 50



## DUCTILE IRON REPAIR CLAMPS

Utilise the inner EPDM rubber pad/seal preventing water escape while the outer metal clamp halves are tightened around enabling a tight seal on the damaged pipe.

Page 88



## FLANGE ADAPTORS

Are a type of dismantling joint that join plain-ended pipe to flange valves, fittings, pumps and pipes.

Page 54



## UNDER PRESSURE TEES

Used to temporarily or permanently repair leaks or breaks on all ferrous, PVC and AC(sewage) pipes, and allows for branch connections.

Page 95



## DISMANTLING JOINTS

Provide easy installation and disassembly of flanged pipework and fittings, or flanged equipment such as valves, meters and pumps.

Page 66



## FLANGE CONVERTERS

Are used to connect two flanged pipes, fittings or valves pipe with different sized or drilled flanges.

Page 61



## END CAPS

Are used for blanking off the ends of unused ferrous pipes and pipelines.

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## ENCAPSULATION COLLARS

Are designed to encapsulate and seal leaking or displaced spigot/socket joints in ferrous pipe systems such as Ductile or Grey Cast Iron.

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Driving Innovation to You!

AVK UK has its very own bespoke 3.5 tonne mobile roadshow vehicle, designed to showcase innovation, products, solutions and services at any location in the UK.

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**DRIVING INNOVATION TO YOU!**



# OUR FITTING SERVICE

Expect... it to be Effective and Easy

**Note:** Fabricated at AVK Syddal, Hyde UK

| Fitting                | Repair Clamps  | Stainless Steel  |
|------------------------|--|--|
| Product                | <b>Series 202</b><br>Multi Band           | <b>Series 215</b><br>≤DN300 Branch  |
|                        | <b>Series 206</b><br>Single Band ≤DN1200  | <b>Series 215</b><br>DN350+ Branch  |
|                        |  |  |
|                        |  |  |
| Fast Availability      | 2 Days   | ≤DN300 = 2 Days  |
|                        |  | DN350+ = 3 Days  |
| Express Availability   | 24 Hour<br>(Orders placed by 10am)   | 24 Hour<br>(Orders placed by 10am)   |
| Emergency Availability | Same day / within 24 hours   | Same day / within 24 hours   |

**24 HOUR EMERGENCY LINE**  
**0800 202 8228**

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings





**Note:** Fabricated at AVK Syddal, Hyde UK

| Ductile Iron Clamps & Tees           |   | Fabricated Fittings  |   |
|--------------------------------------|---|--|---|
| <b>Series 201</b><br>Leadless Collar |  | <b>Series 258</b><br>Straight Couplings                      |    |
| <b>Series 253</b><br>SUPA© Collars   |  | <b>Series 259</b><br>Stepped Couplings                       |    |
| <b>Series 257</b><br>SUPA© Tees      |  | <b>Series 260</b><br>Flange Adaptors                         |    |
|                                      |   | <b>Series 265</b><br>Dismantling Joints                      |  |
| 2 Days                               |   | 5 Days   |   |
| 24 Hour<br>(Orders placed by 10am)   |   | ≤DN1200 up to 24 hours <b>(Orders placed by 10am)</b>        |   |
|                                      |   | >DN1400 up to 72 hours delivery                              |   |
| Same day / within 24 hours           |   | <b>Hours from order</b>                                      |   |
|                                      |   | Series 258<br>≤ DN1200 up to 5 hours DN1400+ up to 72 hours  |   |
|                                      |   | Series 259<br>≤ DN1200 up to 5 hours DN1400+ up to 72 hours  |   |
|                                      |   | Series 259<br>≤ DN1200 up to 7 hours DN1400+ up to 72 hours  |   |
|                                      |   | Series 259<br>≤ DN1200 up to 10 hours DN1400+ up to 72 hours |   |

**24 HOUR EMERGENCY LINE**  
**0800 202 8228**

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK FITTINGS PRODUCT SELECTOR

Water and Wastewater

Note: Product information is correct at the time of printing

| Product                   | Type                         | Series      | Range     | Page Number | End Restraint | Flange drilling   | Deflection Per Socket |  |
|---------------------------|------------------------------|-------------|-----------|-------------|---------------|-------------------|-----------------------|--|
|                           |                              |             | DN (mm)   |             |               |                   |                       |  |
| Straight Couplings        | Universal                    | 601/A-006   | 40-400    | 45          | No            | /                 | ±4°                   |  |
|                           | Tensile resistant            | 621/41-001  | 40-300    | 46          | Yes           | /                 | ±3.5°                 |  |
|                           | Universal tensile            | 631/00-001  | 50-700    | 47          | Yes           | /                 | ±4°                   |  |
|                           | Fabricated                   | 258/30      | 350-1600+ | 48          | No            | /                 | ±2° to ±4°            |  |
|                           | Tensile resistant            | 258/61 & 60 | 350-1200  | 49          | Yes           | /                 | /                     |  |
| Stepped couplings         | Universal                    | 602/2-001   | 40-400    | 51          | No            | /                 | ±4°                   |  |
|                           | Tensile                      | 632/00-001  | 50-300    | 52          | Yes           | /                 | ±4°                   |  |
|                           | Fabricated                   | 259/30      | 350-1400+ | 53          | No            | /                 | ±2° to ±4°            |  |
| Flange adaptors           | Universal                    | 603/A-002   | 40-400    | 55          | No            | PN10/16, BS 10    | ±4°                   |  |
|                           | Universal                    | 603/A-003   | 80-200    | 56          | No            | PN10/16, BS 10    | ±4°                   |  |
|                           | Tensile resistant            | 623/10-001  | 40-315    | 57          | Yes           | PN10/16           | ±3.5°                 |  |
|                           | Tensile resistant            | 633/00-001  | 40-700    | 58          | Yes           | PN10/16           | ±4°                   |  |
|                           | Fabricated                   | 260/30      | 350-1400+ | 59          | No            | PN10/16/25, BS 10 | ±2° to ±4°            |  |
|                           | Tensile resistant            | 260/61 & 60 | 350-1200  | 60          | Yes           | PN10/16           | ±1.5° to ±3°          |  |
|                           | Flange converter             | 209/30-001  | 80-800    | 61          | Yes           | PN10/16           | /                     |  |
| Support Bush              | Wedge Type                   | 05/E-008    | 25-800    | 64          |               | N/A               |                       |  |
| Dismantling joints        | 2 flange                     | 265/30      | 300-1600  | 67          | Yes           | PN10/16/25        | ±30 / ±60             |  |
|                           | 3 flange                     | 265/50-001  | 50-250    | 68          | Yes           | PN10/16           | ±30 / ±40             |  |
|                           | 3 flange                     | 265/50-002  | 300-2200  | 69          | Yes           | PN10/16/25        | ±40 to ±80            |  |
| Wall starters             | Type 2                       | 717/30-002  | 350-1600  | 71          | No            | /                 | ±2° / ±4°             |  |
|                           | Type 3                       | 717/30-003  | 350-1600  | 72          | No            | PN10/16           | ±2° / ±4°             |  |
|                           | Type 5                       | 717/30-005  | 350-1600  | 73          | No            | PN10/16           | /                     |  |
|                           | Type 6                       | 717/30-006  | 350-1600  | 74          | No            | PN10/16           | /                     |  |
| End caps                  | Universal                    | 248/32-002  | 80-300    | 77          | No            | /                 | ±4°                   |  |
|                           | Universal                    | 634/00-001  | 50-400    | 78          | Yes           | /                 | /                     |  |
| Transition Fittings       | Universal transition coupler | 635/00-002  | 50-300    | 81          | Yes           | /                 | ±4°                   |  |
| Repair clamps and collars | Split Repair Collar          | 201/30-001  | 50-300    | 83          | No            | PN7               |                       |  |
|                           | Multi band                   | 202/30-001  | 80-1450   | 84          | No            | /                 | /                     |  |
|                           | Multi band                   | 202/30-004  | 80-1450   | 85          | No            | /                 | /                     |  |
|                           | Pipe saver repair clamp      | 203/30-001  | 15-60     | 86          | No            | /                 | /                     |  |
|                           | Single band                  | 206/30-001  | 50-450    | 87          | No            | /                 | /                     |  |
|                           | Universal                    | 253/30      | 80-300    | 88          | No            | /                 | /                     |  |
|                           | Repair clamp                 | 253/40-001  | 80-300    | 89          | No            | /                 | /                     |  |
|                           | Encapsulation Collar         | 208         | 80-1200   | 90          | No            | /                 | /                     |  |
|                           | Encapsulation Collar         | 8001/0-001  | 250-2000  | 91          |               |                   | ±4°                   |  |
| Tees                      | Fabricated                   | 213/30-001  | 80-600    | 93          |               | PN16              |                       |  |
|                           | Fabricated                   | 214/30-001  | 80-600    | 94          | No            | PN10              | /                     |  |
|                           | Multiple band                | 215/30-001  | 80-600    | 95          | No            | PN10              | /                     |  |
|                           | Universal                    | 257/30-001  | 80-300    | 96          | No            | PN10/16           | /                     |  |



**Note:** Product information is correct at the time of printing

|  | Can be used on - Pipe Material |     |              |              |              |     |       |                 |      |          |                 | Support Bush<br><br>(Page 62) | Working pressure   |
|--|--------------------------------|-----|--------------|--------------|--------------|-----|-------|-----------------|------|----------|-----------------|-------------------------------|--------------------|
|  | Polyethylene                   | PVC | Ductile iron | Cast iron AB | Cast iron CD | GRP | Steel | Stainless steel | Clay | Concrete | Asbestos cement |                               | Bar                |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  | •                              | •   |              |              |              |     |       |                 |      |          |                 | Yes                           | PN16               |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | Yes                           | PN16               |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16/25            |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN10/16            |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | 16                 |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | Yes                           | PN16               |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16/25            |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  | •                              | •   | •            |              |              |     |       |                 |      |          |                 | Yes                           | PN16               |
|  | •                              | •   | •            |              | •            | •   | •     | •               | •    | •        | •               | Yes                           | PN16               |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN10/16/25         |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN10/16            |
|  |                                |     |              |              |              |     |       |                 |      |          |                 |                               | PN16               |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN10/16/25         |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN10/16/25         |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN16               |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | Yes                           | PN16               |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | Yes                           | PN16               |
|  |                                |     |              | •            | •            |     |       |                 |      |          |                 |                               |                    |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               | No                            | PN3/5/7/10 ≤ 300mm |
|  |                                | •   | •            |              |              | •   | •     | •               | •    |          |                 | No                            | PN7/10             |
|  |                                | •   | •            | •            | •            | •   | •     | •               | •    |          | •               | No                            | PN7/10 ≤ 300mm     |
|  |                                |     | •            | •            | •            | •   | •     | •               | •    |          |                 | No                            | PN16               |
|  |                                |     | •            | •            | •            | •   | •     | •               | •    |          |                 | No                            | PN10/16            |
|  |                                |     | •            | •            | •            | •   | •     | •               | •    |          |                 | No                            | PN16               |
|  |                                |     | •            | •            | •            |     | •     | •               | •    |          |                 | No                            | PN10/16            |
|  | •                              | •   | •            | •            | •            | •   | •     | •               | •    | •        | •               |                               |                    |
|  |                                |     | •            |              |              |     | •     |                 |      |          |                 |                               |                    |
|  |                                |     | •            | •            | •            | •   | •     | •               | •    |          |                 | No                            | PN10               |
|  |                                | •   | •            | •            | •            |     | •     | •               | •    |          | •               | No                            | PN10               |
|  |                                |     | •            | •            | •            | •   | •     | •               | •    |          |                 | No                            | PN16               |



# FLANGE TABLE

## Water and Wastewater

Note: Product information is correct at the time of printing

| Flange tables | Nominal bore | O/D of Flange |     | No of Bolts | Dia of Bolts |     | Dia of Holes |    | PC Dia of Holes |     |
|---------------|--------------|---------------|-----|-------------|--------------|-----|--------------|----|-----------------|-----|
|               |              | inch          | mm  |             | inch         | mm  | inch         | mm | inch            | mm  |
| B.S.'D'       | 2"/50mm      | 6"            | 152 | 4           | 5/8"         |     | 3/4"         | 19 | 4.1/2"          | 113 |
| B.S.'E'       | 2"/50mm      | 6"            | 152 | 4           | 5/8"         |     | 3/4"         | 19 | 4.1/2"          | 113 |
| PN10          | 2"/50mm      | 6.1/2"        | 165 | 4           |              | M16 | 3/4"         | 19 | 5"              | 125 |
| PN16          | 2"/50mm      | 6.1/2"        | 165 | 4           |              | M16 | 3/4"         | 19 | 5"              | 125 |
| ANSI 150      | 2"/50mm      | 6"            | 152 | 4           | 5/8"         |     | 3/4"         | 19 | 4.3/4"          | 119 |
| ANSI 300      | 2"/50mm      | 6.1/2"        | 165 | 8           | 5/8"         |     | 3/4"         | 19 | 5"              | 125 |
| B.S.'D'       | 3"/80mm      | 7.1/4"        | 184 | 4           | 5/8"         |     | 3/4"         | 19 | 5.3/4"          | 144 |
| B.S.'E'       | 3"/80mm      | 7.1/4"        | 184 | 4           | 5/8"         |     | 3/4"         | 19 | 5.3/4"          | 144 |
| PN10          | 3"/80mm      | 7.7/8"        | 200 | 8           |              | M16 | 3/4"         | 19 | 6.1/2"          | 160 |
| PN16          | 3"/80mm      | 7.7/8"        | 200 | 8           |              | M16 | 3/4"         | 19 | 6.1/2"          | 160 |
| ANSI 150      | 3"/80mm      | 7.1/2"        | 191 | 4           | 5/8"         |     | 3/4"         | 19 | 6"              | 150 |
| ANSI 300      | 3"/80mm      | 8.1/4"        | 210 | 8           | 3/4"         |     | 7/8"         | 22 | 6.5/8"          | 166 |
| B.S.'D'       | 4"/100mm     | 8.1/2"        | 216 | 4           | 5/8"         |     | 3/4"         | 19 | 7"              | 175 |
| B.S.'E'       | 4"/100mm     | 8.1/2"        | 216 | 8           | 5/8"         |     | 3/4"         | 19 | 7"              | 175 |
| PN10          | 4"/100mm     | 8.4/5"        | 220 | 8           |              | M16 | 3/4"         | 19 | 7"              | 180 |
| PN16          | 4"/100mm     | 8.4/5"        | 220 | 8           |              | M16 | 3/4"         | 19 | 7"              | 180 |
| ANSI 150      | 4"/100mm     | 9"            | 229 | 8           | 5/8"         |     | 3/4"         | 19 | 7.1/2"          | 188 |
| ANSI 300      | 4"/100mm     | 10"           | 254 | 8           | 3/4"         |     | 7/8"         | 22 | 7.7/8"          | 197 |
| B.S.'D'       | 6"/150mm     | 11"           | 280 | 8           | 5/8"         |     | 3/4"         | 19 | 9.1/4"          | 231 |
| B.S.'E'       | 6"/150mm     | 11"           | 280 | 8           | 3/4"         |     | 7/8"         | 22 | 9.1/4"          | 231 |
| PN10          | 6"/150mm     | 11.3/5"       | 285 | 8           |              | M20 | 7/8"         | 21 | 9.1/2"          | 239 |
| PN16          | 6"/150mm     | 11.3/5"       | 285 | 8           |              | M20 | 7/8"         | 23 | 9.1/2"          | 240 |
| ANSI 150      | 6"/150mm     | 11"           | 279 | 8           | 3/4"         |     | 7/8"         | 23 | 9.1/2"          | 238 |
| ANSI 300      | 6"/150mm     | 12.1/2"       | 318 | 12          | 3/4"         |     | 7/8"         | 22 | 10.5/8"         | 266 |
| B.S.'D'       | 8"/200mm     | 13.1/4"       | 336 | 8           | 5/8"         |     | 3/4"         | 20 | 11.1/2"         | 288 |
| B.S.'E'       | 8"/200mm     | 13.1/4"       | 336 | 8           | 3/4"         |     | 7/8"         | 22 | 11.1/2"         | 288 |
| PN 10         | 8"/200mm     | 13.3/5"       | 340 | 8           |              | M20 | 7/8"         | 23 | 11.1/2"         | 294 |
| PN16          | 8"/200mm     | 13.3/5"       | 340 | 12          |              | M20 | 7/8"         | 23 | 11.1/2"         | 295 |
| ANSI 150      | 8"/200mm     | 13.1/2"       | 343 | 8           | 3/4"         |     | 7/8"         | 22 | 13.1/2"         | 338 |
| ANSI 300      | 8"/200mm     | 15"           | 381 | 12          | 7/8"         |     | 1"           | 25 | 15"             | 375 |
| B.S.'D'       | 10"/250mm    | 16"           | 406 | 8           | 3/4"         |     | 7/8"         | 22 | 14              | 350 |
| B.S.'E'       | 10"/250mm    | 16"           | 406 | 12          | 3/4"         |     | 7/8"         | 22 | 14              | 350 |
| PN 10         | 10"/250mm    |               | 395 | 12          |              | M20 | 7/8"         | 23 | 14              | 350 |
| PN16          | 10"/250mm    | 16.1/5"       | 405 | 12          |              | M24 | 1"           | 28 | 14.3/4"         | 355 |
| ANSI 150      | 10"/250mm    | 16"           | 406 | 12          | 7/8"         |     | 1.1/8"       | 25 | 14.3/4"         | 361 |
| ANSI 300      | 10"/250mm    | 17.1/2"       | 445 | 16          | 1"           |     | 1.1/8"       | 28 | 15.1/4"         | 381 |
| B.S.'D'       | 12"/300mm    | 18"           | 457 | 12          | 3/4"         |     | 7/8"         | 25 | 16"             | 400 |
| B.S.'E'       | 12"/300mm    | 18"           | 457 | 12          | 7/8"         |     | 1"           | 26 | 16"             | 400 |
| PN 10         | 12"/300mm    |               | 445 | 12          |              | M20 | 7/8"         | 23 | 16"             | 400 |
| PN16          | 12"/300mm    | 18.3/5"       | 460 | 12          |              | M24 | 1"           | 28 | 16.1/2"         | 410 |
| ANSI 150      | 12"/300mm    | 19"           | 483 | 12          | 3/4"         |     | 1"           | 25 | 17"             | 425 |
| ANSI 300      | 12"/300mm    | 20.1/2"       | 521 | 16          | 1.1/8"       |     | 1.1/4"       | 31 | 17.3/4"         | 444 |
| B.S.'D'       | 14"/350mm    | 20.3/4"       | 525 | 12          | 7/8"         |     | 1"           | 25 | 18.1/2"         | 463 |



**Note:** Product information is correct at the time of printing

| Flange tables | Nominal bore | O/D of Flange                                       |      | No of Bolts | Dia of Bolts |     | Dia of Holes |    | PC Dia of Holes |      |
|---------------|--------------|---|------|-------------|--------------|-----|--------------|----|-----------------|------|
|               |              | inch  | mm   |             | inch         | mm  | inch         | mm | inch            | mm   |
| B.S.'E'       | 14"/350mm    | 20.¾"   | 525  | 12          | 7/8"         |     | 1"           | 25 | 18.½"           | 463  |
| PN 10         | 14"/350mm    |   | 505  | 16          |              | M20 | 7/8"         | 23 |                 | 460  |
| PN16          | 14"/350mm    | 20.4/5"   | 520  | 16          |              | M24 | 1"           | 28 | 18.½"           | 470  |
| ANSI 150      | 14"/350mm    | 21"   | 533  | 12          | 1"           |     | 1.1/8"       | 28 | 18.¾"           | 469  |
| ANSI 300      | 14"/350mm    | 23"   | 584  | 20          | 1.1/8"       |     | 1.1/4"       | 31 | 20.1/4"         | 506  |
| B.S.'D'       | 16"/400mm    | 22.¾"   | 575  | 12          | 7/8"         |     | 1"           | 25 | 20.½"           | 513  |
| B.S.'E'       | 16"/400mm    | 22.¾"   | 575  | 12          | 7/8"         |     | 1"           | 25 | 20.½"           | 513  |
| PN10          | 16"/400mm    |   | 565  | 16          |              | M24 | 1"           | 28 | 20.½"           | 515  |
| PN16          | 16"/400mm    | 23.1/5"   | 580  | 16          |              | M27 | 1.1/4"       | 31 | 21"             | 525  |
| ANSI 150      | 16"/400mm    | 23.1/2"   | 597  | 16          | 1"           |     | 1.1/8"       | 28 | 21.1/4"         | 531  |
| ANSI 300      | 16"/400mm    | 25.1/2"   | 648  | 20          | 1.1/4"       |     | 1.3/8"       | 34 | 22.1/2"         | 563  |
| B.S.'D'       | 18"/450mm    | 25.1/4"   | 610  | 12          | 7/8"         |     | 1"           | 25 | 23"             | 575  |
| B.S.'E'       | 18"/450mm    | 25.1/4"   | 610  | 16          | 7/8"         |     | 1"           | 25 | 23"             | 575  |
| PN10          | 18"/450mm    | 25.1/4"   | 615  | 20          |              | M24 | 1"           | 28 | 22.1/2"         | 565  |
| PN16          | 18"/450mm    | 25.3/5"   | 640  | 20          |              | M27 | 1.1/4"       | 31 | 23.1/2"         | 585  |
| ANSI 150      | 18"/450mm    | 25"   | 635  | 16          | 1.1/8"       |     | 1.1/4"       | 31 | 22.¾"           | 569  |
| ANSI 300      | 18"/450mm    | 28"   | 711  | 24          | 1.1/4"       |     | 1.3/8"       | 34 | 24.¾"           | 619  |
| B.S.'D'       | 20"/500mm    | 27.¾"   | 705  | 16          | 7/8"         |     | 1"           | 25 | 25.1/4"         | 631  |
| B.S.'E'       | 20"/500mm    | 27.¾"   | 705  | 16          | 7/8"         |     | 1"           | 25 | 25.1/4"         | 631  |
| PN10          | 20"/500mm    |   | 670  | 20          |              | M24 | 1"           | 28 | 24.¾"           | 620  |
| PN16          | 20"/500mm    | 28.3/5"   | 715  | 20          |              | M30 | 1.3/8"       | 34 | 26"             | 650  |
| ANSI 150      | 20"/500mm    | 27.1/2"   | 699  | 20          | 1.1/8"       |     | 1.1/4"       | 31 | 25"             | 625  |
| ANSI 300      | 20"/500mm    | 30.1/2"   | 775  | 24          | 1.1/4"       |     | 1.3/8"       | 34 | 27"             | 675  |
| B.S.'D'       | 24"/600mm    | 32.1/2"   | 825  | 16          | 1"           |     | 1.1/8"       | 28 | 29.¾"           | 744  |
| B.S.'E'       | 24"/600mm    | 32.1/2"   | 825  | 16          | 1.1/8"       |     | 1.1/4"       | 31 | 29.¾"           | 744  |
| PN 10         | 24"/600mm    |   | 780  | 20          |              | M27 | 1.1/4"       | 31 |                 | 725  |
| PN16          | 24"/600mm    |   | 840  | 20          |              | M33 | 1.1/2"       | 37 | 31"             | 770  |
| ANSI 150      | 24"/600mm    | 32"   | 813  | 20          | 1.1/4"       |     | 1.3/8"       | 34 | 29.1/2"         | 738  |
| ANSI 300      | 24"/600mm    | 36"   | 914  | 24          | 1.1/2"       |     | 1.5/8"       | 41 | 32"             | 800  |
| PN 10         | 28"/700mm    |   | 895  | 24          |              | M27 |              | 30 |                 | 840  |
| PN 16         | 28"/700mm    |   | 910  | 24          |              | M33 |              | 36 |                 | 840  |
| B.S. 'D'      | 30" /750mm   | 39.1/4"   |      | 20          | 1.1/8"       |     | 1.1/4"       |    | 36.1/2"         |      |
| B.S. 'E'      | 30" /750mm   | 39.1/4"   |      | 20          | 1.1/4"       |     | 1.1/2"       |    | 36.1/3"         |      |
| PN10 /PN16    | 30" /750mm   | 750mm dia does not exist for PN10 or PN16 standards |      |             |              |     |              |    |                 |      |
| PN 10         | 32"/800mm    |   | 1015 | 24          |              | M30 |              | 34 |                 | 950  |
| PN 16         | 32"/800mm    |   | 1025 | 24          |              | M36 |              | 41 |                 | 950  |
| PN 10         | 36"/900mm    |   | 1115 | 28          |              | M30 |              | 34 |                 | 1050 |
| PN 16         | 36"/900mm    |   | 1125 | 28          |              | M36 |              | 41 |                 | 1050 |
| PN 10         | 40"/1000mm   |   | 1230 | 28          |              | M33 |              | 37 |                 | 1160 |
| PN 16         | 40"/1000mm   |   | 1255 | 28          |              | M39 |              | 44 |                 | 1170 |
| PN 10         | 48"/1200mm   |   | 1455 | 32          |              | M36 |              | 41 |                 | 1380 |
| PN 16         | 48"/1200mm   |   | 1485 | 32          |              | M45 |              | 48 |                 | 1390 |

# PIPE OUTSIDE DIAMETER CHART

## Water and Wastewater

**Note:** Product information is correct at the time of printing

| Nominal Bore  | Inches  |                | 0.5  | 0.75 | 1    | 1.25 | 1.5             | 2               | 2.5             | 3            | 3.5   | 4             | 5                  | 6             | 7             | 8             | 9              | 10             | 12             | 14             | 15             | 16             |  |
|---|---|----------------|--|------|------|------|-----------------|-----------------|-----------------|--------------|-------|---------------|--------------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|--|
|   | mm  |                | 15   | 20   | 25   | 32   | 40              | 50              | 65              | 80           | 90    | 100           | 125                | 150           | 175           | 200           | 225            | 250            | 300            | 350            | 375            | 400            |  |
| Ductile Iron  | BS4772 (1988)<br>DIN 28601, 28602, 28603, 28605         |                |  |      |      |      | 56<br>DIN 28601 | 66<br>DIN 28605 | 82<br>DIN 28605 | 98           |       | 118           | 144<br>DIN 28601/3 | 170           |               | 222           |                | 274            | 326            | 378            |                | 429            |  |
| uPVC  | BS3505  |                | 21.4   | 26.8 | 33.6 | 42.3 | 48.3            | 60.4            |                 | 88.9         |       | 114.3         | 140.2              | 168.3         |               | 219.1         |                | 273            | 323.9          | 355.6          |                | 406.4          |  |
|   | BS3506  |                | 21.4   | 26.8 | 33.6 | 42.3 | 48.3            | 60.4            | 75.2            | 88.9         |       | 114.3         | 140.2              | 168.3         | 193.8         | 219.1         | 244.5          | 273            | 323.9          | 355.5          |                | 406.4          |  |
| (Imperial Cast Iron) and ASBESTOS CEMENT (Turned End) | BS1211 (1981)<br>(UTI 27" NB)                           | Class AB Only  |  |      |      |      | 2.20<br>55.9    | 2.72<br>69.1    | 3.24<br>82.3    | 3.76<br>95.5 |       | 4.80<br>121.9 | 5.90<br>149.9      | 6.98<br>177.3 | 8.06<br>204.7 | 9.14<br>232.2 | 10.20<br>259.1 | 11.26<br>286.0 | 13.14<br>333.8 | 15.22<br>387   | 16.26<br>413   | 17.30<br>439   |  |
|   |   | Class CD Only  |  |      |      |      | 2.20<br>55.9    | 2.72<br>69.1    | 3.24<br>82.3    | 3.76<br>95.5 |       | 4.80<br>121.9 | 5.90<br>149.9      | 6.98<br>177.3 | 8.06<br>204.7 | 9.14<br>232.2 | 10.20<br>259.1 | 11.26<br>286.0 | 13.60<br>345.4 | 15.72<br>399.3 | 16.78<br>426.2 | 17.84<br>453.1 |  |
|   | BS78 (1981)<br>BS486 (1966)                             | Class STD Only |  |      |      |      | 2.25<br>57      |                 | 3.25<br>82.5    |              |       |               |                    |               |               |               |                |                |                |                |                |                |  |
|   |   |                |  |      |      |      |                 |                 |                 |              |       |               |                    |               |               |               |                |                |                |                |                |                |  |
| Steel   | ISO/4200 (1991)   | SER 1          | 21.3   | 26.9 | 33.7 | 42.4 | 48.3            | 60.3            | 76.1            | 88.9         |       | 114.3         | 139.7              | 168.3         |               | 219.1         |                | 273            | 323.9          | 355.6          |                | 406.4          |  |
|   |   | SER 2          |  | 25.0 | 32.0 | 40.0 | 57.0            | 63.5            | 70.0            |              | 101.6 | 127.0         | 133.0              |               |               |               |                |                |                |                |                |                |  |
|   |   | SER 3          |  | 25.4 | 30.0 | 44.5 | 54.0            |                 | 73.0            | 82.5         |       | 108.0         | 141.3              | 159.0         | 193.7         |               | 244.5          |                |                |                |                |                |  |
|   |   | SER 3          |  | 35.0 |      |      |                 |                 |                 |              |       |               | 152.4              | 177.8         |               |               |                |                |                |                |                |                |  |
|   | BS1387  |                | 21.3   | 26.9 | 33.7 | 42.4 | 48.3            | 60.3            | 76.1            | 88.9         |       | 114.3         | 139.7              | 165.1         |               |               |                |                |                |                |                |                |  |
|   | BS3600 (1998) & BS3601 (1993) (pipe ends to BS534 1990) |                | 21.4   | 26.8 | 33.6 | 42.3 | 48.3            | 60.4            | 76.1            | 88.9         | 101.6 | 114.3         | 139.7              | 168.3         | 193.7         | 219.1         | 244.5          | 273            | 323.9          | 355.6          |                | 406.4          |  |
|   | API 5L & BS1600   |                | 21.4   | 26.7 | 33.4 | 42.2 | 48.3            | 60.3            | 73.0            | 88.9         | 101.6 | 114.3         | 141.3              | 168.3         |               | 219.1         |                | 273.1          | 323.9          | 355.6          |                | 406.4          |  |
| GRP   | BS5480  |                |  |      |      |      |                 |                 |                 |              |       |               |                    |               | 220           |               | 272            | 324            | 376            |                | 427            |                |  |
| Metric Asbestos Cement (Turned End)                   | BS486   | Class 15       |  |      |      |      |                 |                 |                 |              |       |               |                    | 177           |               | 232           | 259            | 286            | 334            | 392            |                | 448            |  |
|   |   | Class 20       |  |      |      |      |                 |                 |                 |              |       |               |                    |               |               | 232           | 259            | 286            | 345            | 405            |                | 463            |  |
|   |   | Class 25       |  |      |      |      |                 | 69              |                 | 96           |       | 122           |                    | 177           |               | 240           | 268            | 295            | 356            | 419            |                | 478            |  |
| ABS   | BS5391  |                |  |      |      |      |                 |                 |                 |              |       |               |                    |               |               |               |                |                |                |                |                |                |  |
| uPVC & Polyethylene (Metric) BS5556 (ISO/161/1)       |   |                | Metric uPVC & PE Have a Designated Nominal Bore which is usually the same as the outside diameter. Quote Pipe Class, Rating or Wall Thickness on Enquiries |      |      |      |                 |                 |                 |              |       |               |                    |               |               |               |                |                |                |                |                |                |  |
|   |   |                | 16   | 20   | 25   | 32   | 40              | 50              | 63              | 75           | 90    | 110           | 125                | 140           | 160           | 180           | 200            | 225            | 280            | 315            | 355            | 400            |  |





**Note:** Product information is correct at the time of printing

|                   |                |                |                |                |                |                |                |                |                |                |              |                |                 |                 |                    |                    |        |                    |                    |        |      |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|----------------|-----------------|-----------------|--------------------|--------------------|--------|--------------------|--------------------|--------|------|
| 18                | 20             | 21             | 22             | 24             | 26             | 27             | 28             | 30             | 32             | 33             | 34           | 36             | 40              | 42              | 44                 | 48                 | 52     | 56                 | 64                 | 72     | 80   |
| 450               | 500            | 525            | 550            | 600            | 650            | 675            | 700            | 750            | 800            | 825            | 850          | 900            | 1000            | 1050            | 1100               | 1200               | 1300   | 1400               | 1600               | 1800   | 2000 |
| 480<br>BS<br>Only | 532            |                |                | 635            |                |                | 738            |                | 842            |                |              | 945            | 1048            |                 | 1152<br>BS<br>Only | 1255<br>BS<br>Only |        | 1462<br>BS<br>Only | 1668<br>BS<br>Only |        |      |
| 457.2             | 508            |                |                | 609.6          |                |                |                |                |                |                |              |                |                 |                 |                    |                    |        |                    |                    |        |      |
| 457.2             | 508            |                | 558.8          | 609.6          |                |                |                |                |                |                |              |                |                 |                 |                    |                    |        |                    |                    |        |      |
| 19.38<br>492      | 21.46<br>545   | 22.50<br>572   | 23.54<br>598   | 25.60<br>650   | 27.66<br>703   | 28.70<br>729   | 29.72<br>755   | 31.78<br>807   | 33.84<br>860   | 34.88<br>886   | 35.92<br>912 | 37.96<br>964   | 42.06<br>1068   | 44.12<br>1121   | 46.16<br>1172      | 50.26<br>1277      |        |                    |                    |        |      |
| 19.9<br>506.9     | 22.06<br>560.3 | 23.12<br>587.2 | 24.16<br>613.7 | 26.26<br>667.0 | 28.36<br>720.3 | 29.40<br>746.8 | 30.44<br>773.2 | 32.52<br>826.0 | 34.62<br>879.3 | 35.66<br>905.8 |              | 38.76<br>984.5 | 42.92<br>1090.2 | 45.00<br>1143.0 |                    | 51.20<br>1300.5    |        |                    |                    |        |      |
|                   |                |                |                |                |                |                |                |                |                |                |              |                |                 |                 |                    |                    |        |                    |                    |        |      |
| 457               | 508            |                |                | 610            |                |                | 711            |                | 813            |                |              | 914            | 1016            | 1067            | 1118               | 1219               |        | 1422               | 1626               | 1829   | 2032 |
|                   |                |                |                |                |                |                | 762            |                |                |                |              |                |                 | 1168            |                    | 1321               |        |                    |                    |        |      |
|                   |                |                | 559            |                | 660            |                |                |                |                | 864            |              |                |                 |                 |                    |                    |        |                    |                    |        |      |
|                   |                |                |                |                |                |                |                |                |                |                |              |                |                 |                 |                    |                    |        |                    |                    |        |      |
| 457               | 508            |                | 559            | 610            | 660            |                | 711            | 762            | 813            |                | 864          | 914            | 1016            |                 |                    | 1219               |        | 1422               | 1626               | 1829   | 2032 |
| 457.2             | 508            |                | 559            | 609.6          | 660.4          |                | 711.2          | 762            | 812.8          |                | 863.6        | 914.4          | 1016            | 1066.8          | 1117.6             | 1219.2             | 1320.8 | 1422.4             | 1125.6             | 1828.8 | 2032 |
| 478               | 530            |                |                | 633            |                |                | 718            |                | 820            |                |              | 924            | 1027            |                 | 1144               | 1228               | 1350   | 1449               | 1640               | 1844   | 2048 |
| 498               | 568            |                |                | 654            |                |                | 761            | 808            | 882            |                | 927          | 970            |                 |                 |                    |                    |        |                    |                    |        |      |
| 515               | 586            |                |                | 627            |                |                | 780            | 830            | 904            |                | 952          | 996            |                 |                 |                    |                    |        |                    |                    |        |      |
| 532               | 605            |                |                | 691            |                |                | 801            | 852            | 915            |                | 977          | 1024           |                 |                 |                    |                    |        |                    |                    |        |      |
|                   |                |                |                |                |                |                |                |                |                |                |              |                |                 |                 |                    |                    |        |                    |                    |        |      |
| 450               | 500            | 560            | 630            | 710            | 800            | 900            | 1000           | 1200           | 1400           | 1600           | 1800         | 2000           |                 |                 |                    |                    |        |                    |                    |        |      |

# REPAIR CLAMPS AND TEES PIPE MATERIAL GUIDE

## Water and Wastewater

**Note:** Product information is correct at the time of printing

| Pipe Material               | Standard       |  |
|-----------------------------|----------------|--|
| <b>Asbestos Cement Pipe</b> | BS 486         | Specification for asbestos-cement pressure pipes and joints  |
| <b>Asbestos Cement Pipe</b> | BS EN 512      | Fibre-cement products. Pressure pipes and joints   |
| <b>ABS</b>                  | BS 5391        | Acrylonitrile-butadiene-styrene (ABS) pressure pipe specification  |
| <b>Cast Iron</b>            | BS 78          | Specification for cast iron spigot and socket pipes (vertically cast) and spigot and socket fittings   |
| <b>Cast Iron</b>            | BS 1211        | Specification for centrifugally cast (spun) iron pressure pipes for water, gas and sewage  |
| <b>Clay</b>                 | BS EN 295      | Vitrified clay pipe systems for drains and sewers  |
| <b>Ductile Iron</b>         | BS 4772        | Specification for ductile iron pipes and fittings  |
| <b>Ductile Iron</b>         | BS EN 545      | Ductile iron pipes, fittings, accessories and their joints for water pipelines. Requirements and test methods  |
| <b>Ductile Iron</b>         | BS EN 598      | Ductile iron pipes, fittings, accessories and their joints for sewerage applications. Requirements and test methods  |
| <b>Ductile Iron</b>         | BS EN 969      | Ductile iron pipes, fittings, accessories and their joints for gas pipelines. Requirements and test methods  |
| <b>GRP</b>                  | BS 5480        | Specification for glass reinforced plastics (GRP) pipes, joints and fittings for use for water supply or sewerage  |
| <b>GRP</b>                  | BS EN 14364    | Plastics piping systems for drainage and sewerage with or without pressure. Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP). Specifications for pipes, fittings and joints |
| <b>Polyethylene (PE)</b>    | BS EN 12201    | Plastics piping systems for water supply, and for drainage and sewerage under pressure. Polyethylene (PE)  |
| <b>PVC-U</b>                | BS 3505        | Specification for unplasticized polyvinyl chloride (PVC-U) pressure pipes for cold potable water   |
| <b>PVC-U</b>                | BS EN ISO 1452 | Plastics piping systems for water supply and for buried and above-ground drainage and sewerage under pressure. Unplasticized poly(vinyl chloride) (PVC U). Fittings  |
| <b>PVC-U</b>                | BS 3506        | Specification for unplasticized PVC pipe for industrial uses   |
| <b>PVC-O</b>                | ISO 16422      | Pipes and joints made of oriented unplasticized poly(vinyl chloride) (PVC-O) for the conveyance of water under pressure - Specifications   |
| <b>Metric PVC-U and PE</b>  | BS ISO 11922   | Thermoplastics pipes for the conveyance of fluids. Dimensions and tolerances. Metric series  |
| <b>Steel</b>                | BS 1387        | Specification for screwed and socketed steel tubes and tubulars and for plain end steel tubes suitable for welding or for screwing to BS 21 pipe threads   |
| <b>Steel</b>                | BS EN 10225    | Non-alloy steel tubes suitable for welding and threading. Technical delivery conditions  |
| <b>Steel</b>                | ISO 4200       | Plain end steel tubes, welded and seamless. General tables of dimensions and masses per unit length  |
| <b>Steel</b>                | BS EN10024     | Non-alloy steel tubes and fittings for the conveyance of water and other aqueous liquids. Technical delivery conditions  |
| <b>Steel</b>                | BS 4825-1 to 5 | Stainless steel tubes and fittings for the food industry and other hygienic applications   |
| <b>Steel</b>                | BS 534         | Specification for steel pipes, joints and specials for water and sewage  |
| <b>Steel</b>                | BS EN 10224    | Non-alloy steel tubes and fittings for the conveyance of water and other aqueous liquids   |
| <b>Steel</b>                | BS 3600        | Specification for dimensions and masses per unit length of welded and seamless steel pipes and tubes for pressure purposes   |
| <b>Steel</b>                | BS EN 10220    | Seamless and welded steel tubes. Dimensions and masses per unit length   |
| <b>Steel</b>                | BS 3601        | Specification for carbon steel pipes and tubes with specified room temperature properties for pressure purposes  |
| <b>Steel</b>                | BS EN 10216    | Seamless steel tubes for pressure purposes. Technical delivery conditions. Non-alloy steel tubes with specified room temperature properties  |
| <b>Steel</b>                | BS EN 10217    | Welded steel tubes for pressure purposes. Technical delivery conditions. Non-alloy steel tubes with specified room temperature properties  |
| <b>Steel</b>                | BS 1600        | Specification for dimensions of steel pipe for the petroleum industry  |



# PIPE CALIPERING

## Best Practice

**Note:** Product information is correct at the time of printing

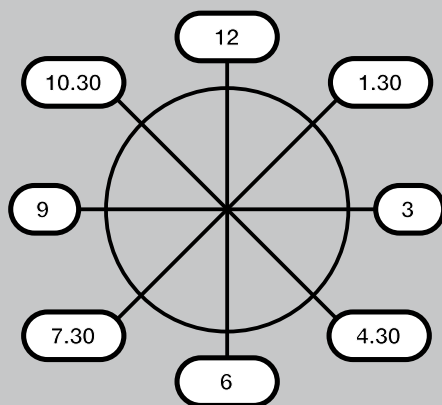
### Pipe Calipering

**IT IS IMPORTANT THAT CALIPERING OF THE PIPE DIAMETER IS DONE ACCURATELY AND CONSISTENTLY TO ENSURE THAT PRODUCTS SUPPLIED WILL FIT CORRECTLY.**

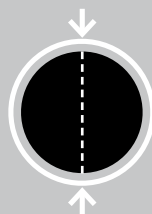
Please use the following guidance to record and inform AVK UK of the measurements. If a dimension cannot be measured accurately in the position defined below please contact the AVK Technical Services Team **+44 (0) 1246 479100**.

**PRIOR TO CALIPERING, ENSURE THE PIPE SURFACE IS THOROUGHLY CLEANED.**

Caliper the pipe diameter in four positions around the circumference and in four positions longitudinally. Then measure the circumference in the same positions using a Pi tape. Record the information and send to the appropriate AVK UK representative.

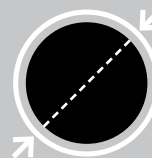


### Step-by-step Visual



#### Step 1

Measure diameter at 12 and 6 o'clock positions



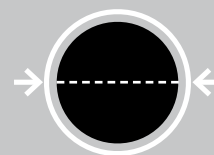
#### Step 2

Measure diameter at 1.30 and 7.30 positions



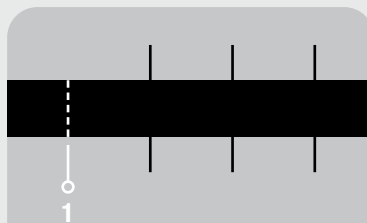
#### Step 3

Measure diameter at 10.30 and 4.30 positions



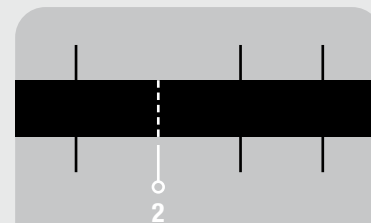
#### Step 4

Measure diameter at 3 and 9 o'clock positions



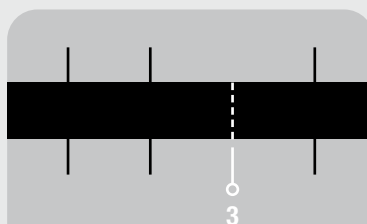
#### Step 5

Measure around the circumference of the pipe with Pi tape



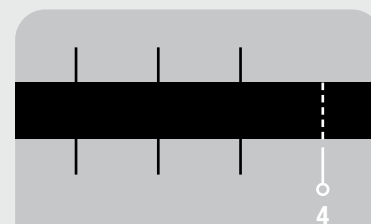
#### Step 6

Repeat steps 1-5 for position 2



#### Step 7

Repeat steps 1-5 for position 3



#### Step 8

Repeat steps 1-5 for position 4



## Water and Wastewater

**1. COUPLINGS**  
 Series 601 & Series 602 Supa Universal™ - DN40-400  
 Series 621 Supa Plus™ Dedicated - DN40-300  
 Series 631 Supa Maxi™ Universal Tensile - DN50-600  
 Series 258/30 Fabricated - DN350-1600  
 Series 258/61 & 60 Fabricated Tensile - DN350-1200

## 2. FLANGE ADAPTORS

**3. UNDER PRESSURE TEES**  
Series 214 MS UPT - DN80-600  
Series 215 St/St UPT - DN80-600  
Series 257 DI UPT - DN80-300







#### 4. REPAIR CLAMPS

Series 202 St/St Double Band Repair Clamp - DN80-1450  
Series 203 Pipe Saver Repair Clamp - DN15-60  
Series 206 St/St Single Band Repair Clamp - DN50-400  
Series 253 DI Repair Clamp - DN80-300  
Series 748 St/St Repair Clamps - DN40-350

#### 4. REPAIR CLAMPS

Series 202 St/St Double Band Repair Clamp - DN80-1450  
Series 203 Pipe Saver Repair Clamp - DN15-60  
Series 206 St/St Single Band Repair Clamp - DN50-400  
Series 253 DI Repair Clamp - DN80-300  
Series 748 St/St Repair Clamps - DN40-350

## 5. ENCAPSULATION COLLAR

## 5. ENCAPSULATION COLLAR

## 6. DISMANTLING JOINTS

## 6. DISMANTLING JOINTS

# AVK SUPA® SOLUTIONS



## INTRODUCTION

The supplement has been developed to assist you in specifying the correct AVK SUPA® coupler or flange adaptor for your particular application.

The sheer diversity of the AVK SUPA® range of fittings means it is impossible to cover every design scenario in these guidelines.

For more information on technical support, please contact the AVK Technical Services Team on **+44 (0) 1246 479100**.

Wherever possible, diagrams and tables have been used to illustrate key points. A question and answer format has been adopted for clarity. Wherever it is appropriate, bullet points have been used.

This is a 'live' document. We welcome any suggestions you may have as to how we can improve it. Please send any comments or ideas to **customerservice@avkuk.co.uk**

You can access the latest digital version of the technical guidance supplement by scanning the QR Code below



## PLEASE NOTE

Our SUPA® Solutions section relate only to AVK SUPA® fittings, namely:

**SUPA Universal™**  
**SUPA Maxi™**  
**SUPA Plus™**

This section provides a range of general and generic information to assist those tasked with designing pipe systems.

The information covered within this section is relevant to most design scenarios. However, each pipe system design is unique and the guidelines should be used in conjunction with expert advice to ensure the proposed design is fit for purpose.

## IMPORTANT

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings.

PAGE 45

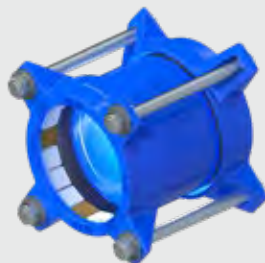


**SUPA UNIVERSAL™**  
Series 601

Scan the QR code to Learn  
more about this product



PAGE 46



**SUPA PLUS™**  
Series 621

Scan the QR code to Learn  
more about this product



PAGE 47



**SUPA MAXI™**  
Series 631

Scan the QR code to Learn  
more about this product



PAGE 55 & 56



**SUPA UNIVERSAL™**  
Series 603

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more about this product



PAGE 57



**SUPA PLUS™**  
Series 623

Scan the QR code to Learn  
more about this product



PAGE 58



**SUPA MAXI™**  
Series 633

Scan the QR code to Learn  
more about this product



# HOW DO AVK SUPA® FITTINGS WORK?

## Simplicity: The Compression Principle

All AVK SUPA® fittings function through a simple compression principle. The compression principle is explained in the following drawings.

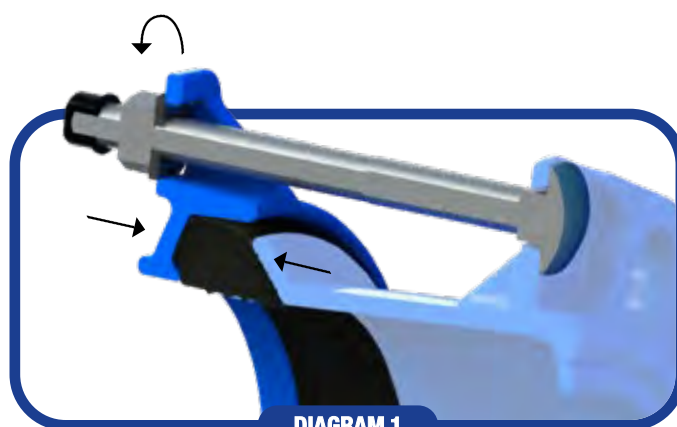


DIAGRAM 1

### CENTRE SLEEVE

Tightening the bolts compresses the gasket between the end ring and the centre sleeve, forcing the gasket to seal onto the pipe surface.

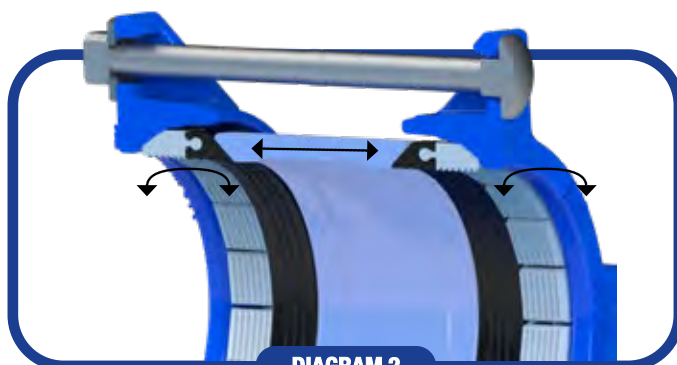


DIAGRAM 2

### ELASTOMERIC GASKETS

Gaskets deform to accommodate expansion and contraction. Flexible gasket and centre sleeve clearance allows angular movement.

## AVK SUPA® FITTINGS CHARACTERISTICS

### Expansion and Contraction

AVK SUPA® Fittings are able to accommodate pipeline expansion and contraction caused by fluctuations in ambient temperature & pipeline pressure. There is no requirement for expansion joints.

### Angular Deflection

AVK SUPA® Fittings are able to tolerate a significant degree of angular deflection to accommodate pipeline movement caused by, for example, ground settlement. (See page 32 for further guidance on angular deflection).

### Long Radius Bends

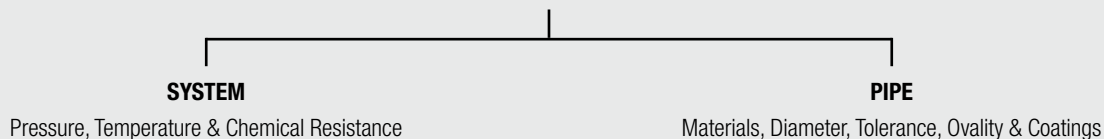
AVK SUPA® Fittings can, in some cases, be used to form long radius bends. This is due to the angular deflection tolerance designed into the fittings.

# AVK SUPA® FITTINGS AND PIPE SYSTEMS: THE BASICS

Designing future-proof pipe systems

AVK SUPA® fittings form an integral element of the pipe system within which they are integrated. As a pipe systems designer you will need to consider the specific characteristics of the pipe system in which AVK SUPA® fittings are to be used.

## THE PRINCIPAL CHARACTERISTICS TO TAKE INTO ACCOUNT CAN BE SPLIT INTO TWO SECTIONS



### SYSTEM

#### PRESSURE

The working pressure of an AVK SUPA® fitting is determined by a range of factors including:

- Size and fitting type
- Pipe tolerances against standard
- Pipe coatings and surface finish

In most cases, the pipe test pressure designated in the relevant standards will be lower than that of the AVK SUPA® fitting.

**Key point:** the pressure rating of a pipe system/assembly will be determined by the pressure rating of the system component with the lowest rating. AVK Fittings are available between maximum working pressures of 16 bar.

#### TEMPERATURE

In most cases, it is the gasket that determines the operating temperature of the AVK SUPA® fitting. Our temperature range is from -10°C to +70°C.

**Key point:** the temperature rating of the specified gasket typically determines the operating temperature of the AVK SUPA® fitting.

**Key point:** AVK SUPA® fittings operate at optimal efficiency when operating temperatures are relatively constant.

#### CHEMICAL RESISTANCE

To ensure an AVK SUPA® fitting is correctly specified, it is critical to know which materials will be flowing through the pipe system. If this is known, then the correct gasket and internal coatings can be specified.

**Key point:** For highly acidic environments please contact the AVK Technical Services Team: **+44 (0) 1246 479100**.

### PRODUCT APPLICATION





### Series 601 | SUPA UNIVERSAL™

### Series 621 | SUPA PLUS™

### Series 631 | SUPA MAXI™

Ductile Iron

PVC

PE

Ductile Iron

## PIPE

### PIPE MATERIAL

AVK SUPA® fittings will join most pipe materials used in UK networks. These include:

- **Metals** (steel, stainless steel, cast iron, ductile iron)
- **Plastics** (polyethylene, uPVC, GRP, ABS & MOPVC)
- **Minerals** (clayware, concrete, asbestos cement).
- **Carbon**

The table on **page 10** details which AVK SUPA® fittings should be used in conjunction with specific material types.

In many cases the same AVK SUPA® fitting can be used across multiple pipe materials by varying the bolt torques. For example, bolt torques are reduced on materials such as GRP.

**Key point:** specifying the correct bolt torques to use is a fundamental requirement for the optimal performance of mechanical fittings, using adequate pipe lubricant.

### PIPE EXTERNAL/OUTSIDE DIAMETER (OD)

AVK SUPA® standard range of fittings currently extends from DN40 to DN700. AVK can offer dedicated fabricated fittings up to and including DN1800. Wide tolerance end restraint fittings available up to DN1600. However as we continuously look to extend our offer, the current size range may now be wider than that stated here. You can find live details of the current AVK SUPA® fittings range at: <https://www.avkuk.co.uk/en-gb/product-finder?page=1>

**Key point:** AVK SUPA® fittings are installed on the external surface of pipes. Consequently, it is essential that the OD of the pipe being used is known for an AVK SUPA® fitting to be correctly specified.

### PIPE TOLERANCE

AVK SUPA® fittings achieve optimal performance when there is a close fit between the fitting and the pipe OD ('the annular gap'). This close fit ensures the fitting can apply pressure to the gasket and create an effective seal against the pipe surface.

AVK SUPA® fittings have been designed to accommodate the tolerances specified in pipe specification standards.

**Key point:** If, for any reason, the pipe OD and/or tolerances on a pipe system do not match those provided in the relevant standard you should contact the AVK Technical Services Team on **+44 (0) 1246 479100**.

**Key point:** Some pipe standards quote different tolerances for the pipe barrel and the pipe end.

### PIPE OVALITY

Different pipe materials display different degrees of ovality or roundness. Depending on the pipe material, ovality may be rectified using a variety of techniques including rerounding clamps and pipe jacking.

**Key point:** Whilst a moderate degree of ovality may be accommodated by varying the bolt tightening on the fitting, good circularity or roundness contributes to the effective performance of an AVK SUPA® fitting.

**Key point:** OD can be measured using circumference measurement.

Pipe calipers also provide an indication of roundness or ovality.

### PIPE COATINGS AND SURFACE FINISH

Some pipe systems use coatings or wrappings to minimise corrosion, provide chemical resistance and protect against wear of the external surface of the pipe through abrasion caused by pipe movement against bedding materials.

**Key point:** For the correct AVK SUPA® fitting to be specified, it is important that any pipe coatings or wrappings being used are clearly indicated.

**Key point:** Pipe wrappings should be removed at the pipe ends to ensure the AVK SUPA® fitting seats against the pipe itself.

**Key point:** Pipe ends should be free from surface dirt and corrosion, weld beads, dents, score marks etc to ensure the AVK SUPA® fitting can achieve optimal performance.

# PIPE END PREPARATION - ENSURING OPTIMAL PERFORMANCE OF AVK SUPA® FITTINGS

For use in Conjunction with Metallic and Non-Metallic Pipes

Pipe ends will require rounding and the removal of any pipe wrapping to ensure AVK SUPA Plus™ fittings perform in accordance with:

- WIS 4-24-01

Details of the length of pipe from which pipe wrapping must be removed for the AVK SUPA® fitting to work effectively is shown below in Table 1.

Please note that there are two lengths:

- A. The length, from the pipe end, that must rounded, pipe wrapping removed, and free from any other obstructions. (Table 1)
- B. This length applies when during pipe system build, for example, it is necessary to slide the full length of an AVK SUPA® fitting on to one end of the pipe, overall length of the fittings.

**Key point:** The steps outlined above are in addition to the standard preparation procedures required to achieve an effective joint that performs in line with relevant standards and accreditations:

- Pipe OD to be round
- Pipe surface to be clean
- Pipe surface to have any surface blemishes, e.g. dents etc, removed
- Pipe tolerances need to meet relevant standards to achieve AVK SUPA® fittings pressure ratings

**Key point:** Internal pipe liner/support bush must be used in conjunction with PE Pipes. Also, correct SDR (Standard Dimensional Ratio) rating must be specified i.e: SDR11 or SDR17.

TABLE 1

## PIPE END PREPARATION TABLE

**Distance of mark from each pipe end**  
*Half the overall length of the fittings - half the setting gap*

**Example:**

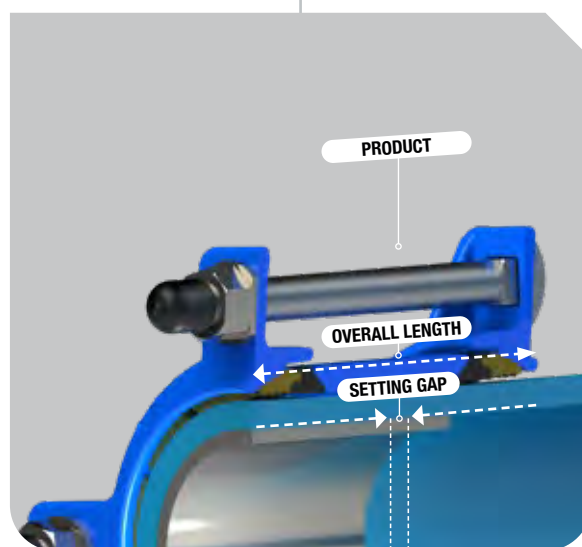
**Product:** Series 601

**Overall length** = 170mm (body/seals/gland rings)

**Setting Gap** = 20 mm (see below)

$$\text{Distance of mark from each pipe end} = \frac{170 - 20}{2} = 75\text{mm}$$

DIAGRAM 3



# WHAT SETTING GAP SHOULD I LEAVE BETWEEN PIPE ENDS WHEN USING AVK SUPA® FITTINGS?

Reduce the risks of leakage and damage

Table 2 provides recommended setting gaps for AVK SUPA® couplers and flange adaptors. These setting gaps are based on pipe diameter and coupler length. Table 2 also gives an advisory maximum gap.

Please read Table 2 in conjunction with Diagram 4.

The importance of the correct setting gap is highlighted by the following key points:

**Key point:** setting gap too small - pipe ends should not come into contact with each other when the pipe is in use. Contact can lead to damage at pipe ends and even potential buckling due to variations in temperature.

**Key point:** setting gap too large - there is a risk that pipes may move past the gasket / restraint mechanism in the coupler resulting in leakage and, eventually, failure of the pipeline.

With buried pipelines, lateral movement is typically restricted by the friction between the pipeline bedding materials and backfill. Above ground, however, if suitable restraint is not in place the pipes can move or 'shunt'. This movement can lead to a singular large gap (shown as X in Diagram 4). This gap must not exceed the advisory maximum gap given in Table 2.

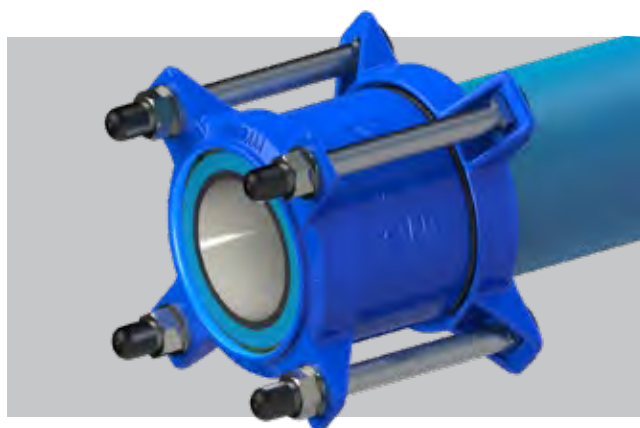
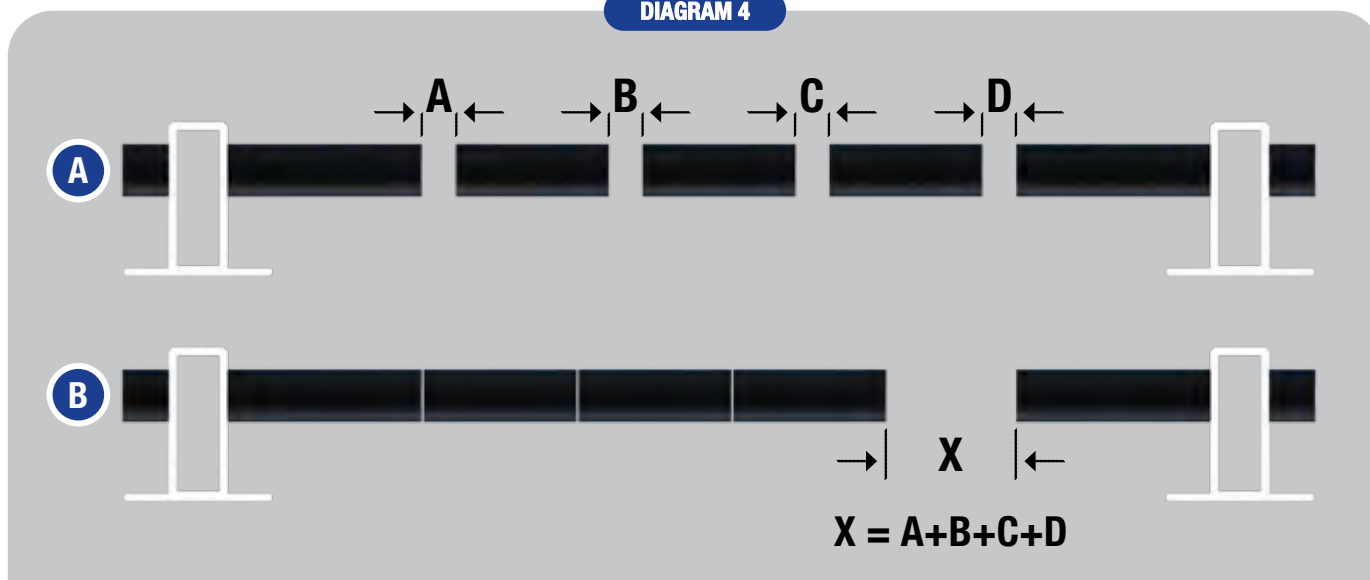


TABLE 2

| SETTING GAP<br>AVK SUPA® Range |                         |                      |
|--------------------------------|-------------------------|----------------------|
| Nominal Size                   | Recommended setting gap | Maximum possible gap |
| DN40-125                       | 20mm                    | 50mm                 |
| DN150-200                      | 20mm                    | 50mm                 |
| DN225                          | 20mm                    | 50mm                 |
| DN250-DN400                    | 37mm                    | 84mm                 |

DIAGRAM 4



## NOTES

- A. Pipes laid straight with equal setting gaps.
- B. Accumulated gap (X) on straight pipeline must not exceed maximum permissible value given in Setting Gap Table.

# WHAT IS THE SHEAR STRENGTH OF AN AVK SUPA® FITTING?

## Design and Testing

AVK SUPA® fittings have been designed and tested in accordance with:

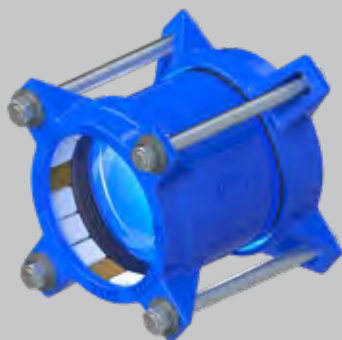
- EN 14525
- BS8561
- BS EN 12201

As part of the testing regime, AVK's range of mechanical fittings starting from DN50, are subjected to a shear force test created by the weight of a water-filled 10m length of ductile iron pipe. The pipe is then supported between two couplers.

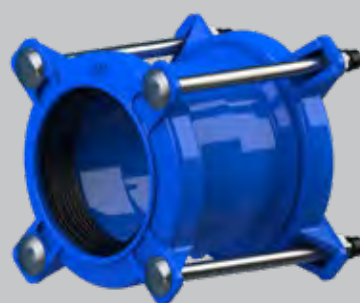
Where stepped couplers are being used, the applicable shear resistance is that of the smaller end of the coupler.

**Key point:** The 10m span will be reduced should any additional external forces be imposed on the pipe.

621 | SUPA PLUS™



601 | SUPA UNIVERSAL™



# HOW MUCH EXPANSION AND CONTRACTION CAN AVK SUPA® FITTINGS ACCOMMODATE?

Never Overlook the Potential Risk of Joint Failure

Expansion and contraction are caused by fluctuations in temperature & pressure. AVK SUPA® fittings can accommodate the expansion and contraction associated with pipelines operating under ambient temperatures.

**Key point:** If you intend using AVK SUPA® fittings in extreme conditions (e.g. Arctic or Sub-saharan), please consult with the AVK technical support team to ensure the right fittings are specified.

**Key point:** AVK SUPA® fittings accommodate expansion and contraction in a pipe system through deformation of the fittings' gasket not by travel along the pipe.

See Diagram 5 and the associated Table 3 for relative pipe movement data for AVK SUPA® couplers and fittings.

Expansion on pipelines incorporating AVK SUPA® stepped couplers can lead, over time, to pressure being exerted on the wall of the coupler and the potential risk of joint failure. In such circumstances, restraint will need to be applied (see page 36)

If you are in any doubt please contact the AVK Technical Services Team on:

**+44 (0) 1246 479100.**

TABLE 3

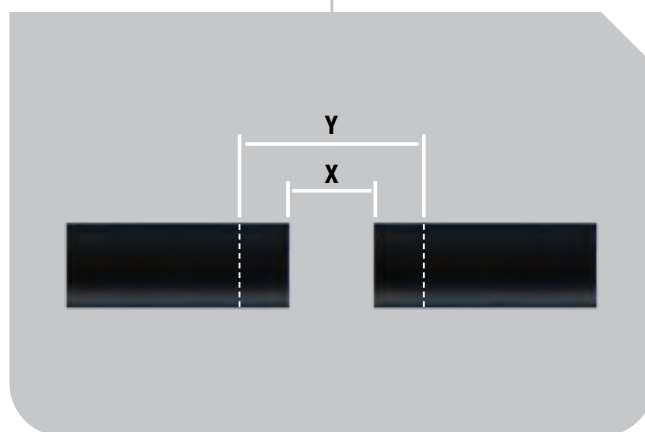
## EXPANSION & CONTRACTION Table

| Type      | Pipe Movement |
|-----------|---------------|
| Couplings | $(Y-X)/2$     |

### NOTES

**Y:** maximum gap  
**X:** Recommended Gap  
(Refer to table 2, page 27.)

DIAGRAM 5





# WHAT IS THE IMPACT OF PRESSURE ON AVK SUPA® FITTINGS?

Understanding the scale of acting forces and how to contain them

In **below-ground pressure** pipelines, such as water mains, forces are created which act on joints, valves and other assets to loosen them and, potentially, to pull them apart.

Pressure surges, or thrusts, occur whenever there is a change of direction in a pipeline, e.g. bends, tees, saddles, and on straight pipelines where the pressure fluctuates, e.g. end caps, reducers, valves, hydrants.

If these forces are restrained at the locations where they arise, the pipeline should function without issue. If the issue of pressure is not addressed through the design and build phases of a pipeline, there is the potential for a failure to occur over time.

**Key point:** It is important at the design stage to take into account both the scale of forces acting on the proposed pipeline and how these forces are to be contained. Doing this will provide the best assurance for the effective operation of the pipeline over its lifetime.

**Key point:** In addition to pressure, there are a number of other factors that could impact on the structural performance of a pipeline. These include fluctuating temperatures, vibration and external loading.

**Key point:** Where ground conditions are acceptable, it may be possible to use a SUPA Maxi™ end restraint fitting in place of a thrust block or similar. If you wish to consider this option, but need further information, please contact the AVK Technical Services Team on **+44 (0) 1246 479100**.

For below-ground pipelines, the friction provided by fill materials provides a degree of restraint. With **above-ground pipelines**, however, thrust blocks, tie bars or anchors must be used to mitigate the impact of pressure surges.

Bends, whether created by short-radius cast fittings or fabricated fittings, experience a force which acts to push the bend outwards. There must be sufficient resistance designed into the system to resist this force. (Diagram 9)

The following resources may be of assistance:

## EQUATION 1

Force required to prevent pipe separation (see Diagram 7).

$$F = (p \pi d^2) \div 4$$

**d** = pipe outside diameter

**p** = internal pressure

## EQUATION 2

Force acting on a bend (see Diagram 8).

$$R = (p \pi d^2) \div 2 \times \sin \theta \div 2$$

**d** = pipe outside diameter

**p** = internal pressure

**θ** = angle of the bend

DIAGRAM 6

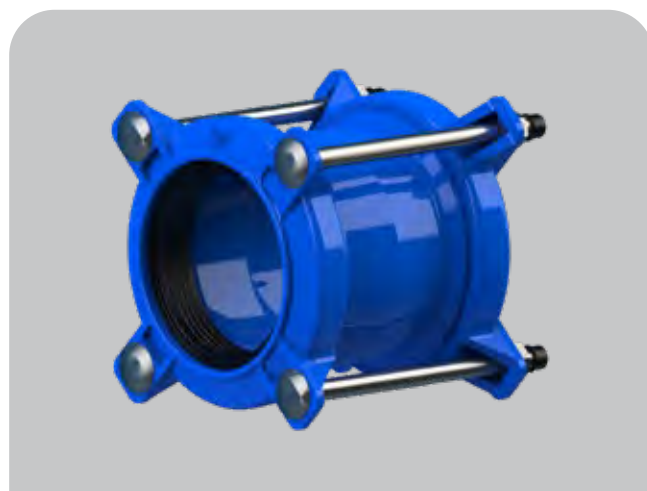
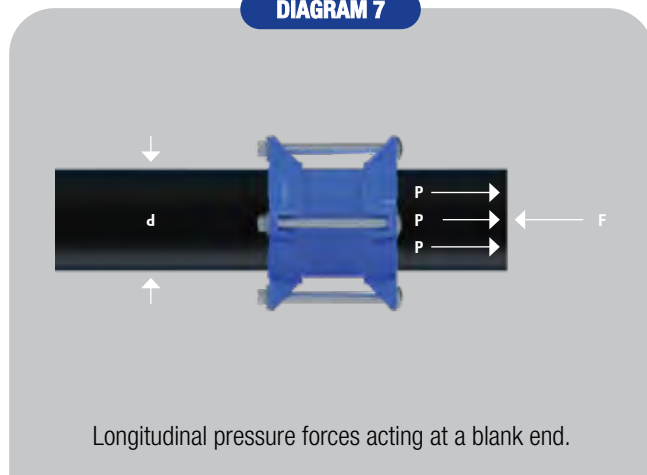


DIAGRAM 7



### WHAT IS THE IMPACT OF PRESSURE ON AN AVK SUPA® STEPPED FITTING?

A stepped coupler is, effectively, a reducer. Internal pressure within a pipeline will, therefore, tend to act on the 'step' to drive the coupler towards the smaller of the two pipes.

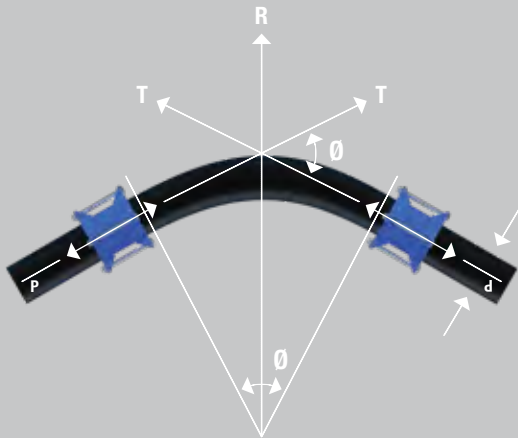
**Key point:** for buried services operating under standard operating conditions e.g. conservative stepped reduction, standard water pressure, minimal vibration, compacted fill, the friction provided by backfill will be sufficient to minimise coupler movement.

**Key point:** above-ground pipelines, higher pressure and larger pipe diameters all increase

the potential for coupler movement and, in extremis, pipeline failure. The designer must incorporate measures to counter these factors and prevent the coupler from moving.

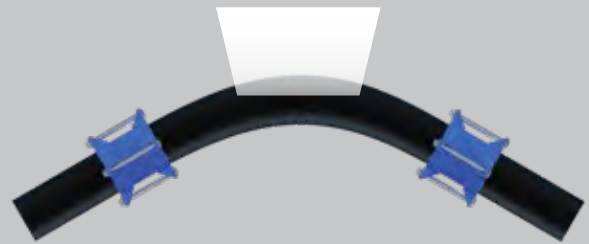
For further guidance on measures to counter coupler movement please contact the AVK Technical Services Team: **+44 (0) 1246 479100**.

DIAGRAM 8



Longitudinal pressure forces acting at a bend.

DIAGRAM 9



Concrete thrust block for retaining bend.

# WHAT IS ANGULAR DEFLECTION?

## Understanding the Fundamentals



Angular Deflection allows pipes to be connected that have not been laid in a straight line or have been installed in a trench where there are multiple obstructions and you want to limit the amount of bends. The method is also used to minimise leak paths.

All AVK SUPA® fittings are designed to accommodate angular deflection. Tables 5 & 6 details the angular deflection tolerances for AVK SUPA® couplers and flange adaptors by fitting size.

**Key point** If there is the potential for a pipe to move in use, AVK recommends that the angular deflection tolerances in Tables 5 & 6 are halved.

TABLE 5

| SETTING ANGULARITY<br>Series 601 & Series 602 |       |             |
|---|-------|-------------|
| Coupling Size                                 | Angle | Inclination |
| All sizes                                     | 8°    | 1 in 7      |

TABLE 6

| SETTING ANGULARITY<br>Series 603 |       |             |
|----------------------------------|-------|-------------|
| Flange Adaptor Size              | Angle | Inclination |
| All sizes                        | 4°    | 1 in 15     |

### FOR REFERENCING PURPOSES

Table 8, diagram 11 and diagram 12 are located on page 34 (the next page turn).



TABLE 7

| <b>CLOSING LENGTH</b><br><i>Angular Deflection for our SUPA® fittings</i> |               |
|---|---------------|
| Closing Length  | L, Min Length |
| All sizes   | Y x 7         |

#### WHAT ARE THE BENEFITS OF ANGULAR DEFLECTION IN PIPE SYSTEM DESIGN AND MAINTENANCE?

Angular deflection helps designers and site engineers accommodate the realities of site conditions and operational constraints:

- Misalignment / Displacement
- Settlement
- Bends

#### MISALIGNMENT

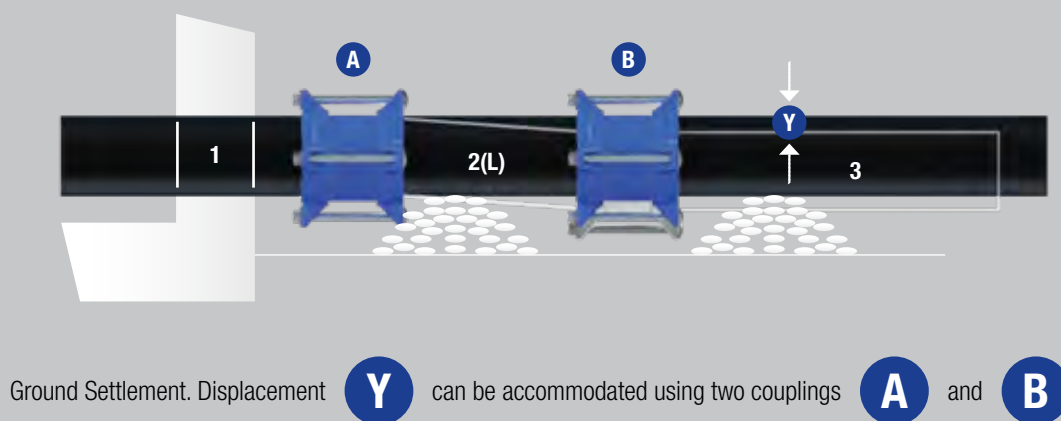
Misalignment (offset), or lateral displacement (gap) of straight pipe ends may occur during pipeline build or maintenance. They can be resolved by using two AVK SUPA® couplers and the required length of pipe; this is sometimes referred to as inset or closing pipe.

Misalignment is illustrated in Diagram 10.

You can calculate the required length of inset/closing pipe by referring to Table 7.

**Key point:** where lateral displacement is within tolerances (see Table 8 - next page turn), it may be possible to resolve the issue using two couplings. However, lateral displacement can not be resolved with a single coupling.

DIAGRAM 10



#### SETTLEMENT

Ground settlement is a specific form of lateral displacement. In particular, settlement can occur where a fixed pipe (i.e. one with no potential for angular deflection) joins a pipe which could be impacted by ground settlement. An example of this is where a pipe exits, for example, a chamber or other buried structure. Settlement is illustrated in Diagram 10.

#### PLEASE NOTE THE FOLLOWING:

- AVK SUPA® coupler **A** is ideally located as close to the chamber as possible. This minimises the stresses on the fixed pipe (**pipe 1**).
- You can determine the minimum lengths of inset/closing pipe between coupler **A** and coupler **B** from **Table 7**.
- A wall coupling could be used in place of **pipe 1** and coupler **A**.

**Key point:** the structural strength of the inset/closing pipe must be sufficient to withstand any bending moments applied to it.

DIAGRAM 11

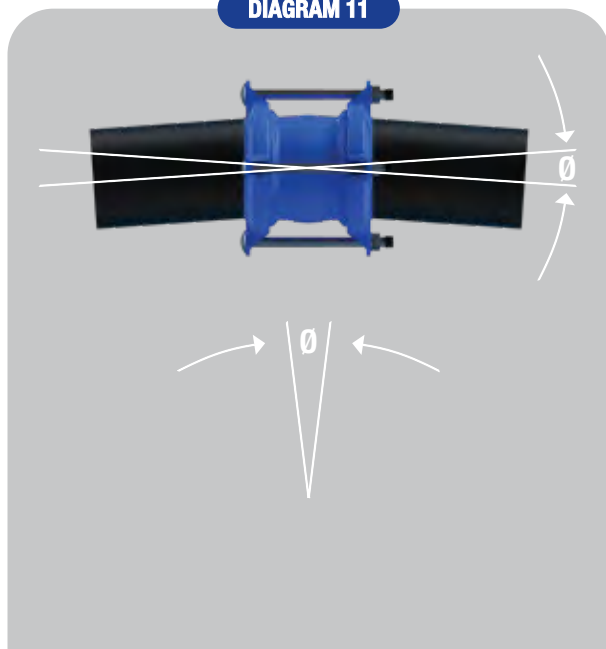


TABLE 8

| MINIMUM RADIUS TABLE<br><i>Angular Deflection</i> |                    |
|---|--------------------|
| Pipe Diameter                                     | All sizes          |
| Nominal Angle                                     | 8°                 |
| Pipe Length (L)                                   | Minimum Radius (R) |
| 3m  | 21m                |
| 6m  | 43m                |
| 9m  | 64m                |
| 12m   | 86m                |

NOTES

**A**

$$R = \frac{L}{2 \sin \frac{1}{2} \emptyset}$$

**B**

$$\emptyset = 2 \sin^{-1} \left( \frac{L}{2 R} \right)$$

### LONG RADIUS BENDS

As highlighted above, each AVK SUPA® coupler is designed to accommodate a range of angular deflection. Taking advantage of this range at each pipe joint, it is possible to create a long radius bend (curve). This obviates the need for cast or fabricated large angle bends which may require thrust blocks and could alter the flow characteristics of the pipeline.

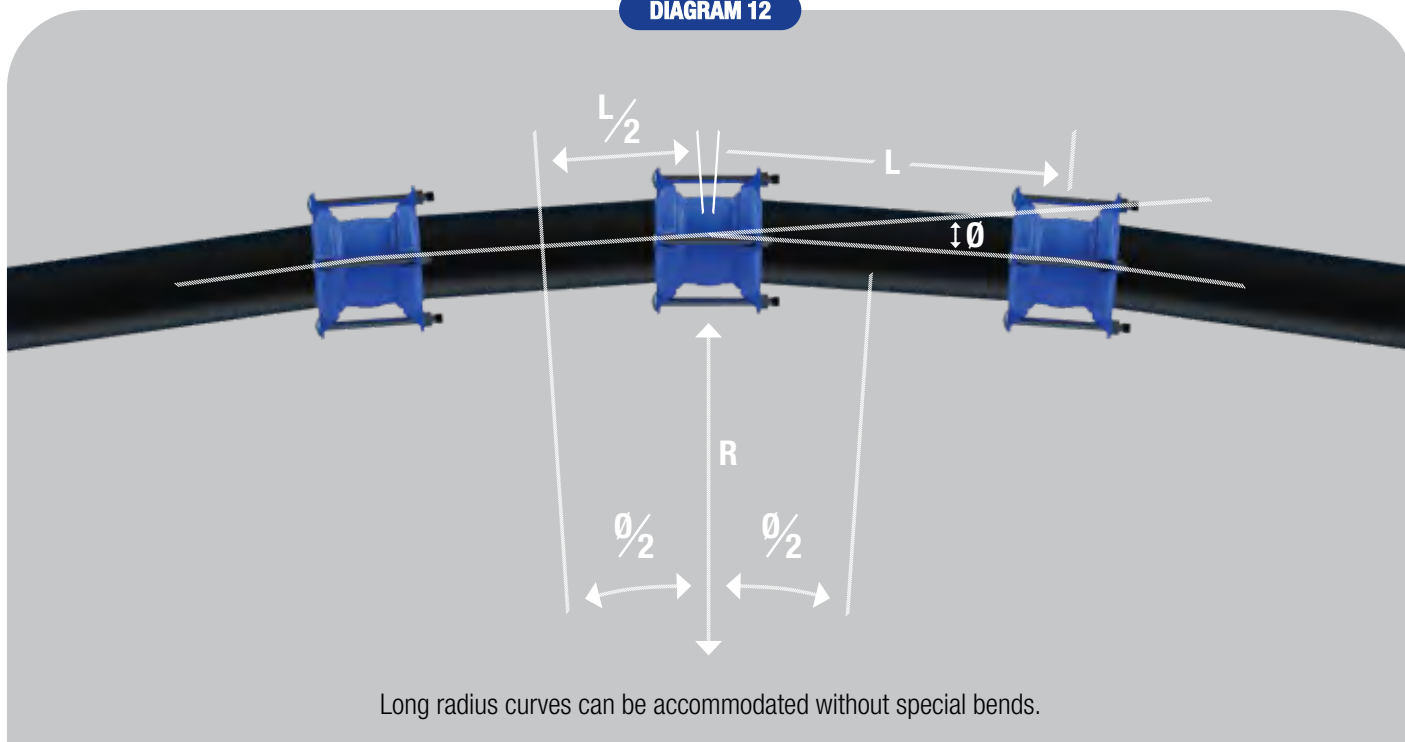
Some of the most common minimum radiuses calculated from standard pipe diameters and pipe lengths are shown in Table 8.

Using the equation in the notes on table 8, you can calculate the bend radius and/or the angular deflection for other pipe lengths.

**Key point:** buried long radius bends will typically receive sufficient lateral restraint from the backfill material used. However, pipelines laid above ground will need to be restrained by the support system and/or other to counter lateral pressure thrusts.

**Key point:** the minimum radiuses given in Table 8 or calculated using equations **A** and **B** in the notes section below Table 8 do not include any allowance for movement that may occur when the pipe is in use.

DIAGRAM 12









# WHAT OPTIONS ARE AVAILABLE FOR ABOVE-GROUND PIPE RESTRAINT?

## Utilising Fabricated Mechanical Fittings

### THE STANDARD OPTIONS AVAILABLE FOR PIPE RESTRAINT ON ABOVE-GROUND PIPELINES ARE:

- Harness assembly (**Diagram 13**)
- Combination flange adaptor and harness assembly (**Diagram 14**)
- Combination flange adaptors and flanged spigot (**Diagram 15**)
- SUPA Maxi™ (**Diagram 16**)

The objective of the pipe restraint is to ensure two lengths of pipe do not move apart due to movement caused by pipe thrusts, vibration or other.



**DIAGRAM 13**

#### HARNESS ASSEMBLY

A harness assembly consists of tie rods connecting either welded plates with lugs (sometimes referred to as padeyes) on each pipe or cast-on flanges. The tie rods 'bridge' the coupler and restrain movement.

If just two tie rods are used, this allows for a degree of angular deflection in one plane.

**Key point:** The loads on pipe systems can be considerable. It is important, therefore, to ensure that the design of the harness/lug assembly takes account of the transfer of end load forces from the tie rods into the pipe wall. The lug/pipe interface must also be checked to ensure it is strong enough to withstand these loads.

**Key point:** Depending on the pipe being used, reinforcement of the pipe wall in the area of the harness/lug may be required to ensure the pipe maintains its shape.

**Key point:** AVK does not offer harness/lug design. We will assist the pipe manufacturer or independent engineer with any relevant information they require to complete their design.

**DIAGRAM 14**

#### COMBINATION FLANGE ADAPTOR AND HARNESS ASSEMBLY

An AVK flange adaptor can be used in conjunction with a harness/lug assembly. Restraint is provided by replacing a selection of the flange bolts with tie rods.

**Key point:** No angular deflection can be accommodated by this form of end restraint.

**DIAGRAM 15**

#### COMBINATION FLANGE ADAPTORS AND FLANGED SPIGOT

AVK SUPA® flange adaptors can provide restraint when harnessed in conjunction with a flanged spigot (see diagram for assembly details).

#### DISMANTLING JOINT

Another alternative would be to use the AVK Series 265/30 dismantling joint can provide restraint for flanged pipe. The dismantling joint allows for both axial displacement of pipework during construction and accommodates limited angular deflection (e.g. 4° for sizes <DN600mm).



Scan the QR code to download the latest  
AVK Series 265/30 datasheet

**DIAGRAM 16**

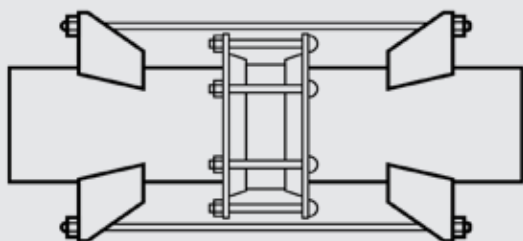
#### OPTIMISED WAY

AVK's SUPA Maxi™ range of universal tensile couplings sets a new standard. The patented SUPA® Grip sealing support system with flexible bracket ensures full support of the gasket and full tensile strength on all pipe types up to PN16. SUPA Maxi™ couplings are very easy to mount with the possibility of  $\pm 4^\circ$  angular deflection, the lifting eye and the fact that they are tightened from the sleeve side with no need for re-tightening the bolts.



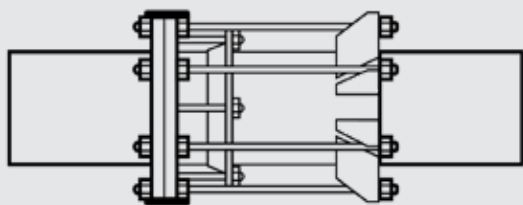
## TRADITIONAL WAY

DIAGRAM 13



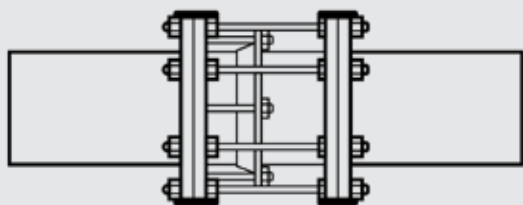
**HARNESS ASSEMBLY FOR STRAIGHT OR STEPPED COUPLING TO PREVENT PIPE SEPARATION UNDER PRESSURE**

DIAGRAM 14



**HARNESS ASSEMBLY WITH FLANGE ADAPTOR**

DIAGRAM 15



**FLANGE ADAPTOR WITH FLANGED SPIGOT**



## OPTIMISED WAY

DIAGRAM 16



**AVK SUPA MAXI™ SERIES 631 DOES ALL THREE APPLICATIONS IN ONE!**

- Easy Installation
- For Use Above and Below Ground
- Available from Stock
- No Welded Lugs
- No Tie-Rods
- No Notching
- No Thrust Blocks

### IMPORTANT

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings.



# WHAT PRECAUTIONS NEED TO BE TAKEN WHEN USING AVK SUPA® COUPLERS ON ABOVE GROUND INCLINED PIPELINES?

The key factors in this scenario are the weight of the pipe, pressure of the fluid in the pipe, fluid friction and the effectiveness of the pipe support and restraint used; the latter two factors must be sufficient to counter all axial forces and prevent movement of the pipe down the slope.

As is standard sector practice, it is advised that the maximum length of pipe to be supported by an AVK SUPA® coupler is 10m. One end of the pipe should be anchored to a pipe support (A) with the other connected using an AVK SUPA® coupler (B). This enables the AVK SUPA® coupler to act, within the parameters outline, as a thermal expansion joint (Diagram 17).

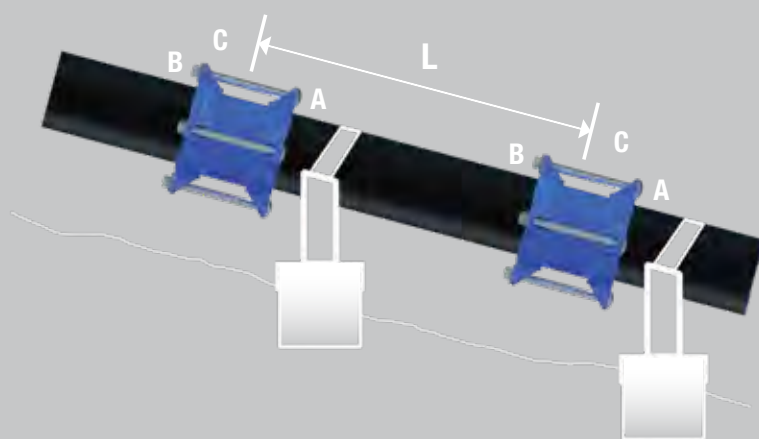
**Key point:** when AVK SUPA® couplers are used on inclined pipes it is particularly important that the pipes are aligned to minimise sheer stresses across the coupler.

**Key point:** there are many factors to take into account when designing a pipe support including:

- **Pipe material**
- **Pipe diameter**
- **Pipe wall thickness**
- **Angle of inclination**
- **Operating pressures/flows**
- **Abrasion**

These factors relate to structural and mechanical engineering fundamentals outside the scope of these guidelines.

DIAGRAM 17



Typical support of inclined pipelines.

# WHAT PIPE SUPPORT CONSIDERATIONS MUST BE TAKEN INTO ACCOUNT FOR ABOVE GROUND PIPELINES?

## PIPE SUPPORTS ARE COMMON ON ABOVE GROUND PIPELINES.

**Key point:** Pipe supports used on above ground pipelines must be designed to withstand the weight and associated forces transferred by both the pipe itself and the fluid within it at maximum capacity.

**Diagram 18** provides an illustrative example of how anchor points and guide supports (cradles) can be used to support an above ground pipeline linked by mechanical couplers.

**Key point:** The accepted standard is that alternate pipe lengths can be supported by two couplings (i.e. without additional support) as long as the clear pipe span does not exceed 10m.

DIAGRAM 18



A

Anchor at end of each straight run.

B

Intermediate anchor points.

C

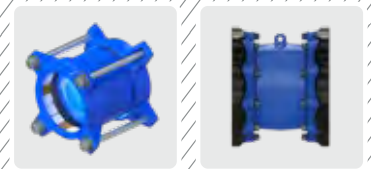
Guide supports or cradles.

# CAN AVK SUPA® FITTINGS BE USED IN PIPE SYSTEMS INCORPORATING CATHODIC PROTECTION?

YES.

**Key point:** Contact the AVK Technical Services Team on +44 (0) 1246 479100 with details of your project requirements to ensure the correct product is specified.





### CAN AN AVK SUPA® COUPLER BE USED TO JOIN PIPES OF DIFFERENT MATERIALS?

As long as the OD of the two pipes falls within the same sealing range of the coupler, an AVK SUPA® coupler can join pipes of different materials.

### WHAT IS THE SMALLEST/LARGEST AVK SUPA® COUPLER?

Standard AVK SUPA® couplers are available from DN40 to DN400. Larger sizes can be fabricated.

**Key point:** We can create a fitting to your exact specification at AVK Syddal, our manufacturing facilities near Manchester.

### ARE THERE LONG SLEEVE VARIANTS OF AVK SUPA® COUPLERS?

**Yes.**

We can supply long sleeve AVK SUPA® couplers to bridge large pipe gaps or accommodate poorly cut pipe ends.

### DO PIPE COATINGS EFFECT THE SIZE OF THE AVK SUPA® COUPLER TO BE SPECIFIED?

**Yes.**

You will need to add the thickness of pipe coating to the pipe OD to ensure accuracy.

### DO AVK SUPA® COUPLERS ACCOMMODATE PIPE OVALITY AND SURFACE BLEMISHES?

The gasket and mechanism used in AVK SUPA® couplers can accommodate a degree of pipe ovality and surface imperfections. However, pipes must be within the tolerances laid out in the relevant industry standards for pressure ratings to be maintained.

### WHICH BOLT SETS ARE SUPPLIED WITH AVK SUPA® COUPLERS?

AVK standard bolt sets are steel geomet\* coated / ZP / stainless steel, depends on product series.

The AVK Technical Services Team: +44 (0) 1246 479100 can answer design and operational questions relating to bolt set selection and performance.

### CAN AVK SUPA® COUPLERS BE USED IN BRACKISH AND SALT WATER MARINE ENVIRONMENTS?

AVK can supply couplers adapted specifically for use in marine environments.

### DO AVK SUPA® COUPLERS PROVIDE RESTRAINT AGAINST LONGITUDINAL THRUSTS CAUSING LATERAL DISPLACEMENT?

**SUPA range: No.**

**SUPA Plus and SUPA Maxi: Yes.**

### WHAT ARE AVK SUPA COUPLER SLEEVES MANUFACTURED FROM?

**Ductile Iron.**

The material used in any given application is at the discretion of AVK, however, we can create fittings to meet any bespoke specification you may require at AVK Syddal, our manufacturing facilities near Manchester.

### DO AVK SUPA® COUPLERS INCORPORATE A CENTRE REGISTER WITHIN THE SLEEVE FOR LOCATION PURPOSES?

**No.**

AVK SUPA® couplers are designed so they can travel along the pipe. This makes initial installation more straightforward, and facilitates subsequent pipe repair and maintenance.

**Key Point:** Certain Flange Adaptor products do incorporate a centre register. Please inquire for further information:

**+44 (0) 1246 479100.**

# AVK SUPA® STEPPED COUPLERS

The Technical Questions Designers Ask



## CAN AN AVK SUPA® STEPPED COUPLER BE USED TO JOIN PIPES OF DIFFERENT MATERIALS?

As long as the ODs of the two pipes being joined meet the specification of the specified AVK SUPA® stepped coupler, it can be used to join pipes of different materials and sizes.

## COULD AN AVK SUPA® STEPPED COUPLER TRAVEL ALONG THE SMALLER DIAMETER PIPE?

In ambient temperatures and under normal (moderate pressure) operating conditions an AVK SUPA® stepped coupler will not move. This is true for most below ground applications.

Above ground, however, where restraint is often required to counter pipe thrust and end loads, it is advised to maintain regular inspection of the joint to ensure the stepped coupler has not moved. This can be achieved by creating a witness mark on the pipe when the stepped coupler is first installed. The same regime should be maintained if a stepped coupler is functioning as an expansion joint on either a below ground or above ground pipe system.

**Please note:** that the above is applicable on non-restrained stepped coupler series 602. However, for series 632 Supa Maxi it is an end restrained coupling.

# AVK SUPA® FLANGED ADAPTORS

The Technical Questions Designers Ask



## WHAT ARE THE STANDARD APPLICATIONS FOR AN AVK SUPA® FLANGED ADAPTOR?

AVK SUPA® flanged adaptors are used to connect spigots (plain-ended pipe) to flanged pipe, valves, hydrants or other network assets.

## ARE AVK SUPA® FLANGED ADAPTORS SUPPLIED WITH FLAT AND/OR RAISED FACES?

Raised and Flat face flange are available.

**Key point:** for an AVK SUPA® flange adaptor gasket to form a working seal, at least 8mm of the gasket must be in contact with the pipe flange face, whether it is flat or raised.

## WHAT IS THE PRESSURE RATING OF AN AVK SUPA® FLANGE ADAPTOR?

**Key point:** the pressure rating of an installed AVK SUPA® flange adaptor is taken as the lower of the two pressure ratings for the spigot (plain-ended pipe) on which the adaptor is installed and the flange to which the adaptor is bolted.

**Key point:** when specifying an AVK SUPA® flange adaptor it is standard practice to use the pressure rating of the flange to which it will be bolted as the guide rating. If a different pressure rating is required please make this known to the distributor. If you have any questions about pressure ratings simply contact the AVK Technical Services Team on **+44 (0) 1246 479100**.

## COULD AN AVK SUPA® FLANGE ADAPTOR TRAVEL ALONG THE SPIGOT AND PULL-OUT?

In ambient temperatures and under normal (moderate pressure) operating conditions an AVK SUPA® flange adaptor will not move. This is true for most below ground applications.

Above ground, however, where restraint is often required to counter pipe thrust and end loads, it is advised to maintain regular inspection of the joint to ensure the flange adaptor has not moved. This can be achieved by creating a witness mark on the pipe when the flanged adaptor is first installed.

**Please Note:** Above is applicable on non-restrained flange adaptor series 603. However, for series 623 Supa Plus and series 633 Supa Maxi they are end restrained flange adaptors.







# STRAIGHT COUPLINGS



# AVK Supa Universal™ Straight Coupling

Series 601/A-006



|         |                 |
|---------|-----------------|
| Used on | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Asbestos cement |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Mild steel GEOMET coated bolts/nuts comply with WIS4-52-03</li> <li>Light weight design</li> <li>±4° angular deflection on each side</li> <li>Drinking water approved EPDM gasket</li> <li>The bolt ends are protected with plastic caps</li> <li>The moulded ribs in the gasket absorb minor imperfections in the pipe</li> <li>Versatile design tolerances typical 26 mm to cover all pipe materials</li> <li>Epoxy coated according to DIN 30677-2 and GSK approved</li> </ul> |
|-----------------------|--|

|         |  |
|---------|--|
| Options |  |
|---------|--|

|      |            |
|------|------------|
| Size | DN40 - 400 |
|------|------------|

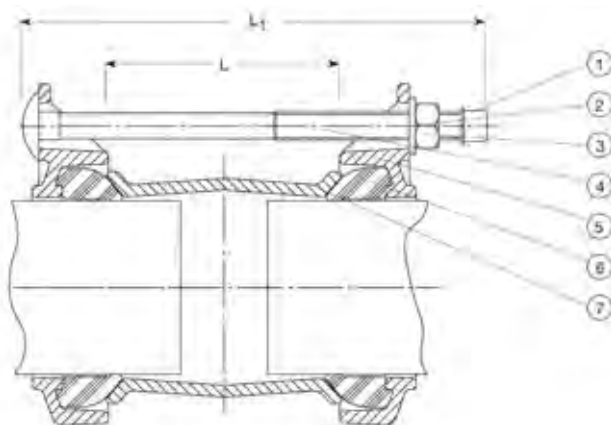
|          |      |
|----------|------|
| Pressure | PN16 |
|----------|------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |                           |
|------|---------------------------|
| Body | Ductile iron<br>GGG-40/50 |
|------|---------------------------|

|           |  |
|-----------|--|
| Approvals | <p>WIS 4-52-01<br/>WIS 4-52-03<br/>BS EN 14525<br/>BS 8561<br/>EN 681-1<br/>Reg 31 compliant</p> |
|-----------|--|

| AVK Ref          | DN  | Sealing Range L1 |     | L   | Ang Def | No of Bolts and Bolt Size |         | Weight |
|------------------|-----|------------------|-----|-----|---------|---------------------------|---------|--------|
|                  | mm  | Min              | Max | mm  |         |                           |         | Kg     |
| 601-063-000-4200 | 40  | 46               | 63  | 100 | ±4°     | 2                         | M12x190 | 2.9    |
| 601-074-000-4200 | 50  | 57               | 74  | 100 | ±4°     | 2                         | M12x190 | 2.9    |
| 601-085-000-4200 | 65  | 68               | 85  | 100 | ±4°     | 4                         | M12x190 | 3.9    |
| 601-106-000-4200 | 80  | 84               | 106 | 100 | ±4°     | 4                         | M12x190 | 4.9    |
| 601-133-000-4200 | 100 | 109              | 133 | 100 | ±4°     | 4                         | M12x190 | 5.5    |
| 601-157-000-4200 | 125 | 132              | 157 | 100 | ±4°     | 4                         | M12x190 | 6.5    |
| 601-183-000-4200 | 150 | 157              | 183 | 115 | ±4°     | 4                         | M12x210 | 7.5    |
| 601-215-000-4200 | 175 | 193              | 215 | 115 | ±4°     | 4                         | M12x210 | 9.4    |
| 601-242-000-4200 | 200 | 218              | 242 | 140 | ±4°     | 4                         | M12x230 | 11.3   |
| 601-268-000-4200 | 225 | 242              | 268 | 140 | ±4°     | 6                         | M12x230 | 13.4   |
| 601-292-000-4200 | 250 | 266              | 292 | 160 | ±4°     | 6                         | M12x250 | 15.5   |
| 601-327-000-4200 | 300 | 301              | 327 | 160 | ±4°     | 6                         | M12x250 | 16.4   |
| 601-350-000-4200 | 300 | 324              | 350 | 160 | ±4°     | 6                         | M12x250 | 16.5   |
| 601-396-000-4200 | 350 | 372              | 396 | 160 | ±4°     | 8                         | M12x270 | 20.3   |
| 601-436-000-4200 | 400 | 410              | 436 | 160 | ±4°     | 8                         | M12x270 | 21.8   |



| Materials of Construction |                |   |
|---------------------------|----------------|---|
| No.                       | Description    | Material                                  |
| 1                         | Washer         | Hardened steel zinc plated and passivated |
| 2                         | Nuts           | Steel, grade 8 Geomet coated              |
| 3                         | Gland rings    | Ductile iron, GGG-40/50 to BS EN 1563     |
| 4                         | Bolts          | Steel, grade 8 Geomet coated              |
| 5                         | Central sleeve | Ductile iron, GGG-40/50 to BS EN 1563     |
| 6                         | Rubber seals   | EPDM to BS EN 681-1                       |
| 7                         | Coating        | Blue fusion bonded epoxy - WRAS approved  |
|                           | Domed caps     | Plastic                                   |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings



# AVK Supa Plus™ Tensile Resistant Coupling

Series 621/41-001



| Used on | Polyethylene |
|---------|--------------|
|         | PVC          |

| Features and benefits | <ul style="list-style-type: none"> <li>Combined gasket of drinking water approved EPDM rubber with tensile grip segments of RG5 bronze enables <math>\pm 3.5^\circ</math> angular deflection</li> <li>The design with external bolts prevents corrosion between sleeve and bolts</li> <li>The M16 bolts of stainless steel A2 and the nuts of acid-resistant stainless steel A4 are anti-friction coated to offer easy tightening and to prevent galling</li> <li>The bolt ends are protected with plastic caps</li> <li>The compression type gasket makes it easy to insert the pipe end, even in large dimensions</li> <li>Fusion bonded epoxy coating according to DIN 30677-2</li> <li><b>AVK Series 05 internal support bush is required, see page 62</b></li> </ul> |
|-----------------------|---|
|-----------------------|---|

| Options |  |
|---------|--|
|---------|--|

| Size | DN40 - 300 |
|------|------------|
|------|------------|

| Pressure | PN16 |
|----------|------|
|----------|------|

| Temperature Range | -10°C to +70°C |
|-------------------|----------------|
|-------------------|----------------|

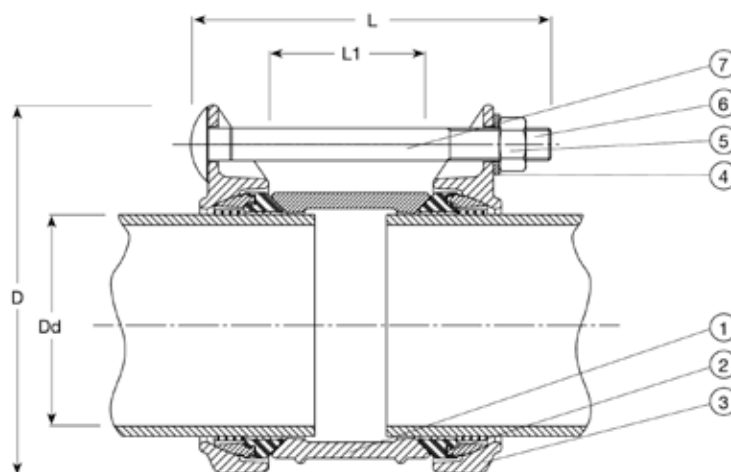
| Body | Ductile iron<br>GGG-40/50 |
|------|---------------------------|
|------|---------------------------|

| Approvals | WIS 4-52-01<br>WIS 4-52-03<br>BS EN 14525<br>BS 8561<br>EN 681-1<br>Reg 31 compliant |
|-----------|--|
|-----------|--|

| AVK Ref          | DN  | Dd  | D   | PN   | L   | L1  | Weight |
|------------------|-----|-----|-----|------|-----|-----|--------|
|                  | mm  |     |     |      | mm  |     | Kg     |
| 621-10-040-41001 | 40  | 40  | 150 | PN16 | 150 | 60  | 3.8    |
| 621-10-050-41001 | 40  | 50  | 156 | PN16 | 150 | 60  | 2.8    |
| 621-10-063-41001 | 50  | 63  | 170 | PN16 | 150 | 60  | 4.3    |
| 621-10-075-41001 | 65  | 75  | 180 | PN16 | 160 | 70  | 4.0    |
| 621-10-090-41001 | 80  | 90  | 200 | PN16 | 160 | 70  | 5.0    |
| 621-10-110-41001 | 100 | 110 | 220 | PN16 | 175 | 78  | 6.5    |
| 621-10-125-41001 | 125 | 125 | 240 | PN16 | 175 | 78  | 8.0    |
| 621-10-140-41001 | 125 | 140 | 254 | PN16 | 185 | 88  | 9.0    |
| 621-10-160-41001 | 150 | 160 | 276 | PN16 | 185 | 88  | 9.1    |
| 621-10-180-41001 | 150 | 180 | 286 | PN16 | 245 | 110 | 13     |
| 621-10-200-41001 | 200 | 200 | 318 | PN16 | 210 | 110 | 13     |
| 621-10-225-41001 | 200 | 225 | 342 | PN16 | 260 | 110 | 19     |
| 621-10-250-41001 | 250 | 250 | 374 | PN16 | 260 | 110 | 27     |
| 621-10-280-41001 | 250 | 280 | 390 | PN16 | 260 | 110 | 30     |
| 621-10-315-41001 | 300 | 315 | 440 | PN16 | 320 | 168 | 36     |

## Notes

<sup>1</sup> AVK supply different Series 05/E-008 Pipe Support Bushes for each SDR rating.

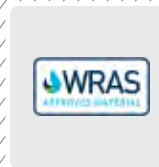


| Materials of Construction |                  |                                    |
|---------------------------|------------------|------------------------------------|
| No.                       | Description      | Material                           |
| 1                         | Sleeve           | Ductile iron GJS-400-12 (GGG-40)   |
| 2                         | Combined gasket  | NF approved EPDM rubber/RG5 bronze |
| 3                         | Bracket          | Ductile iron GJS-400-12 (GGG-40)   |
| 4                         | Washer           | Stainless steel A2                 |
| 5                         | Nut              | Acid resistant stainless steel A4  |
| 6                         | Cap              | Plastic                            |
| 7                         | Square neck bolt | Stainless steel A2                 |



# AVK Supa Maxi™ Tensile Resistant Straight Coupling

Series 631/00-001



| Used on | Polyethelene    |
|---------|-----------------|
|         | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | GRP             |
|         | Steel           |
|         | Stainless Steel |
|         | Clay            |
|         | Concrete        |
|         | Asbestos cement |

| Features and benefits | <ul style="list-style-type: none"> <li>Patented SupaGrip™ sealing support system with flexible bracket ensures full support of the gasket even at minimum pipe size</li> <li>Full tensile strength on all pipes</li> <li>Metal grip segments are mounted with pins for maximum durability</li> <li>±4° angular deflection on each side</li> <li>Epoxy coated according to DIN 30677-2 and GSK approved</li> <li>Permanent protection caps protect the coupling during handling and installation</li> <li>Bolts are tightened from the sleeve side for full access when space is limited</li> <li>Lifting eye in DN100-700</li> <li><b>AVK Series 05 internal support bush is required, see page 62</b></li> </ul> |
|-----------------------|---|
|-----------------------|---|

| Size | DN50 - 700 |
|------|------------|
|------|------------|

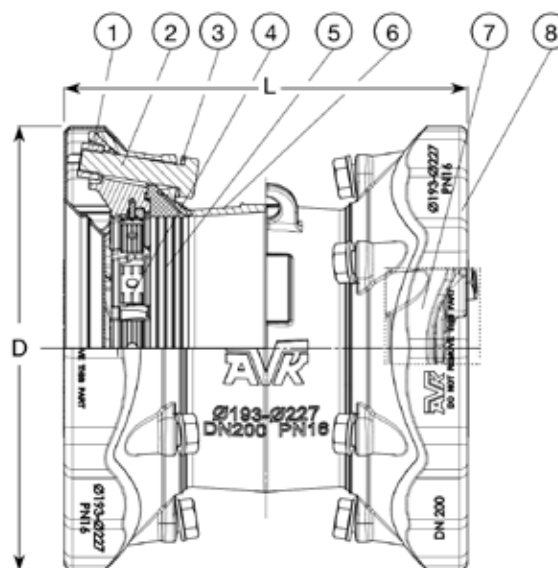
| Pressure | PN16 |
|----------|------|
|----------|------|

| Temperature Range | -20°C to +70°C |
|-------------------|----------------|
|-------------------|----------------|

| Body | Ductile iron<br>GJS-450-10 |
|------|----------------------------|
|------|----------------------------|

| Approvals | WIS 4-24-01<br>WIS 4-21-02<br>WIS 4-52-01<br>BS 8561<br>EN 14525<br>Reg 31 compliant |
|-----------|--|
|-----------|--|

| AVK Ref      | DN  | PN   | T       | L   | D   | Weight |
|--------------|-----|------|---------|-----|-----|--------|
|              | mm  |      | mm      |     |     | Kg     |
| 631-071-00-6 | 50  | PN16 | 48-71   | 255 | 200 | 6.0    |
| 631-091-00-6 | 65  | PN16 | 69-91   | 265 | 226 | 7.0    |
| 631-106-00-6 | 80  | PN16 | 82-106  | 268 | 235 | 7.5    |
| 631-133-00-6 | 100 | PN16 | 104-133 | 289 | 268 | 11     |
| 631-161-00-6 | 125 | PN16 | 132-159 | 277 | 285 | 13     |
| 631-188-00-6 | 150 | PN16 | 159-188 | 314 | 340 | 16     |
| 631-227-00-6 | 200 | PN16 | 193-227 | 354 | 389 | 25     |
| 631-257-00-6 | 225 | PN16 | 224-257 | 390 | 437 | 37     |
| 631-301-00-6 | 250 | PN16 | 266-301 | 381 | 476 | 35     |
| 631-356-00-6 | 300 | PN16 | 314-356 | 438 | 545 | 45     |
| 631-442-00-6 | 400 | PN16 | 392-442 | 526 | 661 | 107    |
| 631-510-00-6 | 450 | PN16 | 448-510 | 767 | 740 | 177    |
| 631-552-00-6 | 500 | PN16 | 498-552 | 769 | 772 | 201    |
| 631-652-00-6 | 600 | PN16 | 604-652 | 767 | 872 | 241    |



| Materials of Construction |                |                                 |
|---------------------------|----------------|---------------------------------|
| No.                       | Description    | Material                        |
| 1                         | Nut            | Stainless steel A4              |
| 2                         | Bolt           | Stainless steel A2              |
| 3                         | Washer         | Stainless steel A2              |
| 4                         | Grip segment   | Stainless steel / bronze CC491K |
| 5                         | EPDM           | DVGW/NF approved EPDM rubber    |
| 6                         | Sleeve         | Ductile iron GJS-450-10         |
| 7                         | Bracket        | Cast steel                      |
| 8                         | Protection cap | PE                              |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK Fabricated Coupling

Series 258/30-006



| Used on | Ductile iron    |
|---------|-----------------|
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Stainless Steel |

| Features and benefits | <ul style="list-style-type: none"> <li>Can be fabricated in any size, within the standard design range DN350 to DN1600mm+</li> <li>Corrosion resistant construction</li> <li>Fusion bonded epoxy coating</li> <li>Sheraplex coated bolt sets</li> <li>Sealing range nominal diameter +2mm to -5mm</li> <li>WRAS approved materials</li> <li>Angular deflection across total fitting                             <ul style="list-style-type: none"> <li>&lt;DN600 = 8°</li> <li>DN700 to DN800 = 6°</li> <li>DN900 to DN1200 = 4°</li> </ul> </li> <li>Can be used for up to -0.8Bar negative pressure</li> <li>Embodied carbon data available upon request</li> </ul> |
|-----------------------|---|
|-----------------------|---|

| Options | <ul style="list-style-type: none"> <li>Sizes DN1200+ manufactured to order dependant upon application</li> <li>Bolts and nuts: Zinc plated &amp; passivated, stainless steel</li> </ul> |
|---------|---|
|---------|---|

| Size | DN350 - 1600 |
|------|--------------|
|------|--------------|

| Pressure | PN10/16/25 |
|----------|------------|
|----------|------------|

| Temperature Range | -10°C to +70°C |
|-------------------|----------------|
|-------------------|----------------|

| Body | Mild steel<br>to BS EN 10025: S275JR |
|------|--------------------------------------|
|------|--------------------------------------|

| Approvals | WIS 4-21-02<br>WIS 4-24-01<br>WIS 4-52-01<br>Reg 31 compliant |
|-----------|---|
|-----------|---|

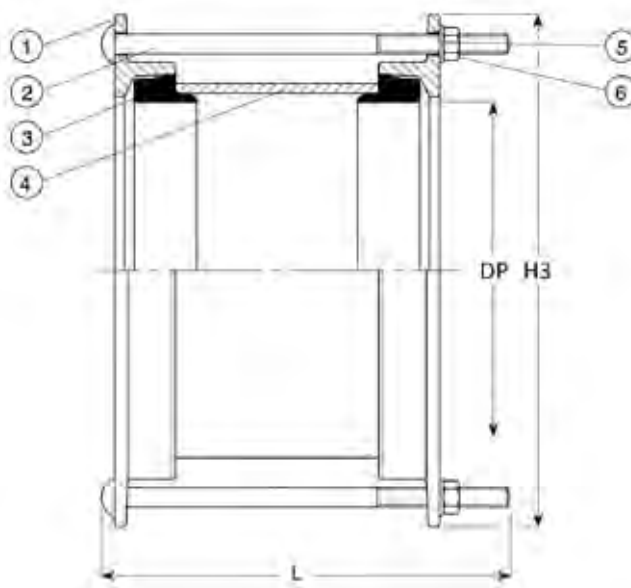
| AVK Ref        | DN      | OD   | Pipe    | L   | H3 and W | Ang Def | No of Bolts and Size | Wgt  |
|----------------|---------|------|---------|-----|----------|---------|----------------------|------|
|                | Inch/mm |      |         |     | mm       |         |                      |      |
| 258-30-0378-10 | 350     | 378  | Ductile | 270 | 486      | ±8°     | 8 M12                | 29.0 |
| 258-30-0429-10 | 400     | 429  | Ductile | 270 | 539      | ±8°     | 8 M12                | 30.0 |
| 258-30-0480-10 | 450     | 480  | Ductile | 270 | 590      | ±8°     | 10 M12               | 33.0 |
| 258-30-0532-10 | 500     | 532  | Ductile | 270 | 642      | ±8°     | 10 M12               | 37.0 |
| 258-30-0635-10 | 600     | 635  | Ductile | 270 | 745      | ±8°     | 10 M12               | 43.0 |
| 258-30-0738-10 | 700     | 738  | Ductile | 270 | 848      | ±6°     | 12 M12               | 49.0 |
| 258-30-0842-10 | 800     | 842  | Ductile | 270 | 923      | ±6°     | 12 M12               | 54.0 |
| 258-30-0945-10 | 900     | 945  | Ductile | 270 | 1055     | ±4°     | 14 M12               | 62.0 |
| 258-30-1048-10 | 1000    | 1048 | Ductile | 270 | 1158     | ±4°     | 14 M12               | 68.0 |
| 258-30-1255-10 | 1200    | 1255 | Ductile | 270 | 1365     | ±2°     | 16 M12               | 81.0 |
| 258-30-1462-10 | 1400    | 1462 | Ductile | 400 | 1572     | ±2°     | 18 M12               | 132  |

## Notes

ST = Steel /PVC DI = Ductile Iron AB = Cast Iron CD = Cast Iron

Bolts: Z = 0 for Zinc plated and passivated, 2 for A2 stainless steel, 3 for A4 stainless steel, 6 for sheraplex

Sizes 1600+ are available on application Pressure class Y = 1 for PN16 2 for PN25



| Materials of Construction |              |   |
|---------------------------|--------------|---|
| No.                       | Description  | Material  |
| 1                         | Gland Ring   | Mild steel, to BS EN 10025 : S275JR.  |
| 2                         | Bolts        | Cup square grade 8.8 Sheraplex® coated  |
| 3                         | Rubber Seals | EPDM to BS EN 681-1   |
| 4                         | Body         | Mild steel to BS EN 10025: S275JR   |
| 5                         | Washers      | Zinc plated and passivated  |
| 6                         | Nuts         | Hexagon, grade 8, sheraplex coated  |
|                           | Coating      | Fusion bonded epoxy coating to WIS 4-52-01 or wet sprayed dependent upon size |



# AVK Tensile Resistant Coupling

Series 258/61 & 258/60



|         |                 |
|---------|-----------------|
| Used on | Polyethylene    |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Stainless Steel |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Tensile resistant design to BS 8561. Type 2 as standard. Type 1 on application</li> <li>Individual pipe grippers</li> <li>Standard fabricated sizes within design range DN350 (351-383) to DN700 (708-740), DN700 (744-776) to DN1200 (1250-1282)</li> <li>Fusion bonded epoxy coating</li> <li>ZPP coated fasteners</li> <li>Sealing range of 32mm to accommodate a wide range of pipes</li> <li>Angular deflection: <ul style="list-style-type: none"> <li>DN600 - 750 = 4.0°</li> <li>DN450 - 600 = 5.0°</li> <li>DN350 - 450 = 6.0°</li> <li>DN780 - 1200 = 3.0°</li> </ul> </li> <li>Embodied carbon data available upon request</li> <li><b>AVK Series 05 internal support bush is required, see page 62</b></li> </ul> |
|                       |  |

|         |  |
|---------|--|
| Options | <ul style="list-style-type: none"> <li>Special sizes/drillings manufactured to order</li> <li>Stainless steel fasteners</li> </ul> |
|---------|--|

|      |              |
|------|--------------|
| Size | DN350 - 1200 |
|------|--------------|

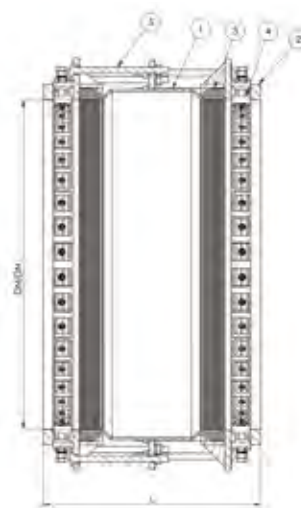
|          |         |
|----------|---------|
| Pressure | PN10/16 |
|----------|---------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -20°C to +70°C |
|-------------------|----------------|

|      |            |
|------|------------|
| Body | Mild steel |
|------|------------|

|           |   |
|-----------|---|
| Approvals | WIS 4-21-02<br>WIS 4-24-01<br>WIS-4-52-01<br>Reg 31 compliant |
|-----------|---|

| AVK Ref       | DN   | DN/DN     | PN   | W    | H3   | L   | Weight |
|---------------|------|-----------|------|------|------|-----|--------|
|               |      | mm        |      |      | mm   |     | Kg     |
| Series 258/61 |      |           |      |      |      |     |        |
| 258-61-0351-0 | 350  | 351-383   | PN16 | 586  | 586  | 550 | 133    |
| 258-61-0385-0 | 400  | 385-417   | PN16 | 620  | 620  | 550 | 147    |
| 258-61-0427-0 | 450  | 427-459   | PN16 | 662  | 662  | 550 | 165    |
| 258-61-0478-0 | 500  | 478-510   | PN16 | 713  | 713  | 550 | 182    |
| 258-61-0530-0 | 500  | 530-562   | PN16 | 765  | 765  | 550 | 202    |
| 258-61-0608-0 | 600  | 608-640   | PN16 | 843  | 843  | 550 | 231    |
| 258-61-0708-0 | 700  | 708-740   | PN16 | 943  | 943  | 550 | 264    |
| Series 258/60 |      |           |      |      |      |     |        |
| 258-60-0744-0 | 700  | 744-776   | PN10 | 979  | 979  | 550 | 284    |
| 258-60-0797-0 | 800  | 797-829   | PN10 | 1032 | 1032 | 550 | 304    |
| 258-60-0839-0 | 800  | 839-871   | PN10 | 1074 | 1074 | 550 | 321    |
| 258-60-0884-0 | 900  | 884-916   | PN10 | 1127 | 1127 | 565 | 376    |
| 258-60-0939-0 | 900  | 939-971   | PN10 | 1182 | 1182 | 565 | 405    |
| 258-60-0972-0 | 1000 | 972-1004  | PN10 | 1215 | 1215 | 565 | 413    |
| 258-60-1005-0 | 1000 | 1005-1037 | PN10 | 1248 | 1248 | 565 | 432    |
| 258-60-1042-0 | 1000 | 1042-1074 | PN10 | 1285 | 1285 | 565 | 453    |
| 258-60-1100-0 | 1100 | 1100-1132 | PN10 | 1343 | 1343 | 565 | 478    |
| 258-60-1142-0 | 1100 | 1142-1174 | PN10 | 1385 | 1385 | 565 | 506    |
| 258-60-1198-0 | 1200 | 1198-1230 | PN10 | 1441 | 1441 | 565 | 530    |
| 258-60-1250-0 | 1200 | 1250-1282 | PN10 | 1493 | 1493 | 565 | 558    |



| Materials of Construction |              |  |
|---------------------------|--------------|--|
| No.                       | Description  | Material                               |
| 1                         | Body         | Mild steel                             |
| 2                         | Gland ring   | Mild steel                             |
| 3                         | Seal         | EPDM rubber                            |
| 4                         | Grip segment | Stainless steel                        |
| 5                         | Fasteners    | Steel gr. 8.8, sinz plated. passivated |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# STEPPED COUPLINGS

# AVK Supa Universal™ Stepped Coupling

Series 602/2-001



|         |                 |
|---------|-----------------|
| Used on | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Asbestos cement |

|                       |   |
|-----------------------|---|
| Features and benefits | <ul style="list-style-type: none"> <li>±4° angular deflection on each side</li> <li>Drinking water approved EPDM gasket</li> <li>The design with external bolts prevents corrosion between sleeve and bolts</li> <li>The bolts of stainless steel A2 and the nuts of acid-resistant stainless steel A4 are anti-friction coated to offer easy tightening and to prevent galling</li> <li>The bolt ends are protected with plastic caps</li> <li>The moulded ribs in the gasket absorb minor imperfections in the pipe</li> <li>Ductile iron with epoxy coating according to DIN 30677-2 and GSK approved</li> </ul> |
|-----------------------|---|

|         |  |
|---------|--|
| Options | <ul style="list-style-type: none"> <li>Stainless steel bolt sets (Series 602/2-001)</li> </ul> |
|---------|--|

|      |            |
|------|------------|
| Size | DN40 - 400 |
|------|------------|

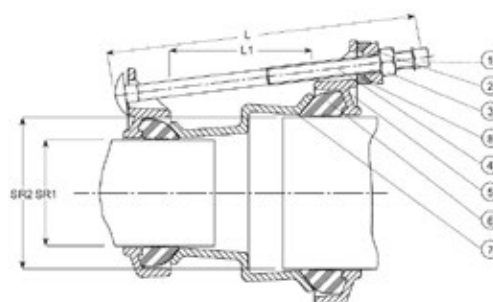
|          |      |
|----------|------|
| Pressure | PN16 |
|----------|------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |                           |
|------|---------------------------|
| Body | Ductile iron<br>GGG-40/50 |
|------|---------------------------|

|           |   |
|-----------|---|
| Approvals | WIS 4-21-02<br>WIS 4-52-03<br>BS EN 14525<br>BS EN 681-1<br>BS 8561<br>Reg 31 compliant |
|-----------|---|

| AVK Ref          | DN  | CN Range 1 | DN Range 2 | Weight |
|------------------|-----|------------|------------|--------|
|                  | mm  |            |            | Kg     |
| 602-063-074-4200 | 63  | 46-63      | 57-74      | 3.2    |
| 602-063-085-4200 | 63  | 46-63      | 68-85      | 4.2    |
| 602-074-085-4200 | 75  | 57-74      | 68-85      | 4.2    |
| 602-074-106-4200 | 75  | 57-74      | 84-106     | 4.6    |
| 602-085-106-4200 | 85  | 68-85      | 84-106     | 4.9    |
| 602-106-119-4200 | 106 | 84-106     | 99-119     | 5.3    |
| 602-106-133-4200 | 106 | 84-106     | 109-133    | 5.3    |
| 602-119-133-4200 | 119 | 99-119     | 109-133    | 5.6    |
| 602-119-157-4200 | 119 | 99-119     | 132-157    | 6.4    |
| 602-133-157-4200 | 110 | 109-133    | 132-157    | 7.2    |
| 602-133-183-4200 | 110 | 109-133    | 157-183    | 7.4    |
| 602-157-183-4200 | 125 | 132-157    | 157-183    | 7.7    |
| 602-183-201-4200 | 150 | 157-183    | 175-201    | 10     |
| 602-201-215-4200 | 160 | 176-201    | 193-215    | 9.6    |
| 602-201-242-4200 | 160 | 176-201    | 218-242    | 14     |
| 602-215-242-4200 | 200 | 193-215    | 218-242    | 11     |
| 602-215-268-4200 | 200 | 193-215    | 242-268    | 16     |
| 602-242-268-4200 | 240 | 218-242    | 242-268    | 14     |
| 602-268-292-4200 | 240 | 242-268    | 266-292    | 15     |
| 602-292-327-4200 | 300 | 266-292    | 301-327    | 20     |
| 602-327-350-4200 | 300 | 301-327    | 314-350    | 17     |
| 602-327-378-4200 | 300 | 301-327    | 352-378    | 19     |
| 602-350-378-4200 | 300 | 324-350    | 352-378    | 20     |
| 602-378-396-4200 | 350 | 352-378    | 372-397    | 26     |
| 602-396-410-4200 | 375 | 372-397    | 384-410    | 26     |
| 602-410-436-4200 | 400 | 384-410    | 410-436    | 22     |
| 602-436-462-4200 | 400 | 410-436    | 436-462    | 23     |



| Materials of Construction |                |                         |
|---------------------------|----------------|-------------------------|
| No.                       | Description    | Material                |
| 1                         | Protection cap | Plastic                 |
| 2                         | Washer         | Galvanized steel        |
| 3                         | Nut            | Grade 8 steel           |
| 4                         | Bolt           | Grade 8.8 steel         |
| 5                         | Gland ring     | Ductile iron GJS-400-15 |
| 6                         | Gasket         | EPDM                    |
| 7                         | Centre sleeve  | Ductile iron GJS-400-15 |
| 8                         | Washer         | Galvanized steel        |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings



# AVK Supa Maxi™ Resistant Step Coupling

Series 632/00-001



| Used on | Polyethelene    |
|---------|-----------------|
|         | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | GRP             |
|         | Steel           |
|         | Stainless Steel |
|         | Clay            |
|         | Concrete        |
|         | Asbestos cement |

| Features and benefits | <ul style="list-style-type: none"> <li>Patented SupaGrip™ sealing support system</li> <li>Full tensile strength on all pipes</li> <li>Metal grip segments are mounted with pins for maximum durability</li> <li>±4° angular deflection on each side</li> <li>Epoxy coated according to DIN 30677-2 and GSK approved</li> <li>Permanent protection caps protect the coupling during handling and installation</li> <li>Bolts are tightened from the sleeve side for full access when space is limited</li> <li>Lifting eye in DN 100-300</li> <li><b>AVK Series 05 internal support bush is required, see page 62</b></li> </ul> |
|-----------------------|---|
|-----------------------|---|

| Options |  |
|---------|--|
|---------|--|

| Size | DN50 - 300 |
|------|------------|
|------|------------|

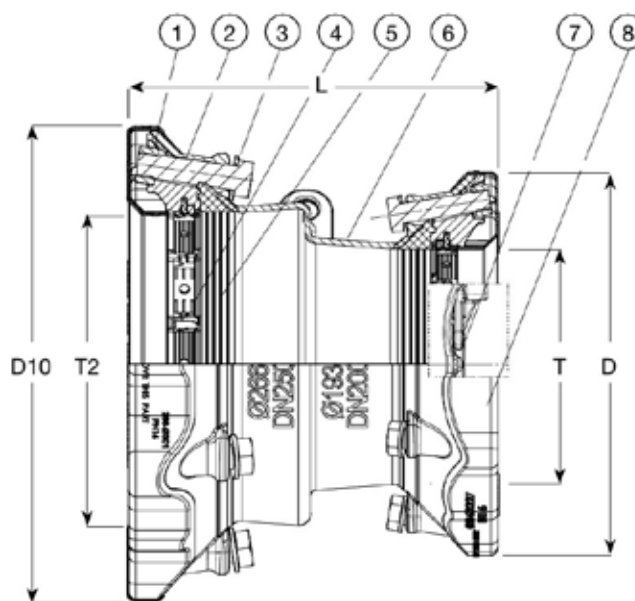
| Pressure | PN16 |
|----------|------|
|----------|------|

| Temperature Range | -20°C to +70°C |
|-------------------|----------------|
|-------------------|----------------|

| Body | Ductile iron<br>GJS-400-15 |
|------|----------------------------|
|------|----------------------------|

| Approvals | WIS 4-21-02<br>WIS 4-14-01<br>WIS 4-52-01<br>EN 14525<br>BS 8561<br>Reg 31 compliant |
|-----------|--|
|-----------|--|

| AVK Ref         | DN/DN   | PN   | T       | T2      | L   | D   | D10 | Weight |
|-----------------|---------|------|---------|---------|-----|-----|-----|--------|
|                 | mm      |      | mm      |         |     |     |     |        |
| 632-071-091-006 | 50-65   | PN16 | 48-71   | 69-91   | 294 | 200 | 226 | 6.5    |
| 632-071-106-006 | 50-80   | PN16 | 48-71   | 82-106  | 296 | 200 | 235 | 7.0    |
| 632-091-106-006 | 65-80   | PN16 | 69-91   | 82-106  | 294 | 226 | 235 | 7.5    |
| 632-106-133-006 | 80-100  | PN16 | 82-106  | 104-133 | 305 | 235 | 268 | 10     |
| 632-133-161-006 | 100-125 | PN16 | 104-133 | 132-159 | 305 | 268 | 285 | 13     |
| 632-133-188-006 | 100-150 | PN16 | 104-133 | 159-188 | 322 | 268 | 340 | 14     |
| 632-161-188-006 | 125-150 | PN16 | 132-159 | 159-188 | 321 | 285 | 340 | 15     |
| 632-188-227-006 | 150-200 | PN16 | 159-188 | 193-227 | 356 | 340 | 389 | 21     |
| 632-188-257-006 | 150-225 | PN16 | 159-188 | 224-257 | 374 | 340 | 437 | 27     |
| 632-227-257-006 | 200-225 | PN16 | 193-227 | 224-257 | 389 | 389 | 437 | 32     |
| 632-227-301-006 | 200-250 | PN16 | 193-227 | 266-301 | 386 | 389 | 476 | 32     |
| 632-257-301-006 | 225-250 | PN16 | 224-257 | 266-301 | 396 | 437 | 476 | 36     |
| 632-301-356-006 | 250-300 | PN16 | 266-301 | 314-356 | 437 | 476 | 545 | 42     |



| Materials of Construction |                |                                 |
|---------------------------|----------------|---------------------------------|
| No.                       | Description    | Material                        |
| 1                         | Nut            | Stainless steel A4              |
| 2                         | Bolt           | Stainless steel A2              |
| 3                         | Washer         | Stainless steel A2              |
| 4                         | Grip segment   | Stainless steel / bronze CC491K |
| 5                         | Gasket         | EPDM                            |
| 6                         | Sleeve         | Ductile iron GJS-450-10         |
| 7                         | Bracket        | Cast steel                      |
| 8                         | Protection cap | PE                              |



# AVK Fabricated Stepped Coupling

Series 259/30-001



|         |                 |
|---------|-----------------|
| Used on | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | GRP             |
|         | Steel           |
|         | Stainless Steel |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Corrosion resistant construction</li> <li>EPDM seals</li> <li>Sheraplex® coated fasteners</li> <li>Can be fabricated in any size within design range of DN350 to DN1600+</li> <li>Fusion bonded epoxy coating</li> <li>Sealing range nominal diameter +2mm to -5mm</li> <li>Can be used for upto -0.8 Bar negative pressure</li> <li>Embodied carbon data available upon request</li> </ul> |
|                       | <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>This fitting is not designed for end load resistant applications</li> <li>* Suitable only for cc-GRP (centrifugally cast glass reinforced polyester) and turned end pipes</li> <li>** Suitable for 3mm Wall Thickness &amp; above – DN300 to DN1000</li> </ul>  |

|         |  |
|---------|--|
| Options | <ul style="list-style-type: none"> <li>259/34 - Stainless steel bolts, 259/36 - Sheraplex bolts</li> <li>A2, A4 Stainless steel fasteners</li> <li>Special sizes manufactured to order</li> <li>Sizes DN1200+ manufactured to order dependant upon application</li> <li>25 Bar on certain sizes</li> </ul> |
|---------|--|

|      |               |
|------|---------------|
| Size | DN350 - 1400+ |
|------|---------------|

|          |            |
|----------|------------|
| Pressure | PN10/16/25 |
|----------|------------|

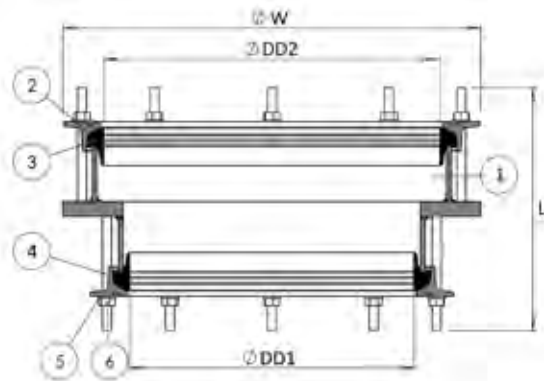
|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |  |
|------|--|
| Body | Mild steel<br>BS EN 10025:1990, Grade FE 430 B |
|------|--|

|           |                                 |
|-----------|---------------------------------|
| Approvals | WIS-4-52-01<br>Reg 31 compliant |
|-----------|---------------------------------|

| AVK Ref          | Pipe A  | Pipe B | Sealing Dia |       | W    | L   | Ang Def | No of Bolts and Size | Weight |
|------------------|---------|--------|-------------|-------|------|-----|---------|----------------------|--------|
|                  | Inch/mm |        | DD2         | DD1   | mm   |     |         |                      | Kg     |
| 259-30-0429-0406 | 400DI   | 16"ST  | 429.0       | 406.4 | 521  | 326 | ±6°     | 8 M12                | 35     |
| 259-30-0453-0406 | 16"CD   | 16"ST  | 453.0       | 406.4 | 568  | 326 | ±4°     | 8 M12                | 40     |
| 259-30-0480-0457 | 450DI   | 18"ST  | 480.0       | 457.2 | 572  | 326 | ±8°     | 8 M12                | 35     |
| 259-30-0507-0480 | 18"CD   | 450DI  | 507.0       | 480.0 | 622  | 326 | ±8°     | 10 M12               | 40     |
| 259-30-0532-0508 | 500DI   | 20"ST  | 532.0       | 508.0 | 650  | 326 | ±6°     | 10 M12               | 46     |
| 259-30-0545-0532 | 20"AB   | 500DI  | 545.0       | 532.0 | 660  | 326 | ±4°     | 10 M12               | 41     |
| 259-30-0560-0532 | 20"CD   | 500DI  | 560.0       | 532.0 | 675  | 326 | ±4°     | 10 M12               | 42     |
| 259-30-0635-0610 | 600DI   | 24"ST  | 635.0       | 609.6 | 725  | 326 | ±4°     | 10 M12               | 72     |
| 259-30-0650-0610 | 24"AB   | 24"ST  | 650.0       | 609.6 | 765  | 326 | ±8°     | 10 M12               | 77     |
| 259-30-0650-0635 | 24"AB   | 600DI  | 650.0       | 635.0 | 765  | 326 | ±8°     | 12 M12               | 47     |
| 259-30-0667-0635 | 24"CD   | 600DI  | 667.0       | 635.0 | 782  | 326 | ±8°     | 12 M12               | 45     |
| 259-30-0738-0711 | 700DI   | 28"ST  | 738.0       | 711.2 | 826  | 326 | ±8°     | 12 M12               | 69     |
| 259-30-0738-0729 | 700DI   | 27"AB  | 738.0       | 729.0 | 844  | 326 | ±8°     | 12 M12               | 73     |
| 259-30-0747-0738 | 27"CD   | 700DI  | 747.0       | 738.0 | 862  | 326 | ±8°     | 12 M12               | 53     |
| 259-30-0842-0813 | 800DI   | 32"ST  | 842.0       | 812.8 | 928  | 326 | ±6°     | 12 M12               | 60     |
| 259-30-0842-0826 | 800DI   | 30"CD  | 842.0       | 826.0 | 941  | 326 | ±6°     | 12 M12               | 80     |
| 259-30-0945-0914 | 900DI   | 36"ST  | 945.0       | 914.4 | 1029 | 326 | ±4°     | 14 M12               | 65     |
| 1000mm           |         |        |             |       |      |     |         |                      |        |

|       |   |
|-------|---|
| Notes | X=0 for Water PN16 - zinc plated and passivated studs. 4 Water PN16, stainless steel bolts 6 Water PN16, Sheraplex bolts. AB + CD =                                 |
|       | Cast Iron DI= Ductile Iron ST= Steel GRP = Glass reinforced polyester. Additional sizes and step ranges available on request. Sizes 1600+ available on application. |
|       |   |

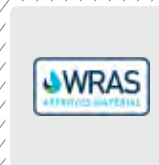


| Materials of Construction |              |   |
|---------------------------|--------------|---|
| No.                       | Description  | Material  |
| 1                         | Studs        | Grade 8.8, sheraplex® coated  |
| 2                         | Nuts         | Hexagon, grade 8 sheraplex® coated  |
| 3                         | Washers      | Zinc plated and passivated  |
| 4                         | Gland ring   | Mild Steel, Grade FE 430 B. BS EN 10025: 1990   |
| 5                         | Rubber seals | EPDM  |
| 6                         | Body         | Mild steel, grade FE 430 B. BS EN 10025: 1990   |
| 7                         | Coating      | Fusion bonded epoxy coating WIS 4-52-01 or wet sprayed dependent upon size. WRAS approved |
|                           | Domed Cap    | Plastic   |

# FLANGE ADAPTORS

# AVK Supa Universal™ Flanged Adaptor

Series 603/A-002



|         |                 |
|---------|-----------------|
| Used on | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Asbestos cement |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Mild steel GEOMET coated bolts/nuts comply with WIS4-52-03</li> <li>Light weight design</li> <li>±4° angular deflection on each side</li> <li>Drinking water approved EPDM gasket</li> <li>The bolt ends are protected with plastic caps</li> <li>The moulded ribs in the gasket absorb minor imperfections in the pipe</li> <li>Versatile design tolerances typical 26 mm to cover all pipe materials</li> <li>Epoxy coated according to DIN 30677-2 and GSK approved</li> </ul> |
|-----------------------|--|

|         |  |
|---------|--|
| Options |  |
|---------|--|

|      |            |
|------|------------|
| Size | DN40 - 400 |
|------|------------|

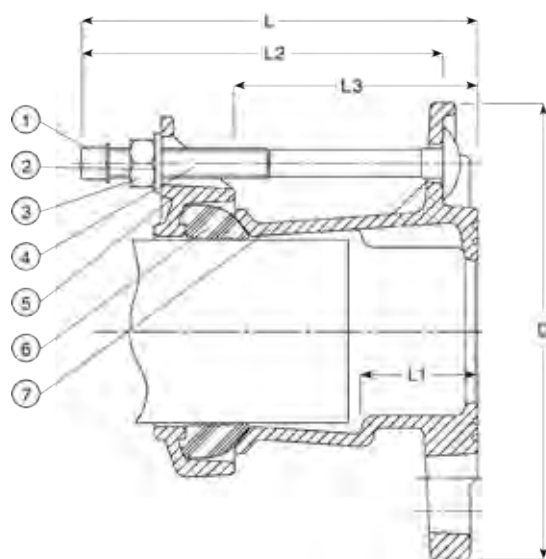
|          |      |
|----------|------|
| Pressure | PN16 |
|----------|------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |                        |
|------|------------------------|
| Body | Ductile iron<br>GGG-40 |
|------|------------------------|

|           |   |
|-----------|---|
| Approvals | <p>WIS 4-21-02<br/>WIS 4-52-03<br/>BS EN 1092 (ISO 7005-2)<br/>BS EN 681-1 / BS EN 14525<br/>BS 8561<br/>Reg 31 compliant</p> |
|-----------|---|

| AVK Ref          | DN      | D   | L   | L1  | L2  | L3  | Pipe Cover Range | Weight |
|------------------|---------|-----|-----|-----|-----|-----|------------------|--------|
|                  | mm      |     |     |     |     |     |                  | Kg     |
| 603-063-000-4200 | 40/50   | 165 | 159 | 47  | 145 | 95  | 46-63            | 4.0    |
| 603-074-000-4200 | 50      | 172 | 159 | 47  | 145 | 98  | 57-74            | 3.9    |
| 603-085-000-4200 | 50/65   | 185 | 159 | 47  | 145 | 98  | 68-85            | 4.2    |
| 603-106-000-4200 | 80      | 200 | 159 | 47  | 145 | 100 | 84-106           | 5.0    |
| 603-119-000-4200 | 100     | 254 | 159 | 47  | 145 | 100 | 99-119           | 5.6    |
| 603-133-000-4200 | 100     | 240 | 159 | 47  | 145 | 101 | 109-133          | 5.8    |
| 603-157-000-4200 | 125/150 | 285 | 184 | 58  | 170 | 111 | 132-157          | 9.0    |
| 603-183-000-4200 | 150     | 293 | 184 | 56  | 170 | 109 | 157-183          | 9.3    |
| 603-201-000-4200 | 150     | 313 | 184 | 69  | 170 | 112 | 176-201          | 11     |
| 603-215-000-4200 | 200     | 343 | 182 | 110 | 170 | 117 | 193-215          | 12     |
| 603-242-000-4200 | 200     | 353 | 182 | 65  | 170 | 117 | 218-242          | 13     |
| 603-268-000-4200 | 250     | 406 | 182 | 110 | 170 | 119 | 242-268          | 17     |
| 603-292-000-4200 | 250     | 406 | 182 | 61  | 170 | 119 | 266-292          | 19     |
| 603-306-000-4200 | 250     | 420 | 182 | 61  | 170 | 119 | 280-306          | 19     |
| 603-327-000-4200 | 300     | 483 | 186 | 59  | 170 | 119 | 301-327          | 22     |
| 603-350-000-4200 | 300     | 483 | 186 | 59  | 170 | 119 | 324-350          | 24     |
| 603-378-000-4200 | 350     | 520 | 186 | 110 | 170 | 119 | 352-378          | 25     |
| 603-410-000-4200 | 350     | 520 | 226 | 100 | 210 | 161 | 384-410          | 30     |
| 603-436-000-4200 | 400     | 597 | 226 | 100 | 210 | 165 | 410-436          | 35     |
| 603-462-000-4200 | 400     | 597 | 226 | 100 | 210 | 165 | 436-462          | 38     |



| Materials of Construction |                |                                 |
|---------------------------|----------------|---------------------------------|
| No.                       | Description    | Material                        |
| 1                         | End cap        | Plastic                         |
| 2                         | Washer         | Steel, hot dip galvanized       |
| 3                         | Nut            | Steel gr. 8 zinc plated         |
| 4                         | Bolt           | Steel gr. 8.8 zinc plated       |
| 5                         | Bracket        | Ductile iron GJS-500-7 (GGG-50) |
| 6                         | Gasket         | EPDM Rubber                     |
| 7                         | Adaptor flange | Ductile iron GJS-500-7 (GGG-50) |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK Supa Universal™ Flange Adaptor

Series 603/A-003



|         |                 |
|---------|-----------------|
| Used on | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Asbestos cement |

|                       |   |
|-----------------------|---|
| Features and benefits | <ul style="list-style-type: none"> <li>• <math>\pm 4^\circ</math> angular deflection</li> <li>• Drinking water approved EPDM gasket</li> <li>• The bolts and nuts are anti-friction coated to offer easy tightening and to prevent galling</li> <li>• The bolt ends are protected with plastic caps</li> <li>• The moulded ribs in the gasket absorb minor imperfections in the pipe</li> <li>• Versatile design tolerances typical 26 mm to cover all pipe materials</li> <li>• Ductile iron with epoxy coating according to DIN 30677-2 and AVK guidelines</li> </ul> |
|-----------------------|---|

|         |  |
|---------|--|
| Options |  |
|---------|--|

|      |            |
|------|------------|
| Size | DN80 - 200 |
|------|------------|

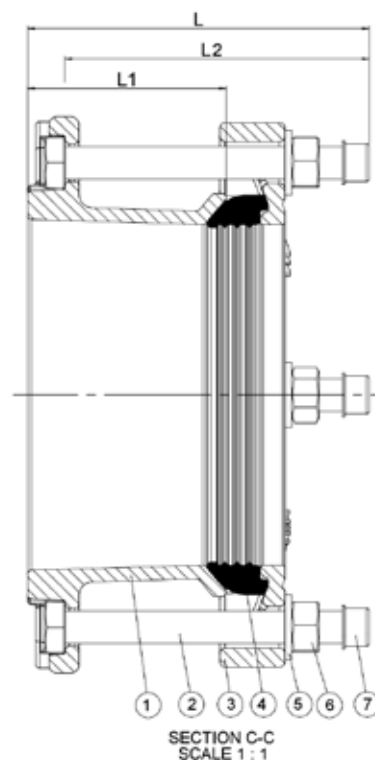
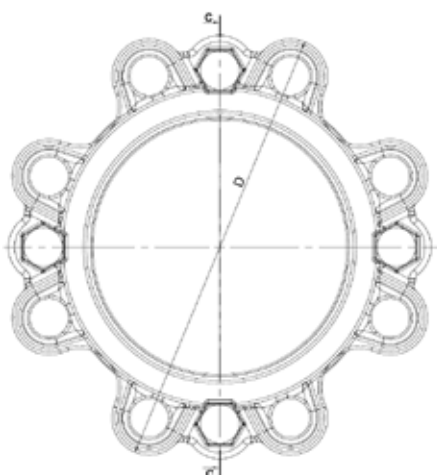
|          |      |
|----------|------|
| Pressure | PN16 |
|----------|------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |                                    |
|------|------------------------------------|
| Body | Ductile iron<br>GJS-500-7 (GGG-50) |
|------|------------------------------------|

|           |   |
|-----------|---|
| Approvals | <p>WIS 4-52-01<br/>WIS 4-52-03<br/>BS EN 1092 (ISO 7005-2)<br/>BS EN 14525<br/>Reg 31 compliant</p> |
|-----------|---|

| AVK Ref          | DN  | L   | L1 | L2  | D   | Pipe Cover Range | Weight |
|------------------|-----|-----|----|-----|-----|------------------|--------|
|                  | mm  |     |    |     |     |                  | Kg     |
| 603-099-004-4200 | 80  | 126 | 73 | 110 | 192 | 88-99            | 3.2    |
| 603-123-004-4200 | 100 | 126 | 73 | 110 | 216 | 114-123          | 3.6    |
| 603-178-004-4200 | 150 | 126 | 73 | 110 | 285 | 168-178          | 4.2    |
| 603-233-004-4200 | 200 | 126 | 73 | 110 | 339 | 219-233          | 6.2    |



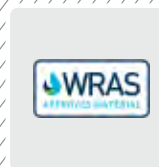
| Materials of Construction |                |                                 |
|---------------------------|----------------|---------------------------------|
| No.                       | Description    | Material                        |
| 1                         | Adaptor flange | Ductile iron GJS-500-7 (GGG-50) |
| 2                         | Bolt           | Steel gr. 8.8, zinc plated      |
| 3                         | Bracket        | Ductile iron GJS-500-7 (GGG-50) |
| 4                         | Gasket         | EPDM rubber                     |
| 5                         | Washer         | Steel, hot dip galvanized       |
| 6                         | Nut            | Steel gr. 8, zinc plated        |
| 7                         | End cap        | Plastic                         |





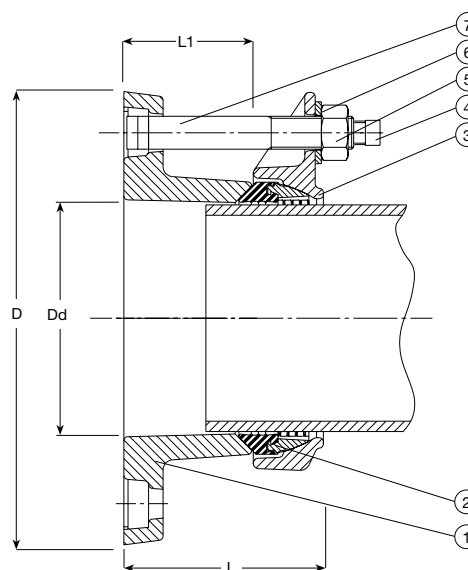
# AVK Supa Plus™ Tensile Resistant Flanged Adaptor

Series 623/10-001



| Used on               | Polyethelene<br>PVC  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>±3.5° angular deflection</li> <li>The design with external bolts prevents corrosion between sleeve and bolts</li> <li>The M16 bolts of stainless steel A2 and the nuts of acid-resistant stainless steel A4 are anti-friction coated to offer easy tightening and to prevent galling</li> <li>The compression type gasket makes it easy to insert the pipe end, even in large dimensions</li> <li>Fusion bonded epoxy coating according to DIN 30677-2 and AVK guidelines</li> <li><b>AVK Series 05 internal support bush is required, see page 62</b></li> </ul> |
| Options               |  |
| Size                  | DN40 - 315   |
| Pressure              | PN16   |
| Temperature Range     | -10°C to +70°C   |
| Body                  | Ductile iron<br>GGG-40/50  |
| Approvals             | WIS 4-24-01<br>WIS 4-52-01<br>WIS 4-52-03<br>BS EN 12842<br>BS EN 1092 (ISO 7005-2)<br>BS EN 681-1<br>BS 85612<br>Reg 31 compliant   |

| AVK Ref            | DN  | Dd  | Flange Drilling | D   | L   | L1 | Weight |
|--------------------|-----|-----|-----------------|-----|-----|----|--------|
|                    | mm  | mm  | PN              | mm  | mm  | mm | Kg     |
| 623-10-040-0141001 | 40  | 40  | PN16            | 150 | 122 | 62 | 3.6    |
| 623-10-050-0141001 | 40  | 50  | PN16            | 150 | 122 | 62 | 3.7    |
| 623-10-063-0141001 | 50  | 63  | PN16            | 180 | 123 | 63 | 4.4    |
| 623-10-075-0141001 | 65  | 75  | PN16            | 185 | 123 | 63 | 4.5    |
| 623-10-090-0141001 | 80  | 90  | PN16            | 200 | 122 | 62 | 4.7    |
| 623-10-110-0141001 | 100 | 110 | PN16            | 220 | 123 | 63 | 6.6    |
| 623-10-125-0141001 | 125 | 125 | PN16            | 250 | 125 | 63 | 6.8    |
| 623-10-125-0241001 | 125 | 125 | PN16            | 245 | 125 | 63 | 7.4    |
| 623-10-140-0141001 | 125 | 140 | PN16            | 250 | 125 | 63 | 6.9    |
| 623-10-160-0141001 | 150 | 160 | PN16            | 285 | 125 | 63 | 8.6    |
| 623-10-180-0141001 | 150 | 180 | PN16            | 285 | 125 | 63 | 8.6    |
| 623-10-200-0141001 | 200 | 200 | PN16            | 340 | 126 | 64 | 14.1   |
| 623-10-225-0141001 | 200 | 225 | PN16            | 340 | 141 | 64 | 15.1   |
| 623-10-250-0141001 | 250 | 250 | PN16            | 405 | 179 | 88 | 24.5   |
| 623-10-280-0141001 | 250 | 280 | PN16            | 405 | 179 | 88 | 25     |
| 623-10-315-0141001 | 300 | 315 | PN16            | 460 | 179 | 88 | 28.6   |



| Materials of Construction |                 |                        |
|---------------------------|-----------------|------------------------|
| No.                       | Description     | Material               |
| 1                         | Adaptor flange  | Ductile iron GJS-500-7 |
| 2                         | Combined gasket | Bronze RG5 / EPDM      |
| 3                         | Bracket         | Ductile iron GJS-500-7 |
| 4                         | Cap             | Plastic                |
| 5                         | Nut             | Stainless steel A4     |
| 6                         | Washer          | Stainless steel A2     |
| 7                         | Square bolt     | Stainless steel A2     |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK Supa Maxi™ Tensile Resistant Flange Adaptor

Series 633/00-001



| Used on | Polyethelene    |
|---------|-----------------|
|         | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | GRP             |
|         | Steel           |
|         | Stainless Steel |
|         | Clay            |
|         | Concrete        |
|         | Asbestos cement |

| Features and benefits | <ul style="list-style-type: none"> <li>Patented SupaGrip™ sealing support system with flexible bracket ensures full support of the gasket even at minimum pipe size</li> <li>Full tensile strength on all pipes</li> <li>Metal grip segments are mounted with pins for maximum durability</li> <li>±4° angular deflection</li> <li>Epoxy coated according to DIN 30677-2 and GSK approved</li> <li>Permanent protection cap protects the coupling during handling and installation</li> <li>Lifting eye in DN100-600</li> <li><b>AVK Series 05 internal support bush is required, see page 62</b></li> </ul> |
|-----------------------|--|
|-----------------------|--|

| Options |  |
|---------|--|
|---------|--|

| Size | DN40 - 700 |
|------|------------|
|------|------------|

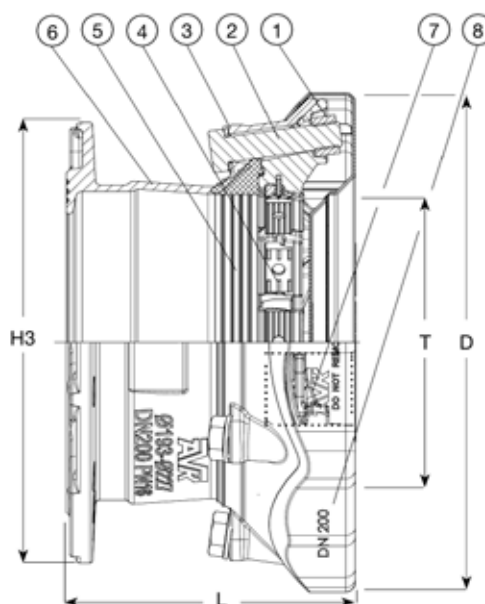
| Pressure | PN16 |
|----------|------|
|----------|------|

| Temperature Range | -20°C to + 70°C |
|-------------------|-----------------|
|-------------------|-----------------|

| Body | Ductile iron<br>GJS-450-10 |
|------|----------------------------|
|------|----------------------------|

| Approvals | WIS 4-21-01<br>WIS 4-52-01<br>WIS 4-52-03<br>BS EN 14525<br>BS EN 681-1<br>Reg 31 compliant |
|-----------|---|
|-----------|---|

| AVK Ref            | DN    | PN   | T         | L   | D   | H3  | Weight |
|--------------------|-------|------|-----------|-----|-----|-----|--------|
|                    | mm    |      | mm        |     |     |     | Kg     |
| 633-071-00-006     | 40-50 | PN16 | 48-71     | 197 | 200 | 165 | 5.0    |
| 633-091-00-006     | 50-65 | PN16 | 69-91     | 197 | 226 | 185 | 6.0    |
| 633-106-00-006     | 80    | PN16 | 82-106    | 198 | 235 | 200 | 6.5    |
| 633-133-00-006     | 100   | PN16 | 104-133   | 203 | 268 | 229 | 9.0    |
| 633-161-00-006     | 100   | PN16 | 132-159   | 198 | 285 | 254 | 11     |
| 633-188-00-006     | 150   | PN16 | 159-188   | 220 | 340 | 285 | 12     |
| 633-227-00-006     | 200   | PN16 | 193-227   | 243 | 389 | 343 | 19     |
| 633-257-00-006     | 250   | PN16 | 224-257   | 245 | 437 | 406 | 25     |
| 633-301-00-006     | 250   | PN16 | 266-301   | 254 | 476 | 406 | 28     |
| 633-356-00-006     | 300   | PN16 | 314-356   | 282 | 545 | 483 | 38     |
| 633-442-00-006 (1) | 400   | PN16 | 392-442   | 447 | 661 | 597 | 80     |
| 633-510-00-006 (1) | 450   | PN16 | 448-510   | 614 | 740 | 740 | 145    |
| 633-552-00-006 (1) | 500   |      | 498 - 552 |     |     |     | 166    |
| 633-652-00-006 (1) | 600   |      | 604 - 652 |     |     |     | 213    |

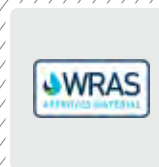


| Materials of Construction |                |                                 |
|---------------------------|----------------|---------------------------------|
| No.                       | Description    | Material                        |
| 1                         | Nut            | Stainless steel A4              |
| 2                         | Bolt           | Stainless steel A2              |
| 3                         | Washer         | Stainless steel A2              |
| 4                         | Grip segment   | Stainless steel / bronze CC491K |
| 5                         | Gasket         | EPDM                            |
| 6                         | Sleeve         | Ductile iron GJS-450-10         |
| 7                         | Bracket        | Cast steel                      |
| 8                         | Protection cap | PE                              |



# AVK Fabricated Flanged Adaptor

Series 260/30-001



|         |                 |
|---------|-----------------|
| Used on | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | GRP             |
|         | Steel           |
|         | Stainless Steel |
|         | Asbestos cement |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Corrosion resistant construction</li> <li>Can be fabricated in any size within design range of DN350 to DN1600+</li> <li>Fusion bonded epoxy coating</li> <li>Sheraplex® coated stud sets</li> <li>Sealing range nominal diameter +2mm to -5mm</li> <li>Angular deflection: <ul style="list-style-type: none"> <li>&lt;DN600mm is + 4°</li> <li>DN700 &amp; 800 is + 3°</li> <li>DN900 &amp; 1200 is + 2°</li> </ul> </li> <li>Embodied carbon data available upon request</li> </ul> |
|                       | <b>Notes:</b> <ul style="list-style-type: none"> <li>This fitting is not designed for end load resistant applications</li> <li>*Suitable only for cc-GRP (centrifugally cast-glass reinforced polyester) and turned end pipes</li> <li>**Suitable for 3mm Wall Thickness &amp; above – DN300 to DN1000</li> </ul>  |

|         |   |
|---------|---|
| Options | <ul style="list-style-type: none"> <li>Special sizes/drillings manufactured to order</li> <li>Slotted bolt holes</li> <li>Studs and nuts</li> <li>Stainless steel</li> <li>Zinc plated and gold passivated</li> <li>Available notched upon request</li> </ul> |
|---------|---|

|      |               |
|------|---------------|
| Size | DN350 - 1400+ |
|------|---------------|

|          |            |
|----------|------------|
| Pressure | PN10/16/25 |
|----------|------------|

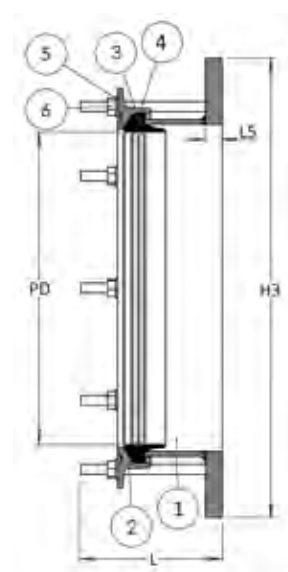
|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |   |
|------|---|
| Body | Mild steel<br>BS EN 10025:1990 grade FE 430 B |
|------|---|

|           |   |
|-----------|---|
| Approvals | WIS 4-21-02<br>WIS 4-52-01<br>WIS 4-52-03<br>BS EN 681-1<br>BS 8561<br>Reg 31 compliant |
|-----------|---|

| AVK Ref            | DN      | OD    | H3 and W | L5 | L   | Ang Def | No of Bolts and Size |     | Weight |
|--------------------|---------|-------|----------|----|-----|---------|----------------------|-----|--------|
|                    | Inch    | mm    | mm       |    |     |         |                      |     | Kg     |
| 260-30-0842-100706 | 800     | 842   | 1025     | 25 | 178 | ±3°     | 24                   | M12 | 24     |
| 260-30-0355-1000   | 350 ST  | 355.6 | 520      | 25 | 178 | ±4°     | 16                   | M12 | 34     |
| 260-30-0406-1002   | 400ST   | 406.4 | 580      | 25 | 178 | ±4°     | 16                   | M12 | 40     |
| 260-30-0429-1002   | 400ST   |       |          |    |     |         |                      |     | 38     |
| 260-30-0457-1003   | 450 ST  | 457.2 | 640      | 25 | 178 | ±4°     | 20                   | M12 | 46     |
| 260-30-0480-1003   | 450ST   |       |          |    |     |         |                      |     | 44     |
| 260-30-0508-1004   | 500 ST  | 508   | 715      | 25 | 178 | ±4°     | 20                   | M12 | 56     |
| 260-30-0609-1005   | 600 ST  | 609.6 | 840      | 25 | 178 | ±4°     | 20                   | M12 | 71     |
| 260-30-0711-1006   | 700 ST  | 711.2 | 910      | 25 | 178 | ±3°     | 24                   | M12 | 72     |
| 260-30-0812-1007   | 800 ST  | 812.8 | 1025     | 25 | 178 | ±3°     | 24                   | M12 | 85     |
| 260-30-0841-1008   | 900ST   |       |          |    |     |         |                      |     | 114    |
| 260-30-0914-1008   | 900ST   |       |          |    |     |         |                      |     | 94     |
| 260-30-0945-1008   | 900 ST  | 914.4 | 1135     | 25 | 178 | ±2°     | 28                   | M12 | 92     |
| 260-30-1016-1009   | 1000 ST | 1016  | 1255     | 30 | 198 | ±2°     | 28                   | M12 | 114    |
| 260-30-1220-1011   | 1200 ST | 1220  | 1485     | 30 | 198 | ±2°     | 32                   | M12 | 145    |

|       |  |
|-------|--|
| Notes | ST = Steel/uPVC, DI = Ductile Iron, AB = Cast Iron, CD = Cast iron.  |
|       | Flange Drilling: Y=0 for PN10, 1 for PN16, 2 for ANSI b16.5 class 150, 3 for ISO2084 PN16, 4 for PN25 (25 bar rated), 5 BSTD, 6 BSTE |
|       | Studs: Z=0 for Zinc plated and passivated; 6 for Sheraplexed. Sizes above those shown here are available upon application            |



| Materials of Construction |             |                       |
|---------------------------|-------------|-----------------------|
| No.                       | Description | Material              |
| 1                         | Body        | Steel S275JR          |
| 2                         | Gland ring  | Steel S275JR          |
| 3                         | Seal        | EPDM                  |
| 4                         | Studs       | Zinc plated 8.8 steel |
| 5                         | Washer      | Zinc plated 8.8 steel |
| 6                         | Nuts        | Zinc plated 8.8 steel |
| 7                         | Coating     | Epoxy                 |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK Tensile Resistant Fabricated Flange Adaptor

Series 260/61 & 260/60



|         |                 |
|---------|-----------------|
| Used on | Polyethylene    |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Stainless Steel |

|                       |   |
|-----------------------|---|
| Features and benefits | <ul style="list-style-type: none"> <li>Tensile resistant design to BS 8561. Type 2 as standard. Type 1 on application</li> <li>Individual Pipe Grippers</li> <li>WRAS approved EPDM seals</li> <li>Standard fabricated sizes within design range of DN700 (744-776) to DN1200 (1250-1282)</li> <li>Fusion bonded epoxy coating</li> <li>Zinc Plated Passivated (ZPP) coated fasteners</li> <li>Sealing range of 32mm to accommodate a wide range of pipes</li> <li>Angular deflection: <ul style="list-style-type: none"> <li>- DN780-1200 = 1.5°</li> <li>- DN600 - 750 = 2.0°</li> </ul> </li> <li>Embodied carbon data available upon request</li> </ul> |
|                       | Note: When fitted on PE pipe a suitable liner must be used  |

|         |  |
|---------|--|
| Options | <ul style="list-style-type: none"> <li>Special sizes/drillings manufactured to order</li> <li>Stainless steel fasteners</li> </ul> |
|---------|--|

|      |              |
|------|--------------|
| Size | DN350 - 1200 |
|------|--------------|

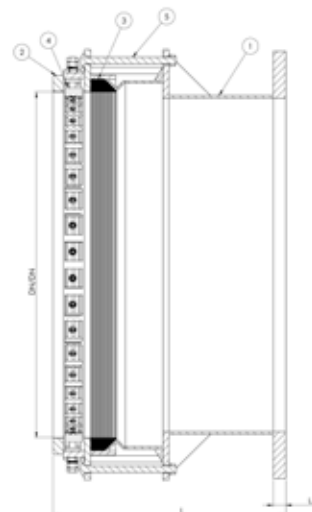
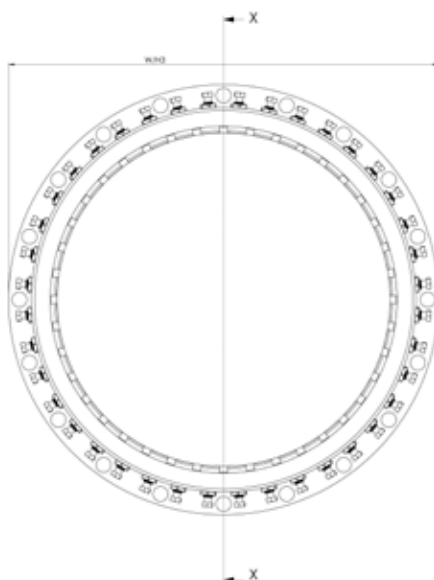
|          |      |
|----------|------|
| Pressure | PN16 |
|----------|------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |  |
|------|--|
| Body | Mild steel<br>BS EN 10025:1990, Grade FE 430 B |
|------|--|

|           |  |
|-----------|--|
| Approvals | <p>WIS 4-52-01<br/>BS 8561-2013<br/>Reg 31 compliant</p> |
|-----------|--|

| AVK Ref          | DN   | DN/DN     | PN   | W    | H3   | L   | L5 | Weight |
|------------------|------|-----------|------|------|------|-----|----|--------|
|                  | mm   |           | bar  |      | mm   |     |    | Kg     |
| Series 260/61    |      |           |      |      |      |     |    |        |
| 260-61-0351-1001 | 350  | 351-383   | PN16 | 583  | 586  | 560 | 25 | 113    |
| 260-61-0385-1002 | 400  | 385-417   | PN16 | 620  | 620  | 560 | 25 | 125    |
| 260-61-0427-1003 | 450  | 427-459   | PN16 | 560  | 662  | 560 | 25 | 140    |
| 260-61-0478-1004 | 500  | 478-510   | PN16 | 713  | 713  | 560 | 25 | 159    |
| 260-61-0530-1004 | 500  | 530-562   | PN16 | 765  | 765  | 560 | 25 | 163    |
| 260-61-0608-1005 | 600  | 608-640   | PN16 | 843  | 843  | 560 | 25 | 206    |
| 260-61-0708-1006 | 700  | 708-740   | PN16 | 943  | 943  | 560 | 25 | 230    |
| Series 260/60    |      |           |      |      |      |     |    |        |
| 260-60-0744-0006 | 700  | 744-776   | PN10 | 979  | 979  | 560 | 25 | 225    |
| 260-60-0797-0007 | 800  | 797-829   | PN10 | 1032 | 1032 | 560 | 25 | 259    |
| 260-60-0839-0007 | 800  | 839-871   | PN10 | 1074 | 1074 | 560 | 25 | 275    |
| 260-60-0884-0008 | 900  | 884-916   | PN10 | 1127 | 1127 | 590 | 25 | 308    |
| 260-60-0939-0008 | 900  | 939-971   | PN10 | 1182 | 1182 | 590 | 25 | 333    |
| 260-60-0972-0009 | 1000 | 972-1004  | PN10 | 1215 | 1215 | 595 | 30 | 359    |
| 260-60-1005-0009 | 1000 | 1005-1037 | PN10 | 1248 | 1248 | 595 | 30 | 375    |
| 260-60-1042-0009 | 1000 | 1042-1074 | PN10 | 1285 | 1285 | 595 | 30 | 394    |
| 260-60-1100-0010 | 1100 | 1100-1132 | PN10 | 1343 | 1343 | 595 | 30 | 385    |
| 260-60-1142-0010 | 1100 | 1142-1174 | PN10 | 1385 | 1385 | 595 | 30 | 409    |
| 260-60-1198-0011 | 1200 | 1200-1232 | PN10 | 1441 | 1441 | 595 | 30 | 462    |
| 260-60-1250-1011 | 1200 | 1250-1282 | PN10 | 1493 | 1493 | 595 | 30 | 496    |



| Materials of Construction |              |  |
|---------------------------|--------------|--|
| No.                       | Description  | Material                               |
| 1                         | Body         | Mild steel                             |
| 2                         | Gland ring   | Mild steel                             |
| 3                         | Seal         | EPDM                                   |
| 4                         | Grip segment | Stainless steel                        |
| 5                         | Fasteners    | Steel gr. 8.8, zinc plated, passivated |





# AVK Flange Converter

Series 209/30-001



|         |                 |
|---------|-----------------|
| Used on | Polyethelene    |
|         | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | GRP             |
|         | Steel           |
|         | Stainless Steel |
|         | Clay            |
|         | Concrete        |
|         | Asbestos cement |

|                       |   |
|-----------------------|---|
| Features and benefits | <ul style="list-style-type: none"> <li>Epoxy coated in line with WIS 4-52-01 Class B</li> <li>Studs mild steel zinc plated and passivated</li> <li>Embodied carbon data available upon request</li> </ul> |
|-----------------------|---|

|         |   |
|---------|---|
| Options | <ul style="list-style-type: none"> <li>Drilling variations</li> <li>Flange drilling to Table C, D, E and ANSI</li> <li>Larger sizes available on request</li> </ul> |
|---------|---|

|      |            |
|------|------------|
| Size | DN80 - 800 |
|------|------------|

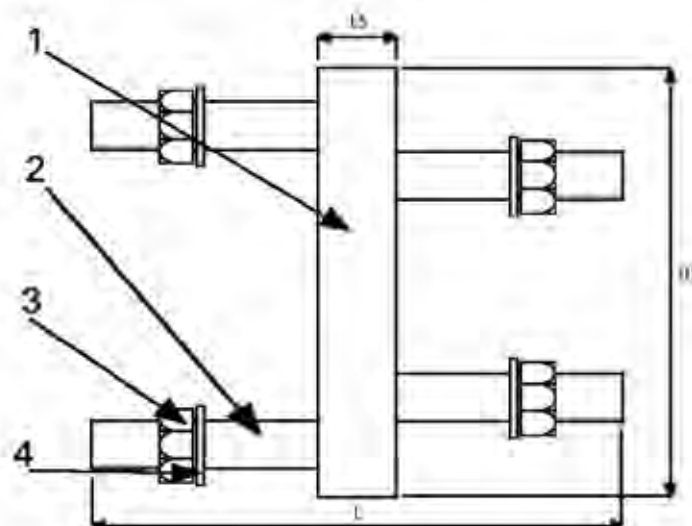
|          |         |
|----------|---------|
| Pressure | PN10/16 |
|----------|---------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |              |
|------|--------------|
| Body | Ductile iron |
|------|--------------|

|           |  |
|-----------|--|
| Approvals | BS EN 1092 (ISO 7005-2)<br>WIS-4-52-01<br>Reg 31 compliant |
|-----------|--|

| AVK Reference      | DN2/DN1                 | H3  | L   | L5 | Weight |
|--------------------|-------------------------|-----|-----|----|--------|
|                    | mm                      |     |     |    | Kg     |
| 209-30-02615-08002 | 80MM PN16 - 1" BSP      | 200 | 20  | 20 | 5.0    |
| 209-30-05107-08002 | 80MM PN16 - 2" BSTD/E   | 200 | 125 | 25 | 6.9    |
| 209-30-05115-08002 | 80MM PN16 - 2" BSP      | 200 | 20  | 20 | 4.8    |
| 209-30-07607-08002 | 80MM PN16 - 3" BSTD/E   | 200 | 127 | 27 | 6.7    |
| 209-30-08002-08906 | 80MM PN16 - 3.5" BSTD   | 200 | 127 | 27 | 6.9    |
| 209-30-08002-10002 | 100MM PN16 - 80MM PN16  | 220 | 140 | 40 | 16     |
| 209-30-08002-10206 | 80MM PN16 - 4" BSTD     | 216 | 127 | 27 | 7.9    |
| 209-30-08002-15002 | 150MM PN16 - 80MM PN16  | 285 | 141 | 30 | 17     |
| 209-30-10002-10206 | 100MM PN16 - 4" BSTD    | 220 | 125 | 25 | 7.6    |
| 209-30-10002-10207 | 100MM PN16 - 4" BSTE    | 220 | 136 | 40 | 12     |
| 209-30-10002-15002 | 150MM PN16 - 100MM PN16 | 285 | 141 | 30 | 17     |
| 209-30-10206-10002 | 100MM PN16 - 4" BSTD    | 220 | 125 | 25 | 7.6    |
| 209-30-15002-15206 | 150MM PN16 - 6" BSTD    | 285 | 165 | 50 | 21     |
| 209-30-15002-20002 | 200MM PN16 - 150MM PN16 | 340 | 160 | 30 | 40     |
| 209-30-20002-20306 | 200MM PN16 - 8" BSTC/D  | 340 | 156 | 45 | 26     |
| 209-30-20002-25002 | 250MM PN16 - 200MM PN16 | 405 | 172 | 35 | 37     |
| 209-30-25002-25406 | 250MM PN16 - 10" BSTD   | 406 | 192 | 55 | 43     |
| 209-30-30002-30405 | 300MM PN16 - 12" BSTC   | 460 | 192 | 55 | 51     |
| 209-30-30002-30406 | 300MM PN16 - 12" BSTD   | 460 | 169 | 55 | 50     |



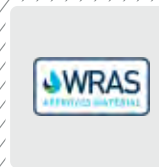
| Materials of Construction |              |                                 |
|---------------------------|--------------|---------------------------------|
| No.                       | Description  | Material                        |
| 1                         | Flange       | Ductile iron GJS-500-7 (GGG-50) |
| 2                         | Sealing      | EPDM rubber                     |
| 3                         | Tension ring | Ductile iron                    |
| 4                         | Sleeve       | Ductile iron                    |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

**SUPPORT  
BUSH**

# Installation Instructions

## Best Practice Application

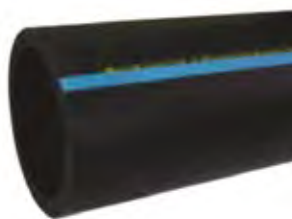


The AVK Support Bush is designed for use with all products which join plain-ended pipes and have an end load resistant mechanism that grips onto a range of materials including PVC and PE.

The support bush helps prevent deformation of PE and PVC pipes when a mechanical joint is used. Without the support bush the pipe would be liable to loose its shape due to the pressure induced from the fitting, effecting the seal of the joint and performance of the pipeline.

### HOW TO INSERT THE SUPPORT BUSH

1



Make sure pipe end is free from burrs

2



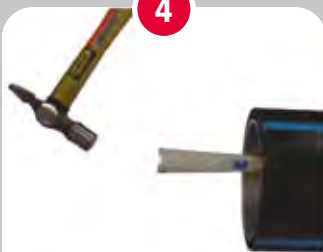
Remove support bush from its packet

3



Insert support bush in to the pipe until flush with the pipe end

4



Insert the wedge until resistance is felt then use a hammer

5



Make sure the wedge goes to a min depth of  $\frac{2}{3} \times L$

6



Once the wedge is in place cut off the overlay

THIS PRODUCT IS TO BE USED WITH ALL THE FOLLOWING  
AVK PRODUCTS INCLUDING SERIES:

621

631

632

623

633

634

635

05/26

05/60

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK Support Bush, Wedge Type

Series 05/E-008

| Used on               | Polyethelene  |
|-----------------------|---|
| Features and benefits | <ul style="list-style-type: none"> <li>Support bush is manufactured from stainless steel AISI 304</li> <li>In order to prevent corrosion, the support bush is pickled and passivated</li> <li>Standard sizes are SDR 11, SDR 13.6, SDR 17 and SDR 17.6. Other SDR sizes are available on request</li> <li>Available for PE pipes DN20-800</li> <li>Other DN sizes are available on request</li> </ul> |
| Options               | <ul style="list-style-type: none"> <li>Mild steel / ductile iron version for Type 1 fittings</li> </ul>   |
| Size                  | DN20 - 800  |
| Pressure              | PN16  |
| Temperature Range     | -10°C to +70°C  |
| Body                  | Stainless steel 304   |
| Approvals             | BS EN 1092 (ISO 7005-2)<br>DIN 30677-2<br>WIS-4-52-01<br>Reg 31 compliant   |

| AVK Ref       | DN  | SDR | Pipe Dia | L1  | Weight |
|---------------|-----|-----|----------|-----|--------|
|               | mm  |     | mm       |     | Kg     |
| 05-063-53-000 | 50  | 17  | 63       | 150 | 0.4    |
| 05-063-54-000 | 50  | 11  | 63       | 150 | 0.4    |
| 05-075-53-000 | 65  | 17  | 75       | 150 | 0.5    |
| 05-075-54-000 | 65  | 11  | 75       | 150 | 0.5    |
| 05-090-53-000 | 80  | 17  | 90       | 150 | 0.7    |
| 05-090-54-000 | 80  | 11  | 90       | 150 | 0.7    |
| 05-110-73-000 | 100 | 17  | 110      | 150 | 0.8    |
| 05-110-74-000 | 100 | 11  | 110      | 150 | 0.8    |
| 05-125-73-000 | 125 | 17  | 125      | 150 | 1.0    |
| 05-125-74-000 | 125 | 11  | 125      | 150 | 1.0    |
| 05-140-73-000 | 140 | 17  | 140      | 150 | 1.1    |
| 05-140-74-000 | 140 | 11  | 140      | 150 | 1.1    |
| 05-160-73-000 | 150 | 17  | 160      | 200 | 1.3    |
| 05-160-74-000 | 150 | 11  | 160      | 200 | 1.3    |
| 05-180-73-000 | 175 | 17  | 180      | 200 | 1.4    |
| 05-180-74-000 | 175 | 11  | 180      | 200 | 1.4    |
| 05-200-73-000 | 200 | 17  | 200      | 200 | 1.4    |
| 05-200-74-000 | 200 | 11  | 200      | 200 | 1.4    |
| 05-225-73-000 | 225 | 17  | 225      | 200 | 1.9    |
| 05-225-74-000 | 225 | 11  | 225      | 200 | 2.0    |
| 05-250-73-000 | 250 | 17  | 250      | 200 | 2.3    |
| 05-250-74-000 | 250 | 11  | 250      | 200 | 2.5    |
| 05-280-73-000 | 275 | 17  | 280      | 200 | 2.7    |
| 05-280-74-000 | 275 | 11  | 280      | 200 | 3.3    |
| 05-315-73-000 | 300 | 17  | 315      | 200 | 3.5    |
| 05-315-74-000 | 300 | 11  | 315      | 200 | 3.3    |
| 05-355-73-000 | 350 | 17  | 355      | 200 | 3.8    |
| 05-355-74-000 | 350 | 11  | 355      | 200 | 4.0    |
| 05-400-72-000 | 400 | 26  |          |     | 4.7    |
| 05-400-73-000 | 400 | 17  | 400      | 200 | 4.5    |
| 05-400-74-000 | 400 | 11  |          |     | 4.3    |
| 05-450-73-000 | 450 | 17  | 450      | 200 | 3.0    |
| 05-450-74-000 | 450 | 11  |          |     | 2.7    |
| 05-500-73-000 | 500 | 17  |          |     | 5.3    |
| 05-500-74-000 | 500 | 11  |          |     | 5.1    |
| 05-560-73-000 | 550 | 17  |          |     | 5.3    |
| 05-560-74-000 | 550 | 11  |          |     | 5.3    |
| 05-630-73-000 | 600 | 17  |          |     | 5.8    |
| 05-630-74-000 | 600 | 11  |          |     | 5.5    |

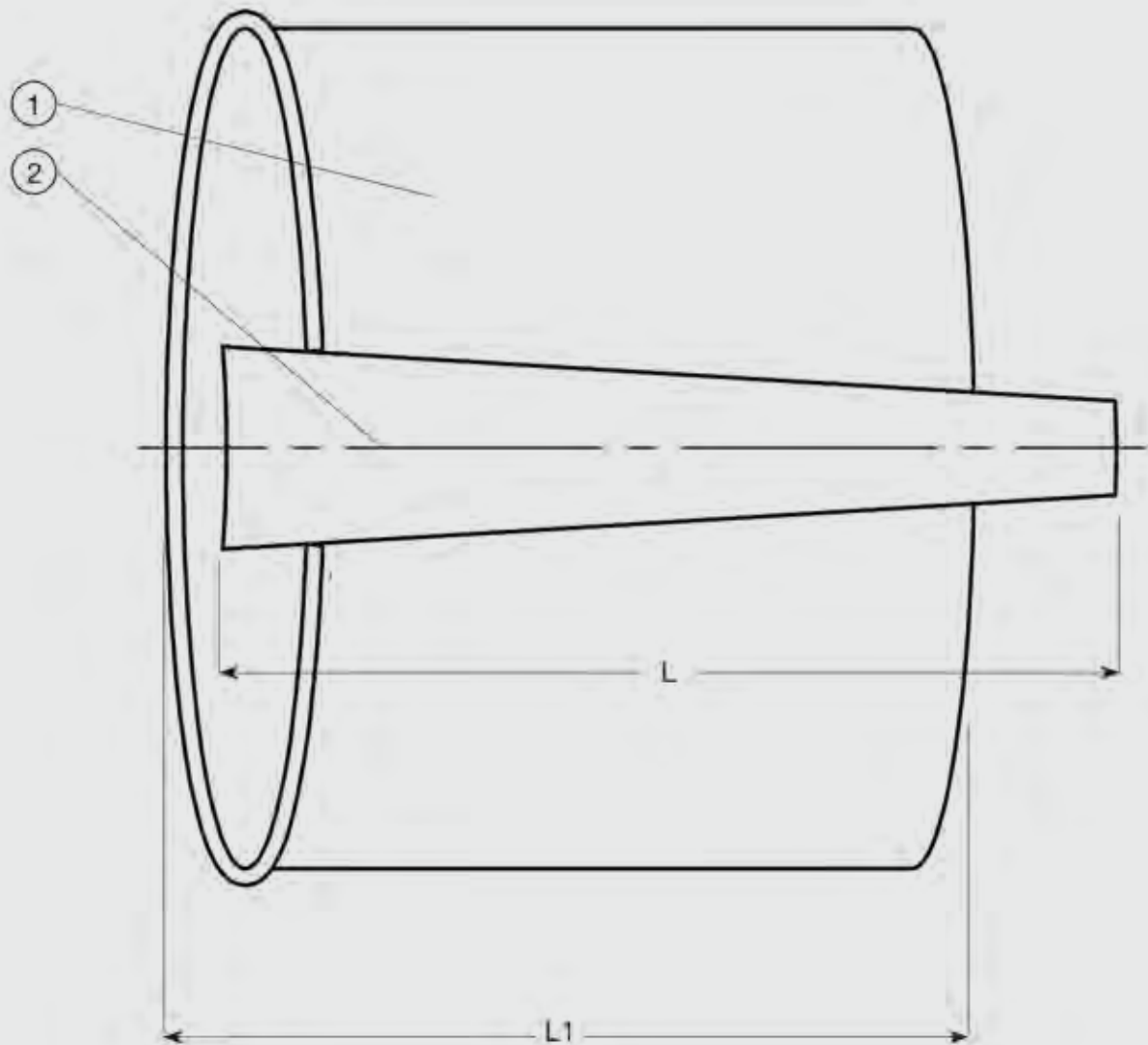
## Notes

\* Made of polypropylene with a built-in chamfer. There is no wedge in this type of support bush

| Materials of Construction |             |                     |
|---------------------------|-------------|---------------------|
| No.                       | Description | Material            |
| 1                         | Bush        | Stainless steel 304 |
| 2                         | Wedge       | Stainless steel 304 |







# DISMANTLING JOINTS

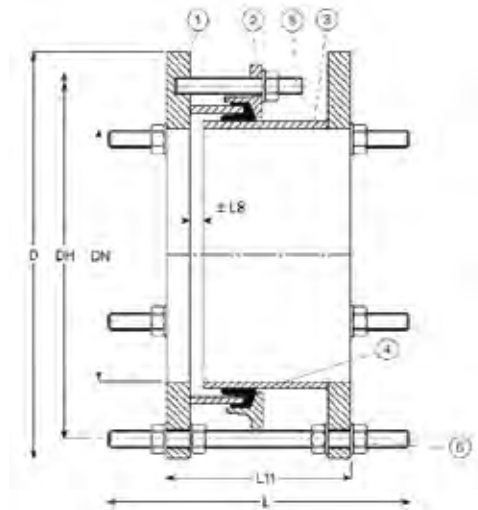
# AVK Dismantling Joint

Series 265/30-002



|                       |   |
|-----------------------|---|
| Used on               | Polyethelene  |
|                       | Ductile iron  |
|                       | Cast iron AB  |
|                       | Cast iron CD  |
|                       | GRP   |
|                       | Steel   |
|                       | Stainless Steel   |
| Features and benefits | <ul style="list-style-type: none"> <li>+/- 60mm length (axial) adjustment</li> <li>Fusion bonded epoxy coated</li> <li>EPDM seals</li> <li>Studs and nuts sheraplex® coated</li> <li>Tie rods zinc plated and passivated</li> <li>Angular deflection: <ul style="list-style-type: none"> <li>&lt;DN600mm is + 4°</li> <li>DN700 &amp; 800 is + 3°</li> <li>DN900 &amp; 1200 is + 2°</li> </ul> </li> <li>Embodied carbon data available upon request</li> </ul> |
|                       |   |
| Options               | <ul style="list-style-type: none"> <li>DN300-1400mm</li> <li>Any flange drilling within design tolerance</li> <li>Extended axial adjustment</li> <li>Stainless Steel A2, A4 tie-rods and fasteners / nuts and washers</li> <li>Slotted flanges</li> <li>No tie rods</li> <li>Other coating thicknesses available</li> </ul>   |
|                       |   |
| Size                  | DN300 - 1200  |
| Pressure              | PN10/16/25  |
| Temperature Range     | -10°C to +70°C  |
| Body                  | Mild steel<br>to BS EN 10025-2 S235 JR  |
| Approvals             | WIS-4-21-02<br>WIS-4-52-01<br>WIS-4-52-03<br>BS EN 681-1<br>BS 8561<br>Reg 31 compliant   |

| AVK Ref        | DN   | Flange Drilling | D    | DH   | L   | L8 | L11 | Bolt No | Weight |
|----------------|------|-----------------|------|------|-----|----|-----|---------|--------|
|                | mm   |                 | mm   |      |     |    |     |         | Kg     |
| 265-30-0050-11 | 50   | PN10/16         |      |      |     |    |     |         | 11     |
| 265-30-0080-11 | 80   | PN10/16         |      |      |     |    |     |         | 15     |
| 265-30-0100-11 | 100  | PN10/16         |      |      |     |    |     |         | 19     |
| 265-30-0150-11 | 150  | PN10/16         |      |      |     |    |     |         | 26     |
| 265-30-0200-11 | 200  | PN16            |      |      |     |    |     |         | 30     |
| 265-30-0250-11 | 250  | PN16            |      |      |     |    |     |         | 43     |
| 265-30-0300-11 | 300  | PN16            | 460  | 410  | 575 | 60 | 360 | M20     | 68     |
| 265-30-0350-11 | 350  | PN16            | 520  | 470  | 575 | 60 | 360 | M20     | 80     |
| 265-30-0400-11 | 400  | PN16            | 580  | 525  | 585 | 60 | 360 | M24     | 104    |
| 265-30-0450-11 | 450  | PN16            | 640  | 585  | 585 | 60 | 360 | M24     | 121    |
| 265-30-0500-11 | 500  | PN16            | 715  | 650  | 605 | 60 | 360 | M24     | 149    |
| 265-30-0600-11 | 600  | PN16            | 840  | 770  | 625 | 60 | 360 | M27     | 186    |
| 265-30-0700-11 | 700  | PN16            | 910  | 840  | 625 | 60 | 360 | M27     | 203    |
| 265-30-0800-11 | 800  | PN16            | 1025 | 950  | 645 | 60 | 360 | M30     | 233    |
| 265-30-0900-11 | 900  | PN16            | 1125 | 1050 | 645 | 60 | 360 | M30     | 261    |
| 265-30-1000-11 | 1000 | PN16            | 1255 | 1170 | 665 | 60 | 370 | M33     | 356    |
| 265-30-1200-11 | 1200 | PN16            | 1485 | 1390 | 665 | 60 | 370 | M36     | 481    |



| Materials of Construction |                      |   |
|---------------------------|----------------------|---|
| No.                       | Description          | Material  |
| 1                         | Flanges              | Mild steel to BS EN 10025-2 S235 JR   |
| 2                         | Gland ring           | Mild steel to BS EN 10025-2 S235 JR   |
| 3                         | Body                 | Mild steel to BS EN 10025-2 S235 JR   |
| 4                         | Seal                 | EPDM rubber to BS EN 681-1  |
| 5                         | Stud, nuts, washer   | Sheraplex® steel 8.8 to WIS 4-52-03   |
| 6                         | Tie rod, nut, washer | Zinc plated and passivated, Steel Grade 4.6                                   |
| 7                         | Coating              | Fusion bonded epoxy coating to WIS 4-52-01 or wet sprayed dependent upon size |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK Dismantling Joint with Tie Rods and Centre Flange

Series 265/50-001



|         |                 |
|---------|-----------------|
| Used on | Polyethelene    |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | GRP             |
|         | Steel           |
|         | Stainless Steel |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Compensates for axial displacement of the pipe during installation and dismantling, as the telescopic action between the inner and outer flange body allows for longitudinal adjustment</li> <li>Designed with three flanges connected with tie-rods, and where the centre flange applies compression on the seal through the tie-rods</li> <li>Standard axial adjustment of <math>\pm 30</math> or <math>\pm 40</math> mm dependant upon product size</li> <li>Fusion bonded epoxy coating to WIS 4-52-01</li> <li>Tie-rods of zinc plated and passivated steel 4.6 located on every flange hole</li> <li>Embodied carbon data available upon request</li> </ul> |
|-----------------------|--|

|         |   |
|---------|---|
| Options | <ul style="list-style-type: none"> <li>Any flange drilling within design tolerance</li> <li>Reduced number of tie-rods</li> <li>Stainless steel (A2/A4) or Sheraplex coated tie-rods</li> </ul> |
|---------|---|

|      |            |
|------|------------|
| Size | DN50 - 250 |
|------|------------|

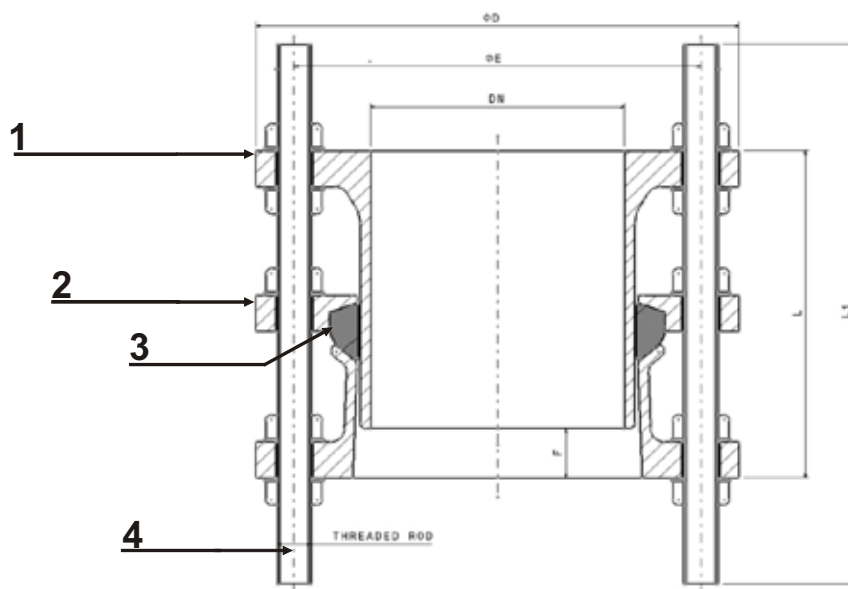
|          |                |
|----------|----------------|
| Pressure | PN10/16/CL 150 |
|----------|----------------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |  |
|------|--|
| Body | SG iron BS EN 1563GJS 450/10<br>Mild steel to BS EN 10025 FE360B.B |
|------|--|

|           |   |
|-----------|---|
| Approvals | WIS-4-21-02<br>WIS-4-52-01<br>WIS-4-52-03<br>BS EN 681-1<br>BS 8561<br>Reg 31 compliant |
|-----------|---|

| AVK Ref        | DN  | PN  | D    |      |       | E    |      |       | L   | L1   |      |       | Adj F    | Threaded Rod |      |       | Weight |
|----------------|-----|-----|------|------|-------|------|------|-------|-----|------|------|-------|----------|--------------|------|-------|--------|
|                | mm  | bar | PN10 | PN16 | CL150 | PN10 | PN16 | CL150 |     | PN10 | PN16 | CL150 |          | PN10         | PN16 | CL150 | Kg     |
|                | mm  |     |      |      |       |      |      |       |     |      |      |       |          |              |      |       |        |
| 265-50-0050-11 | 50  | 16  | 165  | 165  | 165   | 125  | 125  | 120.6 | 200 | 330  | 330  | 330   | $\pm 30$ | M16          | M16  | M16   | 13.3   |
| 265-50-0065-11 | 65  | 16  | 185  | 185  | 185   | 145  | 145  | 139.7 | 200 | 330  | 330  | 330   | $\pm 30$ | M16          | M16  | M16   | 15.6   |
| 265-50-0080-11 | 80  | 16  | 200  | 200  | 200   | 160  | 160  | 152.4 | 200 | 330  | 330  | 330   | $\pm 30$ | M16          | M16  | M16   | 20.4   |
| 265-50-0100-11 | 100 | 16  | 220  | 220  | 220   | 180  | 180  | 190.5 | 200 | 330  | 330  | 330   | $\pm 30$ | M16          | M16  | M16   | 24.8   |
| 265-50-0125-11 | 125 | 16  | 250  | 250  | 250   | 210  | 210  | 215.9 | 200 | 330  | 330  | 330   | $\pm 30$ | M16          | M16  | M20   | 29.1   |
| 265-50-0150-11 | 150 | 16  | 285  | 285  | 285   | 240  | 240  | 241.3 | 200 | 330  | 330  | 330   | $\pm 30$ | M20          | M20  | M20   | 36.7   |
| 265-50-0200-11 | 200 | 16  | 340  | 340  | 340   | 295  | 295  | 298.4 | 280 | 430  | 430  | 430   | $\pm 40$ | M20          | M20  | M20   | 52.1   |
| 265-50-0250-11 | 250 | 16  | 405  | 405  | 405   | 350  | 355  | 362   | 280 | 430  | 450  | 450   | $\pm 40$ | M20          | M24  | M24   | 72.9   |



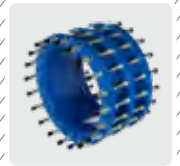
| Materials of Construction |                        |   |
|---------------------------|------------------------|---|
| No.                       | Description            | Material  |
| 1                         | End flanges            | SG iron BS EN 1563GJS 450/10  |
| 2                         | Gland flanges          | Mild steel to EN 10025:2004 S235  |
| 3                         | Seal                   | EPDM rubber to BS EN 681-1.   |
| 4                         | Tie rod / nut / washer | Steel 4.6, zinc plated and passivated Fusion bonded epoxy coating to WIS 4-52-01. |
| 5                         | Coating                | Fusion bonded epoxy coating to WIS 4-52-01.                                       |





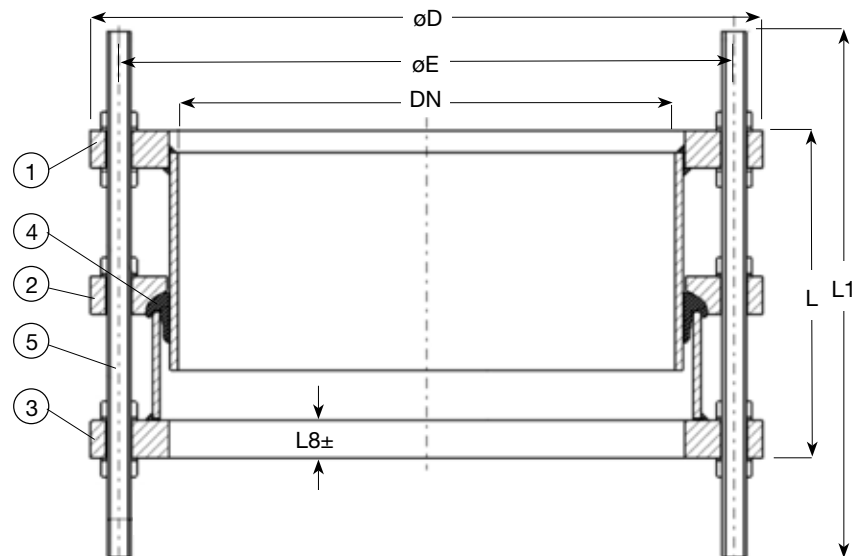
# AVK Dismantling Joint

Series 265/50-002



|                       |  |
|-----------------------|--|
| Used on               | Polyethelene   |
|                       | Ductile iron   |
|                       | Cast iron AB   |
|                       | Cast iron CD   |
|                       | GRP  |
|                       | Steel  |
|                       | Stainless Steel  |
| Features and benefits | <ul style="list-style-type: none"> <li>Axial adjustment on length</li> <li>Fusion bonded epoxy coated</li> <li>EPDM seals</li> <li>Tie-rods zinc plated and passivated</li> <li>Tie-rods located on every flange hole</li> <li>Fast-track delivery service</li> <li>Can be used for up to -0.8 Bar negative pressure</li> <li>Embodied carbon data available upon request</li> </ul> |
|                       |  |
| Options               | <ul style="list-style-type: none"> <li>Any drilling within design tolerance</li> <li>Stainless steel A2, A4 tie-rods</li> <li>Reduced number of tie rods</li> <li>Non-standard body + adjustment lengths</li> <li>CL150</li> </ul>   |
|                       |  |
| Size                  | DN300 - 2200   |
| Pressure              | PN10/16/25   |
| Temperature Range     | -10°C to +70°C   |
| Body                  | Mild steel<br>BS EN 10025 FE360B.B   |
| Approvals             | WIS-4-21-02<br>WIS-4-52-01<br>WIS-4-52-03<br>BS EN 681-1<br>BS 8561<br>Reg 31 compliant  |
|                       |  |

| AVK Ref        | DN   | Flange Drilling | D    | E    | L   | L1  | L8 | Weight |
|----------------|------|-----------------|------|------|-----|-----|----|--------|
|                | mm   |                 | mm   |      |     |     |    | Kg     |
| 265-50-0300-11 | 300  | PN16            | 460  | 410  | 280 | 450 | 40 | 85     |
| 265-50-0350-11 | 350  | PN16            | 520  | 470  | 280 | 450 | 40 | 115    |
| 265-50-0400-11 | 400  | PN16            | 580  | 525  | 280 | 450 | 40 | 156    |
| 265-50-0450-11 | 450  | PN16            | 640  | 585  | 330 | 550 | 50 | 213    |
| 265-50-0500-11 | 500  | PN16            | 715  | 650  | 330 | 550 | 50 | 273    |
| 265-50-0600-11 | 600  | PN16            | 840  | 770  | 330 | 550 | 50 | 342    |
| 265-50-0700-11 | 700  | PN16            | 910  | 840  | 330 | 550 | 50 | 342    |
| 265-50-0800-11 | 800  | PN16            | 1025 | 950  | 400 | 670 | 60 | 499    |
| 265-50-1000-11 | 1000 | PN16            | 1255 | 1170 | 400 | 670 | 60 | 900    |
| 265-50-1200-11 | 1200 | PN16            | 1485 | 1390 | 450 | 750 | 70 | 1032   |
| 265-50-1400-11 | 1400 | PN16            | 1685 | 1590 | 500 | 800 | 75 | 1518   |
| 265-50-1600-11 | 1600 | PN16            | 1930 | 1820 | 500 | 830 | 75 | 1823   |
| 265-50-1800-11 | 1800 | PN16            | 2130 | 2020 | 600 | 930 | 80 | 2100   |
| 265-50-2000-11 | 2000 | PN16            | 2230 | 2230 | 600 | 950 | 80 | 2075   |
| 265-50-2200-01 | 2200 | PN10            | 2550 | 2440 | 600 | 950 | 80 | 2108   |



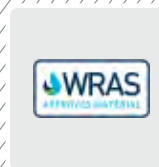
| Materials of Construction |                        |   |
|---------------------------|------------------------|---|
| No.                       | Description            | Material  |
| 1                         | Flanges                | Mild steel to EN 10025: 2004 S235 JR  |
| 2                         | Gland ring             | Mild steel to EN 10025: 2004 S235 JR  |
| 3                         | Body                   | Mild steel to EN 10025: 2004 S235 JR  |
| 4                         | Seal                   | EPDM rubber to BS EN 681-1  |
| 5                         | Tie rod / nut / washer | Steel 4.6, zinc plated and passivated   |
| 6                         | Coating                | Fusion bonded epoxy coating to WIS 4-52-01 or wet sprayed dependent upon Size WRAS approved |
| 7                         | Domed Caps             | Plastic   |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# WALL STARTERS

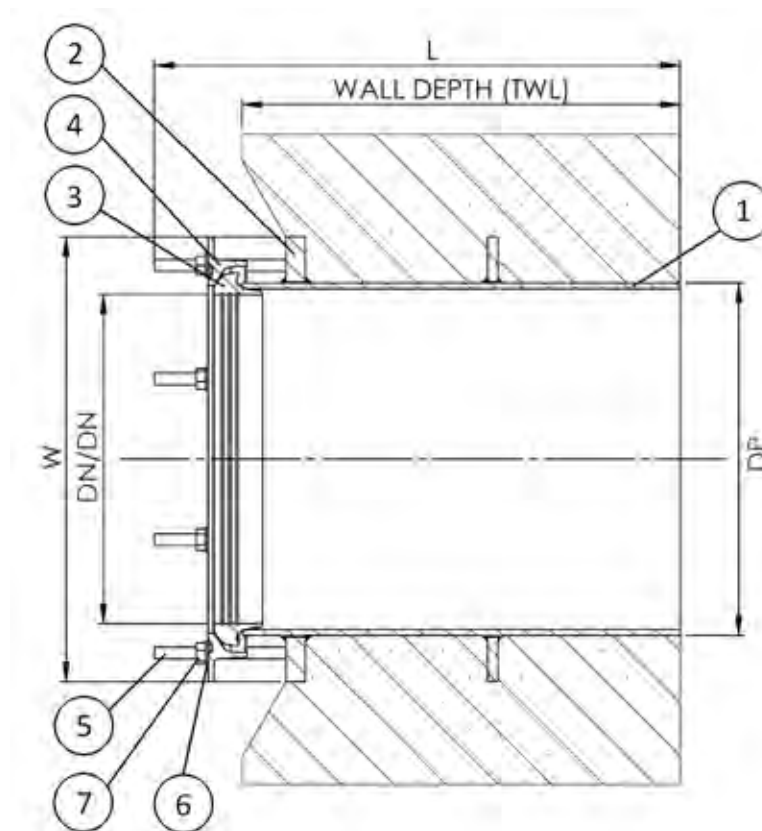
# AVK Fabricated Wall Starter Type 2 Coupling to Plain End

Series 717/30-002



| Used on               | Concrete  |
|-----------------------|---|
| Features and benefits | <ul style="list-style-type: none"> <li>Standard pressure rating 16 bar</li> <li>Fusion bonded epoxy coating in accordance with WIS-4-52-01</li> <li>Seals EPDM for water or NBR for waste water</li> <li>Corrosion resistant construction.</li> <li>Sealing range of coupler end +2 to -5mm.</li> <li>Angular deflection of coupler end is for <math>\leq</math>DN600 is <math>\pm 4^\circ</math>, DN700 and 800 is <math>\pm 3^\circ</math>, DN900 to 1200 is <math>\pm 2^\circ</math></li> <li>Can be used up to -0.8 bar negative pressure</li> <li>Embodied carbon data available upon request</li> </ul> <p>Note: This fitting is not designed for end load resistant applications</p> |
| Options               | <ul style="list-style-type: none"> <li>Range of fitting lengths 250-1000mm</li> <li>Nominal size range DN350-1600</li> <li>Terminations – plain ended, flanged (part drilled and tapped), universal coupling or a combination of any</li> <li>Range of fastener material</li> </ul>   |
| Size                  | DN350 - 1600  |
| Pressure              | PN16  |
| Temperature Range     | -10°C to +70°C  |
| Body                  | Steel S275JR  |
| Approvals             | Reg 31 compliant  |

| AVK Ref         | DN  | DN/DN     | TWL<br>wall L | H3  | L   | W   | Weight |
|-----------------|-----|-----------|---------------|-----|-----|-----|--------|
|                 | mm  |           |               |     |     |     | Kg     |
| 717-0356-2-0250 | 350 | 351 - 358 | 250           | 463 | 328 | 463 | 45     |
| 717-0532-2-0300 | 500 |           | 300           | 380 | 640 | 640 | 23     |

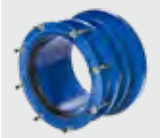


| Materials of Construction |             |               |
|---------------------------|-------------|---------------|
| No.                       | Description | Material      |
| 1                         | Body        | Steel S275JR  |
| 2                         | Flange      | Steel S275JR  |
| 3                         | Seal        | EPDM          |
| 4                         | Gland ring  | Steel S275JR  |
| 5                         | Stud        | Steel gr. 8.8 |
| 6                         | Washer      | Steel gr. 8.8 |
| 7                         | Nut         | Steel gr. 8.8 |
|                           | Coating     | Epoxy         |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

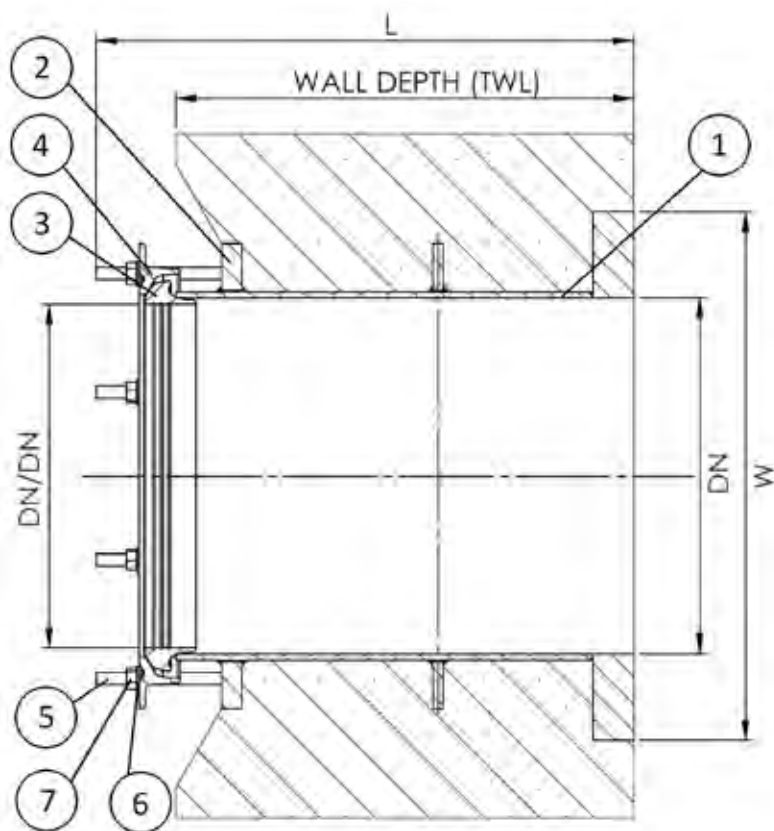
# AVK Fabricated Wall Starter Type 3 Coupling to Flange

Series 717/30-003



| Used on               | Concrete   |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Standard pressure rating 16 bar</li> <li>Fusion bonded epoxy coating in accordance with WIS-4-52-01</li> <li>Seals EPDM for water or NBR for waste water</li> <li>Corrosion resistant construction.</li> <li>Sealing range of coupler end +2 to -5mm</li> <li>Angular deflection of coupler end is for ≤DN600 is ± 4°, DN700 and 800 is ± 3°, DN900 to 1200 is ± 2°</li> <li>Can be used up to -0.8 bar negative pressure</li> <li>Embodied carbon data available upon request</li> </ul> <p>Note: This fitting is not designed for end load resistant applications</p> |
| Options               | <ul style="list-style-type: none"> <li>Range of fitting lengths 250-1000mm</li> <li>Nominal size range DN350-1600</li> <li>Terminations – plain ended, flanged (part drilled and tapped), universal coupling or a combination of any</li> <li>Range of fastener material.</li> <li>Alternative flange drillings are available</li> </ul>   |
| Size                  | DN350 - 1600   |
| Pressure              | PN16   |
| Temperature Range     | -10°C to +70°C   |
| Body                  | Steel S275JR   |
| Approvals             | Reg 31 compliant   |

| AVK Ref           | DN  | DN/DN   | TWL<br>wall L | H3  | L   | W   | Weight |
|-------------------|-----|---------|---------------|-----|-----|-----|--------|
|                   | mm  |         |               |     |     |     | Kg     |
| 717-0356-3-0250-1 | 350 | 351-358 | 250           | 520 | 328 | 520 | 78     |



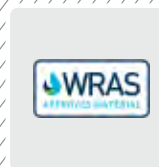
| Materials of Construction |             |               |
|---------------------------|-------------|---------------|
| No.                       | Description | Material      |
| 1                         | Body        | Steel S275JR  |
| 2                         | Flange      | Steel S275JR  |
| 3                         | Seal        | EPDM          |
| 4                         | Gland ring  | Steel S275JR  |
| 5                         | Stud        | Steel gr. 8.8 |
| 6                         | Washer      | Steel gr. 8.8 |
| 7                         | Nut         | Steel gr. 8.8 |
|                           | Coating     | Epoxy         |





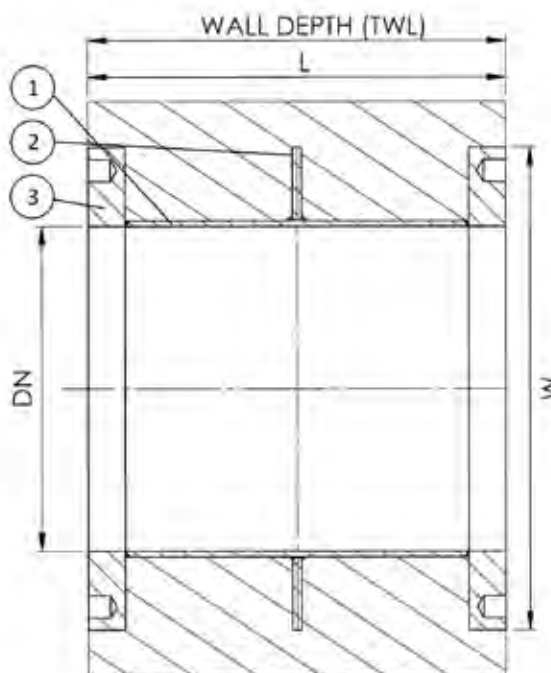
# AVK Fabricated Wall Starter Type 5 Coupling Flange to Flange

Series 717/30-005



| Used on               | Concrete  |
|-----------------------|---|
| Features and benefits | <ul style="list-style-type: none"> <li>Standard pressure rating 16 bar</li> <li>Fusion bonded epoxy coating in accordance with WIS-4-52-01</li> <li>Seals EPDM for water or NBR for waste water</li> <li>Corrosion resistant construction</li> <li>Embodied carbon data available upon request</li> </ul> |
| Options               | <ul style="list-style-type: none"> <li>Range of fitting lengths 250-1000mm</li> <li>Nominal size range DN350-1200</li> <li>Terminations – plain ended, flanged (part drilled and tapped), universal coupling or a combination of any</li> <li>Other flange drillings -BS10, ANSI etc</li> </ul>           |
| Size                  | DN350 - 1600  |
| Pressure              | PN16  |
| Temperature Range     | -10°C to +70°C  |
| Body                  | Steel S275JR  |
| Approvals             | BS EN 1092 (ISO 7005-2)<br>Reg 31 compliant   |

| AVK Ref           | DN   | TWL<br>wall L | H3   | L   | W    | Weight |
|-------------------|------|---------------|------|-----|------|--------|
|                   | mm   |               |      |     |      | Kg     |
| 717-0400-5-0250-1 | 400  | 250           | 520  | 250 | 520  | 98     |
| 717-0400-5-0400-1 | 400  | 400           | 580  | 400 | 580  | 106    |
| 717-0400-5-0500-1 | 400  | 500           | 580  | 500 | 580  | 112    |
| 717-0400-5-0800-1 | 400  | 800           | 580  | 800 | 580  | 129    |
| 717-0450-5-0400-1 | 450  | 400           | 400  | 640 | 640  | 118    |
| 717-0600-5-0250-1 | 600  | 250           | 840  | 250 | 840  | 199    |
| 717-0600-5-0400-1 | 600  | 400           | 840  | 400 | 840  | 228    |
| 717-0600-5-0500-1 | 600  | 500           | 840  | 500 | 840  | 237    |
| 717-0600-5-0800-1 | 600  | 800           | 840  | 800 | 840  | 264    |
| 717-0800-5-0400-1 | 800  | 400           | 1025 | 400 | 1025 | 290    |
| 717-0800-5-0500-1 | 800  | 500           | 1025 | 500 | 1025 | 302    |
| 717-1000-5-0400-1 | 1000 | 400           | 1255 | 400 | 1255 | 417    |
| 717-1000-5-0500-1 | 1000 | 500           | 1255 | 500 | 1255 | 432    |
| 717-1000-5-0800-1 | 1000 | 800           | 1255 | 800 | 1255 | 476    |

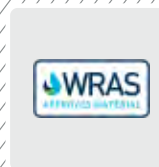


| Materials of Construction |               |              |
|---------------------------|---------------|--------------|
| No.                       | Description   | Material     |
| 1                         | Body          | Steel S275JR |
| 2                         | Centre flange | Steel S275JR |
| 3                         | End flange    | Steel S275JR |
|                           | Coating       | Epoxy        |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

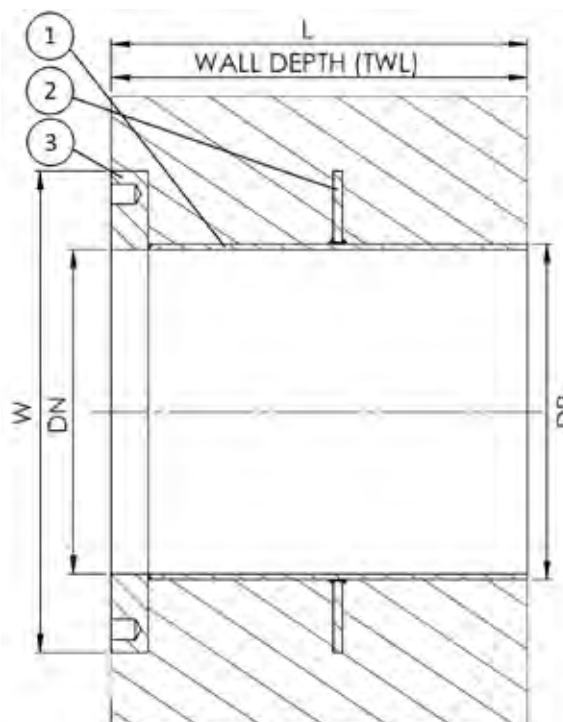
# AVK Fabricated Wall Starter Type 6 Flange to Plain End

Series 717/30-006



| Used on               | Concrete  |
|-----------------------|---|
| Features and benefits | <ul style="list-style-type: none"> <li>Standard pressure rating 16 bar</li> <li>Fusion bonded epoxy coating in accordance with WIS-4-52-01</li> <li>Seals EPDM for water or NBR for waste water</li> <li>Corrosion resistant construction</li> <li>Embodied carbon data available upon request</li> </ul> |
| Options               | <ul style="list-style-type: none"> <li>Range of fitting lengths 250-1000mm</li> <li>Nominal size range DN350-1200</li> <li>Terminations – plain ended, flanged (part drilled and tapped), universal coupling or a combination of any</li> <li>Other flange drillings -BS10, ANSI etc</li> </ul>           |
| Size                  | DN350 - 1600  |
| Pressure              | PN16  |
| Temperature Range     | -10°C to +70°C  |
| Body                  | Steel S275JR  |
| Approvals             | BS EN 1092 (ISO 7005-2)<br>Reg 31 compliant   |

| AVK Ref          | DN   | TWL Wall L | H3   | L   | W    | Weight |
|------------------|------|------------|------|-----|------|--------|
|                  | mm   |            |      |     |      | kg     |
| 717-0350-6-02501 | 350  | 250        | 520  | 250 | 520  | 60     |
| 717-0400-6-04001 | 400  | 400        | 580  | 400 | 580  | 71     |
| 717-0400-6-05001 | 400  | 500        | 580  | 500 | 580  | 77     |
| 717-0400-6-08001 | 400  | 800        | 580  | 800 | 580  | 95     |
| 717-0600-6-04001 | 600  | 400        | 840  | 400 | 840  | 147    |
| 717-0600-6-05001 | 600  | 500        | 840  | 500 | 840  | 156    |
| 717-0600-6-08001 | 600  | 800        | 840  | 800 | 840  | 183    |
| 717-0800-6-04001 | 800  | 400        | 1025 | 400 | 1025 | 187    |
| 717-0800-6-05001 | 800  | 500        | 1025 | 500 | 1025 | 198    |
| 717-0800-6-08001 | 800  | 800        | 1025 | 800 | 1025 | 234    |
| 717-1000-6-04001 | 1000 | 400        | 1255 | 400 | 1255 | 282    |
| 717-1000-6-05001 | 1000 | 500        | 1255 | 500 | 1255 | 297    |
| 717-1000-6-08001 | 1000 | 800        | 1255 | 800 | 1255 | 341    |



| Materials of Construction |               |              |
|---------------------------|---------------|--------------|
| No.                       | Description   | Material     |
| 1                         | Body          | Steel S275JR |
| 2                         | Centre flange | Steel S275JR |
| 3                         | End flange    | Steel S275JR |
|                           | Coating       | Steel S275JR |





**END  
CAPS**



# AVK Universal End Cap

Series 248/32-002 (Wastewater only)



|         |                 |
|---------|-----------------|
| Used on | Polyethelene    |
|         | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | GRP             |
|         | Steel           |
|         | Stainless Steel |
|         | Clay            |
|         | Concrete        |
|         | Asbestos cement |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Epoxy coated.</li> <li>Lightweight.</li> <li>Simple to use.</li> <li>Corrosion resistant construction.</li> <li>Universal sealing range up to 300mm.</li> </ul> |
|-----------------------|--|

|         |   |
|---------|---|
| Options | <ul style="list-style-type: none"> <li>Range of fitting lengths 250-1000mm</li> <li>Nominal size range DN350-1200</li> <li>Terminations – plain ended, flanged (part drilled and tapped), universal coupling or a combination of any</li> <li>Other flange drillings -BS10, ANSI etc</li> </ul> |
|---------|---|

|      |            |
|------|------------|
| Size | DN80 - 300 |
|------|------------|

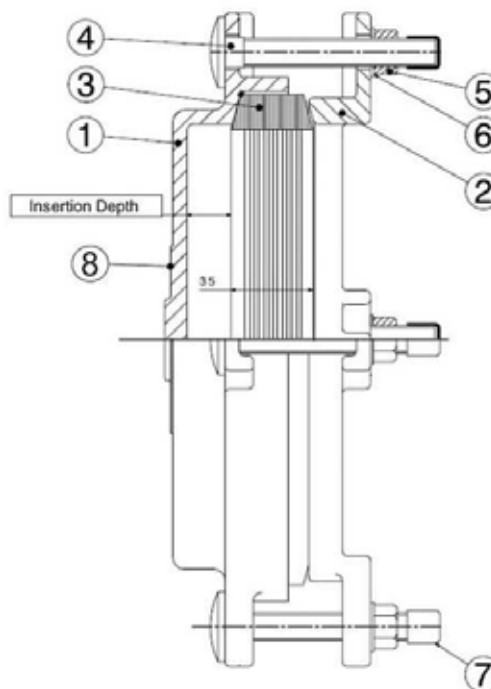
|          |      |
|----------|------|
| Pressure | PN10 |
|----------|------|

|                   |   |
|-------------------|---|
| Temperature Range | -10°C to +70°C<br>Insulation essential for temperatures of 0°C and below. |
|-------------------|---|

|      |              |
|------|--------------|
| Body | Ductile Iron |
|------|--------------|

|           |   |
|-----------|---|
| Approvals | BS EN 1092 (ISO 7005-2)<br>Reg 31 compliant |
|-----------|---|

| AVK Ref        | DN  | DN/DN     | L1 | Weight |
|----------------|-----|-----------|----|--------|
|                | mm  |           | mm | kg     |
| 248-32-003-011 | 80  | 88 - 99   | 31 | 3.0    |
| 248-32-004-011 | 100 | 113 - 124 | 33 | 3.5    |
| 248-32-005-011 | 125 | 138 - 152 | 35 | 4.5    |
| 248-32-006-011 | 150 | 167 - 179 | 37 | 5.4    |
| 248-32-007-011 | 175 | 192 - 207 | 39 | 6.7    |
| 248-32-008-011 | 200 | 217 - 234 | 41 | 7.1    |
| 248-32-009-011 | 225 | 242 - 261 | 43 | 8.8    |
| 248-32-010-011 | 250 | 270 - 288 | 45 | 9.7    |
| 248-32-012-011 | 300 | 320 - 336 | 49 | 13     |



| Materials of Construction |                    |                                  |
|---------------------------|--------------------|----------------------------------|
| No.                       | Description        | Material                         |
| 1                         | End cover          | Ductile iron GJS-450-10          |
| 2                         | Gland ring         | Ductile iron GJS-450-10          |
| 3                         | Seal ring          | NBR rubber                       |
| 4                         | Bolt               | Steel gr. 8.8 WIS 4-52-03 Coated |
| 5                         | Nuts               | Steel gr. 8 WIS 4-52-03 Coated   |
| 6                         | Washer             | Mild steel                       |
| 7                         | Cap                | Plastic                          |
| 8                         | Product info label | Plastic                          |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK Supa Maxi™ Tensile Resistant End Cap

Series 634/00-001



|         |                 |
|---------|-----------------|
| Used on | Polyethelene    |
|         | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | GRP             |
|         | Steel           |
|         | Stainless Steel |
|         | Clay            |
|         | Concrete        |
|         | Asbestos cement |

| AVK Ref            | DN  | PN   | T       | L   | D   | Weight |
|--------------------|-----|------|---------|-----|-----|--------|
|                    | mm  | bar  | mm      |     |     | Kg     |
| 634-133-00-016 (1) | 100 | PN16 | 104-133 | 230 | 268 | 8.0    |
| 634-188-00-016 (1) | 150 | PN16 | 159-188 | 238 | 340 | 11     |
| 634-257-00-016 (1) | 225 | PN16 | 224-257 | 277 | 437 | 19     |
| 634-257-00-036 (2) | 225 | PN16 | 224-257 |     |     | 19     |
| 634-301-00-016 (1) | 250 | PN16 | 266-301 | 272 | 476 | 22     |
| 634-301-00-036 (2) | 250 | PN16 | 266-301 | 272 | 476 | 22     |
| 634-356-00-036 (2) | 300 | PN16 | 314-356 | 300 | 545 | 29     |
| 634-442-00-016 (3) | 400 | PN16 | 392-442 | 315 | 661 | 58     |

Notes

- (1) 1 1/4" BSP thread, in line
- (2) 2" BSP thread, in line
- (3) 1 1/4" BSP thread, in line. KIWA EN 14525 approval is pending

## Features and benefits

- Patented SupaGrip™ sealing support system with flexible bracket ensures full support of the gasket even at minimum pipe size
- Full tensile strength on all pipes
- Metal grip segments are mounted with pins for maximum durability
- ±4° angular deflection at max. 1.5 x PN 16
- Epoxy coated according to DIN 30677-2 and GSK approved
- Permanent protection cap protects the coupling during handling and installation
- Lifting eye in DN 100-400
- AVK Series 05 internal support bush is required, see page 62**

## Options

## Size

DN50 - 400

## Pressure

PN16

## Temperature Range

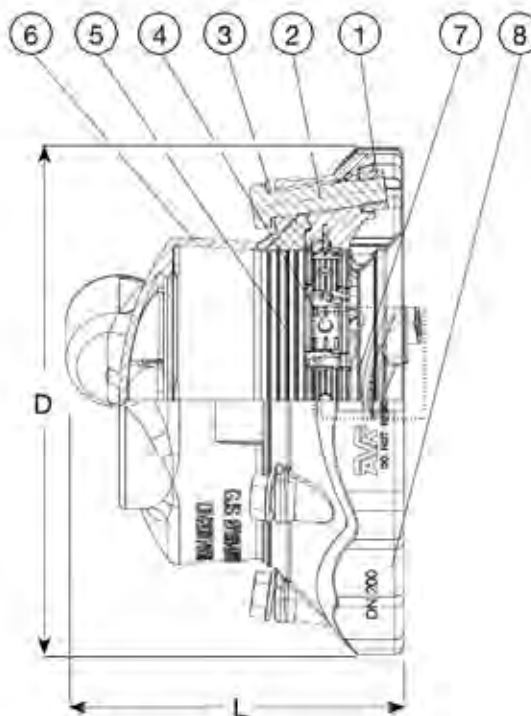
-10°C to +70°C

## Body

Ductile iron  
GJS-400-15

## Approvals

EN 14525  
GJS-400-12  
DIN 30677-2  
Reg 31 compliant



## Materials of Construction

| No. | Description    | Material                        |
|-----|----------------|---------------------------------|
| 1   | Nut            | Stainless steel A4              |
| 2   | Bolt           | Stainless steel A2              |
| 3   | Washer         | Stainless steel A2              |
| 4   | Grip segment   | Stainless steel / bronze CC491K |
| 5   | Gasket         | EPDM rubber                     |
| 6   | Sleeve         | Ductile iron GJS-450-10         |
| 7   | Bracket        | Cast steel                      |
| 8   | Protection cap | PE                              |





# TRANSITION FITTINGS

# AVK Supa Maxi™ Tensile Resistant Transition Coupling

Series 635/00-002



|         |                 |
|---------|-----------------|
| Used on | Polyethelene    |
|         | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | GRP             |
|         | Steel           |
|         | Stainless Steel |
|         | Clay            |
|         | Concrete        |
|         | Asbestos cement |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Patented SupaGrip™ sealing</li> <li>Full tensile strength on all pipes</li> <li>Metal grip segments are mounted with pins for maximum durability</li> <li>±4° angular deflection at max. 1.5 x PN 10</li> <li>Epoxy coated according to DIN 30677-2 and GSK approved</li> <li>Permanent protection cap protects the coupling during handling and installation</li> <li>Lifting eye in DN 100-300</li> <li>The PE pipe end enables direct welding into PE pipes by using socket fusion or butt welding</li> <li><b>AVK Series 05 internal support bush is required, see page 62</b></li> </ul> |
|-----------------------|--|

|         |  |
|---------|--|
| Options |  |
|---------|--|

|      |            |
|------|------------|
| Size | DN50 - 300 |
|------|------------|

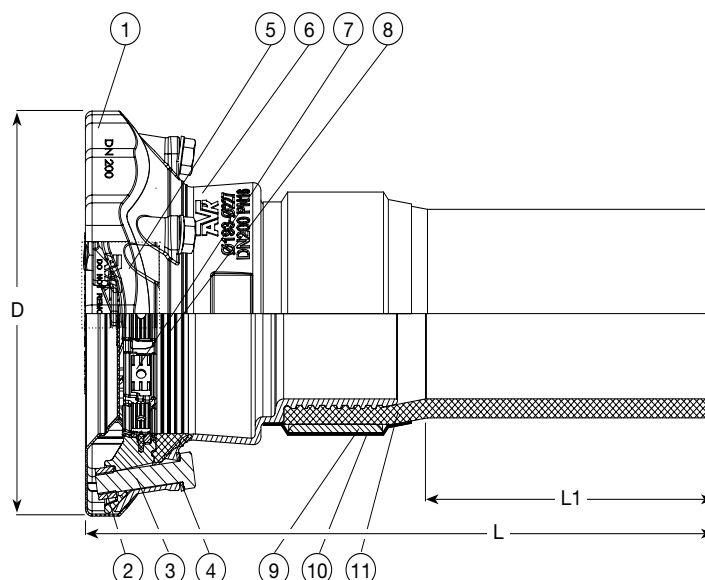
|          |      |
|----------|------|
| Pressure | PN10 |
|----------|------|

|                   |              |
|-------------------|--------------|
| Temperature Range | 0°C to +40°C |
|-------------------|--------------|

|      |                            |
|------|----------------------------|
| Body | Ductile iron<br>GJS-400-15 |
|------|----------------------------|

|           |                              |
|-----------|------------------------------|
| Approvals | EN 14525<br>Reg 31 compliant |
|-----------|------------------------------|

| AVK Ref        | DN/Ø    | T       | PN | D   | L   | L1  | Weight |
|----------------|---------|---------|----|-----|-----|-----|--------|
|                | mm      |         |    | mm  |     |     | Kg     |
| 635-071-00-266 | 50-63   | 48-71   | 10 | 200 | 540 | 300 | 4.5    |
| 635-091-00-266 | 65-75   | 69-91   | 10 | 226 | 551 | 250 | 5.6    |
| 635-105-00-266 | 80-90   | 82-106  | 10 | 235 | 533 | 250 | 7.5    |
| 635-106-00-266 | 80-110  | 82-106  | 10 | 235 | 543 | 255 | 6      |
| 635-133-00-266 | 100-110 | 104-133 | 10 | 268 | 547 | 250 | 10     |
| 635-161-00-266 | 125-160 | 132-161 | 10 | 285 | 625 | 325 | 16     |
| 635-188-00-266 | 150-160 | 159-188 | 10 | 340 | 644 | 325 | 18     |
| 635-227-00-266 | 200-200 | 193-227 | 10 | 389 | 648 | 255 | 27     |
| 635-257-00-266 | 225-250 | 224-257 | 10 | 437 | 788 | 340 | 48     |
| 635-301-00-266 | 250-250 | 266-301 | 10 | 476 | 784 | 340 | 49     |
| 635-356-00-266 | 300-315 | 314-356 | 10 | 545 | 784 | 355 | 64     |



| Materials of Construction |                |                                   |
|---------------------------|----------------|-----------------------------------|
| No.                       | Description    | Material                          |
| 1                         | Protection Cap | Recyclable PE                     |
| 2                         | Nut            | Acid resistant stainless steel A4 |
| 3                         | Bolt           | Stainless steel A2                |
| 4                         | Washer         | Stainless steel A2                |
| 5                         | Bracket        | Cast steel                        |
| 6                         | Sleeve         | Ductile iron GJS-450 (GGG-45)     |
| 7                         | Grip segment   | Gunmetal RG5 and stainless steel  |
| 8                         | Gasket         | DVGW/NF approved EPDM rubber      |
| 9                         | Ring           | Steel st. 52                      |
| 10                        | Shrink hose    | Plastic                           |
| 11                        | Pipe           | PE                                |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings



# REPAIR COLLARS AND CLAMPS

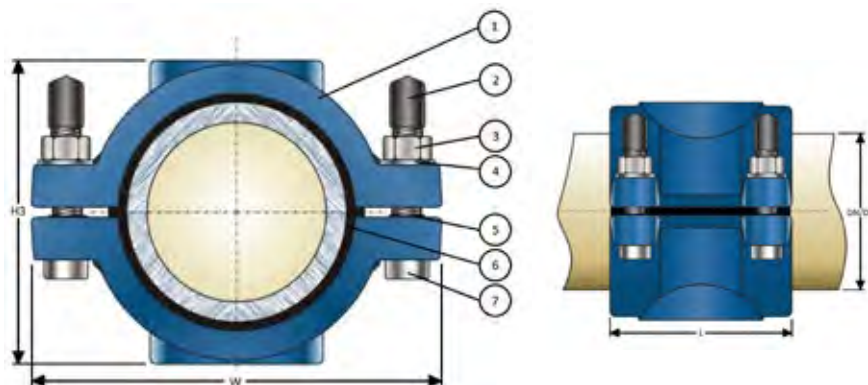
# AVK Split Repair Collar

Series 201/30-001



| Used on               | Cast iron AB   |
|-----------------------|--|
|                       | Cast iron CD   |
| Features and benefits | <ul style="list-style-type: none"> <li>Dedicated for cast iron pipework.</li> <li>Corrosion resistant design.</li> <li>Fusion bonded epoxy coating.</li> <li>EPDM seals.</li> <li>Components WRAS approved.</li> <li>Embodied carbon data available on request.</li> </ul> |
|                       |  |
| Options               | <ul style="list-style-type: none"> <li>Drilled and tapped boss ½" to 2" BSP.</li> <li><b>Can be supplied on an emergency service 0800 202 8228</b></li> </ul>  |
|                       |  |
| Size                  | DN50 - 300   |
| Pressure              | PN7  |
| Temperature Range     | -10°C to +70°C   |
| Body                  | Cast Iron<br>BS EN 1561-250  |
| Approvals             | WIS-4-52-01<br>Reg 31 compliant  |

| Series 003<br>AVK Ref | DN/DN       | H3  | L   | W   | Bolt no. | Weight |
|-----------------------|-------------|-----|-----|-----|----------|--------|
|                       | mm          |     |     |     |          | Kg     |
| 201-30-020-01         | 67 - 71     | 121 | 134 | 190 | 4        | 9.0    |
| 201-30-030-01         | 93.5 - 97.5 | 142 | 136 | 201 | 4        | 8.9    |
| 201-30-040-01         | 120 - 124   | 168 | 139 | 226 | 4        | 10     |
| 201-30-050-01         | 148 - 152   | 200 | 146 | 273 | 4        | 15     |
| 201-30-060-01         | 175 - 179   | 225 | 165 | 298 | 4        | 19     |
| 201-30-080-01         | 230 - 234   | 290 | 200 | 382 | 4        | 29     |
| 201-30-090-01         | 257 - 261   | 320 | 230 | 408 | 4        | 33     |
| 201-30-100-01         | 284 - 288   | 250 | 230 | 436 | 4        | 36     |
| 201-30-120-0          | 332 - 336   | 400 | 275 | 473 | 6        | 58     |
| 201-30-130-0          | 343 - 347   | 410 | 275 | 483 | 6        | 62     |



| Materials of Construction |             |  |
|---------------------------|-------------|--|
| No.                       | Description | Material   |
| 1                         | Collar      | Grey cast iron. BS EN 1561-250                     |
| 2                         | Domed Cap   | Black plastic                                      |
| 3                         | Nuts        | Hexagon. grade 4, zinc plated and passivated       |
| 4                         | Washers     | Zinc plated and passivated                         |
| 5                         | O-ring      | NBR  |
| 6                         | Rubber seal | EPDM to BS EN 681-1                                |
| 7                         | Bolts       | SQ x SQ head grade 4.6, zinc plated and passivated |
|                           | Coating     | Fusion bonded epoxy powder coated to WIS - 4-52-01 |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK Multiband Stainless Steel Repair Clamp

Series 202/30-001



|         |                 |
|---------|-----------------|
| Used on | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Stainless Steel |
|         | Asbestos cement |

|                       |   |
|-----------------------|---|
| Features and benefits | <ul style="list-style-type: none"> <li>Versatile design tolerance</li> <li>Corrosion resistant construction</li> <li>Lightweight</li> <li>WRAS approved material</li> <li>Any length available in multiples of 150mm up to 1200mm, Note: <ul style="list-style-type: none"> <li>Dia 50mm max 300mm long</li> <li>Dia 51 to 80mm max 450mm long</li> <li>Dia 81 to 100mm max 600mm long</li> <li>Dia 101 to 150mm max 750mm long</li> </ul> </li> <li>Bitumen coated lugs</li> <li>Range DN80 - 1450</li> <li>Embodied carbon data available upon request</li> </ul> |
|                       |   |

|         |  |
|---------|--|
| Options | <ul style="list-style-type: none"> <li>Double or triple band option</li> <li>Threaded bosses ½" - 2" BSP, see 202/30-002 or 202/30-004 for male or female connection respectively</li> <li><b>Can be supplied on an emergency service 0800 202 8228</b></li> </ul> |
|         |  |

|      |             |
|------|-------------|
| Size | DN80 - 1450 |
|------|-------------|

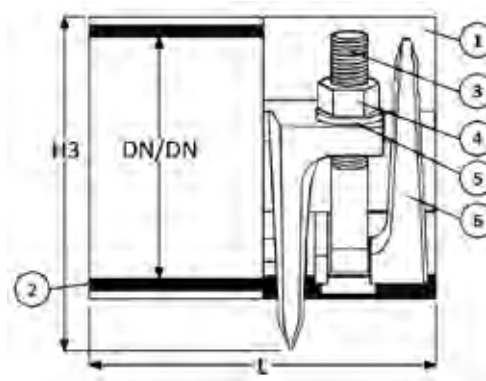
|          |                    |
|----------|--------------------|
| Pressure | PN3/5/7/10 ≤ 300mm |
|----------|--------------------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |                             |
|------|-----------------------------|
| Body | Stainless steel<br>AISI 316 |
|------|-----------------------------|

|           |                  |
|-----------|------------------|
| Approvals | Reg 31 compliant |
|-----------|------------------|

| AVK Ref          | DN/DN     | H3   | L    | No of Sectors | Weight |
|------------------|-----------|------|------|---------------|--------|
|                  | mm        |      |      |               | kg     |
| 202-30-0086-0601 | 86-106    | 180  | 150  | 2             | 6.3    |
| 202-30-0104-0601 | 104-124   | 104  | 1200 | 2             | 5.7    |
| 202-30-0137-1201 | 137-157   | 180  | 300  | 2             | 12     |
| 202-30-0150-1201 | 150-170   | 180  | 300  | 2             | 12     |
| 202-30-0167-1201 | 167-187   | 180  | 300  | 2             | 12     |
| 202-30-0167-1801 | 167-187   | 180  | 450  | 2             | 17     |
| 202-30-0209-3601 | 209-229   | 209  | 900  | 2             | 37     |
| 202-30-0270-2401 | 270-290   | 270  | 600  | 2             | 27     |
| 202-30-0303-1801 | 303-323   | 303  | 450  | 2             | 21     |
| 202-30-0390-1201 | 390-410   | 390  | 300  | 2             | 16     |
| 202-30-0395-3601 | 395-415   | 395  | 900  | 2             | 48     |
| 202-30-0403-0601 | 403-423   | 405  | 150  | 2             | 8.0    |
| 202-30-0422-1201 | 422-442   | 425  | 300  | 2             | 16     |
| 202-30-0424-1801 | 424-444   |      |      | 2             | 24     |
| 202-30-0450-4801 | 450-470   | 450  | 1200 | 2             | 70     |
| 202-30-0503-1201 | 503-523   | 505  | 300  | 2             | 18     |
| 202-30-0528-2401 | 528-548   | 528  | 600  | 2             | 36     |
| 202-30-0579-1801 | 579-605   | 579  | 450  | 3             | 39     |
| 202-30-0584-1201 | 584-610   | 585  | 300  | 3             | 30     |
| 202-30-0600-4201 | 600-626   | 600  | 1050 | 3             | 93     |
| 202-30-0600-1201 | 600-620   | 600  | 300  | 3             | 30     |
| 202-30-0714-4201 | 714-740   | 714  | 1050 | 3             | 97     |
| 202-30-0725-8401 | 725-751   | 725  | 2100 | 3             | 193    |
| 202-30-0808-4801 | 808-834   | 808  | 1200 | 3             | 118    |
| 202-30-0829-4201 | 829-855   | 829  | 1050 | 3             | 104    |
| 202-30-0930-3601 | 930-956   | 956  | 900  | 3             | 106    |
| 202-30-1278-4801 | 1278-1304 | 1278 | 1200 | 3             | 145    |



| Materials of Construction |                 |   |
|---------------------------|-----------------|---|
| No.                       | Description     | Material  |
| 1                         | Boss (Optional) | Carbon steel to BS EN10025: 1990, grade FE430 B or to BS1503.221.430. |
| 2                         | Body            | Stainless steel AISI 316  |
| 3                         | Gasket          | EPDM  |
| 4                         | Bolts           | Grade 8.8, zinc plated and passivated.                                |
| 5                         | Nuts            | Grade 8.8, zinc plated and passivated.                                |
| 6                         | Lugs            | Ductile Iron, BS EN 1563 EN-GJS-450-10                                |
|                           | Coating (Lugs)  | Bitumen coated  |
|                           | Domed cap       | Plastic   |



# AVK Multiband Stainless Steel Repair Clamp with 2" boss

Series 202/30-004



| Used on | Polyethelene    |
|---------|-----------------|
|         | PVC             |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Asbestos cement |

| Features and benefits | <ul style="list-style-type: none"> <li>Versatile design tolerance</li> <li>Corrosion resistant construction</li> <li>Female threaded bosses ½" - 2" BSP</li> <li>Lightweight</li> <li>WRAS approved material</li> <li>Any length available in multiples of 150mm up to 1200mm</li> <li>Note: Dia 50mm max 300mm long</li> <li>Dia 51 to 80mm max 450mm long</li> <li>Dia 81 to 100mm max 600mm long</li> <li>Dia 101 to 150mm max 750mm long</li> <li>Bitumen coated lugs</li> <li>Range DN80 - 1450</li> </ul> |
|-----------------------|---|
|-----------------------|---|

| Options | <ul style="list-style-type: none"> <li>Double or triple band option</li> <li>Plain clamp version, see 202/30-001 datasheet</li> <li>Male ½" - 2" BSP connection, see 202/30-002 datasheet</li> <li>Can be supplied on an emergency service</li> <li>For gas version see series 202/31 datasheet</li> </ul> |
|---------|--|
|---------|--|

| Size | DN80 - 1450 |
|------|-------------|
|------|-------------|

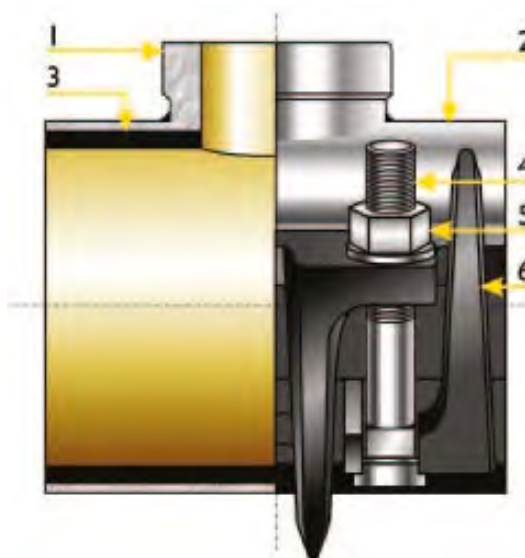
| Pressure | PN16 |
|----------|------|
|----------|------|

| Temperature Range | +70°C and 0°C and below |
|-------------------|-------------------------|
|-------------------|-------------------------|

| Body | Stainless steel<br>AISI 304 |
|------|-----------------------------|
|------|-----------------------------|

| Approvals | Hydraulic test according to 1.5 x PN<br>Materials approved according to WRAS |
|-----------|--|
|-----------|--|

| AVK Ref          | DN/DN     | DN  | PN Class | Weight |
|------------------|-----------|-----|----------|--------|
|                  | mm        |     |          | kg     |
| 202-30-0086-0651 | 86 -106   | 80  | PN10     | 6.4    |
| 202-30-0086-06G1 | 86 -106   | 80  | PN10     | 5.5    |
| 202-30-0111-0651 | 111 - 131 | 100 | PN10     | 6.7    |
| 202-30-0111-06G1 | 111 - 131 | 100 | PN10     | 7.9    |
| 202-30-0111-0931 | 111 - 131 | 100 | PN10     | 9.9    |
| 202-30-0138-0651 | 138 - 158 | 125 | PN10     | 6.8    |
| 202-30-0138-1251 | 138 - 158 | 125 | PN10     | 13     |
| 202-30-0164-0651 | 164 - 184 | 60  | PN10     | 6.5    |
| 202-30-0215-0651 | 215 - 235 | 200 | PN10     | 7.5    |
| 202-30-0240-1851 | 240 - 260 | 200 | PN10     | 19     |
| 202-30-0255-0651 | 255 - 275 | 250 | PN10     | 7.6    |
| 202-30-0268-0651 | 268 - 288 | 250 | PN10     | 7.6    |
| 202-30-0268-1251 | 268 - 288 | 250 | PN10     | 15     |
| 202-30-0295-0651 | 295 - 315 | 300 | PN10     | 7.4    |
| 202-30-0323-1851 | 323 - 343 | 300 | PN9      | 21     |
| 202-30-0341-0651 | 341 -361  | 300 | PN9      | 8.2    |
| 202-30-0419-1241 | 419 - 439 | 400 | PN7      | 17     |



| Materials of Construction |             |                           |
|---------------------------|-------------|---------------------------|
| No.                       | Description | Material                  |
| 1                         | Body        | Stainless steel 316       |
| 2                         | Gasket Mat  | EPDM                      |
| 3                         | Bolt        | Zinc plated 8.8 steel     |
| 4                         | Nuts        | Zinc plated grade 8 steel |
| 5                         | Washer      | Zinc plated grade 8 steel |
| 6                         | Lugs        | Ductile iron GJS-450-10   |
| 7                         | Tapped Boss | Carbon steel              |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK Pipe Saver Repair Clamp

Series 203/30-001



|         |                 |
|---------|-----------------|
| Used on | Polyethelene    |
|         | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | GRP             |
|         | Steel           |
|         | Stainless Steel |
|         | Clay            |
|         | Concrete        |
|         | Asbestos cement |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Quick and simple to use</li> <li>Corrosion resistant design</li> <li>Lightweight</li> </ul> <p>Note: Small size fitted with wingnut, all other larger sizes fitted with regular hex nut</p> |
|-----------------------|--|

|         |   |
|---------|---|
| Options | <ul style="list-style-type: none"> <li>Fitting length 60mm (1 bolt) or 100mm (2 bolts)</li> <li><b>Can be supplied on an emergency service 0800 202 8228</b></li> </ul> |
|---------|---|

|      |           |
|------|-----------|
| Size | DN15 - 60 |
|------|-----------|

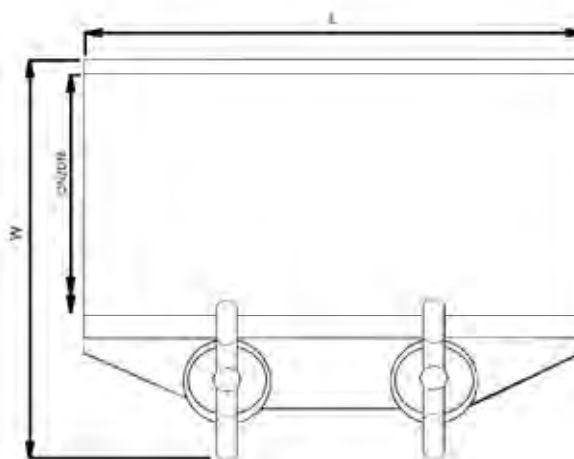
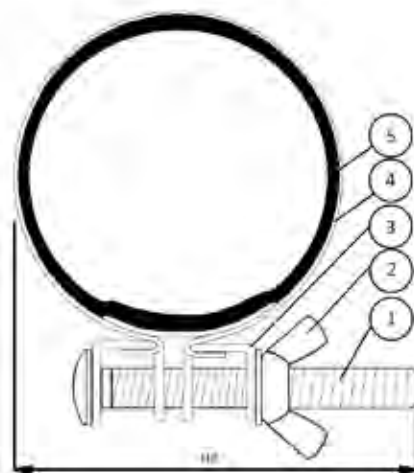
|          |        |
|----------|--------|
| Pressure | PN7/10 |
|----------|--------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -30°C to +70°C |
|-------------------|----------------|

|      |                             |
|------|-----------------------------|
| Body | Stainless steel<br>AISI 316 |
|------|-----------------------------|

|           |   |
|-----------|---|
| Approvals | <p>WIS-4-52-01<br/>Reg 31 compliant</p> |
|-----------|---|

| AVK Ref       | DN/DN   | H3 | L  | W   | Weight |
|---------------|---------|----|----|-----|--------|
|               | mm      |    |    |     | Kg     |
| 203-30-015-06 | 15 - 22 | 79 | 60 | 68  | 0.1    |
| 203-30-027-06 | 27 - 35 | 82 | 60 | 81  | 0.1    |
| 203-30-041-06 | 41 - 48 | 85 | 60 | 94  | 0.2    |
| 203-30-054-06 | 54 - 60 | 88 | 60 | 106 | 0.2    |



| Materials of Construction |             |                                       |
|---------------------------|-------------|---------------------------------------|
| No.                       | Description | Material                              |
| 1                         | Bolts       | Grade 4.6 zinc, plated and passivated |
| 2                         | Nuts        | Grade 4 zinc, plated and passivated   |
| 3                         | Bracket     | Mild steel, zinc plated               |
| 4                         | Body        | Stainless steel AISI 316              |
| 5                         | Gasket      | EPDM to BS 2494                       |



# AVK Single Band Repair Clamp

Series 206/30-001



|         |                 |
|---------|-----------------|
| Used on | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Stainless Steel |
|         | Asbestos cement |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Excellent sealing characteristics</li> <li>Versatile design tolerance</li> <li>Corrosion resistant construction</li> <li>Lightweight</li> <li>Any lengths available in multiples of 150mm up to 1200mm, Note: <ul style="list-style-type: none"> <li>Dia 56 to 80mm dia, max 450mm long</li> <li>Dia 81 to 100mm dia, 600mm long</li> <li>Dia 101 to 150mm dia, 750mm long</li> </ul> </li> <li>Bitumen coated lugs</li> <li>Range DN50- 450</li> <li>Sizes available: to fit mains Ø 56-350mm</li> <li>Lengths available: 150-1200</li> <li>Embodied carbon data available upon request</li> </ul> |
|-----------------------|--|

|         |   |
|---------|---|
| Options | <ul style="list-style-type: none"> <li>Can be manufactured to suit any O.D</li> <li>Threaded bosses 1/2" – 2" BSP</li> <li>High pressure version Series 206/36</li> <li><b>Can be supplied on an emergency service 0800 202 8228</b></li> </ul> |
|---------|---|

|      |            |
|------|------------|
| Size | DN50 - 450 |
|------|------------|

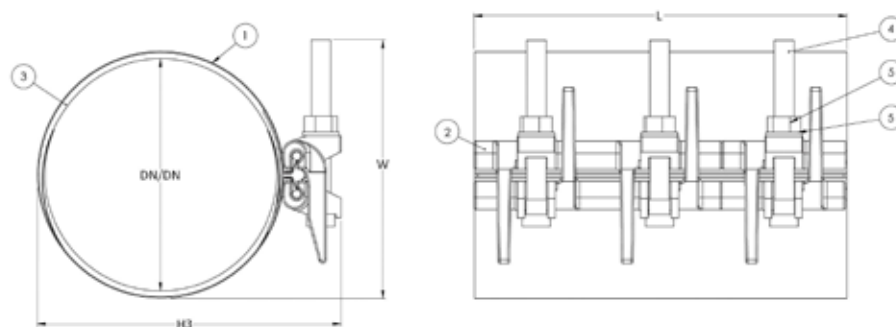
|          |                |
|----------|----------------|
| Pressure | PN7/10 < 300mm |
|----------|----------------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |                             |
|------|-----------------------------|
| Body | Stainless steel<br>AISI 316 |
|------|-----------------------------|

|           |                  |
|-----------|------------------|
| Approvals | Reg 31 compliant |
|-----------|------------------|

| AVK Ref          | DN/DN   | H3  | L   | W   | Weight |
|------------------|---------|-----|-----|-----|--------|
|                  | mm      |     |     |     | kg     |
| 206-30-0060-0601 | 60-67   | 115 | 150 | 180 | 3.2    |
| 206-30-0066-0601 | 66-73   | 121 | 150 | 180 | 2.8    |
| 206-30-0086-0601 | 86-93   | 141 | 150 | 180 | 3.0    |
| 206-30-0092-0601 | 92-99   | 147 | 150 | 180 | 3.4    |
| 206-30-0111-0601 | 111-121 | 166 | 150 | 180 | 3.4    |
| 206-30-0118-0601 | 118-128 | 173 | 150 | 180 | 3.4    |
| 206-30-0118-2401 | 118-128 | 170 | 600 | 180 | 13     |
| 206-30-0138-0601 | 138-148 | 193 | 150 | 180 | 3.7    |
| 206-30-0146-0601 | 146-156 | 201 | 150 | 180 | 3.8    |
| 206-30-0164-0601 | 164-174 | 219 | 150 | 180 | 3.7    |
| 206-30-0173-0601 | 173-183 | 228 | 150 | 180 | 4.0    |
| 206-30-0215-0601 | 215-225 | 270 | 150 | 220 | 4.4    |
| 206-30-0255-0601 | 255-265 | 310 | 150 | 260 | 4.8    |
| 206-30-0268-0601 | 268-278 | 323 | 150 | 273 | 4.8    |
| 206-30-0268-1801 | 269-278 | 320 | 450 | 280 | 13     |
| 206-30-0270-0631 | 270-280 | 285 | 150 | 270 | 4.7    |
| 206-30-0280-0601 | 280-290 | 335 | 150 | 285 | 4.9    |
| 206-30-0319-0601 | 319-329 | 374 | 150 | 324 | 5.5    |
| 206-30-0319-1801 | 319-329 | 370 | 450 | 320 | 15     |
| 206-30-0330-0601 | 330-340 | 385 | 150 | 335 | 5.5    |
| 206-30-0340-0601 | 340-350 | 395 | 150 | 345 | 5.5    |



| Materials of Construction |                         |  |
|---------------------------|-------------------------|--|
| No.                       | Description             | Material                               |
| 1                         | Bolts                   | Grade 8.8 zinc, plated and passivated  |
| 2                         | Gasket                  | EPDM                                   |
| 3                         | Body                    | Stainless steel AISI 304min (or 316)   |
| 4                         | Nuts                    | Grade 8, zinc plated and passivated    |
| 5                         | Lugs                    | Ductile iron, BS EN 1563 EN-GJS-450-10 |
|                           | Coating (Lugs)          | Bitumen coated                         |
|                           | Domed thread protectors | Plastic                                |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK Supa Collar™ Repair Clamp

Series 253/30



|         |                 |
|---------|-----------------|
| Used on | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Stainless Steel |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Universal across all ferrous pipe types</li> <li>Large tolerance range</li> <li>Corrosion resistant construction</li> <li>Fusion bonded epoxy coating</li> <li>Can support realigned, laterally displaced pipe-ends</li> <li>Embodied carbon data available upon request</li> </ul> |
|-----------------------|--|

|         |   |
|---------|---|
| Options | <ul style="list-style-type: none"> <li>Drilled and tapped boss ½" - 2" BSP</li> <li><b>Can be supplied on an emergency service 0800 202 8228</b></li> </ul> |
|---------|---|

|      |            |
|------|------------|
| Size | DN80 - 300 |
|------|------------|

|          |      |
|----------|------|
| Pressure | PN16 |
|----------|------|

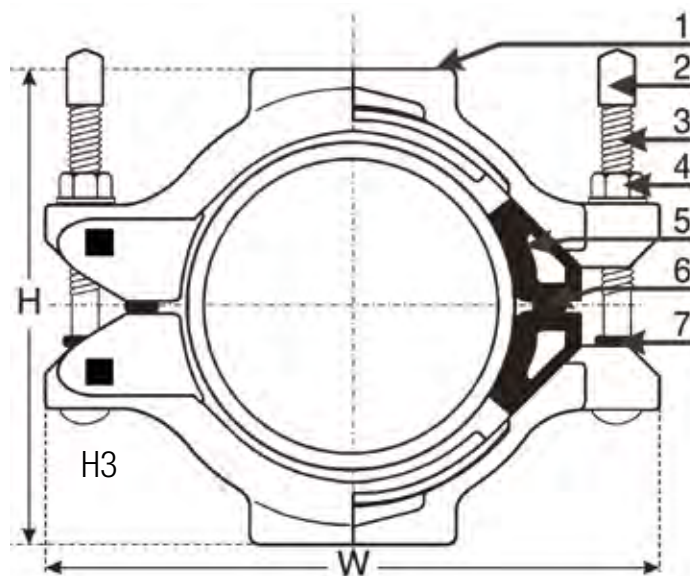
|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |                                       |
|------|---------------------------------------|
| Body | Ductile iron<br>BS EN 1563 GJS-400-15 |
|------|---------------------------------------|

|           |                                 |
|-----------|---------------------------------|
| Approvals | WIS-4-52-01<br>Reg 31 compliant |
|-----------|---------------------------------|

| Series 001<br>AVK Ref | Nom Size | Bolt No. | H3  | L   | W   | DN / DN     | Weight |
|-----------------------|----------|----------|-----|-----|-----|-------------|--------|
|                       | Inch     |          | mm  |     |     |             | Kg     |
| 253-30-003-Y(Z)       | 3"       | 4        | 156 | 157 | 204 | 85.4-114.0  | 8      |
| 253-30-004-Y(Z)       | 4"       | 4        | 186 | 167 | 238 | 111.8-139.0 | 12     |
| 253-30-006-Y(Z)       | 6"       | 4        | 250 | 216 | 312 | 165.2-195.5 | 20     |
| 253-30-008-Y(Z)       | 8"       | 4        | 300 | 220 | 374 | 215.9-239.7 | 25     |
| 253-30-010-Y(Z)       | 10"      | 4        | 360 | 220 | 434 | 269.2-293.5 | 30     |
| 253-30-012-Y(Z)       | 12"      | 4        | 420 | 270 | 500 | 319.9-347.0 | 50     |

**Notes** Boss : Y = 0 for plain boss, 1 for BSP 1/2", 2 for BSP 3/4", 3 for BSP 1", 4 for BSP 1 1/2", 5 for BSP 2".  
Bolts : Z = None / 1 for Sheraplex.



| Materials of Construction |              |   |
|---------------------------|--------------|---|
| No.                       | Description  | Material  |
| 1                         | Clamp        | Ductile iron, BS EN 1563 EN-GJS-400-15            |
| 2                         | Domed cap    | Black plastic                                     |
| 3                         | Bolts        | Grade 8.8 sheraplex                               |
| 4                         | Nuts         | Hexagon, grade 8 sheraplex                        |
| 5                         | Wedge        | Ductile iron, BS EN 1563 EN-GJS-400-15            |
| 6                         | Rubber seals | EPDM to BS EN 681-1                               |
| 7                         | O-ring       | Nitrile   |
|                           | Coating      | Fusion bonded epoxy powder coating to WIS-4-52-01 |



# AVK Repair Clamp

Series 253/40-001



| Used on | Ductile iron    |
|---------|-----------------|
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Stainless Steel |

| Features and benefits | <ul style="list-style-type: none"> <li>Universal across all ferrous pipe types</li> <li>Large sealing range</li> <li>Corrosion resistant construction</li> <li>Fusion bonded epoxy coating</li> <li>Easy to fit</li> <li>16 Bar rated</li> <li>WRAS approved materials</li> <li>Embodied carbon data available upon request</li> </ul> |
|-----------------------|--|
|-----------------------|--|

| Options | <ul style="list-style-type: none"> <li>Drilled and tapped boss ½" - 1" BSP</li> <li><b>Can be supplied on an emergency service 0800 202 8228</b></li> </ul> |
|---------|---|
|---------|---|

| Size | DN80 - 300 |
|------|------------|
|------|------------|

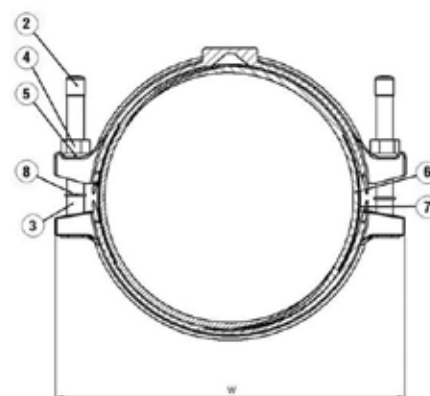
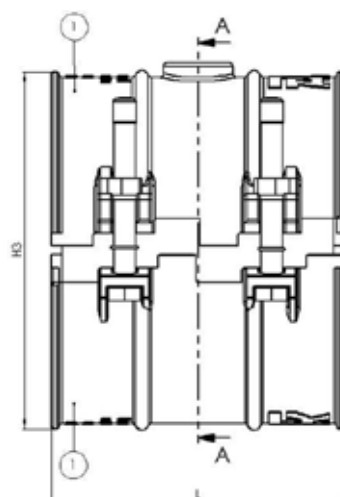
| Pressure | PN10/16 |
|----------|---------|
|----------|---------|

| Temperature Range | -10°C to +70°C |
|-------------------|----------------|
|-------------------|----------------|

| Body | Ductile iron<br>BS EN 1563 GJS-400-15 |
|------|---------------------------------------|
|------|---------------------------------------|

| Approvals | WIS-4-52-01<br>Reg 31 compliant |
|-----------|---------------------------------|
|-----------|---------------------------------|

| AVK Ref      | H3  | L   | DN/DN       | W   | Bolt No | Weight Kg |
|--------------|-----|-----|-------------|-----|---------|-----------|
|              | mm  |     |             | mm  |         |           |
| 253-40-003-0 | 126 | 200 | 92.3-103.0  | 192 | 4       | 4.3       |
| 253-40-004-0 | 148 | 200 | 115.0-125.6 | 214 | 4       | 5.9       |
| 253-40-006-0 | 204 | 200 | 166.0-181.2 | 270 | 4       | 8.0       |
| 253-40-008-0 | 267 | 220 | 220.0-234.0 | 322 | 4       | 14        |
| 253-40-010-0 | 330 | 250 | 269.0-294.0 | 392 | 4       | 15        |
| 253-40-012-0 | 390 | 300 | 323.0-349.0 | 446 | 6       | 29        |



| Materials of Construction |              |                                 |
|---------------------------|--------------|---------------------------------|
| No.                       | Description  | Material                        |
| 1                         | Clamp halves | Ductile iron GJS-450-10         |
| 2                         | Cap          | Plastic                         |
| 3                         | Bolts        | Steel gr. 8.8, sheraplex coated |
| 4                         | Nuts         | Steel gr. 8.8, sheraplex coated |
| 5                         | Washer       | Steel gr. 8.8, sheraplex coated |
| 6                         | Gasket       | EPDM                            |
| 7                         | Bridge plate | Stainless steel 304             |
| 8                         | O-ring       | NBR                             |
|                           | Coating      | Epoxy                           |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK Socket Encapsulation Collar

Series 208/01-001



|         |                 |
|---------|-----------------|
| Used on | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Stainless Steel |

|                       |   |
|-----------------------|---|
| Features and benefits | <ul style="list-style-type: none"> <li>To suit nominal DN80-1200 pipes. (DN80-200 Ductile Iron, DN250-1200 Mild Steel)</li> <li>PN16 rated</li> <li>Can be supplied on an emergency service</li> <li>Corrosion resistant construction</li> <li>EPDM seals</li> <li>Fusion bonded epoxy coating</li> <li>Dual ½" drain bosses designed to accommodate drainage and air entrapment release.</li> <li>Lifting eye bolts supplied as standard</li> <li>Embodied carbon data available upon request</li> </ul> |
|                       | <b>Sizes 250+:</b> <ul style="list-style-type: none"> <li>Up to 12 mm tolerance</li> <li>Suitable for any pipe material</li> <li>Angular compensation of up to 6° before or after installation</li> <li>The same fitting can be used either to repair a leaking socket or a damaged pipe</li> <li>360° coverage</li> </ul>  |

|         |   |
|---------|---|
| Options | <ul style="list-style-type: none"> <li>Can be supplied on an emergency service 0800 202 8228</li> </ul> |
|---------|---|

|      |             |
|------|-------------|
| Size | DN80 - 1200 |
|------|-------------|

|          |      |
|----------|------|
| Pressure | PN16 |
|----------|------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |                                       |
|------|---------------------------------------|
| Body | Ductile iron<br>BS EN 1563 GJS-400-15 |
|------|---------------------------------------|

|           |   |
|-----------|---|
| Approvals | BS 8561-2013<br>WIS-4-52-01<br>Reg 31 compliant |
|-----------|---|

208/01-001

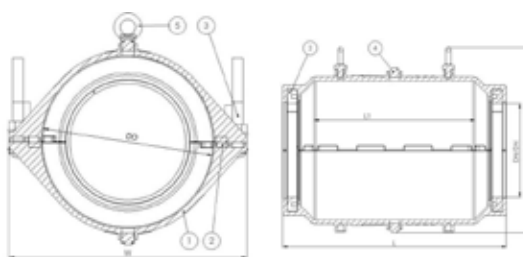
For references and dimensions, please scan the QR code located on the right to access the series 208/01-001 datasheet

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## Materials of Construction

| No. | Description | Material                        |
|-----|-------------|---------------------------------|
| 1   | Body        | Ductile iron GJS-450-10         |
| 2   | Seal        | EPDM rubber                     |
| 3   | Fasteners   | Steel gr. 8.8, Sheraplex coated |
| 4   | Plug        | Stainless steel 316             |
| 5   | Eye bolt    | Steel gr. 8.8                   |



208/01-001 Large Diameter

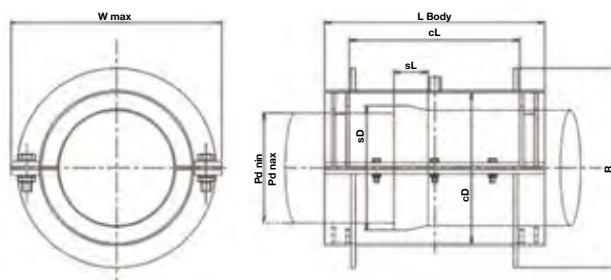
For references and dimensions, please scan the QR code located on the right to access the series 208/01-001 Large Diameter datasheet

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## Materials of Construction

| No. | Description | Material   |
|-----|-------------|--|
| 1   | Body        | Mild steel BS10025 grade S275JR BS308, BS499, BS4235, BS4500 |
| 2   | Seal        | EPDM   |
| 3   | Side seal   | EPDM   |
| 4   | Fasteners   | Zinc coated  |
| 5   | Coating     | WRAS approved fusion bonded epoxy                            |



# AVK Hydro Stop Socket Encapsulation Collar

Series 8001/0-001



|         |                 |
|---------|-----------------|
| Used on | Polyethylene    |
|         | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | GRP             |
|         | Steel           |
|         | Stainless Steel |
|         | Clay            |
|         | Concrete        |
|         | Asbestos cement |

|                       |   |
|-----------------------|---|
| Features and benefits | <ul style="list-style-type: none"> <li>The shaped body can accommodate any kind of pipe socket including joints connecting two pipes of different materials and remnants of previous repairs.</li> <li>Large pipe OD tolerance of up to 40 mm gives great flexibility when the pipe OD has not been correctly measured, and safe installation even in case of oval and damaged pipes.</li> <li>Angular deflection of up to 4° before or after installation.</li> <li>Flange outlet according to UNI EN 1092-1 with blind flange suitable for hot tapping and drainage of water during installation.</li> <li>Air vent with threaded cap for release of air as last step of the installation.</li> </ul> |
|-----------------------|---|

|         |   |
|---------|---|
| Options | <ul style="list-style-type: none"> <li>DN3000 and with larger pipe OD tolerance option.</li> <li>PN 25 option.</li> <li>Stainless steel AISI 304 and AISI 316.</li> <li>Customisable for non-standard pipes.</li> </ul> |
|---------|---|

|      |              |
|------|--------------|
| Size | DN250 - 2000 |
|------|--------------|

|          |         |
|----------|---------|
| Pressure | PN10/16 |
|----------|---------|

|                   |               |
|-------------------|---------------|
| Temperature Range | -5°C to +60°C |
|-------------------|---------------|

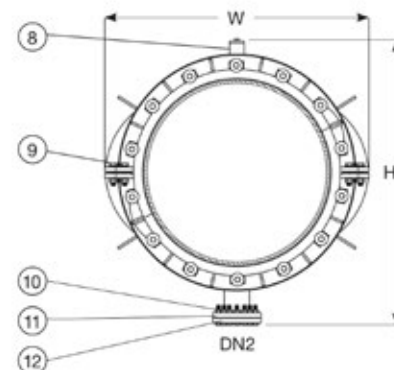
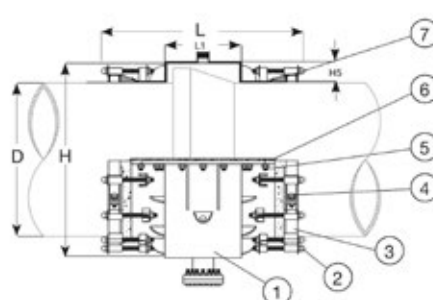
|      |       |
|------|-------|
| Body | Steel |
|------|-------|

|           |  |
|-----------|--|
| Approvals | Hydraulic test 1.5 x PN<br>WRAS approved materials |
|-----------|--|

| AVK Ref                | DN  | DN2 | PN   | Range   | D   | L   | L1  | H   | H3  | H5 | W   | Weight |
|------------------------|-----|-----|------|---------|-----|-----|-----|-----|-----|----|-----|--------|
|                        | mm  | mm  |      | mm      |     |     |     |     |     |    |     |        |
| 8001-0-010-11031003500 | 250 | 150 | PN10 | 265-295 | 305 | 990 | 300 | 467 | 560 | 80 | 640 | 188    |
| 8001-0-010-11031104000 | 250 | 150 | PN16 | 265-295 | 305 | 990 | 300 | 467 | 560 | 80 | 640 | 188    |
| 8001-0-030-11031003500 | 300 | 150 | PN10 | 310-340 | 350 | 990 | 300 | 512 | 605 | 80 | 685 | 195    |
| 8001-0-030-11031104000 | 300 | 150 | PN16 | 310-340 | 350 | 990 | 300 | 512 | 605 | 80 | 685 | 195    |
| 8001-0-050-11031003500 | 300 | 150 | PN10 | 330-360 | 370 | 990 | 300 | 532 | 625 | 80 | 705 | 200    |
| 8001-0-050-11031104000 | 300 | 150 | PN16 | 330-360 | 370 | 990 | 300 | 532 | 625 | 80 | 705 | 200    |
| 8001-0-070-11031003500 | 350 | 150 | PN10 | 345-375 | 385 | 990 | 300 | 547 | 640 | 80 | 720 | 209    |
| 8001-0-070-11031104000 | 350 | 150 | PN16 | 345-375 | 385 | 990 | 300 | 547 | 640 | 80 | 720 | 209    |
| 8001-0-090-11031003500 | 350 | 150 | PN10 | 363-393 | 403 | 990 | 300 | 565 | 660 | 80 | 735 | 215    |
| 8001-0-090-11031104000 | 350 | 150 | PN16 | 363-393 | 403 | 990 | 300 | 565 | 660 | 80 | 735 | 215    |

For more references and dimensions, please scan the QR code located on the right to access the series 8001/0-001 datasheet

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| Materials of Construction |                      |  |
|---------------------------|----------------------|--|
| No.                       | Description          | Material                               |
| 1                         | Body                 | Steel S235JR                           |
| 2                         | Stud, nut and washer | Steel gr. 8.8, zinc plated, passivated |
| 3                         | Bracket              | Steel S235JR                           |
| 4                         | Bolt/nut/washer      | Steel gr. 8.8, zinc plated, passivated |
| 5                         | Bolt/nut/washer      | Steel gr. 8.8, zinc plated, passivated |
| 6                         | Body gasket          | EPDM rubber                            |
| 7                         | Seal                 | EPDM rubber                            |
| 8                         | Cap                  | Steel S235JR                           |
| 9                         | Lock pin             | Steel gr. 8.8, zinc plated, passivated |
| 10                        | Bolt/nut/washer      | Steel gr. 8.8, zinc plated, passivated |
| 11                        | Flange gasket        | EPDM rubber                            |
| 12                        | Blind flange         | Steel S235JR                           |

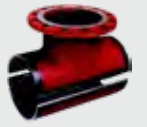
WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings



# TEES

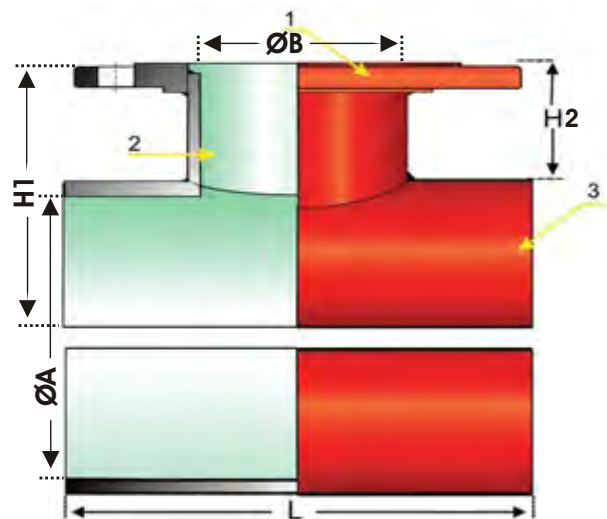
# AVK Fabricated Weld on Tee

Series 213/30-001



| Used on               | Steel  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Can be fabricated to any size, with any branch size and any flange drilling, within the design range.</li> <li>Red oxide primed.</li> <li>Uncoated welding strips for easy positioning on pipe.</li> <li>Two part body.</li> <li>Short lead times.</li> </ul> |
| Options               | <ul style="list-style-type: none"> <li>BS EN 1092-2, BS 10 or ANSI drillings.</li> <li>Branch sizes DN50 - DN600.</li> <li>Fixed or loose backing</li> </ul>   |
| Size                  | DN80 - 600   |
| Pressure              | PN7  |
| Temperature Range     | -10°C to +70°C   |
| Body                  | Mild steel   |
| Approvals             | Made in Great Britain<br>Standard flange drilling to EN1092 (ISO 7005-2), PN 16  |

| AVK Ref         | Pipe DN | Branch DN | L    | H1  | H2  | Weight |
|-----------------|---------|-----------|------|-----|-----|--------|
|                 | mm      |           |      |     |     | Kg     |
| 213-31-0076-031 | 80      | 80        | 185  | 164 | 110 | 15     |
| 213-31-0088-031 | 100     | 80        | 185  | 177 | 110 | 18     |
| 213-31-0114-041 | 100     | 100       | 225  | 177 | 110 | 20     |
| 213-31-0139-041 | 125     | 100       | 225  |     | 110 | 23     |
| 213-31-0168-041 | 150     | 100       | 275  | 207 | 110 | 34     |
| 213-31-0168-061 | 150     | 150       | 325  | 217 | 140 | 36     |
| 213-31-0219-061 | 200     | 150       | 325  | 243 | 140 | 52     |
| 213-31-0219-081 | 200     | 200       | 425  | 243 | 140 | 55     |
| 213-31-0273-081 | 250     | 200       | 425  | 270 | 140 | 85     |
| 213-31-0273-101 | 250     | 250       | 525  | 290 | 140 | 90     |
| 213-31-0324-101 | 300     | 250       | 525  | 295 | 140 | 120    |
| 213-31-0324-121 | 300     | 300       | 625  | 315 | 190 | 125    |
| 213-31-0355-121 | 350     | 300       | 625  | 332 | 190 | 175    |
| 213-31-0355-141 | 350     | 350       | 725  | 352 | 190 | 180    |
| 213-31-0406-121 | 400     | 350       | 725  | 377 | 190 | 222    |
| 213-31-0406-161 | 400     | 300       | 825  | 387 | 190 | 230    |
| 213-31-0457-161 | 450     | 400       | 825  | 412 | 190 | 270    |
| 213-31-0457-181 | 450     | 450       | 925  | 432 | 190 | 280    |
| 213-31-0508-181 | 500     | 450       | 925  | 439 | 190 | 330    |
| 213-31-0508-201 | 500     | 500       | 1025 | 459 | 190 | 340    |
| 213-31-0609-241 | 600     | 600       | 1225 | 550 | 190 | 455    |

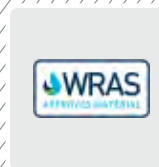


| Materials of Construction |             |                                  |
|---------------------------|-------------|----------------------------------|
| No.                       | Description | Material                         |
| 1                         | Flange      | Mild steel to BS EN 10025 FE430B |
| 2                         | Branch      | Mild steel to BS EN 10025 FE430B |
| 3                         | Body        | Mild steel to BS EN 10025 FE430B |

WRAS approved pipe lubricant must be used in conjunction when installing AVK fittings

# AVK Fabricated Bolt on Tee

Series 214/30-001



|         |                 |
|---------|-----------------|
| Used on | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Stainless Steel |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Can be fabricated to any size, with any branch size and any flange drilling, within the design range</li> <li>Epoxy coating</li> <li>Reinforced bolt lugs</li> <li>Two part, mild steel body to BS EN 10025:1990 grade FE 430 B</li> <li>Unique EPDM seal design</li> <li>Cup square bolts to assist easy assembly</li> <li>WRAS approved material</li> <li>Branch sizes DN80-600mm</li> <li>Embodied carbon data available upon request</li> </ul> |
|-----------------------|--|

|         |   |
|---------|---|
| Options | <ul style="list-style-type: none"> <li>BS EN 1092-2, BS 10 or ANSI drillings</li> <li><b>Can be supplied on an emergency service 0800 202 8228</b></li> </ul> |
|---------|---|

|      |             |
|------|-------------|
| Size | DN80 - 1200 |
|------|-------------|

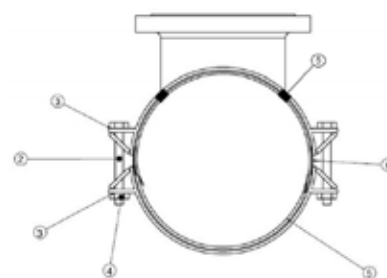
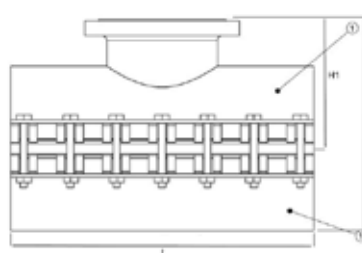
|          |      |
|----------|------|
| Pressure | PN16 |
|----------|------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |                                  |
|------|----------------------------------|
| Body | Mild steel<br>BS EN 10025 FE430B |
|------|----------------------------------|

|           |   |
|-----------|---|
| Approvals | EN 1092-2 (ISO 7005-2)<br>WIS 4-52-01<br>Reg 31 compliant |
|-----------|---|

| AVK Ref          | DN  | Flange Drilling | H1  | H3   | L   | Pipe Dia | Weight |
|------------------|-----|-----------------|-----|------|-----|----------|--------|
|                  | mm  |                 | mm  |      |     |          | Kg     |
| 214-30-0390-3511 | 350 | PN16            | 325 | 600  | 500 | 390      | 115    |
| 214-30-0409-3011 | 300 | PN16            | 365 | 570  | 500 | 409      | 181    |
| 214-30-0480-1511 | 150 | PN16            | 257 | 649  | 304 | 480      | 81     |
| 214-30-0480-0811 | 80  | PN16            |     |      |     |          | 115    |
| 214-30-0480-1012 | 100 | PN16            |     |      |     |          | 181    |
| 214-30-0480-1512 | 200 | PN16            |     |      |     |          | 220    |
| 214-30-0480-3012 | 300 | PN16            |     |      |     |          | 441    |
| 214-30-0500-1512 | 150 | PN16            |     |      |     |          | 189    |
| 214-30-0635-1011 | 100 | PN16            |     |      |     |          | 254    |
| 214-30-0635-1511 | 150 | PN16            |     |      |     |          | 154    |
| 214-30-0635-2011 | 200 | PN16            |     |      |     |          | 348    |
| 214-30-0635-4511 | 450 | PN16            |     |      |     |          | 423    |
| 214-30-0635-6011 | 600 | PN16            |     |      |     |          | 570    |
| 214-30-0494-0811 | 80  | PN16            | 370 | 648  | 304 | 494      | 84     |
| 214-30-0495-0811 | 80  | PN16            | 370 | 650  | 304 | 496      | 84     |
| 214-30-0532-2011 | 200 | PN16            | 283 | 701  | 360 | 532      | 120    |
| 214-30-0635-3011 | 300 | PN16            | 338 | 835  | 500 | 635      | -      |
| 214-30-0648-2511 | 250 | PN16            | 137 | 475  | 600 | 648      | 189    |
| 214-30-0738-0811 | 80  | PN16            | 490 | 860  | 304 | 738      | 177    |
| 214-30-0762-3011 | 300 | PN16            | 147 | 925  | 500 | 762      | 254    |
| 214-30-0820-2011 | 200 | PN16            | 545 | 955  | 360 | 820      | 154    |
| 214-30-0842-4511 | 450 | PN16            | 446 | 1102 | 640 | 842      | 348    |
| 214-30-0945-6011 | 600 | PN16            | 498 | 1245 | 840 | 945      | 623    |
| 214-30-0980-3011 | 300 | PN16            | 650 | 1140 | 500 | 980      | 370    |



| Materials of Construction |                        |  |
|---------------------------|------------------------|--|
| No.                       | Description            | Material   |
| 1                         | Flange                 | Mild steel to BS EN 10025 FE430B   |
| 2                         | Branch                 | Mild steel to BS EN 10025 FE430B   |
| 3                         | Body                   | Mild steel to BS EN 10025 FE430B   |
| 4                         | Seal                   | EPDM   |
| 5                         | Bolts / nuts / washers | Steel grade 8.8 bolt, grade 8 nut, sheraplex coated  |
| 6                         | Coating                | Fusion bonded epoxy coating to WIS 4-52-01 or wet sprayed dependent upon size. WRAS approved |

# AVK Stainless Steel Under-Pressure Tee

Series 215/30-001



|         |                 |
|---------|-----------------|
| Used on | PVC             |
|         | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Stainless Steel |
|         | Asbestos cement |

|                       |  |
|-----------------------|--|
| Features and benefits | <ul style="list-style-type: none"> <li>Pressure: up to 10 Bar dependent upon size (see pressure chart on website)</li> <li>Excellent sealing characteristics</li> <li>Versatile design tolerance</li> <li>Corrosion resistant construction</li> <li>Lightweight</li> <li>Bitumen coated lugs</li> <li>To fit mains from 70-1265mm</li> <li>Branches DN50-DN600</li> <li>Embodied carbon data available upon request</li> </ul> |
|-----------------------|--|

|         |  |
|---------|--|
| Options | <ul style="list-style-type: none"> <li>Any lengths available in multiples of 150mm up to 1200mm, Note: <ul style="list-style-type: none"> <li>Dia 50mm max 300mm long</li> <li>Dia 51 to 80mm max 450mm long</li> <li>Dia 81 to 100mm max 600mm long</li> <li>Dia 101 to 150mm max 750mm long</li> </ul> </li> <li>Alternatively drilled flanges can be fitted on request</li> <li><b>Can be supplied on an emergency service 0800 202 8228</b></li> </ul> |
|---------|--|

|      |             |
|------|-------------|
| Size | DN80 - 1200 |
|------|-------------|

|          |              |
|----------|--------------|
| Pressure | PN10 < 300mm |
|----------|--------------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

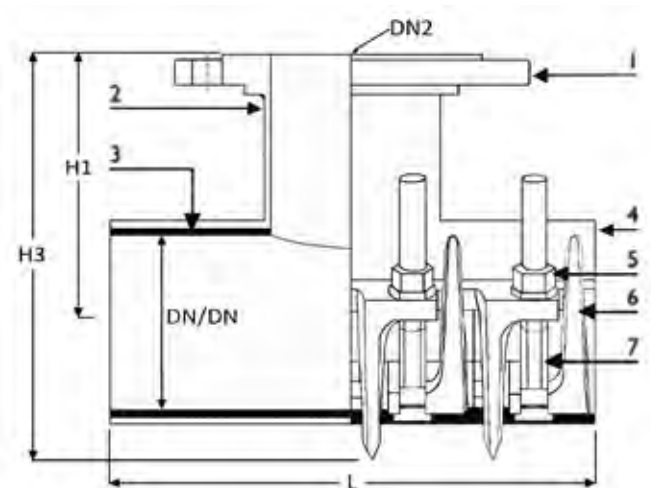
|      |                             |
|------|-----------------------------|
| Body | Stainless steel<br>AISI 316 |
|------|-----------------------------|

|           |  |
|-----------|--|
| Approvals | EN 1092-2 (ISO 7005-2)<br>Reg 31 compliant |
|-----------|--|

| AVK Ref           | DN/DN   | DN2 | H1  | H3  | L   | W   | Weight |
|-------------------|---------|-----|-----|-----|-----|-----|--------|
|                   | mm      |     |     |     |     |     | kg     |
| 215-30-0086-03121 | 86-106  | 80  | 142 | 198 | 300 | 200 | 23     |
| 215-30-0111-03121 | 111-131 | 80  | 148 | 211 | 300 | 211 | 24     |
| 215-30-0138-03121 | 138-158 | 80  |     |     |     |     | 25     |
| 215-30-0138-04121 | 138-158 | 100 |     |     |     |     | 26     |
| 215-30-0164-03121 | 164-184 | 80  | 167 | 249 | 300 | 264 | 20     |
| 215-30-0164-04121 | 164-184 | 100 |     |     |     |     | 21     |
| 215-30-0175-04121 | 175-195 | 100 |     |     |     |     | 21     |
| 15-30-0175-06151  | 175-195 | 150 |     |     |     |     | 23     |
| 215-30-0200-04121 | 200-220 | 100 |     |     |     |     | 24     |
| 215-30-0200-06151 | 200-220 | 150 |     |     |     |     | 31     |
| 215-30-0103-04121 | 103-123 | 100 | 152 | 205 | 300 | 220 | 24     |
| 215-30-0105-04121 | 105-125 | 100 | 153 | 205 | 300 | 220 | 22     |
| 215-30-0111-04121 | 111-131 | 100 | 163 | 226 | 300 | 220 | 23     |
| 215-30-0135-05181 | 135-155 | 125 | 180 | 250 | 450 | 250 | 25     |
| 215-30-0140-05151 | 140-160 | 125 | 190 | 250 | 375 | 250 | 23     |
| 215-30-0215-08181 | 215-235 | 200 | 228 | 335 | 450 | 340 | 38     |
| 215-30-0255-08181 | 255-275 | 200 |     |     |     |     | 39     |

For references and dimensions, please scan the QR code located on the right to access the series 215/30-001 datasheet

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| Materials of Construction |                       |   |
|---------------------------|-----------------------|---|
| No.                       | Description           | Material  |
| 1                         | Flange                | Carbon steel to BS EN 10025: 1990, grade FE 430 B or to BS 1503.221.430 |
| 2                         | Neck                  | Stainless steel AISI 304 min (or 316)                                   |
| 3                         | Gasket mat            | EPDM  |
| 4                         | Body                  | Stainless steel AISI 304 min (or 316)                                   |
| 5                         | Nuts and washers      | Grade 8, zinc plated and passivated                                     |
| 6                         | Lugs                  | Ductile iron, BS EN 1563 EN-GJS-450-10; bitumen coated                  |
| 7                         | Bolts with domed caps | Grade 8.8, zinc plated and passivated with plastic caps                 |

# AVK Universal Under-pressure Tee

Series 257/30-001



|         |                 |
|---------|-----------------|
| Used on | Ductile iron    |
|         | Cast iron AB    |
|         | Cast iron CD    |
|         | Steel           |
|         | Stainless Steel |

|                       |   |
|-----------------------|---|
| Features and benefits | <ul style="list-style-type: none"> <li>Suitable for all ferrous pipe types</li> <li>Extremely versatile - large tolerance range</li> <li>Allows for a total angular deflection of +/- 4 degrees</li> <li>Slotted branch flange</li> <li>Corrosion resistant construction</li> <li>Fusion bonded epoxy coating</li> <li>Suitable for stoppling</li> <li>Embodied carbon data available upon request</li> </ul> |
|-----------------------|---|

|         |  |
|---------|--|
| Options | <ul style="list-style-type: none"> <li>BS EN 1092-2, BS10 or ANSI flange drillings</li> <li>Branch sizes DN80-300mm</li> <li><b>Can be supplied on an emergency service 0800 202 8228</b></li> </ul> |
|---------|--|

|      |            |
|------|------------|
| Size | DN80 - 300 |
|------|------------|

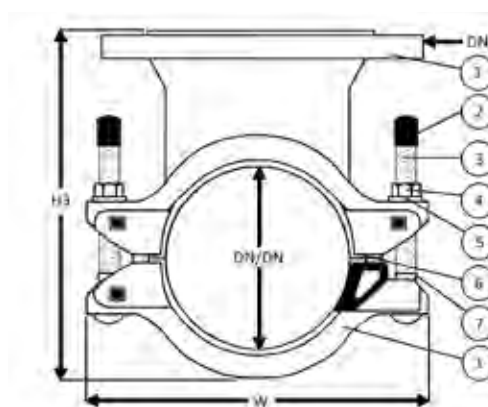
|          |      |
|----------|------|
| Pressure | PN16 |
|----------|------|

|                   |                |
|-------------------|----------------|
| Temperature Range | -10°C to +70°C |
|-------------------|----------------|

|      |                                     |
|------|-------------------------------------|
| Body | Ductile iron<br>GJS-450-10 (GGG-40) |
|------|-------------------------------------|

|           |   |
|-----------|---|
| Approvals | <p>WIS-4-52-01<br/>Reg 31 compliant</p> |
|-----------|---|

| AVK Ref       | DN/DN       | DN2 | H3  | L   | W   | Weight |
|---------------|-------------|-----|-----|-----|-----|--------|
|               | mm          |     |     |     |     | mm     |
| 257-30-03-081 | 85.4-114    | 80  | 241 | 167 | 204 | 11     |
| 257-30-04-081 | 111.8-139.0 | 80  | 241 | 216 | 238 | 14     |
| 257-30-04-101 | 111.8-139.0 | 100 | 241 | 216 | 238 | 14     |
| 257-30-06-081 | 165.5-195.5 | 80  | 315 | 220 | 312 | 19     |
| 257-30-06-101 | 165.2-195.5 | 100 | 315 | 220 | 312 | 25     |
| 257-30-06-151 | 165.2-195.5 | 150 | 302 | 285 | 312 | 32     |
| 257-30-08-081 | 215.9-239.7 | 80  | 370 | 220 | 374 | 33     |
| 257-30-08-101 | 215.9-239.7 | 100 | 370 | 220 | 374 | 28     |
| 257-30-08-151 | 215.9-239.7 | 150 | 363 | 320 | 374 | 29     |
| 257-30-08-201 | 215.9-239.7 | 200 | 363 | 340 | 374 | 47     |
| 257-30-10-081 | 269.2-293.5 | 80  | 440 | 220 | 434 | 43     |
| 257-30-10-101 | 269.2-293.5 | 100 | 440 | 220 | 434 | 44     |
| 257-30-10-151 | 269.2-293.5 | 150 | 431 | 370 | 434 | 55     |
| 257-30-10-201 | 269.2-293.5 | 200 | 431 | 370 | 434 | 64     |
| 257-30-10-251 | 269.2-293.5 | 250 | 431 | 370 | 434 | 64     |
| 257-30-12-081 | 319.9-347.0 | 80  | 505 | 270 | 500 | 67     |
| 257-30-12-101 | 319.9-347.0 | 100 | 505 | 270 | 500 | 67     |
| 257-30-12-151 | 319.9-347.0 | 150 | 505 | 270 | 500 | 68     |
| 257-30-12-201 | 319.9-347.0 | 200 | 494 | 420 | 500 | 90     |
| 257-30-12-251 | 319.9-347.0 | 250 | 494 | 420 | 500 | 93     |
| 257-30-12-301 | 319.9-347.0 | 300 | 494 | 455 | 500 | 96     |



| Materials of Construction |             |  |
|---------------------------|-------------|--|
| No.                       | Description | Material                               |
| 1                         | Body        | Ductile iron, min. GJS-450-10 (GGG-40) |
| 2                         | Domed cap   | Plastic                                |
| 3                         | Bolt        | Grade 8.8, zinc plated and passivated  |
| 4                         | Nut         | Grade 8.8, zinc plated and passivated  |
| 5                         | Washer      | Grade 8.8, zinc plated and passivated  |
| 6                         | Seal        | EPDM                                   |
| 7                         | O-ring      | Nitrile rubber                         |





# AVK UK LOCATIONS

Leading manufacturer of fittings and repair clamps for the UK and export market.

AVK UK provides the Water, Waste Water and Gas Utility sectors with a complete range of pipe work fittings from bespoke fabrications to simple repair clamps, through a variety of flexible service offers ranging from products supplied for emergencies in a matter of hours to programmed supply for major capital projects.

Our modern dedicated manufacturing facility near Manchester in the UK, has a full team of skilled personnel from CAD designers to welder/platers all of whom are dedicated to providing quality products to the customers requirements in line with our Expect... AVK Promises.



# EXPECT... OUR PROMISES TO YOU

AVK in the UK

“Expect... AVK” means that our customers should rightfully expect us to exceed market standards and become the preferred business partner among our industry.

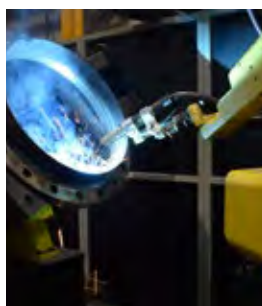


|           |  |
|-----------|--|
| EXPECT... | SOLUTIONS, NOT ONLY PRODUCTS           |
| EXPECT... | GLOBAL LEADERSHIP AND LOCAL COMMITMENT |
| EXPECT... | QUALITY IN EVERY STEP                  |
| EXPECT... | PROMPT RESPONSE                        |
| EXPECT... | LASTING INNOVATIONS                    |
| EXPECT... | TOTAL SAVINGS                          |
| EXPECT... | A LONG-TERM PARTNERSHIP                |
| EXPECT... | IT TO BE EFFECTIVE AND EASY            |

As a global leader, it is our obligation to keep pushing the boundaries of what the market can expect. In our business there are **five cornerstones** that must be in place in order to meet customer expectations:



QUALITY



INNOVATION



RELIABILITY



SUSTAINABILITY



CUSTOMER SERVICE

[www.avkuk.co.uk](http://www.avkuk.co.uk)

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Expect... **AVK**