

Polyethylene Pipe & Fittings Systems

2019



Polyethylene Pipe Range

Compression, Threaded Fittings and Valves

Mechanical Tapping Saddles

Electrofusion Fittings

Spigot Fittings for Butt & Electrofusion

HDPE Pipe & Fittings

Tools & Accessories



Our Strength. Our Commitment. Our Australian Footprint.

Vinidex Pty Limited is Australia's leading manufacturer and supplier of quality PVC pipe, PE pipe and PP pipe systems and solutions for the transportation of fluid, data and energy.

From humble beginnings in 1960, Vinidex has grown to become Australia's leading plastic pipes systems company. The company now has nine manufacturing plants and eleven distribution centres across Australia. Vinidex has products and systems solutions for a broad range of applications including plumbing, water supply, waste management, stormwater and drainage, mining, industrial, rural, irrigation, electrical, telecommunications and gas.

Proven long term performance and reliability of Vinidex products in major infrastructure and building projects has resulted in ongoing substitution of traditional materials such as metals, earthenware, concrete and fibre cement with better performing plastic pipes.

Vinidex is renowned for a commitment to technical advancement and product innovation. Our continuous evaluation programs examine new materials, processing technology and manufacturing equipment to ensure our continued high standard in the pipes and fittings industry.

Vinidex is recognised internationally as a major participant in the pipe industry. We are represented and participate in Australian and ISO standards committees, Australian and International pipe associations and the pipe industry generally. Our technologies and products are used in Europe, the USA and Africa. We have an ongoing presence in international developments in product and services to this industry.

As part of the world wide Aliaxis Group of companies Vinidex provides products, access to international technologies and innovative solutions that are world class. The Aliaxis Group is a leading global manufacturer and distributor of plastic pipe systems, present in over 40 countries, has more than 100 commercial entities and employs over 15,000 people.

At every level of Vinidex you will find a genuine commitment from our staff to exceed expectations and ensure that you are satisfied with the overall experience. We offer a total solutions service from supply, technical and design assistance right through to installation, testing and evaluation.

Having built an enviable reputation in Australia and supported by an emphasis on product quality and customer service, Vinidex will continue to lead the industry in the development, manufacture and delivery of plastic pipeline and conduit systems.

Vinidex adds value to our customers' businesses with:

- Broad product range
- Product quality
- Material efficient products
- Australia wide distribution services
- Technical support
- Environmental products and services in recycling
- Industry Association corporate involvement
- Leading environmental performance

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Polyethylene

The pipe material for the next generation

First used in Australia in the mid 1960's, Polyethylene (PE) pipe is the perfect choice for a wide range of demanding applications. These include potable water distribution, gas distribution, irrigation & agriculture, industrial and mining, force mains and other critical applications where a tough, ductile material is needed to assure long term performance.

Listed below are some of the benefits of PE Pipe :



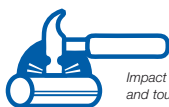
Wear resistant – lower costs due to relatively long life



Chemical resistant



Light in weight – reduced transport and handling costs



Impact resistant and tough



Smooth internal wall – low blockage risk



Recyclable – environmentally friendly

PE-HD



Elastic



Insulating – non conductive

Vinidex
by aliaxis

Philmac

The connection you can trust.

FRIATEC

NTG
PLASTIK

okatherm



Polyethylene Pipe



HIGH IMPACT STRENGTH

Compared with other materials ensures a greater resistance to the rigours of pipe laying conditions.

ABRASION RESISTANCE

Excellent abrasion resistance providing long life in abrasive slurry applications. In most applications PE pipe outlasts other pipe materials such as mild steel and rubber lined steel.

CHEMICAL RESISTANCE

Outstanding resistance to a wide range of chemical reagents allows the use of polyethylene systems in applications such as: Tailings pipelines and chemical treatment applications used in mining operations.

FLEXIBILITY

PE pipes are flexible and can be bent from 12 times diameter to 65 times diameter, depending upon SDR. This flexibility is critical in applications such as submarine pipe lines, mine subsidence and earthquake prone areas. This inherent resiliency and flexibility allows the pipe to absorb surge pressures, vibration and stresses caused by soil movement.

EASE OF INSTALLATION

PE pipes are easy to install with their light weight and long lengths. Polyethylene coiled pipes are widely used in applications such as stock watering, irrigation systems, communications, gas and reticulated water mains due to rapid installation and the easy and less frequent jointing.

APPLICATIONS

PE pipes are used in a wide range of applications, including water supply, gas, irrigation, sewerage, rural, industrial, mining and conduit applications. For information regarding the correct selection, specification, design and installation of PE pipes for a specific end use, please refer to Australian Standards and the Vinidex website.

HIGH FLOW CAPACITY

PE pipes have lower friction factors than most non-plastics materials, such as cementitious linings and fibre reinforced cement. The surface energy characteristics of PE ensure that material deposition is inhibited and the smooth bore characteristic is maintained over the working life of the pipeline.

WEATHERING RESISTANCE

PE pipes are stabilised against ultra violet (UV) light degradation by the inclusion of carbon black in the raw material. Black PE pipes are, therefore, suitable for installations where the pipes are exposed to direct sunlight.

CO-EXTRUSIONS

PE pipe is available in a range of identification colours that may be either coextruded as stripes or "jackets" that completely surround the pipe. Such colours include yellow, blue and purple. These pipes are coloured for identification purposes and conform with AS/NZS 4130. In addition, Vinidex produces coextruded pipes having a white jacket to minimise temperature rise when exposed to sunlight. These pipes, which are extensively used within the mining industry for example, are intended for use under exposure periods well in excess of those provided for by AS/NZS 4130.

LONG LIFE

Polyethylene pipes have a proven high reliability record across a wide range of industries and applications, now in excess of 50 years. PE also provides a long maintenance free lifetime with low whole life costs, compared to many other materials, as evidenced by the WSAA Polyethylene Pipeline Code, which predicts life well in excess of 100 years before major rehabilitation is required.

RURAL PLUS® PE100 PIPE

| Vinidex Code | Nominal Size mm x (inch) | Inside Diameter (mm) | Outside Diameter (mm) | Colour | PN | Min. Quantity | Length (m) | Approx. Weight (kg/length) |
|--------------|--------------------------|----------------------|-----------------------|---------------------|----|---------------|------------|----------------------------|
| 22577 | 19 (¾) | 19 | 22.4 | Black/Green Stripes | 8 | 1 | 50 | 4.7 |
| 22580 | 19 (¾) | 19 | 22.4 | Black/Green Stripes | 8 | 1 | 200 | 18.8 |
| 22637 | 25 (1) | 25.3 | 28.9 | Black/Green Stripes | 8 | 1 | 50 | 7 |
| 22640 | 25 (1) | 25.3 | 28.9 | Black/Green Stripes | 8 | 1 | 200 | 28.2 |
| 22697 | 32 (1¼) | 31.6 | 36 | Black/Green Stripes | 8 | 1 | 50 | 10.5 |
| 22700 | 32 (1¼) | 31.6 | 36 | Black/Green Stripes | 8 | 2 | 150 | 31.3 |
| 22758 | 40 (1½) | 38 | 43.2 | Black/Green Stripes | 8 | 1 | 50 | 15.2 |
| 22760 | 40 (1½) | 38 | 43.2 | Black/Green Stripes | 8 | 2 | 150 | 45.5 |
| 22780 | 40 (1½) | 38 | 43.2 | Black/Green Stripes | 8 | 2 | 300 | 91 |
| 22828 | 50 (2) | 50.8 | 57.6 | Black/Green Stripes | 8 | 1 | 50 | 26.4 |
| 22830 | 50 (2) | 50.8 | 57.6 | Black/Green Stripes | 8 | 2 | 100 | 54.5 |
| 22840 | 50 (2) | 50.8 | 57.6 | Black/Green Stripes | 8 | 1 | 200 | 109 |
| 22841 | 50 (2) | 50.8 | 57.6 | Black/Green Stripes | 8 | 1 | 500 | 272.4 |

| Size | Length (m) | Comments | COIL DIMENSIONS (APPROX) | | |
|---------------|----------------|-------------------|--------------------------|---------|------------|
| | | | ID (mm) | OD (mm) | WIDTH (mm) |
| ¾" | 200 | | 600 | 940 | 250 |
| 1" | 200 | | 730 | 1180 | 240 |
| 1¼" - EZYNEST | 150 - INNER | EZY-NEST | 850 | 1300 | 270 |
| | 150 - OUTER | | 1330 | 1660 | 270 |
| 1½" - EZYNEST | 300 - INNER | EZY-NEST | 1350 | 1900 | 270 |
| | 300 - OUTER | | 1940 | 2400 | 270 |
| 1½" - EZYNEST | 150 - INNER | EZY-NEST | 1000 | 1530 | 270 |
| | 150 - OUTER | | 1580 | 1980 | 270 |
| 1½" - EZYNEST | 300 - INNER | EZY-NEST | 1120 | 1830 | 320 |
| | 300 - OUTER | | 1870 | 2400 | 320 |
| 2" - EZYNEST | 100 - INNER | EZY-NEST | 1350 | 1840 | 270 |
| | 100 - OUTER | | 1870 | 2300 | 270 |
| 2" | 200 - STANDARD | Made to nest | 1600 | 2400 | 270 |
| | 200 - OUTER | <Townsville only> | 2450 | 3050 | 270 |

AQUAPOL100 PE100 Rural Pipe (WA ONLY)

| Size | Min QTY | PN Rating | PE Rating | Description | Length (m) | Code |
|------|---------|-----------|-----------|-----------------------------------|------------|-------|
| 1" | 1 | PN 10 | PE100 | 1" Aquapol100 PN10 PE100 200m | 200 | 22643 |
| 1¼" | 1 | PN 10 | PE100 | 1 1/4" Aquapol100 PN10 PE100 150m | 150 | 22813 |
| 1½" | 1 | PN 10 | PE100 | 1 1/2" Aquapol100 PN10 PE100 150m | 150 | 22814 |
| 1½" | 1 | PN 10 | PE100 | 1 1/2" Aquapol100 PN10 PE100 300m | 300 | 22810 |
| 2" | 1 | PN 10 | PE100 | 2" Aquapol100 PN10 PE100 100m | 100 | 22817 |
| 2" | 1 | PN 10 | PE100 | 2" Aquapol100 PN10 PE100 200m | 200 | 22818 |

PE100 AS4130 BLUE STRIPE - SDR21 PN8

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|-------------------------------------|-----------------------|----------------------|------------|
| 26930 | 50 SDR21 PN8 PE100 Blue Stripe 150m | 50 | Blue Stripe | 150 |
| 26931 | 50 SDR21 PN8 PE100 Blue Stripe 300m | 50 | Blue Stripe | 300 |
| 26939 | 63 SDR21 PN8 PE100 Blue Stripe 100m | 63 | Blue Stripe | 100 |
| 26941 | 63 SDR21 PN8 PE100 Blue Stripe 200m | 63 | Blue Stripe | 200 |
| 26912 | 75 SDR21 PN8 PE100 Blue Stripe 200m | 75 | Blue Stripe | 200 |

PE100 AS4130 BLUE STRIPE - SDR17 PN10

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|--------------------------------------|-----------------------|----------------------|------------|
| 26932 | 50 SDR17 PN10 PE100 Blue Stripe 150m | 50 | Blue Stripe | 150 |
| 26902 | 63 SDR17 PN10 PE100 Blue Stripe 100m | 63 | Blue Stripe | 100 |

PE100 AS4130 BLUE STRIPE - SDR13.6 PN12.5

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|---|-----------------------|----------------------|------------|
| 26942 | 20 SDR13.6 PN12.5 PE100 Blue Stripe 50m | 20 | Blue Stripe | 50 |
| 26943 | 20 SDR13.6 PN12.5 PE100 Blue Stripe 200m | 20 | Blue Stripe | 200 |
| 26918 | 25 SDR13.6 PN12.5 PE100 Blue Stripe 25m | 25 | Blue Stripe | 25 |
| 26919 | 25 SDR13.6 PN12.5 PE100 Blue Stripe 50m | 25 | Blue Stripe | 50 |
| 26920 | 25 SDR13.6 PN12.5 PE100 Blue Stripe 200m | 25 | Blue Stripe | 200 |
| 26945 | 32 SDR13.6 PN12.5 PE100 Blue Stripe 25m | 32 | Blue Stripe | 25 |
| 26923 | 32 SDR13.6 PN12.5 PE100 Blue Stripe 50m | 32 | Blue Stripe | 50 |
| 26924 | 32 SDR13.6 PN12.5 PE100 Blue Stripe 200m | 32 | Blue Stripe | 200 |
| 26947 | 40 SDR13.6 PN12.5 PE100 Blue Stripe 25m | 40 | Blue Stripe | 25 |
| 26927 | 40 SDR13.6 PN12.5 PE100 Blue Stripe 50m | 40 | Blue Stripe | 50 |
| 26896 | 40 SDR13.6 PN12.5 PE100 Blue Stripe 150m | 40 | Blue Stripe | 150 |
| 26934 | 50 SDR13.6 PN12.5 PE100 Blue Stripe 50m | 50 | Blue Stripe | 50 |
| 26935 | 50 SDR13.6 PN12.5 PE100 Blue Stripe 150m | 50 | Blue Stripe | 150 |
| 26949 | 63 SDR13.6 PN12.5 PE100 Blue Stripe 6m | 63 | Blue Stripe | 6 |
| 26906 | 63 SDR13.6 PN12.5 PE100 Blue Stripe 50m | 63 | Blue Stripe | 50 |
| 27323 | 63 SDR13.6 PN12.5 PE100 Blue Stripe 100m | 63 | Blue Stripe | 100 |
| 26900 | 75 SDR13.6 PN12.5 PE100 Blue Stripe 100m | 75 | Blue Stripe | 100 |
| 26977 | 90 SDR13.6 PN12.5 PE100 Blue Stripe 12m | 90 | Blue Stripe | 12 |
| 22205 | 90 SDR13.6 PN12.5 PE100 Blue Stripe 100m | 90 | Blue Stripe | 100 |
| 26980 | 110 SDR13.6 PN12.5 PE100 Blue Stripe 12m | 110 | Blue Stripe | 12 |
| 22209 | 110 SDR13.6 PN12.5 PE100 Blue Stripe 100m | 110 | Blue Stripe | 100 |
| 26984 | 125 SDR13.6 PN12.5 PE100 Blue Stripe 12m | 125 | Blue Stripe | 12 |
| 22203 | 125 SDR13.6 PN12.5 PE100 Blue Stripe 100m | 125 | Blue Stripe | 100 |
| 26844 | 180 SDR13.6 PN12.5 PE100 Blue Stripe 12m | 180 | Blue Stripe | 12 |

PE100 AS4130 BLUE STRIPE - SDR11 PN16

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|---------------------------------------|-----------------------|----------------------|------------|
| 27020 | 16 SDR11 PN16 PE100 Blue Stripe 50m | 16 | Blue Stripe | 50 |
| 27021 | 16 SDR11 PN16 PE100 Blue Stripe 300m | 16 | Blue Stripe | 300 |
| 27063 | 25 SDR11 PN16 PE100 Blue Stripe 6m | 25 | Blue Stripe | 6 |
| 26921 | 25 SDR11 PN16 PE100 Blue Stripe 50m | 25 | Blue Stripe | 50 |
| 22440 | 25 SDR11 PN16 PE100 Blue Stripe 100m | 25 | Blue Stripe | 100 |
| 26922 | 25 SDR11 PN16 PE100 Blue Stripe 200m | 25 | Blue Stripe | 200 |
| 27061 | 32 SDR11 PN16 PE100 Blue Stripe 6m | 32 | Blue Stripe | 6 |
| 26925 | 32 SDR11 PN16 PE100 Blue Stripe 50m | 32 | Blue Stripe | 50 |
| 26926 | 32 SDR11 PN16 PE100 Blue Stripe 200m | 32 | Blue Stripe | 200 |
| 26960 | 40 SDR11 PN16 PE100 Blue Stripe 6m | 40 | Blue Stripe | 6 |
| 25249 | 40 SDR11 PN16 PE100 Blue Stripe 50m | 40 | Blue Stripe | 50 |
| 26929 | 40 SDR11 PN16 PE100 Blue Stripe 150m | 40 | Blue Stripe | 150 |
| 27060 | 50 SDR11 PN16 PE100 Blue Stripe 6m | 50 | Blue Stripe | 6 |
| 26936 | 50 SDR11 PN16 PE100 Blue Stripe 50m | 50 | Blue Stripe | 50 |
| 26938 | 50 SDR11 PN16 PE100 Blue Stripe 150m | 50 | Blue Stripe | 150 |
| 27062 | 63 SDR11 PN16 PE100 Blue Stripe 6m | 63 | Blue Stripe | 6 |
| 27301 | 63 SDR11 PN16 PE100 Blue Stripe 50m | 63 | Blue Stripe | 50 |
| 26909 | 63 SDR11 PN16 PE100 Blue Stripe 100m | 63 | Blue Stripe | 100 |
| 26954 | 75 SDR11 PN16 PE100 Blue Stripe 6m | 75 | Blue Stripe | 6 |
| 26955 | 90 SDR11 PN16 PE100 Blue Stripe 6m | 90 | Blue Stripe | 6 |
| 22206 | 90 SDR11 PN16 PE100 Blue Stripe 100m | 90 | Blue Stripe | 100 |
| 26956 | 110 SDR11 PN16 PE100 Blue Stripe 6m | 110 | Blue Stripe | 6 |
| 27348 | 110 SDR11 PN16 PE100 Blue Stripe 12m | 110 | Blue Stripe | 12 |
| 22210 | 110 SDR11 PN16 PE100 Blue Stripe 100m | 110 | Blue Stripe | 100 |
| 26841 | 125 SDR11 PN16 PE100 Blue Stripe 6m | 125 | Blue Stripe | 6 |
| 26660 | 125 SDR11 PN16 PE100 Blue Stripe 12m | 125 | Blue Stripe | 12 |
| 28893 | 125 SDR11 PN16 PE100 Blue Stripe 100m | 125 | Blue Stripe | 100 |
| 26661 | 160 SDR11 PN16 PE100 Blue Stripe 12m | 160 | Blue Stripe | 12 |
| 26842 | 180 SDR11 PN16 PE100 Blue Stripe 6m | 180 | Blue Stripe | 6 |
| 26573 | 180 SDR11 PN16 PE100 Blue Stripe 12m | 180 | Blue Stripe | 12 |
| 22245 | 250 SDR11 PN16 PE100 Blue Stripe 12m | 250 | Blue Stripe | 12 |
| 22231 | 280 SDR11 PN16 PE100 Blue Stripe 12m | 280 | Blue Stripe | 12 |
| 25331 | 355 SDR11 PN16 PE100 Blue Stripe 12m | 355 | Blue Stripe | 12 |

PE100 AS4130 BLACK - SDR41 PN4

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|-------------------------------|-----------------------|----------------------|------------|
| 27589 | 160 SDR41 PN4 PE100 Black 12m | 160 | Black | 12 |
| 28453 | 200 SDR41 PN4 PE100 Black 12m | 200 | Black | 12 |
| 26574 | 225 SDR41 PN4 PE100 Black 12m | 225 | Black | 12 |
| 27014 | 250 SDR41 PN4 PE100 Black 12m | 250 | Black | 12 |
| 27856 | 280 SDR41 PN4 PE100 Black 12m | 280 | Black | 12 |
| 26598 | 315 SDR41 PN4 PE100 Black 12m | 315 | Black | 12 |
| 26604 | 355 SDR41 PN4 PE100 Black 12m | 355 | Black | 12 |
| 24498 | 400 SDR41 PN4 PE100 Black 12m | 400 | Black | 12 |
| 26616 | 450 SDR41 PN4 PE100 Black 12m | 450 | Black | 12 |
| 26622 | 500 SDR41 PN4 PE100 Black 12m | 500 | Black | 12 |
| 26628 | 560 SDR41 PN4 PE100 Black 12m | 560 | Black | 12 |
| 26633 | 630 SDR41 PN4 PE100 Black 12m | 630 | Black | 12 |

PE100 AS4130 BLACK - SDR21 PN8

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|--------------------------------|-----------------------|----------------------|------------|
| 27079 | 40 SDR21 PN8 PE100 Black 150m | 40 | Black | 150 |
| 26847 | 50 SDR21 PN8 PE100 Black 800m | 50 | Black | 800 |
| 26848 | 63 SDR21 PN8 PE100 Black 500m | 63 | Black | 500 |
| 26828 | 75 SDR21 PN8 PE100 Black 100m | 75 | Black | 100 |
| 27389 | 75 SDR21 PN8 PE100 Black 200m | 75 | Black | 200 |
| 26849 | 75 SDR21 PN8 PE100 Black 300m | 75 | Black | 300 |
| 26829 | 90 SDR21 PN8 PE100 Black 100m | 90 | Black | 100 |
| 26850 | 90 SDR21 PN8 PE100 Black 200m | 90 | Black | 200 |
| 26124 | 110 SDR21 PN8 PE100 Black 100m | 110 | Black | 100 |
| 26564 | 160 SDR21 PN8 PE100 Black 12m | 160 | Black | 12 |
| 26582 | 225 SDR21 PN8 PE100 Black 12m | 225 | Black | 12 |
| 26588 | 250 SDR21 PN8 PE100 Black 12m | 250 | Black | 12 |
| 26600 | 315 SDR21 PN8 PE100 Black 12m | 315 | Black | 12 |
| 26606 | 355 SDR21 PN8 PE100 Black 12m | 355 | Black | 12 |

PE100 AS4130 BLACK - SDR17 PN10

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|---------------------------------|-----------------------|----------------------|------------|
| 27593 | 40 SDR17 PN10 PE100 Black 150m | 40 | Black | 150 |
| 27594 | 50 SDR17 PN10 PE100 Black 150m | 50 | Black | 150 |
| 27326 | 63 SDR17 PN10 PE100 Black 100m | 63 | Black | 100 |
| 26833 | 75 SDR17 PN10 PE100 Black 100m | 75 | Black | 100 |
| 26540 | 90 SDR17 PN10 PE100 Black 12m | 90 | Black | 12 |
| 26549 | 90 SDR17 PN10 PE100 Black 100m | 90 | Black | 100 |
| 26546 | 110 SDR17 PN10 PE100 Black 12m | 110 | Black | 12 |
| 27548 | 110 SDR17 PN10 PE100 Black 100m | 110 | Black | 100 |
| 26553 | 125 SDR17 PN10 PE100 Black 12m | 125 | Black | 12 |
| 26559 | 140 SDR17 PN10 PE100 Black 12m | 140 | Black | 12 |
| 26565 | 160 SDR17 PN10 PE100 Black 12m | 160 | Black | 12 |
| 26571 | 180 SDR17 PN10 PE100 Black 12m | 180 | Black | 12 |
| 26577 | 200 SDR17 PN10 PE100 Black 12m | 200 | Black | 12 |
| 26583 | 225 SDR17 PN10 PE100 Black 12m | 225 | Black | 12 |
| 26589 | 250 SDR17 PN10 PE100 Black 12m | 250 | Black | 12 |
| 26595 | 280 SDR17 PN10 PE100 Black 12m | 280 | Black | 12 |
| 26601 | 315 SDR17 PN10 PE100 Black 12m | 315 | Black | 12 |
| 26607 | 355 SDR17 PN10 PE100 Black 12m | 355 | Black | 12 |
| 26613 | 400 SDR17 PN10 PE100 Black 12m | 400 | Black | 12 |
| 26619 | 450 SDR17 PN10 PE100 Black 12m | 450 | Black | 13 |
| 26625 | 500 SDR17 PN10 PE100 Black 12m | 500 | Black | 14 |
| 26631 | 560 SDR17 PN10 PE100 Black 12m | 560 | Black | 15 |
| 26636 | 630 SDR17 PN10 PE100 Black 12m | 630 | Black | 12 |

PE100 AS4130 BLACK - SDR13.6 PN12.5

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|-------------------------------------|-----------------------|----------------------|------------|
| 25633 | 63 SDR13.6 PN12.5 PE100 Black 6m | 63 | Black | 6 |
| 27322 | 63 SDR13.6 PN12.5 PE100 Black 100m | 63 | Black | 100 |
| 26547 | 110 SDR13.6 PN12.5 PE100 Black 12m | 110 | Black | 12 |
| 23602 | 110 SDR13.6 PN12.5 PE100 Black 100m | 110 | Black | 100 |
| 26554 | 125 SDR13.6 PN12.5 PE100 Black 12m | 125 | Black | 12 |
| 25555 | 125 SDR13.6 PN12.5 PE100 Black 100m | 125 | Black | 100 |
| 26566 | 160 SDR13.6 PN12.5 PE100 Black 12m | 160 | Black | 12 |
| 26572 | 180 SDR13.6 PN12.5 PE100 Black 12m | 180 | Black | 12 |
| 26578 | 200 SDR13.6 PN12.5 PE100 Black 12m | 200 | Black | 12 |
| 26590 | 250 SDR13.6 PN12.5 PE100 Black 12m | 250 | Black | 12 |
| 26602 | 315 SDR13.6 PN12.5 PE100 Black 12m | 315 | Black | 12 |
| 26614 | 400 SDR13.6 PN12.5 PE100 Black 12m | 400 | Black | 12 |

PE100 AS4130 BLACK - SDR11 PN16

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|---------------------------------|-----------------------|----------------------|------------|
| 26892 | 40 SDR11 PN16 PE100 Black 150m | 40 | Black | 150 |
| 27309 | 50 SDR11 PN16 PE100 Black 150m | 50 | Black | 150 |
| 27327 | 63 SDR11 PN16 PE100 Black 100m | 63 | Black | 100 |
| 27382 | 75 SDR11 PN16 PE100 Black 100m | 75 | Black | 100 |
| 26542 | 90 SDR11 PN16 PE100 Black 12m | 90 | Black | 12 |
| 26663 | 90 SDR11 PN16 PE100 Black 100m | 90 | Black | 100 |
| 26548 | 110 SDR11 PN16 PE100 Black 12m | 110 | Black | 12 |
| 27505 | 110 SDR11 PN16 PE100 Black 60m | 110 | Black | 60 |
| 27556 | 110 SDR11 PN16 PE100 Black 100m | 110 | Black | 100 |
| 25560 | 125 SDR11 PN16 PE100 Black 100m | 125 | Black | 100 |
| 26567 | 160 SDR11 PN16 PE100 Black 12m | 160 | Black | 12 |
| 25554 | 180 SDR11 PN16 PE100 Black 12m | 180 | Black | 12 |
| 26579 | 200 SDR11 PN16 PE100 Black 12m | 200 | Black | 12 |
| 26585 | 225 SDR11 PN16 PE100 Black 12m | 225 | Black | 12 |
| 26591 | 250 SDR11 PN16 PE100 Black 12m | 250 | Black | 12 |
| 26597 | 280 SDR11 PN16 PE100 Black 12m | 280 | Black | 12 |
| 26603 | 315 SDR11 PN16 PE100 Black 12m | 315 | Black | 12 |
| 26609 | 355 SDR11 PN16 PE100 Black 12m | 355 | Black | 12 |
| 26615 | 400 SDR11 PN16 PE100 Black 12m | 400 | Black | 12 |
| 26621 | 450 SDR11 PN16 PE100 Black 12m | 450 | Black | 12 |
| 26627 | 500 SDR11 PN16 PE100 Black 12m | 500 | Black | 12 |
| 28034 | 560 SDR11 PN16 PE100 Black 12m | 560 | Black | 12 |
| 28891 | 630 SDR11 PN16 PE100 Black 12m | 630 | Black | 12 |

PE100 AS4130 GAS (YELLOW STRIPE) - SDR17

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|---------------------------------------|-----------------------|----------------------|------------|
| 22060 | 110 SDR17 GAS PE100 Yellow Stripe 12m | 110 | Yellow Stripe | 12 |
| 22054 | 160 SDR17 GAS PE100 Yellow Stripe 12m | 160 | Yellow Stripe | 12 |

PE100 AS4130 GAS (YELLOW STRIPE) - SDR11

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|--|-----------------------|----------------------|------------|
| 22363 | 16 SDR11 GAS PE100 Yellow Stripe 100m | 16 | Yellow Stripe | 100 |
| 22444 | 16 SDR11 GAS PE100 Yellow Stripe 400m | 16 | Yellow Stripe | 400 |
| 22365 | 20 SDR11 GAS PE100 Yellow Stripe 100m | 20 | Yellow Stripe | 100 |
| 22036 | 20 SDR11 GAS PE100 Yellow Stripe 200m | 20 | Yellow Stripe | 200 |
| 21994 | 25 SDR11 GAS PE100 Yellow Stripe 100m | 25 | Yellow Stripe | 100 |
| 22366 | 32 SDR11 GAS PE100 Yellow Stripe 50m | 32 | Yellow Stripe | 50 |
| 22367 | 32 SDR11 GAS PE100 Yellow Stripe 100m | 32 | Yellow Stripe | 100 |
| 22368 | 40 SDR11 GAS PE100 Yellow Stripe 100m | 40 | Yellow Stripe | 100 |
| 21995 | 40 SDR11 GAS PE100 Yellow Stripe 50m | 40 | Yellow Stripe | 50 |
| 22058 | 40 SDR11 GAS PE100 Yellow Stripe 150m | 40 | Yellow Stripe | 150 |
| 22369 | 50 SDR11 GAS PE100 Yellow Stripe 100m | 50 | Yellow Stripe | 100 |
| 22360 | 50 SDR11 GAS PE100 Yellow Stripe 7m | 50 | Yellow Stripe | 7 |
| 22361 | 63 SDR11 GAS PE100 Yellow Stripe 7m | 63 | Yellow Stripe | 7 |
| 21996 | 63 SDR11 GAS PE100 Yellow Stripe 50m | 63 | Yellow Stripe | 50 |
| 22032 | 63 SDR11 GAS PE100 Yellow Stripe 100m | 63 | Yellow Stripe | 100 |
| 22362 | 90 SDR11 GAS PE100 Yellow Stripe 7m | 90 | Yellow Stripe | 7 |
| 22371 | 90 SDR11 GAS PE100 Yellow Stripe 110m | 90 | Yellow Stripe | 110 |
| 22373 | 110 SDR11 GAS PE100 Yellow Stripe 6m | 110 | Yellow Stripe | 6 |
| 22105 | 110 SDR11 GAS PE100 Yellow Stripe 12m | 110 | Yellow Stripe | 12 |
| 22372 | 110 SDR11 GAS PE100 Yellow Stripe 110m | 110 | Yellow Stripe | 110 |
| 22027 | 125 SDR11 GAS PE100 Yellow Stripe 12m | 125 | Yellow Stripe | 12 |
| 22042 | 160 SDR11 GAS PE100 Yellow Stripe 12m | 160 | Yellow Stripe | 12 |
| 22115 | 180 SDR11 GAS PE100 Yellow Stripe 12m | 180 | Yellow Stripe | 12 |

PE100 AS4130 ATCO GAS (YELLOW STRIPE) - SDR11 (WA Only)

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|--|-----------------------|----------------------|------------|
| 22301 | 20 SDR11 ATCO GAS PE100 Yellow Stripe 200m | 20 | Yellow Stripe | 200 |
| 22302 | 40 SDR11 ATCO GAS PE100 Yellow Stripe 6m | 40 | Yellow Stripe | 6 |
| 22303 | 40 SDR11 ATCO GAS PE100 Yellow Stripe 100m | 40 | Yellow Stripe | 100 |
| 22304 | 63 SDR11 ATCO GAS PE100 Yellow Stripe 6m | 63 | Yellow Stripe | 6 |
| 22305 | 63 SDR11 ATCO GAS PE100 Yellow Stripe 100m | 63 | Yellow Stripe | 100 |

PE100 AS4130 GAS (YELLOW COEX) - SDR17 (WA Only)

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|-------------------------------------|-----------------------|----------------------|------------|
| 22080 | 110 SDR17 GAS PE100 Yellow Coex 50m | 110 | Yellow Coex | 50 |
| 28935 | 160 SDR17 GAS PE100 Yellow Coex 12m | 160 | Yellow Coex | 12 |

PE100 AS4130 RECYCLED/RECLAIMED WATER (PURPLE COEX) - SDR13.6 PN12.5

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|--|-----------------------|----------------------|------------|
| 22323 | 25 SDR13.6 PN12.5 PE100 Purple Coex 50m | 25 | Purple Coex | 50 |
| 28409 | 25 SDR13.6 PN12.5 PE100 Purple Coex 200m | 25 | Purple Coex | 200 |
| 28410 | 32 SDR13.6 PN12.5 PE100 Purple Coex 200m | 32 | Purple Coex | 200 |
| 28393 | 40 SDR13.6 PN12.5 PE100 Purple Coex 150m | 40 | Purple Coex | 150 |
| 28411 | 50 SDR13.6 PN12.5 PE100 Purple Coex 150m | 50 | Purple Coex | 150 |
| 28412 | 63 SDR13.6 PN12.5 PE100 Purple Coex 100m | 63 | Purple Coex | 100 |
| 28394 | 75 SDR13.6 PN12.5 PE100 Purple Coex 100m | 75 | Purple Coex | 100 |
| 28392 | 90 SDR13.6 PN12.5 PE100 Purple Coex 100m | 90 | Purple Coex | 100 |
| 28391 | 110 SDR13.6PN12.5 PE100 Purple Coex 100m | 110 | Purple Coex | 100 |
| 28396 | 160 SDR13.6PN12.5 PE100 Purple Coex 12m | 160 | Purple Coex | 12 |

PE100 AS4130 RECYCLED/RECLAIMED WATER (PURPLE COEX) - SDR11 PN16

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|--------------------------------------|-----------------------|----------------------|------------|
| 28675 | 25 SDR11 PN16 PE100 Purple Coex 50m | 25 | Purple Coex | 50 |
| 28676 | 25 SDR11 PN16 PE100 Purple Coex 200m | 25 | Purple Coex | 200 |
| 28681 | 32 SDR11 PN16 PE100 Purple Coex 200m | 32 | Purple Coex | 200 |

PE100 AS4130 RECYCLED/RECLAIMED WATER (PURPLE STRIPE) - SDR13.6 PN12.5

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|--|-----------------------|----------------------|------------|
| 25297 | 50 SDR13.6 PN12.5 PE100 Purple Stripe 150m | 50 | Purple Stripe | 150 |
| 25308 | 63 SDR13.6 PN12.5 PE100 Purple Stripe 100m | 63 | Purple Stripe | 100 |
| 25316 | 75 SDR13.6 PN12.5 PE100 Purple Stripe 100m | 75 | Purple Stripe | 100 |
| 25320 | 90 SDR13.6 PN12.5 PE100 Purple Stripe 100m | 90 | Purple Stripe | 100 |

PE100 AS4130 RECYCLED/RECLAIMED WATER (PURPLE STRIPE) - SDR11 PN16

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|---|-----------------------|----------------------|------------|
| 25311 | 63 SDR11 PN16 PE100 Purple Stripe 100m | 63 | Purple Stripe | 100 |
| 25391 | 125 SDR11 PN16 PE100 Purple Stripe 12m | 125 | Purple Stripe | 12 |
| 25328 | 125 SDR11 PN16 PE100 Purple Stripe 100m | 125 | Purple Stripe | 100 |
| 25411 | 160 SDR11 PN16 PE100 Purple Stripe 12m | 160 | Purple Stripe | 12 |
| 25322 | 180 SDR11 PN16 PE100 Purple Stripe 12m | 180 | Purple Stripe | 12 |
| 25395 | 280 SDR11 PN16 PE100 Purple Stripe 12m | 280 | Purple Stripe | 12 |
| 25431 | 315 SDR11 PN16 PE100 Purple Stripe 12m | 315 | Purple Stripe | 12 |
| 25346 | 355 SDR11 PN16 PE100 Purple Stripe 12m | 355 | Purple Stripe | 12 |

PE100 AS4130 (RED STRIPE)- SDR11 PN16

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|-------------------------------------|-----------------------|----------------------|------------|
| 25287 | 125 SDR11 PN16 PE100 Red Stripe 6m | 125 | Red Stripe | 6 |
| 25285 | 125 SDR11 PN16 PE100 Red Stripe 12m | 125 | Red Stripe | 12 |
| 28679 | 180 SDR11 PN16 PE100 Red Stripe 6m | 180 | Red Stripe | 6 |
| 28673 | 180 SDR11 PN16 PE100 Red Stripe 12m | 180 | Red Stripe | 12 |
| 25428 | 250 SDR11 PN16 PE100 Red Stripe 12m | 250 | Red Stripe | 12 |

PE100 AS4130 SEWERTECH (GREY INNER COEX AND STRIPE) - SDR21 PN8

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|-----------------------------------|-----------------------|----------------------|------------|
| 25807 | 160 SDR21 PN8 PE100 Sewertech 6m | 160 | Sewertech | 6 |
| 25802 | 160 SDR21 PN8 PE100 Sewertech 12m | 160 | Sewertech | 12 |
| 25801 | 250 SDR21 PN8 PE100 Sewertech 12m | 250 | Sewertech | 12 |
| 25800 | 315 SDR21 PN8 PE100 Sewertech 12m | 315 | Sewertech | 12 |

PE100 AS4130 (CREAM STRIPE) - SDR11 PN16

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|--|-----------------------|----------------------|------------|
| 25264 | 40 SDR11 PN16 PE100 Cream Stripe 150m | 40 | Cream Stripe | 150 |
| 25280 | 50 SDR11 PN16 PE100 Cream Stripe 150m | 50 | Cream Stripe | 150 |
| 25279 | 63 SDR11 PN16 PE100 Cream Stripe 100m | 63 | Cream Stripe | 100 |
| 25263 | 75 SDR11 PN16 PE100 Cream Stripe 100m | 75 | Cream Stripe | 100 |
| 25278 | 90 SDR11 PN16 PE100 Cream Stripe 100m | 90 | Cream Stripe | 100 |
| 25248 | 110 SDR11 PN16 PE100 Cream Stripe 12m | 110 | Cream Stripe | 12 |
| 25262 | 110 SDR11 PN16 PE100 Cream Stripe 100m | 110 | Cream Stripe | 100 |
| 25276 | 125 SDR11 PN16 PE100 Cream Stripe 12m | 125 | Cream Stripe | 12 |
| 25581 | 125 SDR11 PN16 PE100 Cream Stripe 100m | 125 | Cream Stripe | 100 |
| 25299 | 160 SDR11 PN16 PE100 Cream Stripe 12m | 160 | Cream Stripe | 12 |
| 28929 | 180 SDR11 PN16 PE100 Cream Stripe 12m | 180 | Cream Stripe | 12 |
| 25260 | 280 SDR11 PN16 PE100 Cream Stripe 12m | 280 | Cream Stripe | 12 |

HDPE COMMUNICATION (WHITE COEX) - SDR17 CLASS 6

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|---|-----------------------|----------------------|------------|
| 22952 | 63 SDR17 COMM CL6 HDPE White Coex 140m (PSA Item) | 63 | White Coex | 140 |

HDPE COMMUNICATION (WHITE COEX) - SDR13.6

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|---------------------------------------|-----------------------|----------------------|------------|
| 22965 | 63 SDR13.6 COMM HDPE White Coex 140m | 63 | White Coex | 140 |
| 22954 | 110 SDR13.6 COMM HDPE White Coex 100m | 110 | White Coex | 100 |

HDPE COMMUNICATION (WHITE COEX) - SDR12 CLASS 9

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|--|-----------------------|----------------------|------------|
| 22976 | 63 SDR12 COMM CL9 HDPE White Coex 140m (PSA Item) | 63 | White Coex | 140 |
| 22987 | 110 SDR12 COMM CL9 HDPE White Coex 100m (PSA Item) | 110 | White Coex | 100 |

HDPE ELECTRICAL (ORANGE COEX) - SDR13.6

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|--|-----------------------|----------------------|------------|
| 23008 | 50 SDR13.6 Elec HDPE Orange Coex 150m | 50 | Orange Coex | 150 |
| 23023 | 63 SDR13.6 ELEC HDPE Orange Coex 100m | 63 | Orange Coex | 100 |
| 22985 | 110 SDR13.6 Elec HDPE Orange Coex 100m | 110 | Orange Coex | 100 |
| 23021 | 125 SDR13.6 ELEC HDPE Orange Coex 100m | 125 | Orange Coex | 100 |
| 23068 | 140 SDR13.6 ELEC HDPE Orange Coex 100m | 140 | Orange Coex | 100 |
| 28952 | 160 SDR13.6 ELEC HDPE Orange Coex 12m | 160 | Orange Coex | 12 |
| 28753 | 180 SDR13.6 ELEC HDPE Orange Coex 12m | 180 | Orange Coex | 12 |

HDPE ELECTRICAL (ORANGE COEX) - SDR12 CLASS 9

| Code | Description | Outside Diameter (mm) | Colour/Configuration | Length (m) |
|-------|---|-----------------------|----------------------|------------|
| 22996 | 50 SDR12 ELEC CL9 HDPE Orange Coex 100m | 50 | Orange Coex | 100 |
| 22993 | 63 SDR12 ELEC CL9 HDPE Orange Coex 100m | 63 | Orange Coex | 100 |
| 22999 | 63 SDR12 ELEC CL9 HDPE Orange Coex 100m (WA Only) | 63 | Orange Coex | 100 |
| 23000 | 110 SDR12 ELEC CL9 HDPE Orange Coex 100m | 110 | Orange Coex | 100 |
| 23016 | 125 SDR12 ELEC CL9 HDPE Orange Coex 12m | 125 | Orange Coex | 12 |
| 23007 | 125 SDR12 ELEC CL9 HDPE Orange Coex 100m | 125 | Orange Coex | 100 |
| 22983 | 160 SDR12 ELEC CL9 HDPE Orange Coex 80m | 160 | Orange Coex | 80 |
| 22997 | 180 SDR12 ELEC CL9 HDPE Orange Coex 12m | 180 | Orange Coex | 12 |

VINIDEX CAPABILITY & PE100 POLYETHYLENE PIPE DIMENSIONS

VINIDEX CAPABILITY & PE100 POLYETHYLENE PIPE DIMENSIONS (Based on AS/NZS 4130:2009)

| Nom. Size DN | SDR 41 | | SDR 33 | | SDR 26 | | SDR 21 | | SDR 17 | | SDR 13.6 | | SDR 11 | | SDR 9 | | SDR 7.4 | |
|--------------|---------------------|----------------|---------------------|----------------|---------------------|----------------|---------------------|----------------|---------------------|----------------|---------------------|----------------|---------------------|----------------|---------------------|----------------|---------------------|----------------|
| | Min. Thickness (mm) | Mean I.D. (mm) | Min. Thickness (mm) | Mean I.D. (mm) | Min. Thickness (mm) | Mean I.D. (mm) | Min. Thickness (mm) | Mean I.D. (mm) | Min. Thickness (mm) | Mean I.D. (mm) | Min. Thickness (mm) | Mean I.D. (mm) | Min. Thickness (mm) | Mean I.D. (mm) | Min. Thickness (mm) | Mean I.D. (mm) | Min. Thickness (mm) | Mean I.D. (mm) |
| 16 | 1.6 | 13 | 1.6 | 13 | 1.6 | 13 | 1.6 | 13 | 1.6 | 13 | 1.6 | 13 | 1.6 | 13 | 1.6 | 12 | 2.2 | 11 |
| 20 | 1.6 | 17 | 1.6 | 17 | 1.6 | 17 | 1.6 | 17 | 1.6 | 17 | 1.6 | 17 | 1.6 | 17 | 1.6 | 15 | 2.8 | 14 |
| 25 | 1.6 | 22 | 1.6 | 22 | 1.6 | 22 | 1.6 | 22 | 1.6 | 22 | 1.9 | 21 | 2.3 | 20 | 2.8 | 19 | 3.5 | 18 |
| 32 | 1.6 | 29 | 1.6 | 29 | 1.6 | 29 | 1.6 | 29 | 1.9 | 28 | 2.4 | 27 | 2.9 | 26 | 3.6 | 24 | 4.4 | 23 |
| 40 | 1.6 | 37 | 1.6 | 37 | 1.6 | 37 | 1.9 | 36 | 2.4 | 35 | 3 | 34 | 3.7 | 32 | 4.5 | 31 | 5.5 | 28 |
| 50 | 1.6 | 47 | 1.6 | 47 | 2 | 46 | 2.4 | 45 | 3 | 44 | 3.7 | 42 | 4.6 | 40 | 5.6 | 38 | 6.9 | 35 |
| 63 | 1.6 | 60 | 2 | 59 | 2.4 | 58 | 3 | 57 | 3.8 | 55 | 4.7 | 53 | 5.8 | 51 | 7.1 | 48 | 8.6 | 45 |
| 75 | 1.9 | 71 | 2.3 | 70 | 2.9 | 69 | 3.6 | 67 | 4.5 | 66 | 5.5 | 63 | 6.8 | 61 | 8.4 | 58 | 10.3 | 53 |
| 90 | 2.2 | 86 | 2.8 | 84 | 3.5 | 83 | 4.3 | 81 | 5.4 | 78 | 6.6 | 76 | 8.2 | 73 | 10.1 | 69 | 12.3 | 65 |
| 110 | 2.7 | 105 | 3.4 | 103 | 4.3 | 101 | 5.3 | 99 | 6.6 | 96 | 8.1 | 93 | 10 | 89 | 12.3 | 84 | 15.1 | 78 |
| 125 | 3.1 | 119 | 3.9 | 117 | 4.8 | 115 | 6 | 113 | 7.4 | 110 | 9.2 | 106 | 11.4 | 101 | 14 | 96 | 17.1 | 89 |
| 140 | 3.5 | 133 | 4.3 | 131 | 5.4 | 129 | 6.7 | 126 | 8.3 | 123 | 10.3 | 118 | 12.7 | 114 | 15.7 | 108 | 19.2 | 99 |
| 160 | 4 | 152 | 4.9 | 150 | 6.2 | 148 | 7.7 | 144 | 9.5 | 140 | 11.8 | 136 | 14.6 | 130 | 17.9 | 123 | 21.9 | 114 |
| 180 | 4.4 | 171 | 5.5 | 169 | 6.9 | 166 | 8.6 | 163 | 10.7 | 158 | 13.3 | 153 | 16.4 | 145 | 20.1 | 138 | 24.6 | 128 |
| 200 | 4.9 | 190 | 6.2 | 188 | 7.7 | 184 | 9.6 | 180 | 11.9 | 175 | 14.7 | 170 | 18.2 | 162 | 22.4 | 154 | 27.3 | 143 |
| 225 | 5.5 | 215 | 6.9 | 211 | 8.6 | 207 | 10.8 | 203 | 13.4 | 198 | 16.6 | 191 | 20.5 | 183 | 25.1 | 173 | 30.8 | 161 |
| 250 | 6.2 | 238 | 7.7 | 235 | 9.6 | 230 | 11.9 | 225 | 14.8 | 219 | 18.4 | 212 | 22.7 | 203 | 27.9 | 192 | 34.2 | 179 |
| 280 | 6.9 | 267 | 8.6 | 263 | 10.7 | 258 | 13.4 | 253 | 16.4 | 246 | 20.6 | 238 | 25.4 | 228 | 31.3 | 215 | 38.3 | 200 |
| 315 | 7.7 | 300 | 9.7 | 296 | 12.1 | 290 | 15.0 | 285 | 18.7 | 278 | 23.2 | 268 | 28.6 | 256 | 35.2 | 242 | 43.0 | 226 |
| 355 | 8.7 | 338 | 10.9 | 333 | 13.6 | 328 | 16.9 | 320 | 21.1 | 311 | 26.1 | 301 | 32.2 | 289 | 39.6 | 273 | 48.5 | 255 |
| 400 | 9.8 | 380 | 12.3 | 376 | 15.3 | 370 | 19.1 | 362 | 23.7 | 351 | 29.4 | 340 | 36.3 | 326 | 44.7 | 307 | 54.6 | 287 |
| 450 | 11 | 429 | 13.8 | 422 | 17.2 | 415 | 21.5 | 406 | 26.7 | 395 | 33.1 | 382 | 40.9 | 366 | 50.2 | 347 | 61.5 | 322 |
| 500 | 12.3 | 476 | 15.3 | 470 | 19.1 | 462 | 23.9 | 452 | 29.6 | 440 | 36.8 | 424 | 45.4 | 407 | 55.8 | 385 | 67.6* | 360 |
| 560 | 13.7 | 534 | 17.2 | 526 | 21.4 | 518 | 26.7 | 506 | 33.2 | 494 | 41.2 | 475 | 50.8 | 455 | 62.5 | 431 | 75.7* | 403 |
| 630 | 15.4 | 600 | 19.3 | 592 | 24.1 | 582 | 30 | 570 | 37.3 | 554 | 46.3 | 535 | 57.2 | 512 | 70.3 | 485 | 85.1* | 454 |
| 710 | 17.4 | 676 | 21.8 | 667 | 27.2 | 656 | 33.9 | 641 | 42.1 | 624 | 52.2 | 603 | 64.5 | 578 | 79.3 | 546 | 96.0* | 512 |
| 800 | 19.6 | 762 | 24.5 | 752 | 30.6 | 739 | 38.1 | 723 | 47.4 | 704 | 58.8 | 679 | 72.5 | 651 | 89.3 | 616 | - | - |
| 900 | 22 | 858 | 27.6 | 846 | 34.4 | 831 | 42.9 | 814 | 53.5 | 791 | 66.2 | 765 | 81.7 | 732 | - | - | - | - |
| 1000 | 24.5 | 953 | 30.6 | 940 | 38.2 | 924 | 47.7 | 904 | 59.3 | 880 | 72.5 | 852 | 90.2 | 815 | - | - | - | - |

SDR = Standard Dimension Ratio (OD + min wall) I.D. = Internal Diameter * = calculated using Appendix D AS4130

PRESSURE CONVERSION CHART













| PN (Pressure Nominal) | SDR (Std Dim Ratio) (OD ÷ wall) | Metres Head of water m (H ₂ O) | Kilopascal kPa | Megapascal MPa | Foot Head of water ft (H ₂ O) | Pounds per square inch psi | Bar (gravity) Bar |
|-----------------------------|---------------------------------------|---|-------------------|-------------------|--|----------------------------------|----------------------|
| 4 | 41 | 41 | 400 | 0.40 | 134 | 58 | 4 |
| 6.3 | 26 | 65 | 630 | 0.63 | 211 | 92 | 6.3 |
| 8 | 21 | 82 | 800 | 0.80 | 268 | 116 | 8 |
| 10 | 17 | 102 | 1000 | 1.00 | 335 | 145 | 10 |
| 12.5 | 13.6 | 123 | 1250 | 1.25 | 419 | 182 | 12.5 |
| 16 | 11 | 163 | 1600 | 1.60 | 536 | 232 | 16 |
| 20 | 9 | 204 | 2000 | 2.00 | 669 | 290 | 20 |
| 25 | 7.4 | 255 | 2500 | 2.50 | 837 | 363 | 25 |

Note: Pressures only suitable for water at 20°C with 1.25 safety factor - gas/air require different factors

COMPARISON OF SDR & PRESSURE RATINGS (PN) FOR PE100 MATERIAL

| | | | | | | | |
|--------|--------|--------|--------|----------|--------|-------|---------|
| SDR 41 | SDR 26 | SDR 21 | SDR 17 | SDR 13.6 | SDR 11 | SDR 9 | SDR 7.4 |
| PN 4 | PN 6.3 | PN 8 | PN 10 | PN 12.5 | PN 16 | PN 20 | PN 25 |

IDENTIFICATION OF SERVICES

| | Application | Stripe or Coex Colour | Notes | AS4130 Colour Definition |
|---|---|-----------------------|---|---|
|  | Potable & Drinking Water | Blue (B41 Bluebell) | Typically used for potable water supply. Not to be used for recycled or reclaimed water | No darker than RAL5012 |
|  | General Purpose, Stormwater & Fabricated Fittings | Black | Typically used in general purpose, stormwater and for fabrication of fittings for other applications | 2.25% +/- 0.25% carbon black as in AS4131 |
|  | Gas - Town, Fuel and Coal Seam Gas | Yellow | Used extensively as either a striping or coex colour for identification of gas, fuel gas and coal seam gas | No darker than RAL1018 |
|  | Recycled/Reclaimed Water | Purple | Pipe for recycled/reclaimed water applications Branded as 'RECYCLED OR RECLAIMED WATER—DO NOT DRINK' WSAA specify - Striped for mains, striped or full coex for service lines | No lighter than RAL 310 70 15 No darker than RAL 330 40 40 |
|  | Fire Service | Red | Dedicated fire-extinguishing supply mains | Not Defined |
|  | Gravity Sewer | Light Grey | Typically used in gravity sewer applications - Vinidex Sewertech has light grey stripes and light grey inner coex for camera inspection | Not Defined |
|  | Sewer Rising Main | Cream | Dedicated for pressurised sewer applications and specified by WSAA Branding must contain word 'SEWAGE' | No lighter than RAL 310 70 15 No darker than RAL 330 40 40 |
|  | Communications and Above Ground Mining | White | Used to identify communication conduits and in mining to reduce heat load on above ground transfer lines | Not Defined |
|  | Electrical | Orange | Used to identify electrical conduits and services | Not Defined |
|  | Rainwater/Raw Water | Green | Used as a striping colour for rural water pipe. Used as a coex and with 'RAINWATER' branding for rainwater harvesting | Not Defined |
|  | Compressed Air (coex) | Blue (B41 Bluebell) | Same colour as the potable water, used as a full outer coex Branding will have deration applied as per PIPA POP002 | Not Defined |
|  | Compressed air (solid blue) | Dark Blue | The global PE100 blue colour to be used when making solid wall blue pipes. The only ISO9080 approved blue compounds are this colour | No lighter than RAL5005 |

12 & 20M STRAIGHT LENGTHS

| PE100 AS4130 BLACK 12m & 20m Straight Lengths (codes for reference only - check for availability) | | | | | | | | | | | | | | | | |
|---|-----------|-------|-------------|-------|-----------|-------|------------|-------|----------------|-------|------------|-------|-----------|-------|-------------|-------|
| Nominal OD (mm) | SDR41 PN4 | | SDR26 PN6.3 | | SDR21 PN8 | | SDR17 PN10 | | SDR13.6 PN12.5 | | SDR11 PN16 | | SDR9 PN20 | | SDR7.4 PN25 | |
| | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m |
| 110 | --- | --- | 26544 | 26528 | 26545 | 27551 | 26546 | 26551 | 26547 | 27549 | 26548 | 27552 | 26679 | 28926 | 26780 | --- |
| 125 | --- | --- | --- | --- | 26552 | 25557 | 26553 | --- | 26554 | --- | 26555 | 25583 | 27579 | --- | 26673 | --- |
| 140 | --- | --- | 26557 | 27581 | 27587 | --- | 26559 | 27582 | 26560 | --- | 26561 | 28420 | 27580 | --- | 27588 | --- |
| 160 | 27589 | 27585 | 26563 | 26680 | 26564 | 27584 | 26565 | 27684 | 26566 | 27685 | 26567 | 28437 | 28440 | 26681 | | 28447 |
| 180 | --- | --- | 26569 | 28423 | 26570 | 28927 | 26571 | 27583 | 26572 | 28427 | 25554 | 25556 | 26685 | 28928 | 26783 | --- |
| 200 | 28453 | 28452 | 26575 | 24464 | 26576 | 24462 | 26577 | 27734 | 26578 | 28425 | 26579 | 28438 | 28426 | 28429 | 26478 | --- |
| 225 | 26574 | 28448 | 26581 | 26682 | 26582 | 26683 | 26583 | 28431 | 26584 | 25558 | 26585 | 28432 | 26687 | 28434 | --- | 26586 |
| 250 | 27014 | 24497 | 26587 | 27790 | 26588 | 26666 | 26589 | 26667 | 26590 | 26668 | 26591 | 27796 | 26684 | 26688 | 26500 | --- |
| 280 | 27856 | 27805 | 26593 | 26690 | 26594 | 26665 | 26595 | 26691 | 26596 | 26692 | 26597 | 24502 | 26708 | 27797 | 28892 | 27807 |
| 315 | 26598 | 27802 | 26599 | 27798 | 26600 | 27799 | 26601 | 27800 | 26602 | 26694 | 26603 | 26706 | 26698 | 26689 | 22297 | 22298 |
| 355 | 26604 | 27803 | 26605 | 24505 | 26606 | 26697 | 26607 | 26695 | 26608 | 26696 | 26609 | 26703 | 26709 | 28416 | 25598 | 28461 |
| 400 | 24498 | 27801 | 26611 | 27012 | 26612 | 26704 | 26613 | 26669 | 26614 | 26701 | 26615 | 28439 | 24499 | 24477 | 26480 | 22295 |
| 450 | 26616 | 24547 | 26617 | 24509 | 26618 | 24526 | 26619 | 24527 | 26620 | 27976 | 26621 | 26834 | 26699 | 26700 | 26481 | 22257 |
| 500 | 26622 | 24548 | 26623 | 26677 | 26624 | 24540 | 26625 | 24532 | 26626 | 24506 | 26627 | 24534 | 24503 | 24551 | --- | --- |
| 560 | 26628 | --- | 26629 | 26747 | 26630 | 26754 | 26631 | 26648 | 26632 | 27804 | 28034 | 23603 | 23606 | 23604 | --- | --- |
| 630 | 26633 | 26756 | 26634 | 26789 | 26635 | 26790 | 26636 | 26744 | 26637 | 26651 | 28891 | 28895 | 28894 | 26761 | 28668 | --- |
| 710 | 26638 | 28098 | 26639 | --- | 26640 | 27391 | 26641 | 26650 | 26652 | 26678 | 26797 | --- | --- | --- | --- | --- |
| 800 | 26215 | 26216 | 26643 | --- | 26644 | --- | 24549 | 27392 | 24553 | --- | 24563 | --- | 26219 | --- | --- | --- |
| 900 | --- | --- | --- | --- | --- | --- | --- | 24545 | --- | --- | 26245 | --- | --- | --- | --- | --- |
| 1000 | 26645 | --- | 26646 | --- | 26647 | 26800 | --- | --- | 24486 | --- | --- | --- | --- | --- | --- | --- |

| PE100 AS4130 BLUE STRIPE 12m & 20m Straight Lengths (codes for reference only - check for availability) | | | | | | | | | | | | | | | | |
|---|-----------|-----|-------------|-----|-----------|-------|------------|-------|----------------|-------|------------|-------|-----------|-------|-------------|-------|
| Nominal OD (mm) | SDR41 PN4 | | SDR26 PN6.3 | | SDR21 PN8 | | SDR17 PN10 | | SDR13.6 PN12.5 | | SDR11 PN16 | | SDR9 PN20 | | SDR7.4 PN25 | |
| | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m |
| 110 | --- | --- | --- | --- | --- | --- | --- | 22258 | 26980 | --- | 27348 | 22214 | 27456 | --- | --- | 22430 |
| 125 | --- | --- | 27730 | --- | --- | --- | --- | 27732 | 26984 | --- | 26660 | | --- | --- | --- | --- |
| 140 | --- | --- | --- | --- | --- | 22228 | 26778 | | 26777 | --- | --- | 22584 | --- | --- | --- | --- |
| 160 | --- | --- | --- | --- | --- | 22220 | --- | 22281 | 26988 | 26901 | 26661 | 22232 | --- | 22221 | --- | 22431 |
| 180 | --- | --- | --- | --- | --- | --- | --- | --- | 26844 | 22276 | 26573 | 22586 | 26749 | --- | --- | --- |
| 200 | --- | --- | --- | --- | --- | 22222 | --- | 22251 | 22212 | 22216 | 22279 | 22259 | --- | --- | --- | --- |
| 225 | --- | --- | --- | --- | --- | 22223 | --- | 22282 | 26845 | 22252 | 22260 | 22261 | --- | 22270 | --- | 22432 |
| 250 | --- | --- | --- | --- | --- | 22224 | --- | 22208 | 25425 | 22253 | 22245 | 22262 | --- | 22271 | --- | 22433 |
| 280 | --- | --- | --- | --- | --- | --- | --- | 22283 | 22230 | 22233 | 22231 | 22263 | --- | --- | --- | 22434 |
| 315 | --- | --- | --- | --- | --- | 22226 | --- | 22284 | 26870 | 22219 | 22246 | 22234 | --- | 22239 | 22240 | 22244 |
| 355 | --- | --- | --- | --- | --- | 22229 | --- | 22256 | 26770 | 26775 | 25331 | 25835 | 25392 | --- | --- | --- |
| 400 | --- | --- | --- | --- | --- | 22237 | --- | 22285 | 26741 | 22217 | 22267 | 22235 | --- | 22272 | --- | 22435 |
| 450 | --- | --- | --- | --- | --- | 22238 | --- | 22286 | | | 22248 | 22264 | --- | 22273 | --- | 22436 |
| 500 | --- | --- | --- | --- | --- | --- | --- | 22287 | 26742 | 22218 | 22225 | 22236 | --- | --- | --- | 22437 |
| 560 | --- | --- | --- | --- | --- | --- | --- | 22288 | --- | 22254 | 25434 | 22265 | --- | 22274 | --- | 22438 |
| 630 | --- | --- | --- | --- | --- | --- | --- | 22289 | --- | 22255 | 22278 | 22266 | --- | 22275 | --- | --- |
| 710 | --- | --- | --- | --- | --- | --- | --- | 22290 | --- | 22293 | --- | 22296 | --- | --- | --- | --- |
| 800 | --- | --- | --- | --- | --- | --- | --- | 22291 | --- | --- | --- | --- | --- | --- | --- | --- |
| 900 | --- | --- | --- | --- | --- | --- | --- | 26254 | --- | --- | --- | --- | --- | --- | --- | --- |
| 1000 | --- | --- | --- | --- | --- | --- | --- | 26252 | --- | --- | --- | --- | --- | --- | --- | --- |

| PE100 AS4130 WHITE COEX 12m & 20m Straight Lengths (codes for reference only - check for availability) | | | | | | | | | | | | | | | | |
|--|-----------|-------|-------------|-------|-----------|-------|------------|-------|----------------|-------|------------|-------|-----------|-------|-------------|-------|
| Nominal OD (mm) | SDR41 PN4 | | SDR26 PN6.3 | | SDR21 PN8 | | SDR17 PN10 | | SDR13.6 PN12.5 | | SDR11 PN16 | | SDR9 PN20 | | SDR7.4 PN25 | |
| | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m | 12m | 20m |
| 110 | --- | --- | --- | 28828 | --- | --- | 28754 | 28772 | 28763 | 26519 | 28758 | 28771 | 28685 | --- | --- | --- |
| 125 | --- | --- | --- | --- | --- | 28765 | --- | --- | 28384 | --- | 28708 | --- | --- | --- | 28953 | --- |
| 140 | --- | --- | --- | --- | --- | --- | --- | --- | 28697 | 28733 | 28692 | --- | --- | --- | --- | --- |
| 160 | --- | --- | 28690 | 27717 | 28691 | 28736 | 28738 | 28773 | 28807 | 28674 | 28739 | 28774 | 27721 | 28799 | --- | --- |
| 180 | --- | --- | --- | --- | --- | 28752 | --- | --- | 28698 | 24495 | 28704 | 28795 | 27712 | 28937 | --- | --- |
| 200 | --- | --- | 28726 | 28750 | --- | 28745 | 28741 | 28749 | 28803 | 28734 | 28740 | 28744 | 28662 | 28809 | 28820 | 28816 |
| 225 | --- | --- | --- | 28760 | 28818 | 28813 | 28802 | 28815 | 28804 | 28817 | 28743 | 28819 | --- | --- | --- | --- |
| 250 | --- | --- | --- | 28761 | --- | 28825 | 28826 | 28827 | 28801 | 28829 | 28742 | 28831 | 28727 | 28832 | 28705 | 28833 |
| 280 | --- | --- | 26746 | 28835 | 24496 | 28837 | 28842 | 28839 | 28840 | 28841 | 24535 | 28843 | 28844 | 28845 | 28834 | 28731 |
| 315 | --- | --- | --- | 28847 | 28848 | 28849 | 28850 | 28851 | 28805 | 28853 | 28854 | 28855 | 28838 | 28846 | 28323 | 28324 |
| 355 | --- | --- | 28852 | 28859 | 28786 | 28861 | 28862 | 28863 | 28806 | 28865 | 28785 | 28867 | 28876 | 28869 | 28821 | 28900 |
| 400 | --- | 28897 | 28870 | 28871 | 28872 | 28873 | 28788 | 28875 | 28728 | 28877 | 28878 | 28879 | 28317 | 28326 | 28321 | 28322 |
| 450 | --- | --- | --- | 28830 | --- | 28824 | 28789 | 28354 | 28336 | 28337 | 28338 | 28339 | 28340 | 28341 | 28344 | 28342 |
| 500 | --- | --- | 28003 | 28880 | 28791 | 28343 | 28884 | 28811 | 28792 | 28798 | --- | 28061 | 28062 | 28063 | 28053 | 28059 |
| 560 | --- | --- | 28069 | 28064 | 28071 | --- | 28067 | 28066 | 28073 | 28065 | --- | 23607 | --- | 28072 | --- | --- |
| 630 | --- | --- | 28011 | 28925 | 28794 | 28932 | 28800 | 28810 | 28793 | 28882 | 28808 | 28814 | 28946 | 28943 | 28947 | --- |
| 710 | --- | --- | 28010 | --- | --- | 28729 | --- | 28812 | 28948 | --- | --- | --- | --- | --- | --- | --- |
| 800 | --- | --- | --- | --- | 28890 | 28888 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 900 | --- | --- | --- | --- | 26246 | 26247 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1000 | --- | --- | --- | --- | --- | 28380 | --- | 28381 | --- | --- | --- | --- | --- | --- | --- | --- |

PE100 Temperature Deration Table Maximum Allowable Operating Pressure - Head of Water (m)

| Temperature (°C) | T _{max} values | | PN4 | PN6.3 | PN8 | PN10 | PN12.5 | PN16 | PN20 | PN25 |
|------------------|--------------------------|------------------------|-------|-------|-------|-------|---------|-------|------|--------|
| | T _{max} (years) | Assumed min σLPL (Mpa) | SDR41 | SDR26 | SDR21 | SDR17 | SDR13.6 | SDR11 | SDR9 | SDR7.4 |
| 20 | 100 | ≥10.0 | 40 | 64 | 80 | 100 | 127 | 160 | 200 | 250 |
| 25 | 100 | ≥9.5 | 36 | 58 | 73 | 91 | 115 | 145 | 182 | 227 |
| 30 | 100 | ≥9.0 | 36 | 58 | 73 | 91 | 115 | 145 | 182 | 227 |
| 35 | (≥ 50) | ≥8.6 | 33 | 53 | 67 | 83 | 106 | 133 | 167 | 208 |
| 40 | (≥ 50) | ≥8.1 | 33 | 53 | 67 | 83 | 106 | 133 | 167 | 208 |
| 45 | (≥ 35) | ≥7.5 | 31 | 49 | 62 | 77 | 99 | 123 | 154 | 192 |
| 50 | (≥ 22) | ≥7.3 | 29 | 46 | 57 | 71 | 91 | 114 | 143 | 179 |
| 55 | (≥ 15) | ≥6.9 | 29 | 46 | 57 | 71 | 91 | 114 | 143 | 179 |
| 60 | (≥ 7) | ≥6.5 | 27 | 43 | 53 | 67 | 85 | 107 | 133 | 167 |
| 80 | (≥ 1) | ≥5.0 | 20 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |



Philmac[®]

Metric Compression Fittings

Proudly Australian Made for Australian Conditions

The Philmac range of metric compression fittings provides the ultimate solution in connecting blue line polyethylene pipelines for the movement of water from 16mm through to 110mm.

Proudly designed and manufactured right here in Australia, the Philmac range of metric compression fittings are sold successfully all over the world. Pre-assembled, ready to use and featuring Philmac's unique Slide & Tighten Technology, Philmac metric fittings make connecting metric poly pipe easier than ever before.



FAST AND EASY INSTALLATION

SLIDE & TIGHTEN® TECHNOLOGY

Philmac Metric Fittings incorporate all the benefits of Philmac's unique Slide & Tighten® technology. No pipe preparation is needed and no force is required to push the pipe past the seal, so installation couldn't be faster or easier. Simply insert the pipe into the fitting until the stop is felt, and then tighten the nut. Assembly is so easy you can even do it under live conditions. No special tools are required, and there is no need to disassemble the fitting before use because the Philmac Metric compression fitting is supplied pre-assembled and ready to use.

COMPACT DESIGN

The size of the Philmac Metric Fittings has been kept to a minimum, making the fitting ideal to use in confined areas. In addition to making connections with minimal turns of the nut, the design and size of the fitting means that in installations taking place between two fixed points, the manipulation of the pipe into the fitting becomes easy.

EASY DISASSEMBLY

The fitting has been designed so the grip ring is released as soon as the nut is backed off, making disassembly easy.

COMPLETE SECURITY

DYNAMIC SEALING METHOD

The mechanical advantage of the nut thread compresses the seal into position.

VISUAL STOP

The flange on the body of Philmac Metric Fittings provides a visual stop to indicate when the nut is fully tightened. This removes any uncertainty from the installation process.

NO LOOSE COMPONENTS

If the nut is removed there is no danger of losing components, as the grip ring and seal are retained in the fitting. Losing components in the trench becomes a thing of the past.

DESIGNED TO MINIMISE PIPE TWIST

The fitting has been designed to minimise pipe twist as the nut is tightened. Maximum pipe twist is approximately a quarter turn compared to one and a half turns with many other fittings. Pipe twist can impact on not only the connection you have just made but also on the connection at the other end of the line.

APPROVALS

Philmac Metric Fittings are WaterMark approved and carry a WSAA appraisal.

HIGH PERFORMANCE

MADE FROM ADVANCED THERMOPLASTIC MATERIALS

Philmac Metric Fittings are manufactured from lightweight high performance thermoplastic materials with outstanding impact, UV, chemical and corrosion resistance. The material is non-toxic and taint-free.

RATED TO 1600 kPa

Philmac Metric Fittings are pressure rated to 1600 kPa (PN16) to meet the needs of high pressure systems.

50 YEAR+ DESIGN LIFE

Built to withstand the toughest conditions to ensure longevity and durability.

COMPLETE COVERAGE

WIDE RANGE

The Philmac Metric Fittings range is comprehensive: straight and reducing joiners, tees, elbows, end connectors and caps ranging from 16mm to 110mm. Philmac Metric Fittings also incorporate a range of dedicated recycled water fittings and poly to copper connections for fast and simple connection to both PE and copper pipe.



Metric Compression Fittings



METRIC JOINERS Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|---------|---------|------------|--------------|----------|---------|
| 16 x 16 | 10 | 240 | 70711100 | 69060 | 91000 |
| 20 x 20 | 10 | 150 | 70712200 | 69062 | 91001 |
| 25 x 25 | 10 | 100 | 70713300 | 69064 | 91002 |
| 32 x 32 | 5 | 65 | 70714400 | 69066 | 91003 |
| 40 x 40 | 1 | 35 | 70715500 | 69068 | 91004 |
| 50 x 50 | 1 | 24 | 70716600 | 69070 | 91005 |
| 63 x 63 | 1 | 12 | 70717700 | - | 93825 |

METRIC LARGE BORE JOINERS Poly x Poly

| | | | | | |
|-----------|---|----|----------|-------|-------|
| 63 x 63 | 1 | 10 | 97817700 | 69072 | 91006 |
| 75 x 75 | 1 | 6 | 97818800 | 69074 | 91007 |
| 90 x 90 | 1 | 8 | 97819900 | 69076 | 91008 |
| 110 x 110 | 1 | 4 | 97810000 | 69078 | 91009 |

METRIC JOINER BODY

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|------|---------|------------|--------------|----------|---------|
| 16 | 1 | 400 | 70711101 | 84011 | 92088 |
| 20 | 1 | 300 | 99812201 | 84005 | 91010 |
| 25 | 1 | 200 | 99813301 | 84006 | 91011 |
| 32 | 1 | 100 | 99814401 | 84007 | 91012 |
| 40 | 1 | 50 | 99815501 | 84008 | 91013 |
| 50 | 1 | 40 | 99816601 | 84009 | 91014 |
| 63 | 1 | 24 | 97817701 | 71658 | 91015 |

METRIC SLIP JOINERS Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|---------|---------|------------|--------------|----------|---------|
| 20 x 20 | 1 | 90 | 70701220 | 69501 | 91016 |
| 25 x 25 | 1 | 70 | 70701330 | 69527 | 91017 |
| 32 x 32 | 1 | 60 | 70701440 | 69528 | 91018 |
| 40 x 40 | 1 | 35 | 70701550 | 69503 | 91019 |
| 50 x 50 | 1 | 20 | 70701660 | 69504 | 91020 |
| 63 x 63 | 1 | 10 | 97801770 | 69496 | 91021 |

METRIC REDUCING JOINERS Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|---------|---------|------------|--------------|----------|---------|
| 20 x 16 | 10 | 180 | 70712100 | 69082 | 91022 |
| 25 x 16 | 10 | 120 | 70713100 | 69084 | 91023 |
| 25 x 20 | 10 | 120 | 70713200 | 69086 | 91024 |
| 32 x 20 | 5 | 80 | 70714200 | 69088 | 91025 |
| 32 x 25 | 5 | 70 | 70714300 | 69090 | 91026 |
| 40 x 25 | 1 | 50 | 70715300 | 69092 | 91027 |
| 40 x 32 | 1 | 40 | 70715400 | 69094 | 91028 |
| 50 x 25 | 1 | 30 | 70716300 | 69096 | 91029 |
| 50 x 32 | 1 | 30 | 70716400 | 69098 | 91030 |
| 50 x 40 | 1 | 25 | 70716500 | 69100 | 91031 |
| 63 x 32 | 1 | 20 | 70717400 | - | 91270 |
| 63 x 40 | 1 | 20 | 70717500 | - | 91270 |
| 63 x 50 | 1 | 16 | 70717600 | - | 93824 |

METRIC LARGE BORE REDUCING JOINERS Poly x Poly

| | | | | | |
|----------|---|----|----------|-------------|-------|
| 63 x 32 | 1 | 20 | 97817400 | 69104 | 91032 |
| 63 x 40 | 1 | 17 | 97817500 | 69106 | 91033 |
| 63 x 50 | 1 | 16 | 97817600 | 69108 | 91034 |
| 75 x 63 | 1 | 6 | 97818700 | 69112 | 91035 |
| 90 x 63 | 1 | 8 | 97819700 | 69114/61592 | 91036 |
| 90 x 75 | 1 | 4 | 97819800 | 69116 | 91037 |
| 110 x 63 | 1 | 4 | 97810700 | 71521 | 91038 |
| 110 x 90 | 1 | 5 | 97810900 | 69120 | 91039 |



Metric Compression Fittings

METRIC END CONNECTORS Poly x MI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-------------|---------|------------|--------------|----------|---------|
| 16 x 1/2" | 10 | 360 | 70721100 | 68902 | 91053 |
| 16 x 3/4" | 10 | 360 | 70721200 | 68904 | 91054 |
| 20 x 1/2" | 10 | 240 | 70722100 | 68906 | 91055 |
| 20 x 3/4" | 10 | 240 | 70722200 | 68908 | 91056 |
| 20 x 1" | 10 | 220 | 70722300 | 68910 | 91057 |
| 25 x 1/2" | 10 | 150 | 70723100 | 68912 | 91058 |
| 25 x 3/4" | 10 | 150 | 70723200 | 68914 | 91059 |
| 25 x 1" | 10 | 150 | 70723300 | 68916 | 91060 |
| 32 x 3/4" | 5 | 90 | 70724200 | 68918 | 91061 |
| 32 x 1" | 5 | 90 | 70724300 | 68920 | 91062 |
| 32 x 1 1/4" | 5 | 90 | 70724400 | 68922 | 91063 |
| 32 x 1 1/2" | 5 | 85 | 70724500 | 68924 | 91064 |
| 40 x 1" | 1 | 55 | 70725300 | 68926 | 91065 |
| 40 x 1 1/4" | 1 | 55 | 70725400 | 68928 | 91066 |
| 40 x 1 1/2" | 1 | 55 | 70725500 | 68930 | 91067 |
| 40 x 2" | 1 | 50 | 70725600 | 68932 | 91068 |
| 50 x 1" | 1 | 35 | 70726300 | 68933 | 92060 |
| 50 x 1 1/4" | 1 | 35 | 70726400 | 68934 | 92061 |
| 50 x 1 1/2" | 1 | 35 | 70726500 | 68936 | 91071 |
| 50 x 2" | 1 | 32 | 70726600 | 68938 | 91072 |
| 63 x 1 1/2" | 1 | 24 | 70727500 | - | 93826 |
| 63 x 2" | 1 | 22 | 70727600 | - | 93827 |

METRIC LARGE BORE END CONNECTORS Poly x MI BSP

| | | | | | |
|-------------|---|----|----------|-------------|-------|
| 63 x 1 1/2" | 1 | 22 | 97827500 | 68942 | 91073 |
| 63 x 2" | 1 | 21 | 97827600 | 68944 | 91074 |
| 63 x 2 1/2" | 1 | 20 | 97827700 | 68946/61597 | 91075 |
| 75 x 2" | 1 | 18 | 97828600 | 68948 | 91076 |
| 75 x 2 1/2" | 1 | 15 | 97828700 | 68950 | 92062 |
| 75 x 3" | 1 | 9 | 97828800 | 68952 | 91077 |
| 90 x 2" | 1 | 14 | 97829600 | 68954 | 92063 |
| 90 x 3" | 1 | 14 | 97829800 | 68957 | 91078 |
| 90 x 4" | 1 | 14 | 97829900 | 68958 | 92064 |
| 110 x 2" | 1 | 4 | 97820600 | 68962 | 92065 |
| 110 x 3" | 1 | 4 | 97820800 | 68964 | 92066 |
| 110 x 4" | 1 | 4 | 97820900 | 68966 | 91079 |

METRIC END CONNECTORS Poly x FI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-------------|---------|------------|--------------|----------|---------|
| 16 x 1/2" | 10 | 230 | 70781100 | 68970 | 91080 |
| 16 x 3/4" | 10 | 230 | 70781200 | 68972 | 91081 |
| 20 x 1/2" | 10 | 230 | 70782100 | 68974 | 91082 |
| 20 x 3/4" | 10 | 220 | 70782200 | 68976 | 91083 |
| 20 x 1" | 10 | 180 | 70782300 | 68978 | 91084 |
| 25 x 1/2" | 10 | 150 | 70783100 | | 91085 |
| 25 x 3/4" | 10 | 150 | 70783200 | 68982 | 91086 |
| 25 x 1" | 10 | 130 | 70783300 | 68984 | 91087 |
| 32 x 3/4" | 5 | 80 | 70784200 | 68986 | 91088 |
| 32 x 1" | 5 | 80 | 70784300 | 68988 | 91089 |
| 32 x 1 1/4" | 5 | 75 | 70784400 | 68990 | 91090 |
| 40 x 1" | 1 | 50 | 70785300 | 68992 | 92067 |
| 40 x 1 1/4" | 1 | 50 | 70785400 | 68994 | 91092 |
| 40 x 1 1/2" | 1 | 50 | 70785500 | 68996 | 91093 |
| 50 x 1 1/4" | 1 | 35 | 70786400 | 68998 | 91094 |
| 50 x 1 1/2" | 1 | 35 | 70786500 | 69000 | 91095 |
| 50 x 2" | 1 | 35 | 70786600 | 69002 | 91096 |
| 63 x 2" | 1 | 20 | 70787600 | 69002 | 93819 |

METRIC LARGE BORE END CONNECTORS Poly x FI BSP

| | | | | | |
|-------------|---|----|----------|-------|-------|
| 63 x 2" | 1 | 23 | 97887600 | 69006 | 91097 |
| 75 x 2" | 1 | 13 | 97888600 | 69010 | 91098 |
| 75 x 2 1/2" | 1 | 13 | 97888700 | 69012 | 92068 |
| 90 x 2" | 1 | 14 | 97889600 | 69014 | 92069 |
| 90 x 3" | 1 | 14 | 97889800 | 69018 | 91099 |
| 110 x 3" | 1 | 8 | 97880800 | 69022 | 92070 |
| 110 x 4" | 1 | 8 | 97880900 | 69024 | 91100 |



Philmac Metric Compression Fittings

METRIC TEES Poly x Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|--------------|---------|------------|--------------|----------|---------|
| 16 x 16 x 16 | 10 | 130 | 70731100 | 69140 | 91101 |
| 20 x 20 x 20 | 10 | 90 | 70732200 | 69142 | 91102 |
| 25 x 25 x 25 | 5 | 50 | 70733300 | 69144 | 91103 |
| 32 x 32 x 32 | 5 | 30 | 70734400 | 69146 | 91104 |
| 40 x 40 x 40 | 1 | 18 | 70735500 | 69148 | 91105 |
| 50 x 50 x 50 | 1 | 12 | 70736600 | 69150 | 91106 |
| 63 x 63 x 63 | 1 | 8 | 70737700 | - | 93829 |

METRIC LARGE BORE TEES Poly x Poly x Poly

| | | | | | |
|-----------------|---|---|----------|-------|-------|
| 63 x 63 x 63 | 1 | 6 | 97837700 | 69152 | 91107 |
| 75 x 75 x 75 | 1 | 6 | 97838800 | 69154 | 91108 |
| 90 x 90 x 90 | 1 | 3 | 97839900 | 69156 | 91109 |
| 110 x 110 x 110 | 1 | 2 | 97830000 | 69158 | 91110 |

METRIC SLIP TEES Poly x Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|--------------|---------|------------|--------------|----------|---------|
| 20 x 20 x 20 | 1 | 60 | 70703220 | 68470 | 91111 |
| 25 x 25 x 25 | 1 | 50 | 70703330 | 68472 | 91112 |
| 32 x 32 x 32 | 1 | 25 | 70703440 | 68474 | 91113 |
| 40 x 40 x 40 | 1 | 18 | 70703550 | 68476 | 91114 |
| 50 x 50 x 50 | 1 | 10 | 70703660 | 68478 | 91115 |
| 63 x 63 x 63 | 1 | 7 | 70703770 | - | 91272 |

METRIC LARGE BORE SLIP TEES Poly x Poly x Poly

| | | | | | |
|--------------|---|---|----------|-------|-------|
| 63 x 63 x 63 | 1 | 6 | 97803770 | 68480 | 91116 |
|--------------|---|---|----------|-------|-------|

METRIC REDUCING TEES Poly x Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|--------------|---------|------------|--------------|----------|---------|
| 25 x 25 x 20 | 5 | 55 | 70733200 | 69160 | 91117 |
| 25 x 25 x 32 | 5 | 40 | 70733400 | 69172 | 91118 |
| 32 x 32 x 25 | 5 | 30 | 70734300 | 69162 | 91119 |
| 40 x 40 x 25 | 1 | 20 | 70735300 | 69163 | 91120 |
| 40 x 40 x 32 | 1 | 20 | 70735400 | 69164 | 91121 |
| 50 x 50 x 25 | 1 | 16 | 70736300 | 62804 | 91122 |
| 50 x 50 x 32 | 1 | 16 | 70736400 | 62805 | 91123 |
| 50 x 50 x 40 | 1 | 12 | 70736500 | 69166 | 91124 |
| 63 x 63 x 25 | 1 | 10 | 70737300 | - | 91274 |
| 63 x 63 x 32 | 1 | 10 | 70737400 | - | 91428 |
| 63 x 63 x 50 | 1 | 9 | 70737600 | - | 91429 |

METRIC LARGE BORE REDUCING TEES Poly x Poly x Poly

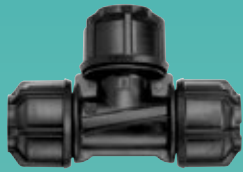
| | | | | | |
|----------------|---|----|----------|-------|-------|
| 63 x 63 x 25 | 1 | 10 | 97837300 | - | 91125 |
| 63 x 63 x 32 | 1 | 10 | 97837400 | 62806 | 91126 |
| 63 x 63 x 50 | 1 | 7 | 97837600 | 69168 | 91127 |
| 110 x 110 x 63 | 1 | 7 | 97830700 | 71522 | 91128 |

METRIC TEES Poly x Poly x FI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|------------------|---------|------------|--------------|----------|---------|
| 16 x 16 x 1/2" | 10 | 200 | 70741100 | 69202 | 91129 |
| 20 x 20 x 1/2" | 10 | 110 | 70742100 | 69206 | 91130 |
| 20 x 20 x 3/4" | 10 | 110 | 70742200 | 69210 | 91131 |
| 25 x 25 x 1/2" | 5 | 70 | 70743100 | 69212 | 91132 |
| 25 x 25 x 3/4" | 5 | 60 | 70743200 | 69216 | 91133 |
| 25 x 25 x 1" | 5 | 60 | 70743300 | 69218 | 91134 |
| 32 x 32 x 3/4" | 5 | 45 | 70744200 | 69222 | 91135 |
| 32 x 32 x 1" | 5 | 40 | 70744300 | 69226 | 91136 |
| 32 x 32 x 1 1/4" | 5 | 35 | 70744400 | 69228 | 91137 |
| 40 x 40 x 1" | 1 | 20 | 70745300 | 69232 | 91138 |
| 40 x 40 x 1 1/4" | 1 | 20 | 70745400 | 69234 | 91139 |
| 40 x 40 x 1 1/2" | 1 | 20 | 70745500 | 69236 | 91140 |
| 50 x 50 x 1 1/2" | 1 | 15 | 70746500 | 69240 | 91141 |
| 50 x 50 x 2" | 1 | 15 | 70746600 | 69242 | 91142 |
| 63 x 63 x 1 1/4" | 1 | 9 | 70747400 | - | 91430 |
| 63 x 63 x 1 1/2" | 1 | 9 | 70747500 | - | 91431 |
| 63 x 63 x 2" | 1 | 9 | 70747600 | - | 93822 |

METRIC LARGE BORE TEES Poly x Poly x FI BSP

| | | | | | |
|------------------|---|----|----------|-------|-------|
| 63 x 63 x 1 1/4" | 1 | 9 | 97867500 | 69243 | 91143 |
| 63 x 63 x 1 1/2" | 1 | 19 | 97847500 | 69245 | 91144 |
| 63 x 63 x 2" | 1 | 9 | 97847600 | 69244 | 91145 |
| 75 x 75 x 2" | 1 | 8 | 97848600 | 69248 | 91146 |
| 75 x 75 x 3" | 1 | 8 | 97848800 | 69252 | 92072 |
| 90 x 90 x 3" | 1 | 4 | 97849800 | 69254 | 91147 |
| 110 x 110 x 4" | 1 | 3 | 97840900 | 69258 | 91148 |



Philmac Metric Compression Fittings

METRIC TEES Poly x Poly x MI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|----------------|---------|------------|--------------|----------|---------|
| 25 x 25 x 1/2" | 10 | 70 | 70793100 | 69181 | 91149 |
| 25 x 25 x 3/4" | 10 | 70 | 70793200 | 69182 | 91150 |

METRIC ELBOWS Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|---------|---------|------------|--------------|----------|---------|
| 16 x 16 | 10 | 240 | 70751100 | 69280 | 91151 |
| 20 x 20 | 10 | 140 | 70752200 | 69282 | 91152 |
| 25 x 20 | 10 | 100 | 70753200 | 71432 | 91153 |
| 25 x 25 | 10 | 90 | 70753300 | 69284 | 91154 |
| 32 x 32 | 5 | 50 | 70754400 | 69286 | 91155 |
| 40 x 40 | 1 | 30 | 70755500 | 69288 | 91156 |
| 50 x 50 | 1 | 18 | 70756600 | 69290 | 91157 |
| 63 x 63 | 1 | 10 | 70757700 | - | 93823 |

METRIC LARGE BORE ELBOWS Poly x Poly

| | | | | | |
|-----------|---|----|----------|-------|-------|
| 63 x 63 | 1 | 10 | 97857700 | 69292 | 91158 |
| 75 x 75 | 1 | 6 | 97858800 | 69294 | 91159 |
| 90 x 90 | 1 | 3 | 97859900 | 69296 | 91160 |
| 110 x 110 | 1 | 4 | 97850000 | 69298 | 91161 |

METRIC ELBOW 45° Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|---------|---------|------------|--------------|----------|---------|
| 20 x 20 | 10 | 150 | 70702800 | | 91162 |
| 25 x 25 | 10 | 80 | 70703800 | | 91163 |
| 32 x 32 | 5 | 45 | 70704800 | 69531 | 91164 |
| 40 x 40 | 1 | 25 | 70705800 | 69519 | 91165 |
| 50 x 50 | 1 | 24 | 70706800 | 69520 | 91166 |
| 63 x 63 | 1 | 10 | 70707800 | - | 91433 |

METRIC LARGE BORE ELBOW 45° Poly x Poly

| | | | | | |
|-----------|---|----|----------|-------|-------|
| 63 x 63 | 1 | 12 | 97807800 | 69521 | 91167 |
| 110 x 110 | 1 | 4 | 97800800 | 69523 | 91168 |

METRIC ELBOWS Poly x FI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-------------|---------|------------|--------------|----------|---------|
| 16 x 1/2" | 10 | 230 | 70761100 | 69342 | 91169 |
| 20 x 1/2" | 10 | 230 | 70762100 | 69344 | 91170 |
| 20 x 3/4" | 10 | 190 | 70762200 | 69346 | 91171 |
| 25 x 1/2" | 10 | 150 | 70763100 | 69351 | 91172 |
| 25 x 3/4" | 10 | 120 | 70763200 | 69348 | 91173 |
| 25 x 1" | 10 | 110 | 70763300 | 69350 | 91174 |
| 32 x 3/4" | 1 | 75 | 70764200 | 69352 | 91175 |
| 32 x 1" | 5 | 75 | 70764300 | 69354 | 91176 |
| 32 x 1 1/4" | 5 | 70 | 70764400 | 69356 | 91177 |
| 40 x 1" | 1 | 45 | 70765300 | 69357 | 91178 |
| 40 x 1 1/4" | 1 | 45 | 70765400 | 69358 | 91179 |
| 40 x 1 1/2" | 1 | 45 | 70765500 | 69360 | 91180 |
| 50 x 1 1/2" | 1 | 30 | 70766500 | 69364 | 91181 |
| 50 x 2" | 1 | 26 | 70766600 | 69366 | 91182 |
| 63 x 1 1/2" | 1 | 18 | 70767500 | - | 91434 |
| 63 x 2" | 1 | 18 | 70767600 | - | 93821 |

METRIC LARGE BORE ELBOWS Poly x FI BSP

| | | | | | |
|-------------|---|----|----------|-------|-------|
| 63 x 1 1/2" | 1 | 19 | 97867500 | 62815 | 91183 |
| 63 x 2" | 1 | 19 | 97867600 | 69368 | 91184 |
| 75 x 2" | 1 | 7 | 97868600 | 69372 | 91185 |
| 75 x 3" | 1 | 7 | 97868800 | 69376 | 92076 |
| 90 x 3" | 1 | 9 | 97869800 | | 91186 |
| 110 x 4" | 1 | 6 | 97860900 | | 91187 |

METRIC ELBOWS Poly x MI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-------------|---------|------------|--------------|----------|---------|
| 20 x 1/2" | 10 | 220 | 70772100 | 69302 | 91188 |
| 20 x 3/4" | 1 | 200 | 70772200 | 69304 | 91189 |
| 25 x 1/2" | 1 | 120 | 70773100 | 69305 | 91190 |
| 25 x 3/4" | 10 | 120 | 70773200 | 69309 | 91191 |
| 25 x 1" | 1 | 100 | 70773300 | 69308 | 91192 |
| 32 x 1" | 5 | 75 | 70774300 | 69310 | 91193 |
| 32 x 1 1/4" | 1 | 70 | 70774400 | 62820 | 91194 |
| 40 x 1" | 1 | 30 | 70775300 | 69312 | 91195 |
| 40 x 1 1/4" | 1 | 30 | 70775400 | 69314 | 91196 |
| 40 x 1 1/2" | 1 | 30 | 70775500 | 69316 | 91197 |
| 50 x 1 1/2" | 1 | 18 | 70776500 | 69320 | 91198 |
| 63 x 2" | 1 | 18 | 70777600 | - | 91436 |

METRIC LARGE BORE ELBOWS Poly x MI BSP

| | | | | | |
|---------|---|---|----------|-------|-------|
| 63 x 2" | 1 | 5 | 97877600 | 69324 | 91199 |
| 75 x 3" | 1 | 7 | 97878810 | 69330 | 91200 |



Large Bore Elbow Poly x MI BSP

Philmac[®] Metric Compression Fittings

METRIC END CAPS Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|------|---------|------------|--------------|----------|---------|
| 16 | 10 | 360 | 70701900 | | 91201 |
| 20 | 10 | 250 | 70702900 | 69263 | 91202 |
| 25 | 10 | 160 | 70703900 | 69264 | 91203 |
| 32 | 5 | 100 | 70704900 | 69266 | 91204 |
| 40 | 1 | 55 | 70705900 | 69268 | 91205 |
| 50 | 1 | 35 | 70706900 | 69270 | 91206 |
| 63 | 1 | 20 | 70707900 | - | 91437 |

METRIC LARGE BORE END CAPS

| | | | | | |
|-----|---|----|----------|-------|-------|
| 63 | 1 | 24 | 97807900 | 69272 | 91207 |
| 75 | 1 | 18 | 97808900 | 69274 | 91208 |
| 90 | 1 | 4 | 97809900 | 69276 | 91209 |
| 110 | 1 | 4 | 97800900 | 69278 | 91210 |

METRIC WALL PLATE ELBOWS Poly x FI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------|---------|------------|------------------|----------|---------|
| 20 x 1/2" | 1 | 150 | 70722900 | 71563 | 91211 |
| 25 x 1/2" | 1 | 100 | 70723800 | | 91212 |
| 25 x 3/4" | 1 | 100 | 70723900 | 71564 | 91213 |
| 25 x 3/4" | 1 | 30 | 70724900 (Brass) | | 93830 |

METRIC NUT ASSEMBLY

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|--------------|---------|------------|--------------|---------|
| 3/4" to 20 | 1 | 250 | 70770200 | 91215 |
| 1" to 25 | 1 | 180 | 70770300 | 91216 |
| 1 1/4" to 32 | 1 | 100 | 70770400 | 91217 |
| 1 1/2" to 40 | 1 | 75 | 70770500 | 91218 |
| 2" to 50 | 1 | 50 | 70770600 | 91219 |

Y SPANNERS

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|---------------|---------|------------|--------------|----------|---------|
| 20-32 Alloy | 1 | 140 | 90702421 | 69514 | 91221 |
| 20-32 Plastic | 1 | 250 | 90702431 | 69500 | 91222 |
| 40-63 Alloy | 1 | | 90705711 | 69502 | 91223 |

METRIC FLANGED ADAPTORS Poly x Flange - Plastic Face with Metal Backing Ring (AS2129 Table E)

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|----------|---------|------------|--------------|----------|---------|
| 50 x 2" | 1 | 8 | 97876600 | 69036 | 91224 |
| 63 x 2" | 1 | 5 | 97877600 | | 91225 |
| 75 x 3" | 1 | 5 | 97878800 | 69042 | 91227 |
| 90 x 3" | 1 | 4 | 97879800 | | 91228 |
| 110 x 4" | 1 | 2 | 97870900 | 69048 | 91229 |

REDUCED COMPRESSION FLANGE 63 x (100) x 4" ISO

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|---------|---------|------------|--------------|----------|---------|
| 63 x 4" | 1 | 5 | 97877900 | 69503 | 91230 |

METRIC SHOULDERED ADAPTORS

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|----------|---------|------------|--------------|----------|---------|
| 50 x 2" | 1 | 25 | 97816620 | 69026 | 91231 |
| 63 x 2" | 1 | 20 | 97817620 | | 91232 |
| 90 x 4" | 1 | 30 | 97819910 | 69030 | 91233 |
| 110 x 4" | 1 | 4 | 97810910 | 69032 | 91234 |

METRIC SPANNERS (FOR PHILMAC METRIC FITTINGS)

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|--------|---------|------------|--------------|---------|
| 20-32 | 1 | 300 | 90702400 | 91235 |
| 32-63 | 1 | 130 | 90704700 | 91236 |
| 50-110 | 1 | 15 | 90706000 | 91237 |




Metric Compression Fittings
METRIC NUT ASSEMBLY WITH ACETAL GRIP RING & NBR O-RING

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| 20 | 1 | 200 | 97770200 | 91248 |
| 25 | 1 | 180 | 97770300 | 91249 |
| 32 | 1 | 100 | 97770400 | 91250 |
| 40 | 1 | 60 | 97770500 | 91251 |
| 50 | 1 | 50 | 97770600 | 91252 |
| 63 | 1 | 30 | 97770700 | 91253 |
| 75 | 1 | 25 | 97770810 | 91254 |
| 90 | 1 | 15 | 97770910 | 91255 |
| 110 | 1 | 8 | 97770110 | 91256 |

METRIC NUT ASSEMBLY WITH ACETAL GRIP RING & EPDM O-RING

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| 20 | 10 | 200 | 99970200 | 91441 |
| 25 | 10 | 180 | 99970300 | 91442 |
| 32 | 5 | 100 | 99970400 | 91443 |
| 40 | 5 | 60 | 99970500 | 91444 |
| 50 | 5 | 50 | 99970600 | 91445 |
| 63 | 5 | 30 | 99970700 | 91446 |
| 75 | 1 | 25 | 99970810 | 91447 |
| 90 | 1 | 15 | 99970910 | 91448 |
| 110 | 1 | 8 | 99970110 | 91449 |

METRIC NUT ASSEMBLY WITH POLYSULFONE GRIP RING & EPDM O-RING & PP SPACER

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| 20 | 1 | 200 | 90712210 | 91459 |
| 25 | 1 | 180 | 90713310 | 91460 |
| 32 | 1 | 100 | 90714410 | 91461 |
| 40 | 1 | 60 | 90715510 | 91462 |
| 50 | 1 | 50 | 90716610 | 91463 |
| 63 | 1 | 30 | 90717710 | 91464 |
| 75 | 1 | 25 | 90718810 | 91465 |
| 90 | 1 | 15 | 90719910 | 91273 |
| 110 | 1 | 8 | 90710010 | 91466 |

METRIC NUT ASSEMBLY WITH ACETAL GRIP RING & VITON O-RING & PP SPACER

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| 20 | 1 | 200 | 90702210 | 91450 |
| 25 | 1 | 180 | 90703310 | 91451 |
| 32 | 1 | 100 | 90704410 | 91452 |
| 40 | 1 | 60 | 90705510 | 91453 |
| 50 | 1 | 50 | 90706610 | 91454 |
| 63 | 1 | 30 | 90707710 | 91455 |
| 75 | 1 | 25 | 90708810 | 91456 |
| 90 | 1 | 15 | 90709910 | 91457 |
| 110 | 1 | 8 | 90700010 | 91458 |

NUT ASSEMBLY WITH POLYSULFONE SPLIT RING & VITON O-RING & PP SPACER

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| 20 | 1 | 200 | 99902210 | 92089 |
| 25 | 1 | 180 | 99903310 | 92090 |
| 32 | 1 | 100 | 99904410 | 92091 |
| 40 | 1 | 60 | 99905510 | 92092 |
| 50 | 1 | 50 | 99906610 | 92093 |
| 63 | 1 | 30 | 99907710 | 92094 |
| 75 | 1 | 25 | 99908810 | 92095 |
| 90 | 1 | 15 | 99909910 | 92096 |
| 110 | 1 | 8 | 99900010 | 92097 |





Metric Compression Fittings



METRIC POLY TO COPPER ADAPTORS PE x Cu

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------|---------|------------|--------------|----------|---------|
| 16 x 1/2" | 1 | 180 | 70612100 | 71450 | 91275 |
| 20 x 1/2" | 1 | 150 | 70612200 | 71438 | 91276 |
| 20x3/4" | 1 | 120 | 70613200 | 71437 | 91277 |
| 25 x 1/2" | 1 | 120 | 70613100 | 71425 | 91278 |
| 25 x 3/4" | 1 | 110 | 70613300 | 71426 | 91279 |
| 32 x 3/4" | 1 | 70 | 70614300 | 64002 | 91280 |

POLY TO COPPER ELBOWS PE x Cu

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------|---------|------------|--------------|----------|---------|
| 20 x 1/2" | 1 | 140 | 70652200 | 71441 | 91281 |
| 25 x 1/2" | 1 | 110 | 70653200 | 71429 | 91282 |
| 25 x 3/4" | 1 | 90 | 70653300 | 71430 | 91283 |

POLY TO COPPER TEES PE x Cu

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------|---------|------------|--------------|----------|---------|
| 20 x 1/2" | 1 | 90 | 70633200 | 71427 | 92087 |
| 25 x 1/2" | 1 | 55 | 70633200 | 67665 | 91284 |
| 25 x 3/4" | 1 | 55 | 70633300 | 71428 | 91286 |

KIT PE x Cu

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------|---------|------------|--------------|----------|---------|
| 20 x 1/2" | 1 | 150 | 70602100 | 71423 | 91287 |
| 25 x 1/2" | 1 | 100 | 70603100 | | 91288 |
| 25 x 3/4" | 1 | 100 | 70603200 | 71424 | 91289 |

POLY TO COPPER SS GRIP RING PE x Cu

| Size | Min QTY | Philmac Code | VX Code |
|-----------|---------|--------------|---------|
| 20 x 1/2" | 1 | 70602203 | 91290 |
| 25 x 1/2" | 1 | 70603203 | 91291 |
| 25 x 3/4" | 1 | 70603303 | 91292 |


Universal Transition Fittings
METRIC JOINERS Trans x Poly PN12.5

| Size | Min QTY | Carton QTY | Philmac Code | Description | VX Code |
|------------|---------|------------|--------------|--------------------------------------|---------|
| 15-21 x 20 | 1 | 100 | 70103200 | 20mm x 15-21 Universal Coupler | 91040 |
| 15-21 x 25 | 1 | 70 | 70103300 | 25mm x 15-21 Universal Coupler 71559 | 91041 |
| 21-27 x 20 | 1 | 70 | 70104200 | 20mm x 21-27 Universal Coupler | 91042 |
| 21-27 x 25 | 1 | 60 | 70104300 | 25mm x 21-27 Universal Coupler 71560 | 91043 |
| 27-34 x 20 | 1 | 50 | 70105200 | 20mm x 27-34 Universal Coupler | 91044 |
| 27-34 x 25 | 1 | 50 | 70105300 | 25mm x 27-34 Universal Coupler 71561 | 91045 |
| 27-34 x 32 | 1 | 40 | 70105400 | 32mm x 27-34 Universal Coupler 71562 | 91046 |
| 39-43 x 32 | 1 | 25 | 70106400 | 32mm x 39-43 Universal Coupler | 91047 |
| 34-39 x 32 | 1 | 30 | 70107400 | 32mm x 34-39 Universal Coupler | 91048 |
| 34-39 x 40 | 1 | 20 | 70107500 | 40mm x 34-39 Universal Coupler | 91049 |
| 47-49 x 50 | 1 | 12 | 70108600 | 50mm x 47-49 Universal Coupler 71553 | 91050 |
| 47-49 x 63 | 1 | 10 | 70108700 | 63mm x 47-49 Universal Coupler | 91051 |
| 59-61 x 63 | 1 | 10 | 70109700 | 63mm x 59-61 Universal Coupler | 91052 |

METRIC ELBOWS Trans x Poly PN12.5

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|------------|---------|------------|--------------|----------|---------|
| 15-21 x 20 | 1 | 65 | 70153200 | | 91781 |
| 15-21 x 25 | 1 | 65 | 70153300 | 71566 | 91782 |
| 21-27 x 25 | 1 | 55 | 70154300 | 71567 | 91783 |
| 21-27 x 32 | 1 | 35 | 70154400 | | 91784 |
| 27-34 x 25 | 1 | 35 | 70155300 | 71568 | 91785 |
| 27-34 x 32 | 1 | 25 | 70155400 | | 91786 |

DOUBLE ENDED REPAIR COUPLING Transition x Transition (Class C/Class D/Copper/GI/PVC) PN12.5

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|---------------|---------|------------|--------------|---------|
| 15-21 x 15-21 | 1 | 50 | 97113310 | 91787 |
| 21-27 x 21-27 | 1 | 40 | 97114410 | 91788 |
| 27-34 x 27-34 | 1 | 30 | 97115510 | 91789 |
| 39-43 x 39-43 | 1 | 20 | 97116610 | 91790 |
| 34-39 x 34-39 | 1 | 25 | 97117710 | 91791 |
| 47-49 x 47-49 | 1 | 15 | 97118810 | 91792 |
| 59-61 x 59-61 | 1 | 9 | 97119910 | 91793 |

REDUCING REPAIR COUPLERS Transition x Transition (Class C/Class D/Copper/GI/PVC) PN12.5

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|---------------|---------|------------|--------------|---------|
| 21-27 x 15-21 | 1 | 50 | 97114310 | 91794 |
| 27-34 x 21-27 | 1 | 35 | 97115410 | 91795 |
| 27-34 x 15-21 | 1 | 30 | 97115310 | 91796 |
| 34-39 x 27-34 | 1 | 25 | 97115010 | 91797 |
| 39-43 x 27-34 | 1 | 20 | 97116510 | 91798 |



Philmac® Universal Transition Fittings

ELBOWS TRANSITION TO TRANSITION (Copper/GI/PVC) PN12.5

| SIZE | Min QTY | Carton QTY | Philmac Code | VX Code |
|---------------|---------|------------|--------------|---------|
| 15-21 x 15-21 | 1 | 45 | 97053300 | 91799 |
| 21-27 x 21-27 | 1 | 45 | 97054400 | 91800 |

MI END CONNECTORS TRANSITION X MI BSP (Copper/GI/PVC) PN12.5

| SIZE | Min QTY | Carton QTY | Philmac Code | VX Code |
|----------------|---------|------------|--------------|---------|
| 15-21 x 3/4" | 1 | 120 | 97123200 | 91801 |
| 15-21 x 1" | 1 | 120 | 97123300 | 91802 |
| 21-27 x 3/4" | 1 | 90 | 97124200 | 91803 |
| 21-27 x 1" | 1 | 90 | 97124300 | 91804 |
| 21-27 x 1 1/4" | 1 | 90 | 97124400 | 91805 |
| 27-34 x 3/4" | 1 | 50 | 97125200 | 91806 |
| 27-34 x 1" | 1 | 50 | 97125300 | 91807 |
| 27-34 x 1 1/4" | 1 | 50 | 97125400 | 91808 |
| 27-34 x 1 1/2" | 1 | 45 | 97125500 | 91809 |

TEES TRANSITION X TRANSITION X TRANSITION (Copper/GI/PVC) PN12.5

| SIZE | Min QTY | Carton QTY | Philmac Code | VX Code |
|-------|---------|------------|--------------|---------|
| 15-21 | 1 | 40 | 97133310 | 91810 |

FEMALE TEE TRANSITION X TRANSITION X FI BSP (Copper/GI/PVC) PN12.5

| SIZE | Min QTY | Carton QTY | Philmac Code | VX Code |
|--------------|---------|------------|--------------|---------|
| 15-21 x 3/4" | 1 | 50 | 97143200 | 91811 |
| 15-21 x 1" | 1 | 45 | 97143300 | 91812 |
| 21-27 x 3/4" | 1 | 35 | 97144200 | 91813 |
| 21-27 x 1" | 1 | 30 | 97144300 | 91814 |




Recycled Water Fittings
METRIC JOINERS Poly x Poly - Purple

| SIZE | Min QTY | Carton QTY | Philmac Code | VX Code |
|---------|---------|------------|--------------|---------|
| 20 x 20 | 10 | 150 | 78712200 | 91815 |
| 25 x 25 | 10 | 100 | 78713300 | 91816 |
| 32 x 32 | 5 | 65 | 78714400 | 91817 |

METRIC END CONNECTORS Poly x MI BSP - Purple

| SIZE | Min QTY | Carton QTY | Philmac Code | VX Code |
|-----------|---------|------------|--------------|---------|
| 20 x 3/4" | 10 | 240 | 78722200 | 91818 |
| 25 x 3/4" | 10 | 150 | 78723200 | 91819 |
| 25 x 1" | 10 | 150 | 78723300 | 91820 |
| 32 x 1" | 5 | 90 | 78724300 | 91821 |

METRIC END CONNECTORS Poly x FI BSP - Purple

| SIZE | Min QTY | Carton QTY | Philmac Code | VX Code |
|-----------|---------|------------|--------------|---------|
| 20 x 3/4" | 10 | 220 | 78782200 | 91822 |
| 25 x 3/4" | 10 | 150 | 78783200 | 91823 |
| 25 x 1" | 10 | 130 | 78783300 | 91824 |
| 32 x 1" | 5 | 80 | 78784300 | 91825 |

METRIC TEES Poly x Poly x Poly - Purple

| SIZE | Min QTY | Carton QTY | Philmac Code | VX Code |
|--------------|---------|------------|--------------|---------|
| 20 x 20 x 20 | 10 | 90 | 78732200 | 91826 |
| 25 x 25 x 25 | 5 | 50 | 78733300 | 91827 |
| 32 x 32 x 32 | 5 | 30 | 78734400 | 91828 |

METRIC ELBOWS Poly x Poly - Purple

| SIZE | Min QTY | Carton QTY | Philmac Code | VX Code |
|---------|---------|------------|--------------|---------|
| 20 x 20 | 10 | 140 | 78752200 | 91829 |
| 25 x 25 | 10 | 90 | 78753300 | 91830 |
| 32 x 32 | 5 | 50 | 78754400 | 91831 |

METRIC NUT ASSEMBLY - Purple

| SIZE | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| 20 | 1 | 250 | 78770200 | 91832 |
| 25 | 1 | 180 | 78770300 | 91833 |
| 32 | 1 | 100 | 78770400 | 91834 |
| 40 | 1 | 75 | 78770500 | 91835 |
| 50 | 1 | 50 | 78770600 | 91836 |
| 63 | 1 | - | 78770700 | 91837 |



Philmac® Compression Fittings for Gas



| PE GAS JOINER | | | | |
|--|---------|--------------|---------|--|
| SIZE | Min QTY | Philmac Code | VX Code | |
| 16 mm with liners included for SDR 17.6 pipe | 1 | 96211100 | 91838 | |
| 20 mm with liners included for SDR 17.6 pipe | 1 | 96212200 | 91839 | |
| 25 mm with liners included for SDR 17.6 pipe | 1 | 96213300 | 91840 | |
| 32 mm with dedicated liners for SDR 11 pipe | 1 | 96214400 | 91841 | |
| 40 mm with dedicated liners for SDR 11 pipe | 1 | 96215500 | 91842 | |
| 63 mm with dedicated liners for SDR 11 pipe | 1 | 96217700 | 91843 | |

| PE GAS REDUCING JOINERS | | | | |
|--|------------|---------|--------------|---------|
| SIZE | Carton QTY | Min QTY | Philmac Code | VX Code |
| 20-16 | 180 | 1 | 96212110 | 93792 |
| 25 mm x 16 mm with liners included for SDR 17.6 pipe | | 1 | 96213100 | 91844 |

| PE GAS TEES | | | | |
|--|---------|--------------|---------|--|
| SIZE | Min QTY | Philmac Code | VX Code | |
| 16 mm with liners included for SDR 17.6 pipe | 1 | 96231100 | 91845 | |
| 20 mm with liners included for SDR 17.6 pipe | 1 | 96232200 | 91846 | |
| 25 mm with liners included for SDR 17.6 pipe | 1 | 96233300 | 91847 | |
| 32 mm with dedicated liners for SDR 11 pipe | 1 | 96234400 | 91848 | |
| 40 mm with dedicated liners for SDR 11 pipe | 1 | 96235500 | 91849 | |
| 63 mm with dedicated liners for SDR 11 pipe | 1 | 96237700 | 91850 | |

| PE GAS END CAPS | | | | |
|---|---------|--------------|---------|--|
| SIZE | Min QTY | Philmac Code | VX Code | |
| 20 mm with liner included for SDR 17.6 pipe | 1 | 96202910 | 91851 | |
| 25 mm with liner included for SDR 17.6 pipe | 1 | 96203910 | 91852 | |
| 32 mm with dedicated liner for SDR 11 pipe | 1 | 96204910 | 91853 | |
| 40 mm with dedicated liner for SDR 11 pipe | 1 | 96205910 | 91854 | |
| 63 mm with dedicated liner for SDR 11 pipe | 1 | 96207910 | 91855 | |

| PE GAS ELBOW | | | | |
|--|---------|--------------|---------|--|
| SIZE | Min QTY | Philmac Code | VX Code | |
| 16 mm with liners included for SDR 17.6 pipe | 1 | 96251100 | 91856 | |
| 20 mm with liners included for SDR 17.6 pipe | 1 | 96252200 | 91857 | |
| 25 mm with liners included for SDR 17.6 pipe | 1 | 96253300 | 91858 | |
| 32 mm with dedicated liners for SDR 11 pipe | 1 | 96254400 | 91859 | |
| 40 mm with dedicated liners for SDR 11 pipe | 1 | 96255500 | 91860 | |
| 63 mm with dedicated liners for SDR 11 pipe | 1 | 96257700 | 91861 | |

| PE GAS MALE END CONNECTORS | | | | |
|--|---------|--------------|---------|--|
| SIZE | Min QTY | Philmac Code | VX Code | |
| 25 mm x 3/4" BSP with liner included with SDR 17.6 | 1 | 96223200 | 91862 | |
| 32 mm x 1" BSP with dedicated liner included with SDR 11 | 1 | 96224300 | 91863 | |
| 40 mm x 1-1/4" BSP with dedicated liner included with SDR 11 | 1 | 96225400 | 91864 | |

| METRIC TO IMPERIAL GAS PE PIPE JOINERS | | | | |
|--|---------|--------------|---------|--|
| SIZE | Min QTY | Philmac Code | VX Code | |
| 63 mm SDR11 x 1-1/2" Imp SDR 9.9 pipe | 1 | 96217610 | 91865 | |
| 63 mm SDR11 x 1-1/4" Imp SDR 9.9 pipe | 1 | 96217510 | 91866 | |

| REDUCER, TRANSITION, COMPRESSION : 50MM, S2, PE X 1 1/4", S3, SDR11 | | | | |
|---|---------|------------|--------------|---------|
| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
| 50-1 1/4" | 1 | 20 | 96216510 | 93794 |
| 50-1 1/2" | 1 | 18 | 96216610 | 93796 |



Philmac® Compression Fittings for Gas

UTC GAS JOINER - PE X UTC

| SIZE | Min QTY | Philmac Code | VX Code |
|---|---------|--------------|---------|
| 20 mm PE with liner for SDR 17.6 x 21-27 UTC (18NB) 9 | 1 | 96104200 | 91867 |
| 20 mm PE with liner for SDR 17.6 x 27-34 UTC | 1 | 96105200 | 91868 |
| 25 mm PE with liner for SDR 17.6 x 21-27 UTC (18NB) | 1 | 96104300 | 91869 |
| 32 mm PE with liner for SDR 11 x 21-27 UTC (18NB) | 1 | 96104400 | 91870 |

UTC GAS ELBOW - PE X UTC

| SIZE | Min QTY | Philmac Code | VX Code |
|-----------------------------|---------|--------------|---------|
| UTC Elb 20 SDR 17.6 x 15-21 | 1 | 96152300 | 91871 |

UTC GAS JOINER - UTC X UTC

| SIZE | Min QTY | Philmac Code | VX Code |
|---------------------|---------|--------------|---------|
| 21-27 mm x 15-21 mm | 1 | 96114310 | 91872 |
| 21-27 mm x 21-27 mm | 1 | 96114410 | 91873 |

UTC GAS ELBOW - UTC X UTC

| SIZE | Min QTY | Philmac Code | VX Code |
|---------------------|---------|--------------|---------|
| 21-27 mm x 15-21 mm | 1 | 96154310 | 91874 |
| 21-27 mm x 21-27 mm | 1 | 96154410 | 91875 |

UTC GAS END CAP

| SIZE | Min QTY | Philmac Code | VX Code |
|-------------------|---------|--------------|---------|
| UTC End Cap 21-27 | 1 | 96104910 | 91876 |

GAS SERVICE TEES

| Size | Min QTY | Philmac Code | VX Code |
|--|---------|--------------|---------|
| 20mm Service Tee Plug Gas w/ liner SDR17.6 | 1 | 96181911 | 91877 |
| 25mm Service Tee Plug Gas w/ liner SDR17.6 | 1 | 96182111 | 91878 |
| 32mm Service Tee Plug Gas w/ liner SDR11 | 1 | 96180811 | 91879 |
| 40mm Service Tee Plug Gas w/ liner SDR11 | 1 | 96182311 | 91880 |
| 25mm Service Tee Cutter Gas w/ liner SDR17.6 | 1 | 96182211 | 91881 |
| 32mm Service Tee Cutter Gas w/ liner SDR11 | 1 | 96180911 | 91882 |
| 40mm Service Tee Cutter Gas w/ liner SDR11 | 1 | 96182411 | 91883 |

REDUCER, MECHANICAL: UTC, 27MM TO 34MM OD X 32MM, S2, PE100, SDR11

| Size | Carton QTY | Min QTY | Philmac Code | VX Code |
|----------|------------|---------|--------------|---------|
| 32x27-34 | 35 | 1 | 96105400 | 93781 |



TECHNICAL INFORMATION



STANDARDS

Philmac Metric Fittings are designed to comply with the requirements of the following standards:

AS/NZS4129 & ISO14236
Fittings for polyethylene pressure pipe systems.

AS/NZS4020 Products for use in contact with water intended for human consumption with regards to their effect on the quality of water.

AS3688
Water supply - copper and copper alloy body compression and capillary fittings and threaded-end connectors.

ISO7.1 & BS21
Pipe threads where pressure joints are made on the threads.

PE Pipes - AS/NZS4130, ISO4427, EN12201 (formally BS6572 & BS6730) Polyethylene pipes for pressure applications.

Copper Pipes - AS1432
Copper tubes for plumbing, gas fitting and drainage applications.

Note: Philmac Metric Fittings are also suitable for use with pipes manufactured according to various overseas and international standards. Please consult Vinidex Technical Services for information.

| Product Description | Size (mm) | Maximum Operating Pressure (KPa) |
|--|--------------------|----------------------------------|
| Compression fittings (PE x PE/PI BSP/MI BSP) | 16-110 | 1600 (16 bar) |
| Compression fittings PE x (UTC) | 16-63 (15-61) | 1250 (12.5 bar) |
| Compression fittings PE x (Copper) | 16-32 (1/2", 3/4") | 1600 (16 bar) |
| Tapping saddles | 32-110 | 1600 (16 bar) |
| Accessories - Spanners | 20-63 | |

SYSTEM DESIGN CONSIDERATIONS

There are generally two types of PE pipe fittings; mechanical and thermofusion. Philmac Metric Fittings are a range of mechanical fittings that offers three distinct advantages over thermofusion fittings;

- More economical
- Quick and easy installation
- Quick and easy revision to installation

This section highlights engineering considerations when designing a PE pipe system with Philmac Metric Fittings.

Projected life of Compression fittings

Whilst Philmac Metric Fittings conform to institutionalised specifications written to have a minimum life of 50 years, Philmac compression fittings are intentionally developed to exceed the expectations of these specifications.

Head losses

The following table offers a guide in estimating head losses in PE pipe systems based on the conveyance of water.

Use the following formula to estimate this head loss;

$$L = F \times D$$

where F = fitting constant

D = pipe inner diameter (m)

L = head loss based on

equivalent pipe length (m)

| Fitting | Fitting Constant (F) |
|----------------------------|----------------------|
| 90° Elbow | 30 |
| 90° Tee - Straight Through | 12 |
| 90° Tee - Side Branch | 60 |

Resistance to Impact

The thermoplastic materials used in the Philmac Metric Fittings have excellent impact properties.

Philmac Metric Fittings are suitable for the transportation of abrasive slurries and will withstand normal conditions found in urban, mining, industrial, rural water and waste water systems.

Weathering

The materials used contain pigments to provide excellent protection to degradation due to ultra-violet radiation. Continuous use of the Philmac metric fitting in systems above ground is therefore permissible without additional protection.

Electrolytic Corrosion

Philmac metric fitting is non magnetizing and does not cause electrolytic deterioration.

Thermal Insulation

Polypropylene has natural thermal insulation of 2000 times over copper and 200 times over steel.

Light Transmission

The all black Philmac metric fittings do not transmit light, thus protecting the water quality in potable water pipelines from growth of micro organisms.

Effect on Water

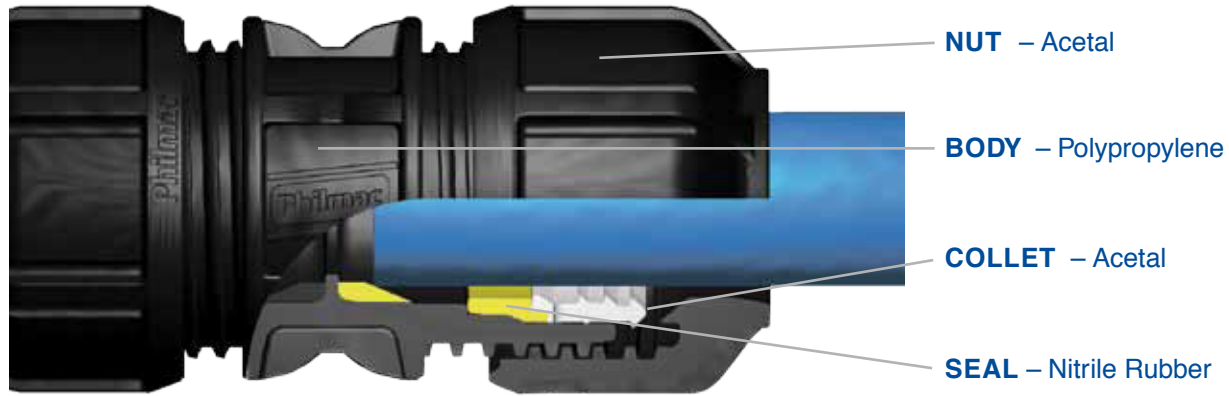
Philmac Metric Fittings do not impart to water any odour, taste, colour, or any constituents in concentrations that could be injurious to health.

Fluids other than Water

Philmac Metric Fittings may convey a wide variety of fluids. Contact Vinidex for advice on specific applications.

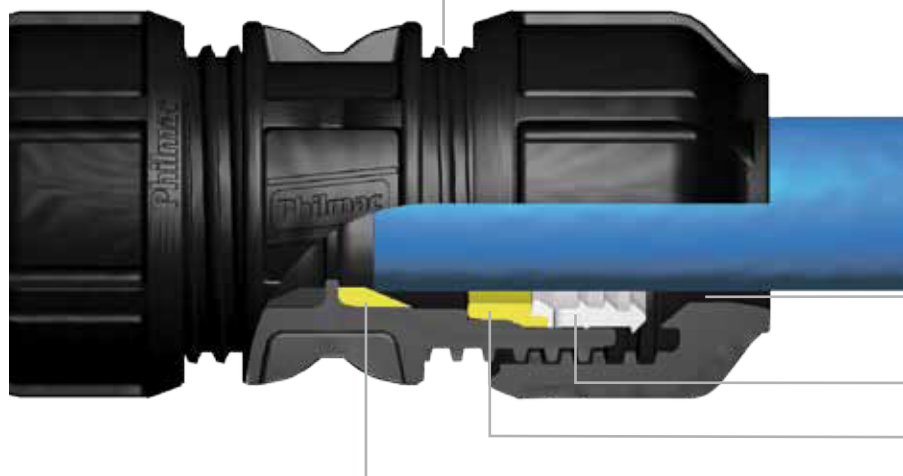
MATERIALS & COMPONENTS

For sizes 16-50mm only.



PRINCIPLES OF OPERATION

FULLY OPEN



Fitting is pre-assembled ready to use in the open position with 2 threads showing.

Clearance between the pipe and fitting allows for easy insertion of the pipe.

Collet, which is in relaxed position.

Seal, which is in relaxed position.

The pipe sits against the tapered wedges which minimises pipe rotation.

FULLY CLOSED



Collet bites into the pipe providing end load resistance.

Positive internal stop when the nut meets the flange of the body.

Seal compression is achieved by exploiting the mechanical advantage of the nut thread.

INSTALLATION INSTRUCTIONS

For sizes 16-50mm only.



1. Cut Pipe Square

Cut the pipe square. There is no need to prepare the pipe end. Chamfering or lubrication is not required.



2. Ready to Use Position

The fitting is pre-assembled and ready to use, however always ensure the nut is fully relaxed and 3 threads are showing before inserting the pipe.



3. Pipe Insertion

Insert the pipe until the stop is felt



4. Nut Tightening

The nut should be tightened by hand and then firmly with a wrench. Tighten the nut all the way to the flange on the body of the fitting.



5. Fully Installed

Fitting is now fully installed.



6. Disassembly

To disassemble the fitting simply loosen the nut using a wrench until 2 threads are showing. Pipe will be released and can simply be pulled out of the fitting.

Note: Philmac recommends the use of PTFE tape on BSP threads to ensure a positive seal.

INSTALLATION INSTRUCTIONS - POLY TO COPPER



1. Cut PE or poly pipe square and insert until pipe stop is felt.



2. Tighten the nut by hand ensuring the nut flange is touching the fitting body, use a wrench if necessary.



3. Cut copper pipe square. The fittings is pre-assembled and ready to use. Mark the depth of copper insertaion using 'pipe stop' marking or body flange as visual indicator. Remove any scale or burrs from the copper pipe.



4. Insert the copper pipe and push into the rubber seal up to the mark indicator.



5. Tighten the nut by hand and finish using a wrench. Remember to check that the nut is tight against the body flange.



6. Remember to replace the stainless steel grip ring if re-using the copper connection.

INSTALLATION INSTRUCTIONS – POLY TO UTC

(UTC joins PVC, Copper, Galvanised Iron, Stainless Steel, Lead, Steel and PE Pipes)



1. Cut Pipe to Length

The fitting is pre-assembled and ready to use. Cut pipe square and to length using the flange on the central body as a guide. Ensure the end of connecting pipe is undamaged and clean.



2. Ready to Use Position

To ensure adequate insertion depth, witness mark the pipe to the back of the flange. If conditions permit a marker pen can be used or alternatively use of a thumb is suitable.



3. Pipe Insertion

Insert the pipe to the correct depth. Always ensure the nut is backed off and 3 threads are showing. Pipes at the top end of the fitting tolerance may require 5 threads showing.



4. Nut Tightening

Tighten nut firmly with a wrench. Nut will not butt against the body flange when the pipe size is at the top end of the fitting tolerance.



5. Fully Installed

The fitting is fully installed when the nut cannot be tightened any further with reasonable force.



6. Disassembly

Unscrew the nut with a wrench. Pipe will be released and can be pulled out of the fitting.

Note: Installation instructions apply to the UTC[®] end of a 3G x UTC[®] fitting or the UTC[®] ends of a UTC[®] x UTC[®] fitting.



Philmac[®]

Safelok[®] Mining & Industrial

16mm-110mm Safelok[®] Range

Providing a safe workplace is the obligation of every employer, no matter the industry. There are fewer industries on the planet that are as demanding on pipelines as the mining industry, and this can make providing a safe environment so much harder. Recognising the tough conditions in the mining industry, Philmac has developed and is proud to introduce a truly unique compression fitting for the connection of polyethylene pipes – Safelok[®].

Made from a special formulation of polypropylene for unrivalled strength and performance, Safelok[®] truly is the safest compression fitting on the planet.



SAFETY

Philmac strongly recommends that fittings should never be disconnected on a live air line. However in the event that work commences on an air line before the air supply is switched off, the use of Philmac Safelok fittings will ensure that a warning is given to the user that the line is live.

The user can then switch off the air supply and continue working on the line in a safe manner. When the nut is tightened on a Safelok fitting, not only is the end of the pipe secured, but it also fully compresses the o-ring and creates a seal. This means that if a user mistakenly works on a live air line and starts to loosen the nut on a Safelok fitting, there will be a loud release of air at the point when two threads are exposed.

Importantly, the grip will still be retained on the pipe so the user can take action – retighten the nut and switch off the air supply – preventing an extremely dangerous situation from occurring.

IMPACT RESISTANCE

Safelok® fittings are made from a high grade of polypropylene to provide significant resistance to impact. In mining conditions risk of impact is always high so the fitting must be tough and durable to provide a long life. At the same time if in the unlikely circumstances that the material should fail due to impact, it will result in a ductile rather than a brittle failure. This means that there is no risk of injury through a fitting explosion when used in a compressed air application.

FAST AND EASY INSTALLATION

SLIDE & TIGHTEN™

No pipe preparation is needed and no force is required to push the pipe past the seal, so installation couldn't be faster or easier. Simply insert the pipe into the fitting until the first point of resistance is felt and then tighten the nut until it butts against the flange of the fitting body. This means that even making a 110mm joint with pipe hanging from the tunnel roof becomes a one man job.

COMPLETE SECURITY

VISUAL STOP

The flange on the body of the Safelok® fitting provides a visual stop to indicate when the nut is fully tightened. This removes any uncertainty from the installation process.

NO LOOSE COMPONENTS

Although disassembly of the fitting is not required for installation, if the nut is removed there is no danger of losing components as they are all retained within the nut. Losing components in the dark becomes a thing of the past.

DESIGNED TO MINIMISE PIPE TWIST

The fitting has been designed to minimise pipe twist as the nut is tightened. Maximum pipe twist is approximately three quarters of a turn compared to one and a half turns with many other fittings. Pipe twist can impact on not only the connection you have just made but also on the connection at the other end of the line.

HIGH PERFORMANCE

MADE FROM ADVANCED THERMOPLASTIC MATERIALS

Safelok® is manufactured from lightweight, high performance thermoplastic materials with outstanding impact, chemical, corrosion and UV resistance.

RATED TO 1600 kPa

Safelok® fittings are pressure rated to 1600kPa (PN16) across all sizes, and are Watermark approved.

50 YEAR+ DESIGN LIFE

Built to withstand the toughest conditions to ensure longevity and durability, Safelok® fittings have a 50 year+ design life.

COMPLETE COVERAGE

FULL RANGE

The Safelok® range is comprehensive; straight and reducing couplers, tees, elbows, threaded connectors, end caps, flange adaptors and shouldered adaptors ranging from 16mm to 110mm.



Mining & Industrial Fittings

METRIC JOINERS Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------|---------|------------|--------------|----------|---------|
| 16 x 16 | 10 | 200 | 97811100 | 69060 | 91293 |
| 20 x 20 | 10 | 180 | 97812200 | 69062 | 91294 |
| 25 x 25 | 10 | 110 | 97813300 | 69064 | 91295 |
| 32 x 32 | 5 | 55 | 97814400 | 69066 | 91296 |
| 40 x 40 | 1 | 30 | 97815500 | 69068 | 91297 |
| 50 x 50 | 1 | 20 | 97816600 | 69070 | 91298 |
| 63 x 63 | 1 | 10 | 97817700 | 61586 | 91006 |
| 75 x 75 | 1 | 6 | 97818800 | 69074 | 91007 |
| 90 x 90 | 1 | 8 | 97819900 | 69076 | 91008 |
| 110 x 110 | 1 | 4 | 97810000 | 69078 | 91009 |

METRIC SLIP JOINERS Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|---------|---------|------------|--------------|----------|---------|
| 20 x 20 | 1 | 140 | 97801220 | 69501 | 91299 |
| 25 x 25 | 1 | 80 | 97801330 | 69527 | 91300 |
| 32 x 32 | 1 | 45 | 97801440 | 69528 | 91301 |
| 40 x 40 | 1 | 25 | 97801550 | 69503 | 91302 |
| 50 x 50 | 1 | 18 | 97801660 | 69504 | 91303 |
| 63 x 63 | 1 | 10 | 97801770 | 61593 | 91021 |

METRIC REDUCING JOINERS Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|----------|---------|------------|--------------|--------------|---------|
| 20 x 16 | 10 | 210 | 97812100 | 69082 | 91304 |
| 25 x 16 | 10 | 140 | 97813100 | 69084 | 91305 |
| 25 x 20 | 10 | 120 | 97813200 | 69086 | 91306 |
| 32 x 20 | 5 | 90 | 97814200 | 69088 | 91307 |
| 32 x 25 | 5 | 75 | 97814300 | 69090 | 91308 |
| 40 x 25 | 1 | 47 | 97815300 | 69092 | 91309 |
| 40 x 32 | 1 | 40 | 97815400 | 69094 | 91310 |
| 50 x 25 | 1 | 34 | 97816300 | 69096 | 91311 |
| 50 x 32 | 1 | 30 | 97816400 | 69098 | 91312 |
| 50 x 40 | 1 | 25 | 97816500 | 69100 | 91313 |
| 63 x 32 | 1 | 20 | 97817400 | 61589 | 91032 |
| 63 x 40 | 1 | 17 | 97817500 | 61590 | 91033 |
| 63 x 50 | 1 | 16 | 97817600 | 61591 | 91034 |
| 75 x 63 | 1 | 6 | 97818700 | 69112 | 91035 |
| 90 x 63 | 1 | 8 | 97819700 | 69114//61592 | 91036 |
| 90 x 75 | 1 | 4 | 97819800 | 69116 | 91037 |
| 110 x 63 | 1 | 4 | 97810700 | 71521 | 91038 |
| 110 x 90 | 1 | 5 | 97810900 | 69120 | 91039 |

 Mining & Industrial Fittings

METRIC END CONNECTORS Poly x MI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-------------|---------|------------|--------------|--------------|---------|
| 16 x 1/2" | 10 | 400 | 97821100 | 68902 | 91314 |
| 16 x 3/4" | 10 | 370 | 97821200 | 68904 | 91315 |
| 20 x 1/2" | 10 | 290 | 97822100 | 68906 | 91316 |
| 20 x 3/4" | 10 | 280 | 97822200 | 68908 | 91317 |
| 20 x 1" | 10 | 280 | 97822300 | 68910 | 91318 |
| 25 x 1/2" | 10 | 180 | 97823100 | 68912 | 91319 |
| 25 x 3/4" | 10 | 180 | 97823200 | 68914 | 91320 |
| 25 x 1" | 10 | 160 | 97823300 | 68916 | 91321 |
| 32 x 3/4" | 5 | 95 | 97824200 | 68918 | 91322 |
| 32 x 1" | 5 | 95 | 97824300 | 68920 | 91323 |
| 32 x 1 1/4" | 5 | 90 | 97824400 | 68922 | 91324 |
| 32 x 1 1/2" | 5 | 85 | 97824500 | 68924 | 91325 |
| 40 x 1" | 1 | 55 | 97825300 | 68926 | 91326 |
| 40 x 1 1/4" | 1 | 55 | 97825400 | 68928 | 91327 |
| 40 x 1 1/2" | 1 | 50 | 97825500 | 68930 | 91328 |
| 40 x 2" | 1 | 50 | 97825600 | 68932 | 91329 |
| 50 x 1" | 1 | 35 | 70726300 | 68933 | 92060 |
| 50 x 1 1/4" | 1 | 37 | 70726400 | 68934 | 92061 |
| 50 x 1 1/2" | 1 | 37 | 97826500 | 68936 | 91330 |
| 50 x 2" | 1 | 35 | 97826600 | 68938 | 91331 |
| 63 x 1 1/2" | 1 | 22 | 97827500 | 61595 | 91073 |
| 63 x 2" | 1 | 21 | 97827600 | 61596 | 91074 |
| 63 x 2 1/2" | 1 | 20 | 97827700 | 68946//61597 | 91075 |
| 75 x 2" | 1 | 18 | 97828600 | 68948 | 91076 |
| 75 x 2 1/2" | 1 | 15 | 97828700 | 68950 | 92062 |
| 75 x 3" | 1 | 9 | 97828800 | 68952 | 91077 |
| 90 x 2" | 1 | 20 | 97829600 | 68954 | 92063 |
| 90 x 3" | 1 | 14 | 97829800 | 68957 | 91078 |
| 90 x 4" | 1 | 14 | 97829900 | 68958 | 92064 |
| 110 x 2" | 1 | 4 | 97820600 | 68962 | 92065 |
| 110 x 3" | 1 | 4 | 97820800 | 68964 | 92066 |
| 110 x 4" | 1 | 4 | 97820900 | 68966 | 91079 |

METRIC END CONNECTORS Poly x FI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-------------|---------|------------|--------------|----------|---------|
| 16 x 1/2" | 10 | 380 | 97881100 | 68970 | 91332 |
| 16 x 3/4" | 10 | 380 | 97881200 | 68972 | 91333 |
| 20 x 1/2" | 10 | 280 | 97882100 | 68974 | 91334 |
| 20 x 3/4" | 10 | 230 | 97882200 | 68976 | 91335 |
| 20 x 1" | 10 | 220 | 97882300 | 68978 | 91336 |
| 25 x 1/2" | 10 | 180 | 97883100 | | 91337 |
| 25 x 3/4" | 10 | 170 | 97883200 | 68982 | 91338 |
| 25 x 1" | 10 | 150 | 97883300 | 68984 | 91339 |
| 32 x 3/4" | 5 | 90 | 97884200 | 68986 | 91340 |
| 32 x 1" | 5 | 90 | 97884300 | 68988 | 91341 |
| 32 x 1 1/4" | 5 | 85 | 97884400 | 68990 | 91342 |
| 40 x 1" | 1 | 55 | 70785300 | 68992 | 92067 |
| 40 x 1 1/4" | 1 | 55 | 97885400 | 68994 | 91343 |
| 40 x 1 1/2" | 1 | 55 | 97885500 | 68996 | 91344 |
| 50 x 1 1/2" | 1 | 36 | 97886500 | 69000 | 91345 |
| 50 x 2" | 1 | 33 | 97886600 | 69002 | 91346 |
| 63 x 2" | 1 | 23 | 97887600 | 61600 | 91097 |
| 75 x 2" | 1 | 13 | 97888600 | 69010 | 91098 |
| 75 x 2 1/2" | 1 | 13 | 97888700 | 69012 | 92068 |
| 90 x 2" | 1 | 14 | 97889600 | 69014 | 92069 |
| 90 x 3" | 1 | 14 | 97889800 | 69018 | 91099 |
| 110 x 3" | 1 | 8 | 97880800 | 69022 | 92070 |
| 110 x 4" | 1 | 8 | 97880900 | 69024 | 91100 |



Philmac® Mining & Industrial Fittings



METRIC TEES Poly x Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|--------------|---------|------------|--------------|----------|---------|
| 16 x 16 x 16 | 10 | 130 | 97831100 | 69140 | 91347 |
| 20 x 20 x 20 | 10 | 100 | 97832200 | 69142 | 91348 |
| 25 x 25 x 25 | 5 | 60 | 97833300 | 69144 | 91349 |
| 32 x 32 x 32 | 5 | 30 | 97834400 | 69146 | 91350 |
| 40 x 40 x 40 | 1 | 20 | 97835500 | 69148 | 91351 |
| 50 x 50 x 50 | 1 | 12 | 97836600 | 69150 | 91352 |
| 63 x 63 x 63 | 1 | 6 | 97837700 | 61609 | 91107 |
| 75 x 75 x 75 | 1 | 6 | 97838800 | 69154 | 91108 |
| 90 x 90 x 90 | 1 | 3 | 97839900 | 69156 | 91109 |
| 110x110x110 | 1 | 2 | 97830000 | 69158 | 91110 |

METRIC SLIP TEES Poly x Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|--------------|---------|------------|--------------|----------|---------|
| 20 x 20 x 20 | 1 | 70 | 97803220 | | 91353 |
| 25 x 25 x 25 | 1 | 45 | 97803330 | | 91354 |
| 32 x 32 x 32 | 1 | 25 | 97803440 | | 91355 |
| 40 x 40 x 40 | 1 | 15 | 97803550 | | 91356 |
| 50 x 50 x 50 | 1 | 8 | 97803660 | | 91357 |
| 63 x 63 x 63 | 1 | 6 | 97803770 | 61610 | 91116 |

METRIC REDUCING TEES Poly x Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|--------------|---------|------------|--------------|----------|---------|
| 25 x 25 x 20 | 5 | 65 | 97833200 | 69160 | 91358 |
| 25 x 25 x 32 | 5 | 45 | 97833400 | 69172 | 91359 |
| 32 x 32 x 25 | 5 | 30 | 97834300 | 69162 | 91360 |
| 40 x 40 x 25 | 1 | 23 | 97835300 | 69163 | 91361 |
| 40 x 40 x 32 | 1 | 22 | 97835400 | 69164 | 91362 |
| 50 x 50 x 25 | 1 | 17 | 97836300 | 62804 | 91363 |
| 50 x 50 x 32 | 1 | 12 | 97836400 | 62805 | 91364 |
| 50 x 50 x 40 | 1 | 12 | 97836500 | 69166 | 91365 |
| 63 x 63 x 25 | 1 | 11 | 97837300 | | 91125 |
| 63 x 63 x 32 | 1 | 10 | 97837400 | 61611 | 91126 |
| 63 x 63 x 50 | 1 | 7 | 97837600 | 61613 | 91127 |

METRIC TEES Poly x Poly x FI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|------------------|---------|------------|--------------|----------|---------|
| 16 x 16 x 1/2" | 10 | 170 | 97841100 | 69202 | 91366 |
| 20 x 20 x 1/2" | 10 | 120 | 97842100 | 69206 | 91367 |
| 20 x 20 x 3/4" | 10 | 120 | 97842200 | 69210 | 91368 |
| 25 x 25 x 1/2" | 10 | 80 | 97843100 | 69212 | 91369 |
| 25 x 25 x 3/4" | 10 | 70 | 97843200 | 69216 | 91370 |
| 25 x 25 x 1" | 10 | 70 | 97843300 | 69218 | 91371 |
| 32 x 32 x 3/4" | 5 | 45 | 97844200 | 69222 | 91372 |
| 32 x 32 x 1" | 5 | 45 | 97844300 | 69226 | 91373 |
| 32 x 32 x 1 1/4" | 5 | 40 | 97844400 | 69228 | 91374 |
| 40 x 40 x 1" | 1 | 25 | 97845300 | 69232 | 92071 |
| 40 x 40 x 1 1/4" | 1 | 25 | 97845400 | 69234 | 91375 |
| 40 x 40 x 1 1/2" | 1 | 23 | 97845500 | 69236 | 91376 |
| 50 x 50 x 1 1/2" | 1 | 18 | 97846500 | 69240 | 91377 |
| 50 x 50 x 2" | 1 | 15 | 97846600 | 69242 | 91378 |
| 63 x 63 x 1 1/4" | 1 | 19 | 97867500 | 69243 | 91143 |
| 63 x 63 x 1 1/2" | 1 | 9 | 97847500 | 69245 | 91144 |
| 63 x 63 x 2" | 1 | 9 | 97847600 | 61616 | 91145 |
| 75 x 75 x 2" | 1 | 8 | 97848600 | 69248 | 91146 |
| 90 x 90 x 3" | 1 | 4 | 97849800 | 69254 | 91147 |
| 110 x 110 x 4" | 1 | 3 | 97840900 | 69258 | 91148 |

METRIC TEES Poly x Poly x MI BSP

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|----------------|---------|------------|--------------|---------|
| 25 x 25 x 1/2" | 10 | 70 | 97893100 | 91379 |
| 25 x 25 x 3/4" | 10 | 70 | 97893200 | 91380 |

Philmac Mining & Industrial Fittings

METRIC ELBOWS Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------|---------|------------|--------------|----------|---------|
| 16 x 16 | 10 | 210 | 97851100 | 69541 | 91384 |
| 20 x 20 | 10 | 150 | 97852200 | 69543 | 91385 |
| 25 x 25 | 10 | 90 | 97853300 | 69540 | 91387 |
| 32 x 32 | 5 | 50 | 97854400 | 69542 | 91388 |
| 40 x 40 | 1 | 26 | 97855500 | 69544 | 91389 |
| 50 x 50 | 1 | 18 | 97856600 | | 91390 |
| 63 x 63 | 1 | 10 | 97857700 | 61601 | 91158 |
| 75 x 75 | 1 | 6 | 97858800 | | 91159 |
| 90 x 90 | 1 | 3 | 97859900 | | 91160 |
| 110 x 110 | 1 | 4 | 97850000 | | 91161 |



METRIC ELBOW 45° Poly x Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------|---------|------------|--------------|----------|---------|
| 20 x 20 | 10 | 180 | 97802800 | | 91391 |
| 25 x 25 | 10 | 100 | 97803800 | | 91392 |
| 32 x 32 | 5 | 50 | 97804800 | 69531 | 91393 |
| 40 x 40 | 1 | 29 | 97805800 | 69519 | 91394 |
| 50 x 50 | 1 | 19 | 97806800 | 69520 | 91395 |
| 63 x 63 | 1 | 12 | 97807800 | 61602 | 91167 |
| 110 x 110 | 1 | 4 | 97800800 | 69523 | 91168 |



METRIC ELBOWS Poly x FI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-------------|---------|------------|--------------|----------|---------|
| 16 x 1/2" | 10 | 330 | 97861100 | 69302 | 91396 |
| 20 x 1/2" | 10 | 270 | 97862100 | 69304 | 91397 |
| 20 x 3/4" | 10 | 220 | 97862200 | 69305 | 91398 |
| 25 x 1/2" | 10 | 150 | 97863100 | 69309 | 91399 |
| 25 x 3/4" | 10 | 130 | 97863200 | 69308 | 91400 |
| 25 x 1" | 10 | 130 | 97863300 | 69310 | 91401 |
| 32 x 3/4" | 1 | 80 | 97864200 | 69352 | 92074 |
| 32 x 1" | 5 | 90 | 97864300 | 69312 | 91402 |
| 32 x 1 1/4" | 5 | 80 | 97864400 | 69314 | 91403 |
| 40 x 1" | 1 | 50 | 97865300 | 69357 | 92075 |
| 40 x 1 1/4" | 1 | 50 | 97865400 | 62811 | 91404 |
| 40 x 1 1/2" | 1 | 45 | 97865500 | 69318 | 91405 |
| 50 x 1 1/2" | 1 | 30 | 97866500 | 69324 | 91406 |
| 50 x 2" | 1 | 27 | 97866600 | 69366 | 91407 |
| 63 x 1 1/2" | 1 | 25 | 97867500 | 62815 | 91183 |
| 63 x 2" | 1 | 19 | 97867600 | 61605 | 91184 |
| 75 x 2" | 1 | 7 | 97868600 | | 91185 |
| 75 x 3" | 1 | 7 | 97868800 | 69376 | 92076 |
| 90 x 3" | 1 | 9 | 97869800 | 69332 | 91186 |
| 110 x 4" | 1 | 6 | 97860900 | 69336 | 91187 |



METRIC ELBOWS Poly x MI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-------------|---------|------------|--------------|----------|---------|
| 20 x 1/2" | 10 | 220 | 97872100 | 69302 | 91409 |
| 20 x 3/4" | 1 | 200 | 97872200 | 69304 | 92077 |
| 25 x 1/2" | 1 | 120 | 97873100 | 69305 | 92078 |
| 25 x 3/4" | 10 | 120 | 97873200 | | 91410 |
| 25 x 1" | 1 | 100 | 97873300 | 69308 | 92079 |
| 32 x 1" | 5 | 75 | 97874300 | | 91411 |
| 32 x 1 1/4" | 1 | 70 | 97874400 | 62820 | 92080 |
| 40 x 1" | 1 | 30 | 97875300 | 69312 | 92081 |
| 40 x 1 1/4" | 1 | 30 | 97875400 | 69314 | 92082 |
| 40 x 1 1/2" | 1 | 30 | 97875500 | 69316 | 92083 |
| 50 x 1 1/2" | 1 | 18 | 97876500 | 69320 | 92084 |
| 63 x 2" | 1 | 5 | 97877600 | 69324 | 91199 |
| 75 x 3" | 1 | 7 | 97878810 | 69330 | 91200 |



Philmac® Mining & Industrial Fittings

METRIC END CAPS Poly

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|------|---------|------------|--------------|----------|---------|
| 16 | 10 | 460 | 97801900 | | 91415 |
| 20 | 10 | 280 | 97802900 | | 91416 |
| 25 | 10 | 170 | 97803900 | 69263 | 91417 |
| 32 | 5 | 105 | 97804900 | 69264 | 91418 |
| 40 | 1 | 55 | 97805900 | 69266 | 91419 |
| 50 | 1 | 40 | 97806900 | 69268 | 91420 |
| 63 | 1 | 24 | 97807900 | 69270 | 91207 |
| 75 | 1 | 18 | 97808900 | 61621 | 91208 |
| 90 | 1 | 4 | 97809900 | 69274 | 91209 |
| 110 | 1 | 4 | 97800900 | 69276 | 91210 |
| | | | | 69278 | |

METRIC WALL PLATE ELBOWS Poly x FI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------|---------|------------|------------------|----------|---------|
| 20 x 1/2" | 1 | 150 | 97822900 | 71563 | 91421 |
| 25 x 1/2" | 1 | 100 | 97823800 | | 91422 |
| 25 x 3/4" | 1 | 100 | 97823900 | 71564 | 91423 |
| 25 x 3/4" | 1 | 30 | 97824900 (Brass) | | 91424 |

Y SPANNERS

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|---------------|---------|------------|--------------|---------|
| 20-32 Alloy | 1 | 140 | 97802421 | 91221 |
| 20-32 Plastic | 1 | 250 | 97802431 | 91222 |
| 40-63 Alloy | 1 | 1 | 97805711 | 91223 |

METRIC FLANGED ADAPTORS Poly x Flange - Plastic Face with Metal Backing Ring (AS2129 Table E)

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|----------|---------|------------|--------------|----------|---------|
| 50 x 2" | 1 | 8 | 97896600 | 69036 | 91224 |
| 63 x 2" | 1 | 5 | 97887600 | | 91225 |
| 75 x 3" | 1 | 5 | 97898800 | 69042 | 91227 |
| 90 x 3" | 1 | 4 | 97899800 | | 91228 |
| 110 x 4" | 1 | 2 | 97890900 | 69048 | 91229 |

METRIC SHOULDERED ADAPTORS

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|----------|---------|------------|--------------|----------|---------|
| 50 x 2" | 1 | 25 | 97816620 | 69026 | 91231 |
| 63 x 2" | 1 | 20 | 97817620 | 61623 | 91232 |
| 90 x 4" | 1 | 30 | 97819910 | 69030 | 91233 |
| 110 x 4" | 1 | 4 | 97810910 | 69032 | 91234 |

METRIC SPANNERS (FOR PHILMAC METRIC FITTINGS)

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|--------|---------|------------|--------------|---------|
| 20-32 | 1 | 300 | 90702400 | 91235 |
| 32-63 | 1 | 130 | 90704700 | 91236 |
| 50-110 | 1 | 15 | 90706000 | 91237 |





Mining & Industrial Fittings

METRIC NUT ASSEMBLY WITH ACETAL GRIP RING & NBR O-RING

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| 20 | 1 | 200 | 97770200 | 91248 |
| 25 | 1 | 180 | 97770300 | 91249 |
| 32 | 1 | 100 | 97770400 | 91250 |
| 40 | 1 | 60 | 97770500 | 91251 |
| 50 | 1 | 50 | 97770600 | 91252 |
| 63 | 1 | 30 | 97770700 | 91253 |
| 75 | 1 | 25 | 97770810 | 91254 |
| 90 | 1 | 15 | 97770910 | 91255 |
| 110 | 1 | 8 | 97770110 | 91256 |

METRIC NUT ASSEMBLY WITH ACETAL GRIP RING & EPDM O’RING

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| 20 | 10 | 200 | 99970200 | 91441 |
| 25 | 10 | 180 | 99970300 | 91442 |
| 32 | 5 | 100 | 99970400 | 91443 |
| 40 | 5 | 60 | 99970500 | 91444 |
| 50 | 5 | 50 | 99970600 | 91445 |
| 63 | 5 | 30 | 99970700 | 91446 |
| 75 | 1 | 25 | 99970810 | 91447 |
| 90 | 1 | 15 | 99970910 | 91448 |
| 110 | 1 | 8 | 99970110 | 91449 |

METRIC NUT ASSEMBLY WITH POLYSULFONE GRIP RING & EPDM O-RING & PP SPACER

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| 20 | 1 | 200 | 90712210 | 91459 |
| 25 | 1 | 180 | 90713310 | 91460 |
| 32 | 1 | 100 | 90714410 | 91461 |
| 40 | 1 | 60 | 90715520 | 91462 |
| 50 | 1 | 50 | 90716610 | 91463 |
| 63 | 1 | 30 | 90717710 | 91464 |
| 75 | 1 | 25 | 90718810 | 91465 |
| 90 | 1 | 15 | 90719910 | 91273 |
| 110 | 1 | 8 | 90710010 | 91466 |

METRIC NUT ASSEMBLY WITH ACETAL GRIP RING & VITON O-RING & PP SPACER

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| 20 | 1 | 200 | 90702210 | 91450 |
| 25 | 1 | 180 | 90703310 | 91451 |
| 32 | 1 | 100 | 90704410 | 91452 |
| 40 | 1 | 60 | 90705510 | 91453 |
| 50 | 1 | 50 | 90706610 | 91454 |
| 63 | 1 | 30 | 90707710 | 91455 |
| 75 | 1 | 25 | 90708810 | 91456 |
| 90 | 1 | 15 | 90709910 | 91457 |
| 110 | 1 | 8 | 90700010 | 91458 |

NUT ASSEMBLY WITH POLYSULFONE SPLIT RING & VITON O-RING & PP SPACER

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| 20 | 1 | 200 | 99902210 | 92089 |
| 25 | 1 | 180 | 99903310 | 92090 |
| 32 | 1 | 100 | 99904410 | 92091 |
| 40 | 1 | 60 | 99905510 | 92092 |
| 50 | 1 | 50 | 99906610 | 92093 |
| 63 | 1 | 30 | 99907710 | 92094 |
| 75 | 1 | 25 | 99908810 | 92095 |
| 90 | 1 | 15 | 99909910 | 92096 |
| 110 | 1 | 8 | 99900010 | 92097 |



TECHNICAL INFORMATION



STANDARDS

Philmac Safelok® is a complete range of mechanical fittings designed to make connections simple when joining metric PE pipes.

Philmac Safelok®'s innovative and patented design comprises the following product mix;

| Product Description | Size (mm) | Maximum Operating Pressure (kPa) |
|--|----------------------------|----------------------------------|
| Compression fittings (PE x PE/FI BSP/MI BSP) | 16-110 | 1600 (16bar) |
| Accessories - Spanners - Clips | 75-110 75-110 75-110 | |

Philmac Safelok® range of compression fittings hold certificates for the following standards:

AS/NZS 4129: Fittings for polyethylene (PE) pipes for pressure applications.

AS/NZS 4020: Testing of products for use in contact with drinking water.

BS 6920: Products for use in contact with water intended for human consumption with regards to their effect on the quality of water.

Philmac Safelok® exceeds the requirements of:

ISO 14236: Plastics pipes and fittings -- Mechanical-joint compression fittings for use with polyethylene pressure pipes in water supply systems.

Philmac Safelok® threads and flanges comply with the requirements of the following standards:

AS 1722.1-1975: Pipe threads of Whitworth form - Sealing pipe threads (superceded by ISO7.1)

BS21: Specification for pipe threads for tubes and fittings where pressure-tight joints are made on the threads.

ISO7.1: Pipe threads where pressure joints are made on the threads.

AS 2129 Table E (Drill Pattern): Flanges for pipes, valves and fittings.

Philmac Safelok® fittings are suitable for use with pipes manufactured to the dimensions specified in the following standards:

AS/NZS 4130: Polyethylene pipes (PE) for pressure applications.

BS6730: Specification for black polyethylene pipes up to nominal size 63mm for above ground use for cold potable water.

BS 6572: Specification for blue polyethylene pipes up to nominal size 63mm for below ground use for potable water.

BS EN 12201-2:2003: Plastic piping systems for water supply. Polyethylene (PE). Pipes.

EN 12201: Plastic piping systems for water supply. Polyethylene (PE).

ISO 4427: Plastics piping systems -- Polyethylene (PE) pipes and fittings for water supply.

There are generally two types of PE pipe fittings; mechanical and thermofusion. Philmac Safelok® is a range of mechanical fittings that offers three distinct advantages over thermofusion fittings;

- More economical
- Quick and easy installation
- Quick and easy revision to installation

This section highlights engineering considerations when designing a PE pipe system with Philmac Safelok®.

SYSTEM CONSIDERATIONS

Projected life of Compression fittings
Whilst Philmac Safelok® conforms to institutionalised specifications written to have a minimum life of 50 years, its compression fittings are intentionally developed to exceed the expectations of these specifications.

Head Losses

The following table offers a guide in estimating head losses in PE pipe systems based on the conveyance of water.

Use the following formula to estimate this head loss;

$$L = F \times D$$

where L = head loss based on equivalent pipe length (m)

F = fitting constant

D = pipe inner diameter(m)

| Fitting | Fitting Constant (F) |
|----------------------------|----------------------|
| 90° elbow | 30 |
| 90° tee - straight through | 12 |
| 90° tee - side branch | 60 |

Resistance to Impact

Philmac Safelok® polypropylene body and nut has excellent impact properties compared to other plastic materials.

Abrasion Resistance

Philmac Safelok® is suitable for the transportation of abrasive slurries and will withstand normal conditions found in urban, mining, industrial, rural water and waste water systems.

Weathering

Black polypropylene material contains pigments to provide excellent protection against degradation from ultra-violet radiation. However, long term continuous use above ground does require fittings to be protected from direct sunlight.

Electrolytic Corrosion

The metal reinforcing rings on female threads are made from stainless steel (grade 316) and provide long term resistance to corrosion.

Thermal Insulation

Polypropylene has natural thermal insulation of 2000 times over copper and 200 times over steel.

Light Transmission

The Philmac Safelok® fittings do not transmit light, thus protecting the water quality in potable water pipelines from growth of micro organisms.

Effect on Water

Philmac Safelok® does not impart to the water any odour, taste, colour, or any constituents in concentrations that could be injurious to health.

Pressure Rating

Philmac Safelok® fittings are rated for PN16 and have a maximum operating pressure of 16 Bar, 1600kPa or 230psi.

Pipe Material

Philmac Safelok® fittings maintain their full rating on PE 100 (HDPE), PE 80B (MDPE) and PE 63 (LDPE)

Temperature Derating

Philmac Safelok® performance ratings are published at 20°C, for higher temperatures apply the same derating to the Philmac Safelok® fittings as applied to the PE pipe.

SAFELOK® CHEMICAL RESISTANCE

Fluids other than Water

Many factors can affect the chemical resistance of plastics. Some of these include temperature, pressure, exposure time, continuous or cyclic expose and the type of mechanical stress applied. The fact that certain combinations of chemicals and mechanical load can induce stress cracking in many otherwise chemically resistant materials, both metallic and non-metallic, is of particular significance.

Mixtures of chemicals can result in a performance quite different than that of each individual chemical. Equally vapours and corrosive liquids can often be combinations of chemicals.

Due to the number of parameters that influence the performance of metals and plastics in the presence of chemicals the performance can differ from a laboratory test. Philmac strongly recommends that the final decision be based on the results of a trial installation evaluated under actual service conditions.

Evaluation method

To evaluate the performance of Philmac Safelok® evaluate each of the materials used in the fittings by using material chemical performance tables.

Normally only the wetted area of the fitting, ie the Body and Seal need evaluation. For immersed applications the Split Ring and Spacer also need evaluation.

Philmac Assistance

To evaluate the performance of a material in the Philmac product in the presence of chemicals please contact Philmac and supply the following five parameters.

Size. What size is the valve and pipework?

Temperature. What temperature will the chemicals be at, is the temperature constant or cycling?

Application. Where and how is the valve being used? Is the chemical on the inside or is the valve immersed in the chemical, ie on the outside of the body rather than the inside?

Media. What chemical is being used? Is it a liquid or gas, is it one chemical or are there combinations? Are there surrounding chemicals or gases in the air?

Pressure. What pressure is being applied to the valve? Does it vary?

Remember the STAMP acronym.

CHEMICAL RESISTANCE

| Chemical | Satisfactory | Consult Philmac |
|----------------------------|--------------|-----------------|
| Ammonium Hydroxide | ▲ | |
| Alcohol | | ▲ |
| Acetone | ▲ | |
| Auto Transmission Fluid | | ▲ |
| Antifreeze | ▲ | |
| Benzene | | ▲ |
| Butane | | ▲ |
| Calcium Salts | ▲ | |
| Caustic Soda (40% aqueous) | ▲ | |
| Cresol | | ▲ |
| Citric Acid (10% aqueous) | ▲ | |
| Copper Salts | ▲ | |
| Ethylene Alcohol | ▲ | |
| Ethyl Glycol | ▲ | |
| Diesel | | ▲ |
| Formic Acid | ▲ | |
| Gasoline | | ▲ |
| Hydrochloric Acid | ▲ | |
| Kerosene | | ▲ |
| Mineral Oils | | ▲ |
| Methane | | ▲ |
| Methylene Chloride | | ▲ |
| Nitric Acid | | ▲ |
| Petroleum Oils | | ▲ |
| Sewerage | | ▲ |
| Sodium Cyanide | ▲ | |
| Sulphuric Acid | ▲ | |
| Toluene | | ▲ |
| Turpentine | | ▲ |
| Transformer Oil | | ▲ |
| Zinc Salt Solution | ▲ | |

Note: Fluid Temperature = 20°C

INSTALLATION INSTRUCTIONS - METRIC SAFELOK®



1. Cut Pipe Square

Clean the pipe end and ensure it is free from burrs. Chamfering or lubrication of pipe is not required.



2. Ready to Use Position

The fitting is pre-assembled and ready to use, however always ensure that 3 threads are showing before proceeding. Check that fitting body is lubricated - use water or CRC lubricant if required.



3. Witness Mark the Pipe

In the ready to use position lay the pipe against the fitting with the end of the pipe lined up with the flange of the body. Witness mark the section of pipe that is alongside the nut opening.



4. Pipe Insertion

Insert the pipe up to the witness mark, or if not using a witness mark until the first point of resistance is felt.



5. Nut Tightening

The nut should be tightened by hand and then firmly with a wrench. Tighten the nut all the way to the flange on the body of the fitting.

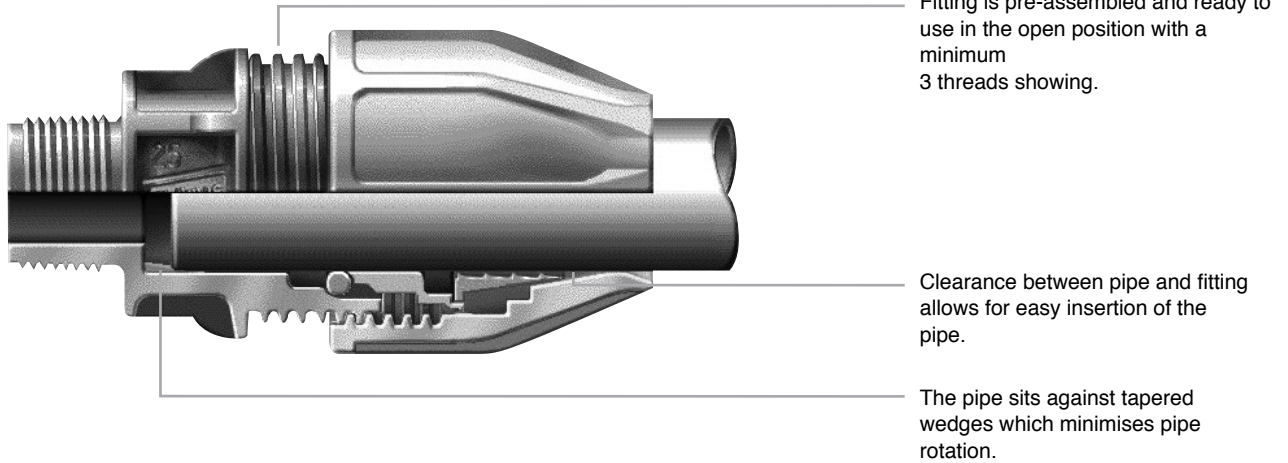


6. Fully Installed

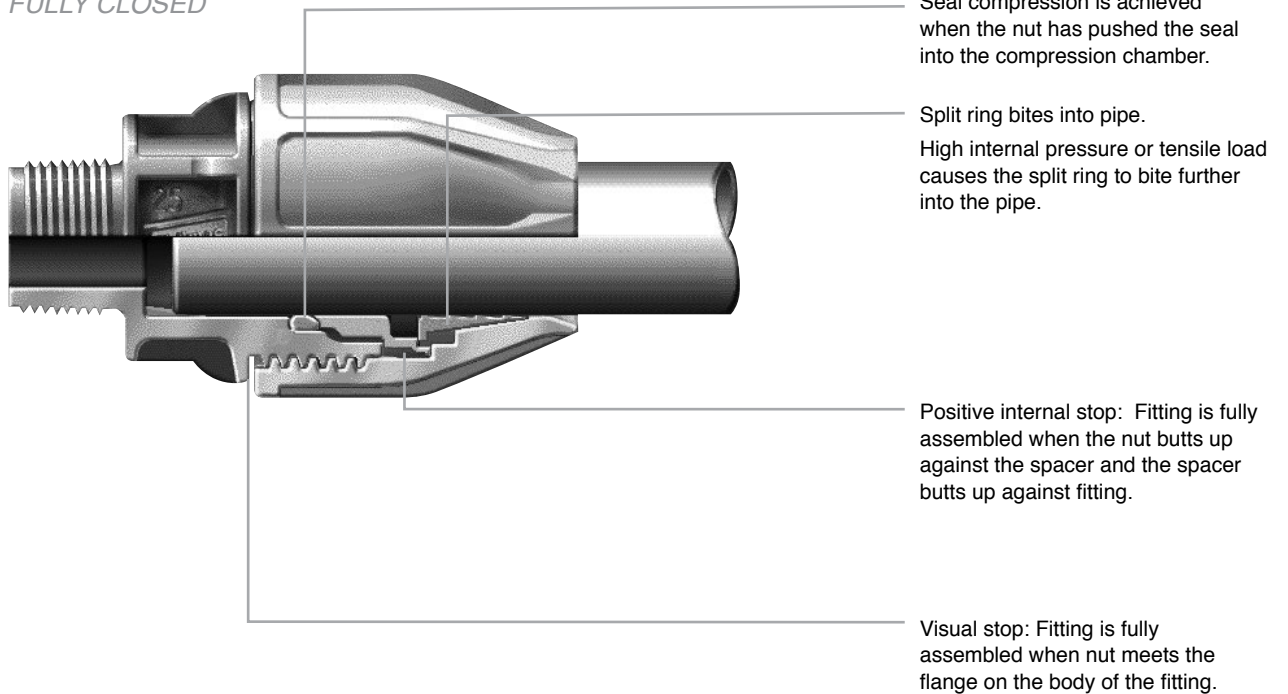
The fitting is now fully installed.

PRINCIPLES OF OPERATION – PHILMAC SAFELOK® METRIC COMPRESSION FITTINGS

FULLY OPEN



FULLY CLOSED



For further technical information refer to the Vinidex Website
www.vinidex.com.au



Philmac[®]

Rural Compression Fittings

The Philmac Rural range of Australian-Made compression fittings is the perfect connection for Australian rural B Class Poly pipe. Installation is easy with a simple to use insert assembly, and the fitting allows for straightforward disconnection and re-connection. Importantly, the Philmac Rural compression fitting range has been manufactured from high performance advanced thermoplastic materials so it is resistant to corrosion and has the strength and durability to provide a 50+ year service life.



FAST AND EASY INSTALLATION

INSERT ASSEMBLY

Because the insert is made from high performance polypropylene, once nut and split ring are on the pipe the installer can simply hammer the insert into the pipe end with a blunt tool.

PHILMAC'S RURAL INSERTS ARE ALSO SELF ALIGNING

Simply bring the insert into the body of the fitting and then tighten the nut with a wrench. As the nut tightens, it will draw the insert into the body of the fitting to create the perfect seal every time.

EASY DISASSEMBLY

The Rural compression fitting enables the joint to be easily disconnected and reconnected. Simply by loosening the nut and taking the insert out of the body of the fitting, the pipe can be freed. This is a real advantage when the pipe is connected to a pump or other piece of equipment which may require relocation or disconnection.

UNIQUE TERRACOTTA INSERT DESIGN

The flat face of the insert allows the installer to tap it into the pipe with ease. As the Philmac terracotta insert does not need to pass over a seal, there is no risk of damaging the seal during installation.

HIGH PERFORMANCE

MADE FROM ADVANCED THERMOPLASTIC MATERIALS

Rural compression fittings are manufactured from lightweight high performance thermoplastic materials which are designed to withstand the toughest outdoor conditions imaginable.

The materials are non-toxic and taint-free and also offer outstanding impact, UV and chemical resistance.

20 YEAR WARRANTY

Built to withstand the toughest conditions to ensure longevity and durability, Rural compression fittings have a market leading 20 year design life.

COMPLETE COVERAGE

WIDE RANGE

The Rural compression fitting range is comprehensive and includes straight and reducing joiners, tees, elbows, male and female adaptors, end caps, and wall plate elbows ranging from 1/2" to 2".

COMPATIBILITY WITH METRIC

The body on the Philmac rural fitting is 100% compatible with the Philmac metric fitting in sizes 3/4" to 2".

Philmac Rural Compression Fittings



RURAL JOINERS Pol x Pol

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------------|---------|------------|--------------|----------|---------|
| 1/2" x 1/2" | 10 | 240 | 70711100 | 69060 | 91000 |
| 3/4" x 3/4" | 10 | 170 | 99812200 | 68004 | 91467 |
| 1" x 1" | 10 | 110 | 99813300 | 68008 | 91468 |
| 1 1/4" x 1 1/4" | 5 | 60 | 99814400 | 68012 | 91469 |
| 1 1/2" x 1 1/2" | 5 | 35 | 99815500 | 68016 | 91470 |
| 2" x 2" | 1 | 20 | 99816600 | 68020 | 91471 |

COMPRESSION JOINER BODY RURAL Pol x Pol

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------------|---------|------------|--------------|----------|---------|
| 3/4" x 3/4" | 1 | 170 | 99812201 | 84005 | 91010 |
| 1" x 1" | 1 | 110 | 99813301 | 84006 | 91011 |
| 1 1/4" x 1 1/4" | 1 | 60 | 99814401 | 84007 | 91012 |
| 1 1/2" x 1 1/2" | 1 | 35 | 99815501 | 84008 | 91013 |
| 2" x 2" | 1 | 20 | 99816601 | 84009 | 91014 |

COMPRESSION REDUCING JOINER RURAL Pol x Pol

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------------|---------|------------|--------------|----------|---------|
| 3/4" x 1/2" | 10 | 170 | 99812100 | 68002 | 91473 |
| 1" x 3/4" | 10 | 130 | 99813200 | 68006 | 91474 |
| 1 1/4" x 1" | 5 | 70 | 99814300 | 68010 | 91475 |
| 1 1/2" x 1 1/4" | 5 | 45 | 99815400 | 68014 | 91476 |
| 2" x 1 1/2" | 1 | 25 | 99816500 | 68018 | 91477 |

COMPRESSION ADAPTOR RURAL Pol X MI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------------|---------|------------|--------------|----------|---------|
| 1/2" x 1/2" | 10 | 360 | 70721100 | 68902 | 91053 |
| 1/2" x 3/4" | 10 | 360 | 70721200 | 68904 | 91054 |
| 3/4" x 1/2" | 10 | 300 | 99822100 | 68024 | 91478 |
| 3/4" x 3/4" | 10 | 280 | 99822200 | 68026 | 91479 |
| 1" x 3/4" | 10 | 180 | 99823200 | 68028 | 91480 |
| 1" x 1" | 10 | 170 | 99823300 | 68030 | 91481 |
| 1 1/4" x 1" | 5 | 110 | 99824300 | 68032 | 91482 |
| 1 1/4" x 1 1/4" | 5 | 100 | 99824400 | 68034 | 91483 |
| 1 1/2" x 1 1/4" | 5 | 60 | 99825400 | 68036 | 91484 |
| 1 1/2" x 1 1/2" | 5 | 55 | 99825500 | 68038 | 91485 |
| 1 1/2" x 2" | 5 | 55 | 99825600 | | 91676 |
| 2" x 1 1/2" | 1 | 40 | 99826500 | 68040 | 91486 |
| 2" x 2" | 1 | 35 | 99826600 | 68042 | 91487 |



 Rural Compression Fittings

COMPRESSION ADAPTOR RURAL Pol x FI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------------|---------|------------|--------------|----------|---------|
| 1/2" x 1/2" | 10 | 230 | 70781100 | 68970 | 91080 |
| 1/2" x 3/4" | 10 | 230 | 70781200 | 68972 | 91081 |
| 3/4" x 1/2" | 10 | 280 | 99882100 | 68048 | 91488 |
| 3/4" x 3/4" | 10 | 250 | 99882200 | 68050 | 91489 |
| 1" x 3/4" | 10 | 180 | 99883200 | 68052 | 91490 |
| 1" x 1" | 10 | 170 | 99883300 | 68054 | 91491 |
| 1 1/4" x 1" | 5 | 105 | 99884300 | 68056 | 91492 |
| 1 1/4" x 1 1/4" | 5 | 100 | 99884400 | 68058 | 91493 |
| 1 1/2" x 1 1/4" | 5 | 60 | 99885400 | 68060 | 91494 |
| 1 1/2" x 1 1/2" | 5 | 55 | 99885500 | 68062 | 91495 |
| 2" x 1 1/2" | 1 | 40 | 99886500 | 68064 | 91496 |
| 2" x 2" | 1 | 35 | 99886600 | 68066 | 91497 |

COMPRESSION 90° ELBOW RURAL Pol x Pol

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------------|---------|------------|--------------|----------|---------|
| 1/2" x 1/2" | 10 | 240 | 70751100 | 69280 | 91151 |
| 3/4" x 3/4" | 10 | 150 | 99852200 | 68114 | 91498 |
| 1" x 1" | 10 | 100 | 99853300 | 68116 | 91499 |
| 1 1/4" x 1 1/4" | 5 | 50 | 99854400 | 68118 | 91500 |
| 1 1/2" x 1 1/2" | 5 | 30 | 99855500 | 68120 | 91501 |
| 2" x 2" | 1 | 20 | 99856600 | 68122 | 91502 |

COMPRESSION 90° ELBOW RURAL Pol x FI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------------|---------|------------|--------------|----------|---------|
| 1/2" x 1/2" | 10 | 230 | 70761100 | 69342 | 91169 |
| 3/4" x 1/2" | 10 | 240 | 99862100 | 68126 | 91503 |
| 3/4" x 3/4" | 10 | 240 | 99862200 | 68128 | 91504 |
| 1" x 1/2" | 10 | 180 | 99863100 | 68137 | 91505 |
| 1" x 3/4" | 10 | 150 | 99863200 | 68132 | 91506 |
| 1" x 1" | 10 | 140 | 99863300 | 68134 | 91507 |
| 1 1/4" x 1" | 5 | 100 | 99864300 | 68136 | 91508 |
| 1 1/4" x 1 1/4" | 5 | 80 | 99864400 | 68138 | 91509 |
| 1 1/2" x 1 1/4" | 5 | 50 | 99865400 | 68140 | 91510 |
| 1 1/2" x 1 1/2" | 5 | 50 | 99865500 | 68142 | 91511 |
| 2" x 1 1/2" | 1 | 35 | 99866500 | 68144 | 91512 |
| 2" x 2" | 1 | 28 | 99866600 | 68146 | 91513 |



Philmac Rural Compression Fittings

COMPRESSION 90° ELBOW RURAL Pol x MI BSP

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-------------|---------|------------|--------------|----------|---------|
| 1" x 3/4" | 10 | 150 | 99873200 | 68164 | 91514 |
| 1 1/4" x 1" | 5 | 80 | 99874300 | 68166 | 91515 |

COMPRESSION 90° TEE RURAL Pol x Pol x Pol

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|--------------------------|---------|------------|--------------|----------|---------|
| 1/2" x 1/2" x 1/2" | 10 | 130 | 70731100 | 69140 | 91101 |
| 3/4" x 3/4" x 3/4" | 10 | 100 | 99832200 | 68070 | 91516 |
| 1" x 1" x 1" | 5 | 60 | 99833300 | 68074 | 91517 |
| 1 1/4" x 1 1/4" x 1 1/4" | 5 | 30 | 99834400 | 68078 | 91518 |
| 1 1/2" x 1 1/2" x 1 1/2" | 1 | 20 | 99835500 | 68080 | 91519 |
| 2" x 2" x 2" | 1 | 14 | 99836600 | 68082 | 91520 |

COMPRESSION 90° REDUCING RURAL TEE Pol x Pol x Pol

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|--------------------------|---------|------------|--------------|----------|---------|
| 1" x 1" x 3/4" | 5 | 60 | 99833200 | | 91677 |
| 1" x 1" x 1 1/4" | 5 | 45 | 99833400 | | 91678 |
| 1 1/4" x 1 1/4" x 1" | 5 | 35 | 99834300 | 68076 | 91521 |
| 1 1/2" x 1 1/2" x 1" | 1 | 25 | 99835300 | 68069 | 91522 |
| 1 1/2" x 1 1/2" x 1 1/4" | 1 | 22 | 99835400 | 68079 | 91523 |
| 2" x 2" x 1" | 1 | 16 | 99836300 | 68085 | 91524 |
| 2" x 2" x 1 1/4" | 1 | 16 | 99836400 | 68077 | 91525 |
| 2" x 2" x 1 1/2" | 1 | 14 | 99836500 | 68081 | 91526 |

COMPRESSION 90° TEE RURAL Pol x Pol x FI

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|--------------------------|---------|------------|--------------|----------|---------|
| 1/2" x 1/2" x 1/2" | 10 | 200 | 70741100 | 69202 | 91129 |
| 3/4" x 3/4" x 1/2" | 10 | 140 | 99842100 | 68086 | 91527 |
| 3/4" x 3/4" x 3/4" | 10 | 120 | 99842200 | 68088 | 91528 |
| 1" x 1" x 1/2" | 10 | 80 | 99843100 | 68090 | 91529 |
| 1" x 1" x 3/4" | 10 | 80 | 99843200 | 68092 | 91530 |
| 1" x 1" x 1" | 10 | 80 | 99843300 | 68094 | 91531 |
| 1 1/4" x 1 1/4" x 3/4" | 5 | 50 | 99844200 | 68097 | 91532 |
| 1 1/4" x 1 1/4" x 1" | 5 | 50 | 99844300 | 68096 | 91533 |
| 1 1/4" x 1 1/4" x 1 1/4" | 5 | 40 | 99844400 | 68098 | 91534 |
| 1 1/2" x 1 1/2" x 1 1/4" | 5 | 25 | 99845400 | 68100 | 91535 |
| 1 1/2" x 1 1/2" x 1 1/2" | 5 | 25 | 99845500 | 68102 | 91536 |
| 2" x 2" x 1 1/2" | 1 | 17 | 99846500 | 68104 | 91537 |
| 2" x 2" x 2" | 1 | 17 | 99846600 | 68106 | 91538 |




Rural Compression Fittings
COMPRESSION 90° TEE RURAL Pol x Pol x MI

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|----------------|---------|------------|--------------|----------|---------|
| 1" x 1" x 1/2" | 10 | 70 | 99893100 | 68108 | 91539 |
| 1" x 1" x 3/4" | 10 | 70 | 99893200 | 68110 | 91540 |

COMPRESSION END PLUG RURAL Pol

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|--------|---------|------------|--------------|----------|---------|
| 1/2" | 10 | 360 | 70701900 | | 91201 |
| 3/4" | 10 | 300 | 99802900 | | 91541 |
| 1" | 10 | 200 | 99803900 | 62849 | 91542 |
| 1 1/4" | 5 | 115 | 99804900 | 62850 | 91543 |
| 1 1/2" | 5 | 55 | 99805900 | 62851 | 91544 |
| 2" | 1 | 40 | 99806900 | 62852 | 91545 |

CONVERSION KIT RURAL TO METRIC

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-------------|---------|------------|--------------|----------|---------|
| 3/4" x 20 | 1 | 250 | 70770200 | 71411 | 91215 |
| 1" x 25 | 1 | 180 | 70770300 | 71412 | 91216 |
| 1 1/4" x 32 | 1 | 100 | 70770400 | 71413 | 91217 |
| 1 1/2" x 40 | 1 | 75 | 70770500 | 71414 | 91218 |
| 2" x 50 | 1 | 30 | 70770700 | 71415 | 91220 |

CONVERSION KIT METRIC TO RURAL

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-------------|---------|------------|--------------|----------|---------|
| 20 x 3/4" | 1 | 180 | 99870200 | 71418 | 91546 |
| 25 x 1" | 1 | 180 | 99870300 | 71419 | 91547 |
| 32 x 1 1/4" | 1 | 100 | 99870400 | 71420 | 91548 |
| 40 x 1 1/2" | 1 | 75 | 99870500 | 71421 | 91549 |
| 50 x 2" | 1 | 50 | 99870600 | 71422 | 91550 |

BLANKING SETS FOR RURAL & METRIC FITTINGS

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|--------|---------|------------|--------------|---------|
| 3/4" | 10 | 260 | 97702200 | 91680 |
| 1" | 10 | 180 | 97703300 | 91681 |
| 1 1/4" | 5 | 100 | 97704400 | 91682 |
| 1 1/2" | 5 | 75 | 97705500 | 91683 |
| 2" | 5 | 40 | 97706600 | 91684 |

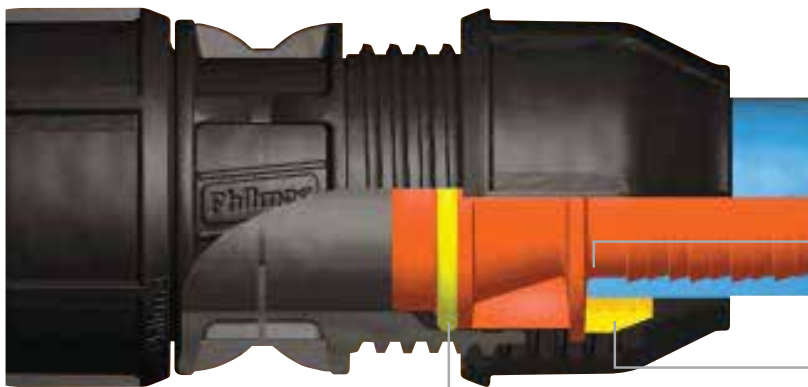


TECHNICAL INFORMATION



HOW IT WORKS

FULLY OPEN

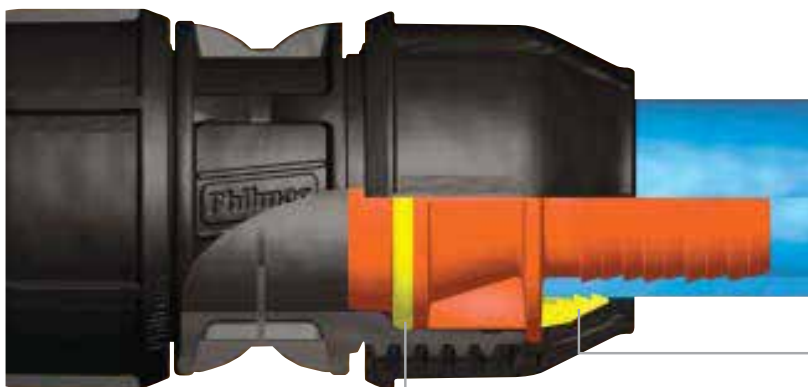


Insert fully installed into the pipe up to the shoulder of the insert.

Split ring is in the relaxed position.

Insert with seal ring attached has been pushed back into the fitting body.

FULLY CLOSED



Split ring bites into the pipe providing end load resistance.

Seal compression is achieved when nut has pushed the seal into the compression chamber.

RURAL INSTALLATION INSTRUCTIONS



1. Cut the pipe square (preference is with pipe cutters as a hacksaw can leave burrs which require removal).



2. Slide the nut and then the grip ring on to the pipe, noting correct orientation.



3. Place the insert in the pipe and knock in fully using a blunt object (a soft hammer or piece of timber is ideal) until the pipe end abuts the insert flange.



4. Position the grip ring against the flange of the insert.



5. Position the insert in to the fitting and slide the nut up to engage the thread. The nut can now be tightened by hand and then a further $\frac{1}{4}$ turn by wrench.



6. After tightening by hand please tighten nut a further $\frac{1}{4}$ turn using a wrench.



Philmac[®]

BSP Threaded Fittings

Philmac threaded fittings are manufactured from high performance, UV resistant polypropylene material that prevents moisture absorption and sustains product dimensions. The chemical and corrosion resistance provides reliable, long life connections suitable for diverse applications and is a cost effective alternative to metal fittings.

The precision BSP tapered threads have been engineered to maximise sealing performance and the hexagonal body makes them easy to install.

Philmac threaded fittings (excluding risers) are suitable for working pressures up to PN16 (1600kPa, 235psi) for sizes up to 2" and up to P10 (1000kPa, 145psi) for sizes up to 4". The fittings are manufactured to ISO9001 quality endorsed standards and include a comprehensive range of plugs, bushes, nipples, sockets, tees, elbows and caps. Australian made for Australian conditions - don't ask for a fitting, ask for a Philmac.





Philmac BSP Threaded Fittings



BSP NIPPLE MI x MI

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|----------|---------|------------|--------------|----------|---------|
| ¼ x ¼" | 10 | | RXHN06 | | 91685 |
| ¼ x ¼" | 10 | | RXHN08 | | 91686 |
| ¾ x ¾" | 10 | | RXHN10 | | 91687 |
| ½ x ½" | 20 | 700 | 90421100 | 68248 | 91551 |
| ¾ x ¾" | 20 | 420 | 90422200 | 68252 | 91552 |
| 1 x 1" | 20 | 260 | 90423300 | 68256 | 91553 |
| 1¼ x 1¼" | 10 | 150 | 90424400 | 68260 | 91554 |
| 1½ x 1½" | 10 | 100 | 90425500 | 68264 | 91555 |
| 2 x 2" | 10 | 60 | 90426600 | 68268 | 91556 |
| 2½ x 2½" | 1 | 90 | 90427700 | | 91688 |
| 3 x 3" | 1 | 65 | 90428800 | | 91689 |
| 4 x 4" | 1 | 35 | 90420000 | | 91690 |

BSP THREADED REDUCING NIPPLE

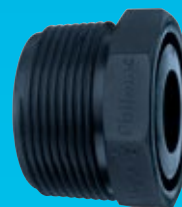
| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|----------|---------|------------|--------------|----------|---------|
| ¼ x ¼" | 10 | | RXRHN0806 | | 91691 |
| ¾ x ¾" | 10 | | RXRHN1006 | | 91692 |
| ¾ x ¼" | 10 | | RXRHN1008 | | 91693 |
| ½ x ¼" | 10 | | RXRHN1508 | | 91694 |
| ½ x ¾" | 10 | | RXRHN1510 | | 91695 |
| ¾ x ½" | 20 | 480 | 90422100 | 68250 | 91576 |
| 1 x ½" | 20 | 340 | 90423100 | 68251 | 91577 |
| 1 x ¾" | 20 | 260 | 90423200 | 68254 | 91578 |
| 1¼ x 1½" | 10 | 180 | 90424100 | 68255 | 91579 |
| 1¼ x ¾" | 10 | 170 | 90424200 | 68257 | 91580 |
| 1¼ x 1" | 10 | 160 | 90424300 | 68258 | 91581 |
| 1½ x ½" | 10 | 140 | 90425100 | 68261 | 91582 |
| 1½ x ¾" | 10 | 140 | 90425200 | 68253 | 91583 |
| 1½ x 1" | 10 | 140 | 90425300 | 68259 | 91584 |
| 1½ x 1¼" | 10 | 110 | 90425400 | 68262 | 91585 |
| 2 x ½" | 10 | 90 | 90426100 | 68267 | 91586 |
| 2 x ¾" | 10 | 90 | 90426200 | 68269 | 91587 |
| 2 x 1" | 10 | 90 | 90426300 | 68263 | 91588 |
| 2 x 1¼" | 10 | 80 | 90426400 | 68265 | 91589 |
| 2 x 1½" | 10 | 80 | 90426500 | 68266 | 91590 |
| 3 x 2" | 1 | 70 | 90428600 | | 91696 |
| 3 x 2½" | 1 | 70 | 90428700 | | 91697 |
| 4 x 3" | 1 | 50 | 90420800 | | 91698 |

BSP CAP FI

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|------|---------|------------|--------------|----------|---------|
| ¼" | 10 | | RXCP06 | | 91699 |
| ¼" | 10 | | RXCP08 | | 91700 |
| ¾" | 10 | | RXCP10 | | 91701 |
| ½" | 20 | 640 | 90490100 | 68286 | 91557 |
| ¾" | 20 | 500 | 90490200 | 68288 | 91558 |
| 1" | 20 | 320 | 90490300 | 68290 | 91559 |
| 1¼" | 10 | 180 | 90490400 | 68292 | 91560 |
| 1½" | 10 | 130 | 90490500 | 68294 | 91561 |
| 2" | 10 | 80 | 90490600 | 68296 | 91562 |

BSP PLUG

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|------|---------|------------|--------------|----------|---------|
| ¼" | 10 | | RXHP06 | | 91702 |
| ¼" | 10 | | RXHP08 | | 91703 |
| ¾" | 10 | | RXHP10 | 62853 | 91704 |
| ½" | 20 | 1100 | 90401100 | 68200 | 91563 |
| ¾" | 20 | 600 | 90402200 | 68202 | 91564 |
| 1" | 20 | 400 | 90403300 | 68204 | 91565 |
| 1¼" | 10 | 240 | 90404400 | 68206 | 91566 |
| 1½" | 10 | 180 | 90405500 | 68208 | 91567 |
| 2" | 10 | 100 | 90406600 | 68210 | 91568 |

Philmac BSP Threaded Fittings

BSP THREADED SOCKET FI

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|--------|---------|------------|--------------|----------|---------|
| 1/8" | 10 | | RXHS06 | | 91705 |
| 1/4" | 10 | | RXHS08 | | 91706 |
| 3/8" | 10 | | RXHS10 | | 91707 |
| 1/2" | 20 | 380 | 90431100 | 68270 | 91569 |
| 3/4" | 20 | 280 | 90432200 | 68272 | 91570 |
| 1" | 20 | 180 | 90433300 | 68274 | 91572 |
| 1 1/4" | 10 | 110 | 90434400 | 68276 | 91573 |
| 1 1/2" | 10 | 90 | 90435500 | 68278 | 91574 |
| 2" | 10 | 50 | 90436600 | 68280 | 91575 |

BSP REDUCING SOCKET

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|----------------|---------|------------|--------------|----------|---------|
| 1/4 x 1/8" | 10 | | RXRHS0806 | | 91708 |
| 3/8 x 1/8" | 10 | | RXRHS1006 | | 91709 |
| 3/8 x 1/4" | 10 | | RXRHS1008 | | 91710 |
| 1/2 x 1/4" | 10 | | RXRHS1508 | | 91711 |
| 1/2 x 3/8" | 10 | | RXRHS1510 | | 91712 |
| 3/4 x 1/4" | 10 | | RXRHS2008 | | 91713 |
| 3/4 x 1/2" | 20 | 280 | 90432100 | 68282 | 91571 |
| 1 x 1/2" | 20 | 180 | 90433100 | | 91715 |
| 1 x 3/4" | 20 | 180 | 90433200 | | 91716 |
| 1 1/4 x 3/4" | 10 | 120 | 90434200 | | 91717 |
| 1 1/4 x 1" | 10 | 110 | 90434300 | | 91718 |
| 1 1/2 x 3/4" | 10 | 100 | 90435200 | | 91719 |
| 1 1/2 x 1" | 10 | 100 | 90435300 | | 91720 |
| 1 1/2 x 1 1/4" | 10 | 90 | 90435400 | | 91721 |
| 2 x 1/2" | 10 | 70 | 90436100 | | 91722 |
| 2 x 3/4" | 10 | 60 | 90436200 | | 91723 |
| 2 x 1" | 10 | 60 | 90436300 | | 91724 |
| 2 x 1 1/4" | 10 | 50 | 90436400 | | 91725 |
| 2 x 1 1/2" | 10 | 50 | 90436500 | | 91726 |

BSP REDUCING BUSH

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|----------------|---------|------------|--------------|----------|---------|
| 1/4 x 3/8" | 10 | | RXRB0806 | | 91727 |
| 3/8 x 3/8" | 10 | | RXRB1006 | | 91728 |
| 1/8" x 1/4" | 10 | | RXRB1008 | | 91729 |
| 1/2 x 1/8" | 10 | | RXRB1506 | | 91730 |
| 1/2 x 1/4" | 10 | | RXRB1508 | | 91731 |
| 1/2 x 3/8" | 10 | | RXRB1510 | | 91732 |
| 3/4 x 1/4" | 10 | | RXRB2008 | | 91733 |
| 3/4 x 3/8" | 10 | | RXRB2010 | | 91734 |
| 3/4 x 1/2" | 20 | 700 | 90412100 | 68212 | 91591 |
| 1 x 1/4" | | | 90413000 | | 91735 |
| 1 x 1 1/2" | 20 | 380 | 90413100 | 68214 | 91592 |
| 1 x 3/4" | 20 | 380 | 90413200 | 68216 | 91593 |
| 1 1/4 x 1/2" | 10 | 240 | 90414100 | 68217 | 91594 |
| 1 1/4 x 3/4" | 10 | 240 | 90414200 | 68218 | 91595 |
| 1 1/4 x 1" | 10 | 240 | 90414300 | 68220 | 91596 |
| 1 1/2 x 1/2" | 10 | 180 | 90415100 | 68221 | 91597 |
| 1 1/2 x 3/4" | 10 | 180 | 90415200 | 68222 | 91598 |
| 1 1/2 x 1" | 10 | 180 | 90415300 | 68224 | 91599 |
| 1 1/2 x 1 1/4" | 10 | 180 | 90415400 | 68226 | 91600 |
| 2 x 1/2" | 10 | 100 | 90416100 | 68227 | 91601 |
| 2 x 3/4" | 10 | 100 | 90416200 | 68228 | 91602 |
| 2 x 1" | 10 | 100 | 90416300 | 68230 | 91603 |
| 2 x 1 1/4" | 10 | 100 | 90416400 | 68232 | 91604 |
| 2 x 1 1/2" | 10 | 100 | 90416500 | 68234 | 91605 |
| 3 x 2" | 1 | 100 | 90418600 | 68246 | 91606 |
| 3 x 2 1/2" | 1 | 100 | 90418700 | 68247 | 91607 |
| 4 x 2" | 1 | 50 | 90410600 | 68244 | 91608 |
| 4 x 3" | 1 | 50 | 90410800 | 68245 | 91609 |

BSP THREADED TEE

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|--------|---------|------------|--------------|----------|---------|
| 1/2" | 10 | 210 | 90451100 | 68298 | 91610 |
| 3/4" | 10 | 120 | 90452200 | 68300 | 91611 |
| 1" | 10 | 80 | 90453300 | 68302 | 91612 |
| 1 1/4" | 5 | 40 | 90454400 | 68304 | 91613 |
| 1 1/2" | 5 | 30 | 90455500 | 68306 | 91614 |
| 2" | 1 | 21 | 90456600 | 68308 | 91615 |

Philmac BSP Threaded Fittings

BSP THREADED ELBOW

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|------|---------|------------|--------------|----------|---------|
| ½" | 10 | 300 | 90461100 | 68310 | 91616 |
| ¾" | 10 | 180 | 90462200 | 68312 | 91617 |
| 1" | 10 | 120 | 90463300 | 68314 | 91618 |
| 1¼" | 5 | 70 | 90464400 | 68316 | 91619 |
| 1½" | 5 | 50 | 90465500 | 68318 | 91620 |
| 2" | 1 | 30 | 90466600 | 68320 | 91621 |

BSP THREADED ELBOW FI/MI

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|----------|---------|------------|--------------|----------|---------|
| ½ x ½" | 10 | 420 | 90469100 | 68311 | 91622 |
| ¾ x ¾" | 10 | 220 | 90469200 | 68313 | 91623 |
| 1 x 1" | 10 | 130 | 90469300 | 68315 | 91624 |
| 1¼ x 1¼" | 5 | 75 | 90469400 | | 91736 |
| 1½ x 1½" | 5 | 50 | 90469500 | | 91737 |
| 2 x 2" | 1 | 30 | 90469600 | | 91738 |

BSP THREADED ELBOW MI/MI

| Size | Min QTY | Philmac Code | VX Code |
|------|---------|--------------|---------|
| ¾" | 10 | RXTME06 | 91739 |
| ¼" | 10 | RXTME08 | 91740 |
| 3/8" | 10 | RXTME10 | 91741 |

BARREL UNIONS

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| ¾" | 1 | 120 | APU20 | 91742 |
| 1" | 1 | 120 | APU25 | 91743 |
| 1¼" | 1 | 60 | APU32 | 91744 |
| 1½" | 1 | 60 | APU40 | 91745 |
| 2" | 1 | 35 | APU50 | 91746 |

TANK OUTLETS

| Size | Min QTY | Philmac Code | VX Code |
|------|---------|--------------|---------|
| ½" | 1 | 90103100 | 91747 |
| ¾" | 1 | 90103200 | 91748 |
| 1" | 1 | 90103300 | 91749 |
| 1¼" | 1 | 90103400 | 91750 |
| 1½" | 1 | 90103500 | 91751 |
| 2" | 1 | 90103600 | 91752 |

TANK ADAPTOR (SHUTTLE)

| Size | Min QTY | Philmac Code | VX Code |
|------|---------|--------------|---------|
| 2" | 1 | 51270 | 91753 |

NUT & TAILS FI BSP x BARB

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|----------|---------|------------|--------------|---------|
| ¾ x ½" | 10 | 250 | 90105100 | 91754 |
| ¾ x ¾" | 10 | 200 | 90105200 | 91755 |
| 1 x ½" | 10 | 200 | 90105300 | 91756 |
| 1 x ¾" | 10 | 150 | 90105400 | 91757 |
| 1 x 1" | 10 | 150 | 90105500 | 91758 |
| 1¼ x 1¼" | 5 | 100 | 90105600 | 91759 |
| 1½ x 1½" | 5 | 75 | 90105700 | 91760 |
| 2 x 2" | 5 | 50 | 90105800 | 91761 |

MALE BARB CONNECTORS BARB x MI BSP

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|----------|---------|------------|--------------|---------|
| ¾ x ¾" | 10 | 250 | 90106110 | 91762 |
| 1 x ¾" | 10 | 300 | 90106200 | 91763 |
| 1 x 1" | 10 | 150 | 90106310 | 91764 |
| 1 x 1¼" | 10 | 150 | 90106400 | 91765 |
| 1¼ x 1" | 10 | 150 | 90106500 | 91766 |
| 1¼ x 1¼" | 5 | 150 | 90106610 | 91767 |
| 1½ x 1½" | 5 | 90 | 90106710 | 91768 |
| 2 x 2" | 5 | 60 | 90106810 | 91769 |

BARB JOINERS BARB x BARB

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|---------|------------|--------------|---------|
| 1¼" | 5 | 100 | 90108100 | 91778 |
| 1½" | 5 | 100 | 90108200 | 91779 |
| 2" | 5 | 60 | 90108300 | 91780 |



Philmac BSP Threaded Fittings

MALE BARB CONNECTORS HELICAL BARB x MI BSP

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|----------|---------|------------|--------------|---------|
| ¾ x ¾" | 10 | 250 | 90106100 | 91770 |
| 1 x 1" | 5 | 150 | 90106300 | 91771 |
| 1¼ x 1¼" | 5 | 150 | 90106600 | 91772 |
| 1½ x 1½" | 5 | 90 | 90106700 | 91773 |
| 2 x 2" | 5 | 60 | 90106800 | 91774 |

FEMALE BARB CONNECTORS BARB x FI BSP

| Size | Min QTY | Carton QTY | Philmac Code | VX Code |
|----------|---------|------------|--------------|---------|
| 1 x 1" | 10 | 150 | 90107100 | 91775 |
| 1¼ x 1¼" | 5 | 100 | 90107200 | 91776 |
| 1½ x 1½" | 5 | 100 | 90107300 | 91777 |

PIPE RISERS MI X FI (PP/PE)

| Size | Length (mm) | Min QTY | Carton QTY | Philmac Code | VX Code |
|---------|-------------|---------|------------|--------------|---------|
| ¾" x ½" | 150 | 10 | 170 | 90444200 | 90935 |
| ¾" x ½" | 300 | 10 | 90 | 90444300 | 90936 |
| ¾" x ½" | 450 | 10 | 100 | 90444400 | 90937 |
| ¾" x ½" | 600 | 10 | 100 | 90444600 | 90938 |
| ¾" x ½" | 750 | 10 | 100 | 90444700 | 90939 |
| 1" x ¾" | 150 | 10 | 100 | 90445200 | 90940 |
| 1" x ¾" | 300 | 10 | 60 | 90445300 | 90941 |
| 1" x ¾" | 450 | 10 | 70 | 90445400 | 90942 |
| 1" x ¾" | 600 | 10 | 70 | 90445600 | 90943 |
| 1" x ¾" | 1800 | 1 | - | 90445900 | 90944 |
| 1" x ¾" | 2400 | 1 | - | 90446000 | 90945 |

PIPE RISERS MI X MI (PP/PE)

| Size | Length (mm) | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|-------------|---------|------------|--------------|---------|
| ½" | 150 | 10 | 240 | 90441200 | 90946 |
| ½" | 300 | 10 | 140 | 90441300 | 90947 |
| ½" | 450 | 10 | 160 | 90441400 | 90948 |
| ½" | 600 | 10 | 150 | 90441600 | 90949 |
| ½" | 900 | 10 | 150 | 90441800 | 90950 |
| ¾" | 150 | 10 | 170 | 90442200 | 90951 |
| ¾" | 300 | 10 | 90 | 90442300 | 90952 |
| ¾" | 450 | 10 | 100 | 90442400 | 90953 |
| ¾" | 600 | 10 | 100 | 90442600 | 90954 |
| ¾" | 750 | 10 | 100 | 90442700 | 90955 |
| ¾" | 900 | 10 | 100 | 90442800 | 90956 |
| 1" | 150 | 10 | 100 | 90443200 | 90957 |
| 1" | 300 | 10 | 60 | 90443300 | 90958 |
| 1" | 450 | 10 | 70 | 90443400 | 90959 |
| 1" | 600 | 10 | 70 | 90443600 | 90960 |
| 1" | 750 | 10 | 60 | 90443700 | 90961 |
| 1" | 900 | 10 | 60 | 90443800 | 90962 |
| 1" | 1800 | 10 | - | 90443900 | 90963 |
| 1" | 1200 | 1 | - | 90444000 | 90964 |
| 1" | 2100 | 1 | - | 90443000 | 90965 |
| 1¼" | 450 | 1 | 45 | 90446400 | 90966 |
| 1¼" | 600 | 1 | 45 | 90446600 | 90967 |
| 1¼" | 900 | 1 | - | 90446700 | 90968 |
| 1¼" | 1800 | 1 | - | 90446800 | 90969 |
| 1¼" | 2100 | 1 | - | 90446900 | 90970 |
| 1½" | 300 | 1 | 45 | 90447300 | 90971 |
| 1½" | 450 | 1 | 30 | 90447400 | 90972 |
| 1½" | 600 | 1 | 30 | 90447600 | 90973 |
| 1½" | 900 | 1 | 30 | 90447700 | 90974 |
| 1½" | 1800 | 1 | - | 90447800 | 90975 |
| 2" | 300 | 1 | 20 | 90448300 | 90976 |
| 2" | 450 | 1 | 20 | 90448400 | 90977 |
| 2" | 600 | 1 | 20 | 90448600 | 90978 |
| 2" | 900 | 1 | - | 90448700 | 90979 |
| 2" | 1200 | 1 | - | 90448800 | 90980 |
| 2" | 2400 | 1 | - | 90448900 | 90981 |

TEMPORARY METER SPACERS (MI BSP X MI BSP)

| Size | Length (mm) | Min QTY | Carton QTY | Philmac Code | VX Code |
|------|-------------|---------|------------|--------------|---------|
| 20 | 240 | 1 | - | 90447000 | 90982 |
| 25 | 270 | 1 | - | 90448000 | 90983 |





Philmac[®]

Tapping Saddles

Philmac offer a range of both metric and rural tapping saddles to suit polyethylene pressure pipe and rural class B poly pipe respectively. Both ranges offer either zinc plated or stainless steel nuts and bolts to suit a wide range of tough applications, with a standard female BSP thread - providing a simple off-take method for your existing poly pipe system.

The Philmac rural tapping saddles are suited for Class B Rural Pipe for low pressure applications.

The Philmac metric tapping saddles are suited for metric poly pressure pipe up to PN16 pressure applications.



FEATURES

PN16 pressure rating. Complies to specification AS4129, "Fittings for PE Pipes for pressure applications".

Nitrile sealing gasket for excellent sealing performance and chemical resistance.

Suitable for contact with potable water – complies with AS3855 and AS4020.

High grade polypropylene body selected for its tough, high impact, lightweight, and durable properties.

Stainless steel reinforcing rings on threaded branch (Metric only).

Bolt clips to facilitate easy assembly.

Bolt hole guides to assist bolt insertion.

Hexagon moulding to prevent bolt turning during assembly.

Supplied with either Class 316 Stainless Steel or Zinc electroplated steel nuts and bolts.

Philmac Tapping Saddles



TAPPING SADDLE RURAL ZINC BOLTS

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|---------|---------|------------|--------------|----------|---------|
| 1 x ¾" | 1 | 70 | 90803200 | | 91627 |
| 1¼ x ¾" | 1 | 70 | 90804200 | | 91628 |
| 1¼ x 1" | 1 | 70 | 90804300 | | 91629 |
| 1½ x ¾" | 1 | 70 | 90805200 | | 91630 |
| 1½ x 1" | 1 | 70 | 90805300 | | 91631 |
| 2 x ¾" | 1 | 110 | 90806200 | 68156 | 91625 |
| 2 x 1" | 1 | 110 | 90806300 | 68158 | 91626 |

SS 304 NUT & BOLT KIT (2)

| Size | Min QTY | Philmac Code | VX Code |
|------|---------|--------------|---------|
| | 1 | 40804600 | 91885 |

TAPPING SADDLE RURAL - POLY X FI BSP - SS NUTS & BOLTS

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|---------|---------|------------|--------------|----------|---------|
| 1 x ¾" | 1 | 70 | 90853200 | 68504 | 91886 |
| 1¼ x ¾" | 1 | 70 | 90854200 | 68509 | 91887 |
| 1¼ x 1" | 1 | 70 | 90854300 | 68510 | 91888 |
| 1½ x ¾" | 1 | 70 | 90855200 | 68514 | 91889 |
| 1½ x 1" | 1 | 70 | 90855300 | 68516 | 91890 |
| 2 x ¾" | 1 | 110 | 90856200 | 68156 | 91891 |
| 2 x 1" | 1 | 110 | 90856300 | 68158 | 91892 |



METRIC TAPPING SADDLES PN16 (PE/PP x FI BSP – with Zinc Plated Nuts and Bolts)

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------|---------|------------|--------------|----------|---------|
| 25 x ¾" | 1 | 150 | 97703200 | | 91893 |
| 32 x ¾" | 1 | 100 | 97704200 | | 91894 |
| 32 x 1" | 1 | 100 | 97704300 | | 91895 |
| 40 x ¾" | 1 | 75 | 97705200 | | 91896 |
| 40 x 1" | 1 | 75 | 97705300 | | 91897 |
| 50 x ¾" | 1 | 50 | 99006200 | 68520 | 91634 |
| 50 x 1" | 1 | 50 | 99006300 | 68522 | 91635 |
| 63 x ¾" | 1 | 40 | 99007200 | 68528 | 91636 |
| 63 x 1" | 1 | 40 | 99007300 | 68530 | 91637 |
| 63 x 1½" | 1 | 40 | 97707500 | 68534 | 91898 |
| 75 x 1" | 1 | 25 | 97708300 | 68540 | 91640 |
| 75 x 1½" | 1 | 25 | 97708500 | 68544 | 91641 |
| 75 x 2" | 1 | 25 | 97708600 | 68546 | 91642 |
| 90 x 1" | 1 | 20 | 97709300 | 68552 | 91643 |
| 90 x 1½" | 1 | 20 | 97709500 | 68556 | 91644 |
| 90 x 2" | 1 | 20 | 97709600 | 68558 | 91645 |
| 110 x 1" | 1 | 18 | 97700300 | 68564 | 91646 |
| 110 x 1½" | 1 | 18 | 97700500 | 68568 | 91647 |
| 110 x 2" | 1 | 18 | 97700600 | 68570 | 91648 |

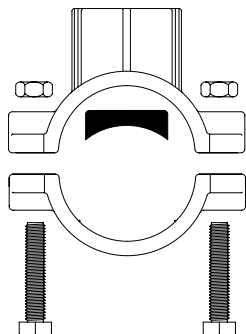

Tapping Saddles
METRIC TAPPING SADDLES PN16 (PE/PP X FI BSP – with Stainless Steel Nuts and Bolts)

| Size | Min QTY | Carton QTY | Philmac Code | Old Code | VX Code |
|-----------|---------|------------|--------------|----------|---------|
| 25 x ¾" | 1 | 150 | 97753200 | 68505 | 91649 |
| 32 x ¾" | 1 | 100 | 97754200 | 68509 | 91650 |
| 32 x 1" | 1 | 100 | 97754300 | 68511 | 91651 |
| 40 x ¾" | 1 | 75 | 97755200 | 68515 | 91652 |
| 40 x 1" | 1 | 75 | 97755300 | 68517 | 91653 |
| 50 x ¾" | 1 | 50 | 99056200 | 68521 | 91654 |
| 50 x 1" | 1 | 50 | 99056300 | 68523 | 91655 |
| 63 x ¾" | 1 | 40 | 99057200 | 68529 | 91656 |
| 63 x 1" | 1 | 40 | 99057300 | 68531 | 91657 |
| 63 x 1½" | 1 | 40 | 97757500 | 68535 | 91658 |
| 75 x ¾" | 1 | 25 | 97758200 | 68539 | 91659 |
| 75 x 1" | 1 | 25 | 97758300 | 68541 | 91660 |
| 75 x 1½" | 1 | 25 | 97758500 | 68545 | 91661 |
| 75 x 2" | 1 | 25 | 97758600 | 68547 | 91662 |
| 90 x 1" | 1 | 20 | 97759300 | 68553 | 91663 |
| 90 x 1½" | 1 | 20 | 97759500 | 68557 | 91664 |
| 90 x 2" | 1 | 20 | 97759600 | 68559 | 91665 |
| 110 x 1" | 1 | 18 | 97750300 | 68565 | 91666 |
| 110 x 1½" | 1 | 18 | 97750500 | 68589 | 91667 |
| 110 x 2" | 1 | 18 | 97750600 | 68571 | 91668 |

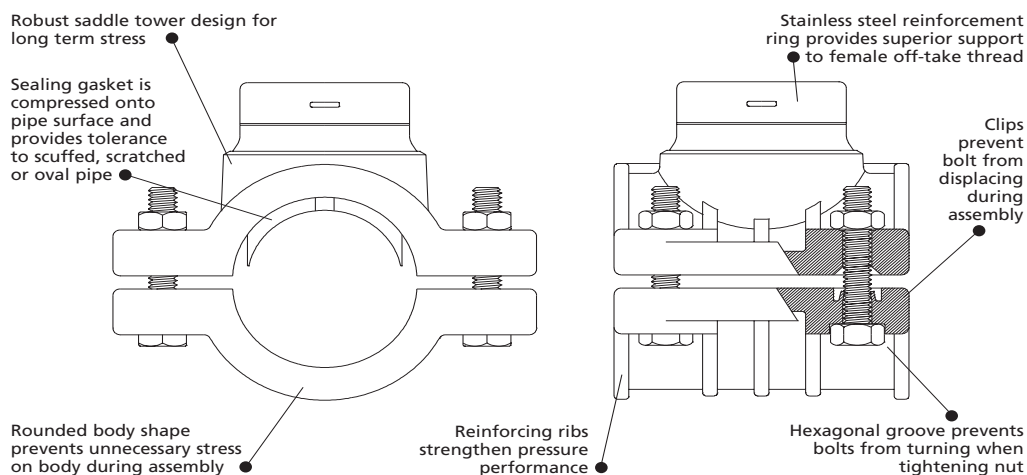


TECHNICAL INFORMATION

ASSEMBLY



- Insert Rubber Seal Into Saddle Top.
- Insert Bolts Into Saddle Bottom And Push Bolt Head Into Hex Recess.
- Assemble Saddle Halves In The Desired Location Around Rural Poly Pipe.
- Engage Each Nut And Then Fully Tighten Until Firm And Saddle Halves Have Met.
- Drill Hole In Pipe For Branch Outlet.
- Connect Desired Threaded Fitting To Branch Outlet, Using Ptfе Tape.



Use

Can be used to fit a wide range of pipes from PN6.3 to PN16 including MDPE, HDPE, PP or ABS that have metric external diameter dimensions.

Pre Assembly

Select branch off-take position, clean pipe, ensure easy access and mark hole. Place saddle upper body and align outlet branch with marked hole.

Assembly

Place saddle lower body over pipe. Ensure thread of bolts are clean before placing in saddle. Tighten all bolts alternately around saddle. ensure saddle off-take hole stays in alignment with marked hole. Drill suitable sized hole through orifice of saddle with boring tool. Ensure that the threads and gasket are not damaged.

Disassembly

Loosen and detach all bolts around saddle.

Note:

1. Philmac recommends the use of PTFE tape on BSP threads to ensure a positive seal.
2. Philmac uses 316 high class Stainless Steel nuts and bolts. Inherent in the nature of all Stainless Steel nuts and bolts is that they can fuse following installation. Lubrication of threads before installation may help to prevent this occurring.

For further technical information refer to the Vinidex Website www.vinidex.com.au



Philmac[®]

Valves

Valves play an integral part in the performance, management and control of water quality, flow and pressure within a pipe system. Philmac manufactures a broad range of valves, each designed to cater for an array of applications. From the iconic blue handled poly ball valve, through to precision designed float and ratio valves, Philmac valves are recognized for quality and reliability. Whether you require high flow, high shutoff, compact size, plastic or metal, tapered or parallel threads, above or below water installation – it is highly likely Philmac has a valve to suit your application.





Philmac[®] Ball Valves

FI x FI BSP PN16

| Size Imperial | Size Metric | Min QTY | Pressure Rating (BAR) | Philmac Code | VX Code |
|---------------|-------------|---------|-----------------------|--------------|---------|
| ½" | 15 | 1 | 16 | 95500100 | 91669 |
| ¾" | 20 | 1 | 16 | 95500200 | 91670 |
| 1" | 25 | 1 | 16 | 95500300 | 91671 |
| 1¼" | 32 | 1 | 16 | 95500400 | 91672 |
| 1½" | 40 | 1 | 16 | 95500500 | 91673 |
| 2" | 50 | 1 | 16 | 95500600 | 91674 |

MI x FI BSP PN16

| Size Imperial | Size Metric | Min QTY | Pressure Rating (BAR) | Philmac Code | VX Code |
|---------------|-------------|---------|-----------------------|--------------|---------|
| ½" | 15 | 1 | 16 | 95510100 | 91899 |
| ¾" | 20 | 1 | 16 | 95510200 | 91900 |
| 1" | 25 | 1 | 16 | 95510300 | 91901 |
| 1¼" | 32 | 1 | 16 | 95510400 | 91902 |
| 1½" | 40 | 1 | 16 | 95510500 | 91903 |
| 2" | 50 | 1 | 16 | 95510600 | 91904 |

FI x FI BSP – Purple

| Size Imperial | Size Metric | Min QTY | Pressure Rating (BAR) | Philmac Code | VX Code |
|---------------|-------------|---------|-----------------------|--------------|---------|
| ¾" | 20 | 1 | 16 | 98510200 | 91905 |
| 1" | 25 | 1 | 16 | 98510300 | 91906 |
| 1½" | 40 | 1 | 16 | 98510500 | 91907 |
| 2" | 50 | 1 | 16 | 98510600 | 91908 |

MAIN STOP (MI DR Brass x Poly) – TESTED

| Size Imperial | Min QTY | Philmac Code | VX Code |
|-----------------------|---------|--------------|---------|
| (Blue Handle) ¾" x 25 | 1 | 95544900 | 91909 |
| (Blue Handle) ¾" x 32 | 1 | 95545900 | 91910 |

CURB STOP (Poly x FI BSP with Tape & Plug) – TESTED

| Size Imperial | Min QTY | Philmac Code | VX Code |
|-----------------------|---------|--------------|---------|
| (Blue Handle) 25 x ¾" | 1 | 95540800 | 91911 |
| (Blue Handle) 32 x ¾" | 1 | 95545800 | 91912 |

MAIN STOP (MI DR Brass x Poly) - TESTED – Purple

| Size Imperial | Min QTY | Philmac Code | VX Code |
|-------------------------|---------|--------------|---------|
| (Purple Handle) ¾" x 25 | 1 | 95546900 | 91913 |
| (Purple Handle) ¾" x 32 | 1 | 95547900 | 91914 |



Philmac® Ball Valves
CURB STOP (Poly x FI BSP with Tape and Plug) - TESTED – Purple

| Size Imperial | Min QTY | Philmac Code | VX Code |
|-------------------------|---------|--------------|---------|
| (Purple Handle) 25 x ¾" | 1 | 95541800 | 91915 |
| (Purple Handle) 32 x ¾" | 1 | 95544800 | 91916 |

FOOT VALVES FI BSP

| Size Imperial | Size Metric | Min QTY | Pressure Rating (BAR) | Philmac Code | VX Code |
|---------------|-------------|---------|-----------------------|--------------|---------|
| ¾" | 20 | 5 | 14 | 95501200 | 91917 |
| 1" | 25 | 5 | 14 | 95501300 | 91918 |
| 1¼" | 32 | 5 | 14 | 95501400 | 91919 |
| 1½" | 40 | 2 | 14 | 95501500 | 91920 |
| 2" | 50 | 2 | 14 | 95501600 | 91921 |

FOOT VALVE FILTER

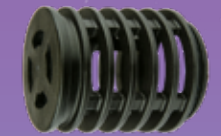
| Nom Size | BSP Size | Carton QTY | Philmac Code | VX Code |
|----------|----------|------------|--------------|---------|
| 20 | ¾" | 1 | 40501207 | 93407 |
| 25 | 1" | 1 | 40501307 | 93408 |
| 32 | 1¼" | 1 | 40501407 | 93409 |
| 40 | 1½" | 1 | 40501507 | 93410 |
| 50 | 2" | 1 | 40501607 | 93411 |

NON RETURN VALVES FI x FI BSP

| Size Imperial | Size Metric | Min QTY | Pressure Rating (BAR) | Philmac Code | VX Code |
|---------------|-------------|---------|-----------------------|--------------|---------|
| ¾" | 20 | 5 | 14 | 95502200 | 91922 |
| 1" | 25 | 5 | 14 | 95502300 | 91923 |
| 1¼" | 32 | 5 | 14 | 95502400 | 91924 |
| 1½" | 40 | 2 | 14 | 95502500 | 91925 |
| 2" | 50 | 2 | 14 | 95502600 | 91675 |

AIR RELEASE VALVE FI BSP

| Size Imperial | Min QTY | Philmac Code | VX Code |
|----------------------------------|---------|--------------|---------|
| 1" | 5 | 95503300 | 91926 |
| 1" dual action air release valve | | 93072 | 91927 |
| 2" dual action air release valve | | 93087 | 91928 |



Philmac® Float Valves

200 SERIES BRASS HIGH FLOW FLOAT VALVE

| Size | Rec. Float Size | Min QTY | Philmac Code | VX Code |
|---------------------------------|-----------------|---------|--------------|---------|
| 1" Valve - HP 400mm lever | 225 | 1 | 90322300 | 91929 |
| 1" Valve - HP 275mm lever | 225 | 1 | 90322310 | 91930 |
| 1½" Valve - HP 400mm lever | 225 | 1 | 90322400 | 91931 |
| 1½" Valve - HP 275mm lever | 225 | 1 | 90322410 | 91932 |
| 1½" Valve - LP & HP 400mm lever | 225 | 1 | 90322520 | 91933 |
| 1½" Valve - LP & HP 275mm lever | 225 | 1 | 90322530 | 91934 |
| 2" Valve - HP 400mm lever | 225 | 1 | 90322620 | 91935 |

Note valves are not supplied with a float. See Accessories table below.

Note HP refers to High Pressure and LP refers to Low Pressure.

200 SERIES BRASS HIGH FLOW FLOAT VALVE - BODY ASSEMBLIES (Inc. flapper, clevis & cotter pins)

| Size | Min QTY | Philmac Code | VX Code |
|--|---------|--------------|---------|
| Body Assembly | 1 | 40314352 | 91936 |
| Body Assembly | 1 | 40314452 | 91937 |
| Body Assembly 1½" Low Pressure & High Pressure | 1 | 40315562 | 91938 |
| Body Assembly 2" Low Pressure & High Pressure | 1 | 40316662 | 91939 |

200 SERIES BRASS HIGH FLOW FLOAT VALVE - LEVER ARM ASSEMBLIES (Inc. cam, adjusting bolt & locking nuts)

| Size | Min QTY | Philmac Code | VX Code |
|---------------------------------------|---------|--------------|---------|
| Lever Assembly Std 400mm (1" & 1½") | 1 | 40341000 | 91940 |
| Lever Assembly Std 400mm (1½") | 1 | 40342000 | 91941 |
| Lever Assembly Std 400mm (2") | 1 | 40343000 | 91942 |
| Lever Assembly Short 275mm (1" & 1½") | 1 | 40371000 | 91943 |
| Lever Assembly Short 275mm (1½") | 1 | 40372000 | 91944 |

ACCESSORIES

| Size | Min QTY | Philmac Code | VX Code |
|------------------------------------|---------|--------------|---------|
| Float Adaptor* | 1 | 90330200 | 91945 |
| Arm Extension* | 1 | 90330300 | 91946 |
| Stainless Steel Chain (Length) 10M | 1 | 90330400 | 91947 |
| Underwater Kit | 1 | 90330500 | 91948 |
| 7" Plastic Float - Blue** | 1 | 90499710 | 91949 |
| 9" Plastic Float - Blue | 1 | 90499900 | 91950 |

* For underwater applications

** Low pressure option only

150 SERIES BRASS FLOAT VALVES (Brass Plunger, S/S Seat)

| Nom Size | Code | BSP Size | Rec. Float Size | Philmac Code | VX Code |
|----------|-----------|----------|-----------------|--------------|---------|
| 10 | 2/4 | ¾" | 80/100* | 90300500 | 91951 |
| 15 | 1/6 | ½" | 100 | 90300700 | 91952 |
| 15 | 3/7/15 | ½" | 100 | 90301300 | 91953 |
| 15 | 3/6/15 | ½" | 100 | 90301500 | 91954 |
| 15 | 3/6/14/15 | ½" | 100 | 90302300 | 91955 |
| 15 | 2/6/15 | ½" | 100 | 90303100 | 91956 |
| 20 | 1/7 | ¾" | 150 | 90304400 | 91957 |
| 25 | 1/9 | 1" | 150 | 90304600 | 91958 |
| 32 | 1/9 | 1¼" | 175 | 90304800 | 91959 |
| 40 | 1/11 | 1 x 1½" | 225 | 90304900 | 91960 |
| 50 | 1/13 | 2" | 225 | 90305000 | 91961 |

^CODES:

| | | |
|------------------------------|------------------------|------------------------|
| 1. Tapered BSP Thread | 7. Lever Length 250mm | 13. Lever Length 455mm |
| 2. Short Parallel BSP Thread | 8. Lever Length 300mm | 14. Stem Sleeve |
| 3. Long Parallel BSP Thread | 9. Lever Length 355mm | 15. Backnut |
| 4. Lever Length 125mm | 10. Lever Length 400mm | |
| 5. Lever Length 170mm | 11. Lever Length 425mm | |
| 6. Lever Length 200mm | 12. Lever length 440mm | |

* Please note that not all products on the page may be Australian made.

Note: All lever lengths are approximate.

Philmac® Float Valves
120 SERIES PLASTIC VALVE (Single action)

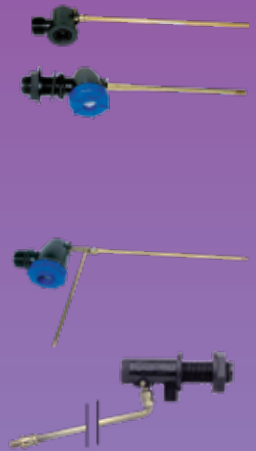
| Nom Size | Code | BSP Size | Rec. Float Size | Min QTY | Philmac Code | VX Code |
|----------|------|----------|-----------------|---------|--------------|---------|
| 20 | 1/8 | 3/4" | 150 | 50 | 91470320 | 91962 |
| 20 | 3/8 | 3/4" | 150 | 70 | 91470201 | 91963 |
| 20 | 3/5 | 3/4" | 150 | 70 | 91470211 | 91964 |
| 25 | 3/8 | 1" | 150 | 70 | 91470301 | 91965 |
| 25 | 3/5 | 1" | 150 | 70 | 91470311 | 91966 |
| 32 | 1/10 | 1 1/4" | 150 x 2 | 20 | 91470400 | 91967 |

120 SERIES PLASTIC FLOAT VALVE (Dual Action)

| Nom Size | Code | BSP Size | Rec. Float Size | Min QTY | Philmac Code | VX Code |
|----------|------|------------|-----------------|---------|--------------|---------|
| 32 | 1/12 | 1 x 1 1/2" | 150 x 2 | 20 | 91470410 | 91968 |

100 SERIES PLASTIC FLOAT VALVE

| Nom Size | Code | BSP Size | Rec. Float Size | Carton QTY | Philmac Code | VX Code |
|----------|------|----------|-----------------|------------|--------------|---------|
| 15 | 3/7 | 1 1/2" | 100 | 50 | 90300200 | 91969 |
| 15 | 3/6 | 1 1/2" | 100 | 50 | 90300300 | 91970 |
| 15 | 3/4 | 1 1/2" | 100 | 50 | 90300400 | 91971 |


^CODES:

| | | |
|------------------------------|------------------------|------------------------|
| 1. Tapered BSP Thread | 7. Lever Length 250mm | 13. Lever Length 455mm |
| 2. Short Parallel BSP Thread | 8. Lever Length 300mm | 14. Stem Sleeve |
| 3. Long Parallel BSP Thread | 9. Lever Length 355mm | 15. Backnut |
| 4. Lever Length 125mm | 10. Lever Length 400mm | |
| 5. Lever Length 170mm | 11. Lever Length 425mm | |
| 6. Lever Length 200mm | 12. Lever length 440mm | |

* Please note that not all products on the page may be Australian made.

Note: All lever lengths are approximate.

Philmac® Float Valves

THROUGH VALVES

| Nom Size | BSP Size | Carton QTY | Philmac Code | VX Code |
|------------------------|----------|------------|--------------|---------|
| Brass Valve with Float | ¾" | 15 | AQ100B | 91972 |
| Brass Valve with Float | 1" | 15 | AQ200B | 91973 |
| Brass Valve with Float | 1½" | 15 | AQ300B | 91974 |
| Brass Valve with Float | ¾" | 15 | AQ400P | 91975 |
| Brass Valve with Float | 1" | 15 | AQ500P | 91976 |
| Float & Poly Tube Only | 1½" | 20 | AQ600P | 91977 |
| Float & Poly Tube Only | | 20 | AQ900 | 91978 |

STAINLESS STEEL 316 FLOAT VALVES

| Nom Size | BSP Size | Rec. Float Size | Philmac Code | VX Code |
|----------|----------|-----------------|--------------|---------|
| 15 | ½" | 125 | 90399100 | 91979 |
| 20 | ¾" | 125 | 90399200 | 91980 |
| 25 | 1" | 125 | 90399300 | 91981 |
| 40 | 1½" | 200 | 90399500 | 91982 |

SERVO TANK FILLING VALVES (Includes Lever)

| Nom Size | BSP Size | Rec. Float Size | Philmac Code | VX Code |
|----------|----------|-----------------|--------------|---------|
| 40 | 1½" | 255 | 90381500 | 91983 |
| 50 | 2" | 255 | 90381600 | 91984 |
| 80 | 3" | 255 | 90381700 | 91985 |

CISTERN VALVES

| Nom Size | Code | BSP Size | Rec. Float Size | Min QTY | Philmac Code | VX Code |
|----------|------|----------|-----------------|---------|--------------|---------|
| 80 | 2/9 | 3" | 100 | 50 | 91152700 | 91986 |

| ^CODES: | | |
|------------------------------|------------------------|------------------------|
| 1. Tapered BSP Thread | 7. Lever Length 250mm | 13. Lever Length 455mm |
| 2. Short Parallel BSP Thread | 8. Lever Length 300mm | 14. Stem Sleeve |
| 3. Long Parallel BSP Thread | 9. Lever Length 355mm | 15. Backnut |
| 4. Lever Length 125mm | 10. Lever Length 400mm | |
| 5. Lever Length 170mm | 11. Lever Length 425mm | |
| 6. Lever Length 200mm | 12. Lever length 440mm | |

* Please note that not all products on the page may be Australian made.
Note: All lever lengths are approximate.



Philmac® Float Valves

PLASTIC FLOATS (Cold Water Applications up to 60°C) BLACK

| Nom Size | BSP Size | | Philmac Code | VX Code |
|----------|----------|-------------|-----------------|---------|
| 80 | 3" | 5/16" Whit. | 90499300 | 91987 |
| 100 | 4" | 5/16" Whit. | 90499400 (Oval) | 91988 |
| 150 | 6" | 5/16" Whit. | 90499600 | 91989 |
| 175 | 7" | 3/8" Whit. | 90499700 | 91990 |

* To connect to screwed lever valves, use adaptor No. 90 1738 00.

PLASTIC FLOATS (Hot Water Applications up to 95°C) WHITE

| Nom Size | BSP Size | | Philmac Code | VX Code |
|----------|----------|-------------|-----------------|---------|
| 80 | 3" | 5/16" Whit. | 90499100 | 91991 |
| 100 | 4" | 5/16" Whit. | 90499500 (Oval) | 91992 |

PLASTIC FLOATS (For High Flow Float Valves) BLUE

| Nom Size | BSP Size | | Philmac Code | VX Code |
|----------|----------|--|--------------|---------|
| 175 | 7" | | 90499710* | 91949 |
| 225 | 9" | | 90499900 | 91950 |

* Low pressure option only

COPPER FLOATS (Hot Water Rated up to 60°C)

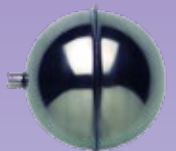
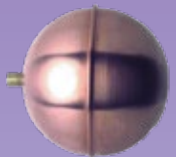
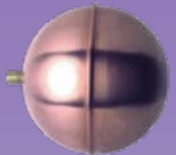
| Nom Size | BSP Size | | Philmac Code | VX Code |
|----------|----------|-------------|--------------|---------|
| 80 | 3" | 5/16" Whit. | 90161400 | 91993 |
| 115 | 4 1/2" | 5/16" Whit. | 90161700 | 91994 |
| 125 | 5" | 5/16" Whit. | 90161500 | 91995 |
| 150 | 6" | 5/16" Whit. | 90161800 | 91996 |
| 175 | 7" | 3/8" Whit. | 90161900 | 91997 |
| 200 | 8" | 3/8" Whit. | 90162100 | 91998 |
| 255 | 10" | 1/2" Whit. | 90162300 | 91999 |

COPPER FLOATS (Hot Water Rated up to 95°C)

| Nom Size | BSP Size | | Philmac Code | VX Code |
|----------|----------|-------------|--------------|---------|
| 115 | 4 1/2" | 5/16" Whit. | 90162800 | 92000 |
| 150 | 6" | 5/16" Whit. | 90162900 | 92001 |
| 175 | 7" | 3/8" Whit. | 90163000 | 92002 |
| 200 | 8" | 3/8" Whit. | 90163100 | 92003 |
| 255 | 10" | 1/2" Whit. | 90163200 | 92004 |

STAINLESS STEEL FLOATS (Cold or Hot Water Rated up to 95°C)

| Nom Size | BSP Size | | Philmac Code | VX Code |
|----------|----------|-------------|--------------|---------|
| 125 | 5" | 5/16" Whit. | 90164500 | 92005 |
| 200 | 8" | 3/8" Whit. | 90164800 | 92006 |



| ^CODES: | | |
|------------------------------|------------------------|------------------------|
| 1. Tapered BSP Thread | 7. Lever Length 250mm | 13. Lever Length 455mm |
| 2. Short Parallel BSP Thread | 8. Lever Length 300mm | 14. Stem Sleeve |
| 3. Long Parallel BSP Thread | 9. Lever Length 355mm | 15. Backnut |
| 4. Lever Length 125mm | 10. Lever Length 400mm | |
| 5. Lever Length 170mm | 11. Lever Length 425mm | |
| 6. Lever Length 200mm | 12. Lever length 440mm | |

* Please note that not all products on the page may be Australian made.

Note: All lever lengths are approximate.

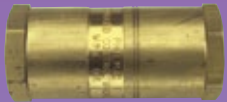
Philmac[®] Valves

| THREADED ADAPTOR (Brass) | | | | |
|--------------------------|----------|----------------------------|--------------|---------|
| Nom Size | BSP Size | Connection Type | Philmac Code | VX Code |
| 125 | 5" | 5/8"Male x 1/2"-3/8"Female | 90173800 | 92007 |
| 200 | 8" | 1/2"Male x 3/8"Female | 90173500 | 92008 |

| FLOAT ATTACHMENT CORD | | | |
|---------------------------------------|--|--------------|---------|
| Connection Type | | Philmac Code | VX Code |
| 5/16" Female Whit. x 5/16" Male Whit. | | 90171800 | 92009 |

For underwater applications to suit 1/2" (15), 3/4" (20) & 1" (25)mm Valves

| SCREWED SERIES RATIO VALVES (Tested) | | | | | |
|--------------------------------------|------|----------|------------|--------------|---------|
| Nom Size | Code | BSP Size | Carton QTY | Philmac Code | VX Code |
| 15 | 2:1 | 1/2" | 1 | 90222100 | 92010 |
| 15 | 3:1 | 1/2" | 1 | 90223100 | 92011 |
| 20 | 2:1 | 3/4" | 1 | 90222200 | 92012 |
| 20 | 3:1 | 3/4" | 1 | 90223200 | 92013 |
| 25 | 2:1 | 1" | 1 | 90222300 | 92014 |
| 25 | 3:1 | 1" | 1 | 90223300 | 92015 |
| 40 | 2:1 | 1 1/2" | 1 | 90222500 | 92016 |
| 40 | 3:1 | 1 1/2" | 1 | 90223500 | 92017 |
| 50 | 2:1 | 2" | 1 | 90222600 | 92018 |
| 50 | 3:1 | 2" | 1 | 90223600 | 92019 |



| ^CODES: | | |
|------------------------------|------------------------|------------------------|
| 1. Tapered BSP Thread | 7. Lever Length 250mm | 13. Lever Length 455mm |
| 2. Short Parallel BSP Thread | 8. Lever Length 300mm | 14. Stem Sleeve |
| 3. Long Parallel BSP Thread | 9. Lever Length 355mm | 15. Backnut |
| 4. Lever Length 125mm | 10. Lever Length 400mm | |
| 5. Lever Length 170mm | 11. Lever Length 425mm | |
| 6. Lever Length 200mm | 12. Lever length 440mm | |

* Please note that not all products on the page may be Australian made.

Note: All lever lengths are approximate.



FLANGED SERIES RATIO VALVES (Tested)

| Body Control Size | Ratio | Flange Sizes to AS 2129 | | Table Pattern | Philmac Code | VX Code |
|-------------------|-------|-------------------------|-----|---------------|--------------|---------|
| 50 | 2:1 | 50 | 2" | D/E | 90260100 | 92020 |
| 50 | 3:1 | 50 | 2" | D/E | 90260200 | 92021 |
| 50 | 4:1 | 50 | 2" | D/E | 90260300 | 92022 |
| 50 | 5:1 | 50 | 2" | D/E | 90260400 | 92023 |
| 50 | 2:1 | 65 | 2½" | D/E | 90260500 | 92024 |
| 50 | 3:1 | 65 | 2½" | D/E | 90260600 | 92025 |
| 50 | 4:1 | 65 | 2½" | D/E | 90260700 | 92026 |
| 50 | 5:1 | 65 | 2½" | D/E | 90260800 | 92027 |
| 50 | 1.5:1 | 80 | 3" | D/E | 90261700 | 92028 |
| 50 | 2:1 | 80 | 3" | D/E | 90260900 | 92029 |
| 50 | 3:1 | 80 | 3" | D/E | 90261000 | 92030 |
| 50 | 4:1 | 80 | 3" | D/E | 90261100 | 92031 |
| 50 | 5:1 | 80 | 3" | D/E | 90261200 | 92032 |
| 80 | 1.5:1 | 80 | 3" | D/E | 90263900 | 92033 |
| 80 | 2:1 | 80 | 3" | D/E | 90262600 | 92034 |
| 80 | 3:1 | 80 | 3" | D/E | 90262700 | 92035 |
| 80 | 4:1 | 80 | 3" | D/E | 90262800 | 92036 |
| 80 | 5:1 | 80 | 3" | E | 90262900 | 92037 |
| 80 | 1.5:1 | 100 | 4" | E | 90263400 | 92038 |
| 80 | 2:1 | 100 | 4" | E | 90263000 | 92039 |
| 80 | 3:1 | 100 | 4" | E | 90263100 | 92040 |
| 80 | 4:1 | 100 | 4" | E | 90263200 | 92041 |
| 80 | 5:1 | 100 | 4" | E | 90263300 | 92042 |
| 100 | 1.5:1 | 100 | 4" | E | 90266000 | 92043 |
| 100 | 2:1 | 100 | 4" | E | 90265100 | 92044 |
| 100 | 3:1 | 100 | 4" | E | 90265200 | 92045 |
| 100 | 4:1 | 100 | 4" | E | 90265300 | 92046 |
| 100 | 5:1 | 100 | 4" | E | 90265400 | 92047 |
| 100 | 1.5:1 | 150 | 6" | E | 90266500 | 92048 |
| 100 | 2:1 | 150 | 6" | E | 90265500 | 92049 |
| 100 | 3:1 | 150 | 6" | E | 90265600 | 92050 |
| 100 | 4:1 | 150 | 6" | E | 90265700 | 92051 |
| 100 | 5:1 | 150 | 6" | E | 90265800 | 92052 |
| 150 | 2:1 | 150 | 6" | E | 90267600 | 92053 |
| 150 | 3:1 | 150 | 6" | E | 90267700 | 92054 |
| 150 | 4:1 | 150 | 6" | E | 90267800 | 92055 |
| 150 | 5:1 | 150 | 6" | E | 90267900 | 92056 |

POA for Marine Grade Ratio Valves.

TECHNICAL INFORMATION - BALL VALVES

SYSTEM DESIGN CONSIDERATIONS

Threads: All threads are BSP (Whitworth form).

Maximum Operating Pressure: 1600 kPa (232psi) or 16 bar.

Sealing threads: Philmac recommends sealing threads with PTFE tape. Other approved sealants for plastic materials can be used providing the sealant does not enter the valve where it may cause damage.

Operating temperature: Connection is cold water (less than 20°C) rated.

Weathering: All plastic materials used contain pigments to provide excellent protection against degradation from ultra-violet (UV) radiation. However long-term continuous exposure to UV is not recommended and plastic components should ideally be protected.

Pressure Loss (kPa)

| Flow Rate (L/s) | Inlet Size | | | | | |
|-----------------|------------|-----------|-----------|------------|------------|-----------|
| | ½" (DN15) | ¾" (DN20) | 1" (DN25) | 1¼" (DN32) | 1½" (DN40) | 2" (DN50) |
| 1 | 14 | 14 | 10 | * | * | * |
| 1.5 | 27 | 27 | 11 | * | * | * |
| 2 | 44 | 44 | 13 | 6 | * | * |
| 2.5 | 64 | 64 | 16 | 8 | * | * |
| 3 | 89 | 89 | 20 | 11 | 5 | * |
| 4 | - | - | 33 | 19 | 8 | * |
| 5 | - | - | 50 | 28 | 13 | * |
| 6 | - | - | 72 | 39 | 18 | 6 |
| 7 | - | - | 99 | 51 | 23 | 8 |
| 8 | - | - | - | 65 | 30 | 10 |
| 9 | - | - | - | 81 | 37 | 12 |
| 10 | - | - | - | 98 | 45 | 15 |
| 12 | - | - | - | - | 63 | 20 |
| 14 | - | - | - | - | 83 | 26 |
| 16 | - | - | - | - | - | 33 |
| 18 | - | - | - | - | - | 40 |
| 20 | - | - | - | - | - | 49 |
| 22 | - | - | - | - | - | 58 |
| 24 | - | - | - | - | - | 67 |
| 26 | - | - | - | - | - | 78 |
| 28 | - | - | - | - | - | 89 |

* Denotes pressure loss too small to accurately measure but can be assumed to be 5 kPa or less.

CHEMICAL RESISTANCE

Philmac's blue handled ball valves are primarily designed to convey water. However there may be occasions where the water contains chemicals and/or alternative fluids need to be controlled. The following table is provided as a guide only for the compatibility of various chemicals and alternative fluids to Philmac blue handled ball valves. The mixing together of chemicals may affect the compatibility. Philmac blue handled ball valves are NOT suited for acids.

| Chemical | Compatibility |
|----------------------------------|---------------|
| Acetic acid (10%) | N |
| Acetic acid (50%) | N |
| Alcohol (ethanol) | N |
| Ammonium nitrate | R |
| Antifreeze | R |
| Brine | N |
| Calcium carbonate | R |
| Calcium chloride | R |
| Calcium nitrate | R |
| Calcium sulphate | |
| Chlorine water | N |
| Citric Acid | N |
| Copper Sulphate >5% | N |
| Diesel (fuel) | N |
| Ethyl alcohol (ethanol) | N |
| Hydrochloric acid (10%) | N |
| Hydrochloric acid (30%) | N |
| Kerosene | R |
| Lubricating oils (not synthetic) | R |
| Magnesium nitrate | R |
| Magnesium sulphate | R |
| Mineral oils | R |
| Nitric acid (10%) | N |
| Nitric acid (40%) | N |
| Olive oil | R |
| Orange juice | |
| Petrol | R |
| Phosphoric acid (85%) | N |
| Drinking water | R |
| Potassium chloride | R |
| Potassium nitrate | R |
| Potassium sulphate | |
| Sodium bicarbonate | |
| Sodium hypochlorite (<10%) | N |
| Sulphuric acid (10%) | N |
| Sulphuric acid (30%) | N |
| Urea | R |
| Zinc nitrate | N |
| Zinc sulphate | |

N = Not Recommended

R = Resistant

Empty Cell = No data available

Note recommendations based on fluids at 20°C or less.

BLUE HANDLED BALL VALVES OPERATION & INSTALLATION INSTRUCTIONS

Philmac blue handled ball valves operate by using a handle to turn a ball located in a body through 90°. The ball has a hole through the centre of it which allows water to pass through when in the open position.

To turn the valve on, the blue handle needs to be turned 90° until the blue handle sits in-line with the body of the valve. To turn the valve off rotate the handle through 90° until it is at right angles to the valve body. Care should be taken when closing the valve. It should not be closed too quickly or water hammer may result.

Philmac blue handled ball valves are sold in the open position with the blue handle directly in line with the body. This protects the ball and ensures no scoring has occurred, therefore every valve arrives in excellent condition.

They have been designed for water to flow through in either direction and for this reason there is no specific inlet or outlet. In some instances it may be appropriate to mark the direction of water flow where it may not be obvious in which direction the water flows.

Ball (Female Inlet/Outlet)



1. Apply PTFE tape or approved sealant to the male thread the blue handled ball valve is to be screwed in too. Sufficient tape needs to be applied to ensure a watertight seal



2. Screw onto a male thread or screw male thread into the valve by hand until firm



3. Using a pipe wrench or multigrips on the end caps only, further screw the blue handled ball valve into the male thread until tight. Where necessary ensure the male thread is held stationary to avoid it from moving. Do not use pipe wrench or multi-grips on the body of the blue handled ball valve.



Electrofusion

FRIATEC was founded in 1863 in Mannheim, Germany and has successfully brought to market many innovative ranges. FRIATEC patented electrofusion system is world leading and has been used in projects all around the globe. The FRIALEN range is rated to PN16 and is commonly used in the civil, mining and irrigation sectors. The FRIAFIT range of fittings is rated to PN10 and is most suited to applications with lower pressures, such as those found in irrigation and sewerage situations. FRIATEC innovative electrofusion products include many unique features, all of which are designed to improve the speed of installation and use without compromising on the quality and longevity of the connection made.

PREHEATING

In large bore couplers (280mm +) there is a special preheating barcode which, when scanned, does not fuse the coupler but rather heats it and the pipe up to 80 degrees centigrade.

Large bore pipe is often oval. This can present problems. The maximum allowable gap between the fitting and pipe outside surface is equal to 1% of the pipe outside diameter. When pipe is loaded concentrically, gaps larger than this can significantly impact on the integrity of the formed joint and fusion should not be attempted. Using the preheating function the pipe is heated up to 80 degrees centigrade, which returns the pipe to the round. This can be run a number of times and gaps of up to 3mm can be closed in this way.

DUAL FUSION ZONE

In large bore couplers (280mm + above) there are two separate fusion zones. This means when carrying out an electrofusion joint in a tight trench situation one end of the pipe can be fused above ground in easier conditions. Only one side of the joint then needs to be made in the trench.

EMBEDDED HEATING COILS

Wires are embedded in fitting surface with 1/3 being exposed. This provides the following benefits:

- Maximum efficiency of transfer between coupler and pipe. Heat does not have to travel through the wall of the fitting before hitting the pipe so there is an equal transfer of heat between the pipe and fitting as well as reduced fusion time.

- Coils are embedded therefore there is no chance of wires being dislodged.
- Ability to visually check wire integrity prior to fusion.
- Pipe gripped in fitting almost immediately fusion has commenced eliminating need for clamps (unless pipe is under an external load).

EXTERNAL REINFORCEMENT

In large bore couplers (250mm + above) the couplers have external wires wrapped around them which provides a reinforcement during fusion.

- During fusion high pressures build up inside the fitting and this is particularly so with large bore couplers. External reinforcement is required to hold the fitting onto the pipe during the fusion process. Without it there is a danger that the fitting will lift off the pipe and cause a failure. FRIATEC couplers come complete with this reinforcement so no further action is required. With other couplers a reinforcing blanket may be required to achieve the full integrity joint.



Electrofusion Fittings



COUPLER SDR 11 PE100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|-------|---------------|-------|------|-----|----------|--------------|---------|
| 16 | MB | PN16 | PN10 | 11 | 71303 | | 88400 |
| 20 | MB | PN16 | PN10 | 11 | 71300 | 612680 | 88401 |
| 25 | MB | PN16 | PN10 | 11 | 71302 | 612681 | 88402 |
| 32 | MB | PN16 | PN10 | 11 | 71304 | 612682 | 88403 |
| 40 | MB | PN16 | PN10 | 11 | 71306 | 612683 | 88404 |
| 50 | MB | PN16 | PN10 | 11 | 71308 | 612684 | 88405 |
| 63 | MB | PN16 | PN10 | 11 | 71310 | 612685 | 88406 |
| 75 | MB | PN16 | PN10 | 11 | 71312 | 612686 | 88407 |
| 90 | MB | PN16 | PN10 | 11 | 71314 | 612687 | 88408 |
| **110 | MB | PN16 | PN10 | 11 | 71316 | 612688 | 88409 |
| 125 | MB | PN16 | PN10 | 11 | 71318 | 612689 | 88410 |
| 140 | MB | PN16 | PN10 | 11 | 71319 | 612690 | 88411 |
| **160 | MB | PN16 | PN10 | 11 | 71320 | 612691 | 88412 |
| 180 | UB | PN16 | PN10 | 11 | 71321 | 612672 | 88413 |
| 200 | UB | PN16 | PN10 | 11 | 71324 | 612673 | 88414 |
| 225 | UB | PN16 | PN10 | 11 | 71323 | 612674 | 88415 |
| 250 | UB | PN16 | PN10 | 11 | 71326 | 612675 | 88416 |
| 280 | UB | PN16 | PN10 | 11 | 71327 | 615073 | 88417 |
| 315 | UB | PN16 | PN10 | 11 | 71328 | 612670 | 88418 |
| 355 | UB | PN16 | PN10 | 11 | 71329 | 615074 | 88419 |
| †400 | UB | PN16 | PN10 | 11 | 71473 | 615075 | 88420 |
| †450 | UB | PN16 | PN10 | 11 | 71558 | 615076 | 88421 |
| †500 | UB | PN16 | PN10 | 11 | 71557 | 615124 | 88422 |
| †560 | UB | PN16 | PN10 | 11 | 71488 | 616312 | 88423 |
| †630 | UB | PN16 | PN10 | 11 | 71334 | 616269 | 88424 |
| †710 | UB | PN16 | PN10 | 11 | 71338 | 616313 | 88425 |
| †800 | UB | PN16 | PN10 | 11 | 68769 | 616314 | 88426 |
| †900 | UB | PN16 | PN10 | 11 | | 616440 | 88427 |



COUPLER SDR 17 PE100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|-------|---------------|-------|-----|-----|----------|--------------|---------|
| 50 | MB | PN10 | PN5 | 17 | | | 89284 |
| 90 | MB | PN10 | PN5 | 17 | 71569 | | 88450 |
| 110 | AM | PN10 | PN5 | 17 | 71570 | 680001 | 88451 |
| 125 | AM | PN10 | PN5 | 17 | 71571 | 680013 | 88452 |
| 140 | AM | PN10 | PN5 | 17 | 71572 | 615001 | 88453 |
| 160 | AM | PN10 | PN5 | 17 | 71573 | 680002 | 88454 |
| 180 | AM | PN10 | PN5 | 17 | 71574 | 680003 | 88455 |
| 200 | AM | PN10 | PN5 | 17 | 71575 | 680004 | 88456 |
| 225 | AM | PN10 | PN5 | 17 | 71576 | 680005 | 88457 |
| 250 | AM | PN10 | PN5 | 17 | 71577 | 680006 | 88458 |
| 280 | AM | PN10 | PN5 | 17 | 68761 | 680007 | 88459 |
| 315 | AM | PN10 | PN5 | 17 | 68762 | 680008 | 88460 |
| 355 | AM | PN10 | PN5 | 17 | 68763 | 680009 | 88461 |
| 400 | AM | PN10 | PN5 | 17 | 71578 | 680010 | 88462 |
| 450 | AM | PN10 | PN5 | 17 | 71475 | 680011 | 88463 |
| 500 | AM | PN10 | PN5 | 17 | 71476 | 680012 | 88464 |
| †560 | UB | PN10 | PN5 | 17 | 71322 | 615706 | 88465 |
| †630 | UB | PN10 | PN5 | 17 | 71333 | 615726 | 88466 |
| †710 | UB | PN10 | PN5 | 17 | 71335 | 615994 | 88467 |
| †800 | UB | PN10 | PN5 | 17 | 68768 | 616290 | 88468 |
| †900 | UB | PN10 | PN5 | 17 | | 616345 | 88469 |
| †1000 | UB | PN10 | PN5 | 17 | | 616403 | 88470 |
| †1200 | UB | PN10 | PN5 | 17 | | 616416 | 88471 |

†With preheating technology

**Also suitable for SDR 21

The UB d 1000 and above can only be fused with the FRIAMAT XL.



Electrofusion Fittings

SLIDE OVER COUPLER SDR 9 PE 100

| Size | Frialen Model | Water | SDR | Old Code | Friatec Code | VX Code |
|------|---------------|-------|-----|----------|--------------|---------|
| 400 | UB | PN20 | 9 | | 616441 | 89285 |
| 450 | UB | PN20 | 9 | | 616447 | 89286 |
| 500 | UB | PN20 | 9 | | 616445 | 89287 |
| 560 | UB | PN20 | 9 | | 616446 | 89288 |
| 630 | UB | PN20 | 9 | | 616439 | 89289 |

SLIDE OVER COUPLER SDR 7.4 PE 100

| Size | Frialen Model | Water | SDR | Old Code | Friatec Code | VX Code |
|------|---------------|-------|-----|----------|--------------|---------|
| 20 | MB | PN25 | 7.4 | 71300 | 612680 | 88401 |
| 25 | MB | PN25 | 7.4 | 71302 | 612681 | 88402 |
| 32 | MB | PN25 | 7.4 | 71304 | 612682 | 88403 |
| 40 | MB | PN25 | 7.4 | 71306 | 612683 | 88404 |
| 50 | MB | PN25 | 7.4 | 71308 | 612684 | 88405 |
| 63 | MB | PN25 | 7.4 | 71310 | 612685 | 88406 |
| 75 | MB | PN25 | 7.4 | 71312 | 612686 | 88407 |
| 90 | UB | PN25 | 7.4 | 62327 | 616270 | 88431 |
| 110 | UB | PN25 | 7.4 | 62319 | 616271 | 88432 |
| 125 | UB | PN25 | 7.4 | 62320 | 616272 | 88433 |
| 140 | UB | PN25 | 7.4 | | | 89270 |
| 160 | UB | PN25 | 7.4 | | | 89271 |
| 180 | UB | PN25 | 7.4 | 62321 | 616282 | 88434 |
| 200 | UB | PN25 | 7.4 | 62322 | 616283 | 88435 |
| 225 | UB | PN25 | 7.4 | 62323 | 616284 | 88436 |
| 250 | UB | PN25 | 7.4 | 62305 | 616285 | 88437 |
| 280 | UB | PN25 | 7.4 | 62306 | 616286 | 88438 |
| 315 | UB | PN25 | 7.4 | 62307 | 616287 | 88439 |
| 355 | UB | PN25 | 7.4 | | 616288 | 88440 |

LONG COUPLER SDR 11 PE100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|------|---------------|-------|------|-----|----------|--------------|---------|
| 32 | FRIALONG | PN16 | PN10 | 11 | 68755 | 615376 | 88442 |
| 40 | FRIALONG | PN16 | PN10 | 11 | 68756 | 615737 | 88443 |
| 50 | FRIALONG | PN16 | PN10 | 11 | 68757 | 615608 | 88444 |
| 63 | FRIALONG | PN16 | PN10 | 11 | 68758 | 615738 | 88445 |

CONICAL COUPLER SDR 17 PE 100

| Size | Frialen Model | Water | Gas | SDR | Friatec Code | VX Code |
|------|---------------|-------|-----|-----|--------------|---------|
| 630 | KM-XL | PN10 | PN5 | 17 | 616523 | 89290 |
| 1000 | KM-XL | PN10 | PN5 | 17 | 616434 | 89291 |
| 1200 | KM-XL | PN10 | PN5 | 17 | 616435 | 89292 |

RELINING SLIDE-OVER COUPLER SDR 17 PE 100

| Size | Frialen Model | Water | Gas | SDR | Friatec Code | VX Code |
|---------|---------------|-------|-----|-----|--------------|---------|
| 110/100 | REM | PN10 | PN5 | 17 | 615569 | 89293 |
| 160/150 | REM | PN10 | PN5 | 17 | 615571 | 89294 |
| 315/300 | REM | PN10 | PN5 | 17 | 615576 | 89295 |
| 400/375 | REM | PN10 | PN5 | 17 | 616344 | 89296 |

NOTES

MB SDR11 coupler come complete with removeable stops.
 UB SDR 7.4, SDR 9, SDR 11, SDR 17 slide over coupler no centre stops.
 Coupler 400-1200mm come complete with preheat technology and dual fusion zones.
 400-450mm preheat use optional.
 MB coupler s 20-75mm suitable for SDR 7.4, SDR 9 and SDR 11 applications.
 For the conical ring couplers a FRIAMAT XL is required.

REDUCING COUPLER SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|-----------|---------------|-------|------|-----|----------|--------------|---------|
| 20 x 16 | MR | PN16 | PN10 | 11 | 60030 | | TBA |
| *25 x 20 | MR | PN16 | PN10 | 11 | 69085 | 1101410 | 88473 |
| 32 x 16 | MR | PN16 | PN10 | 11 | | 616452 | TBA |
| 32 x 20 | MR | PN16 | PN10 | 11 | 69089 | 615386 | 88476 |
| 32 x 25 | MR | PN16 | PN10 | 11 | 69091 | 615502 | 88477 |
| 40 x 20 | MR | PN16 | PN10 | 11 | | 615387 | 88478 |
| 40 x 32 | MR | PN16 | PN10 | 11 | 69093 | 615388 | 88480 |
| 50 x 20 | MR | PN16 | PN10 | 11 | | 612069 | 88481 |
| 50 x 32 | MR | PN16 | PN10 | 11 | 69099 | 612070 | 88483 |
| 50 x 40 | MR | PN16 | PN10 | 11 | 69900 | 612071 | 88484 |
| 63 x 32 | MR | PN16 | PN10 | 11 | 69105 | 615389 | 88486 |
| 63 x 40 | MR | PN16 | PN10 | 11 | 69107 | 615390 | 88487 |
| 63 x 50 | MR | PN16 | PN10 | 11 | 69109 | 612072 | 88488 |
| 90 x 50 | MR | PN16 | PN10 | 11 | 68771 | 615391 | 88491 |
| 90 x 63 | MR | PN16 | PN10 | 11 | 69111 | 615392 | 88492 |
| 110 x 63 | MR | PN16 | PN10 | 11 | 69119 | 615393 | 88494 |
| 110 x 90 | MR | PN16 | PN10 | 11 | 69121 | 615693 | 88495 |
| 125 x 90 | MR | PN16 | PN10 | 11 | 69123 | 615694 | 88496 |
| 125 x 110 | MR | PN16 | PN10 | 11 | 69117 | | 88497 |
| 160 x 110 | MR | PN16 | PN10 | 11 | 68773 | 615695 | 88499 |
| 180 x 125 | MR | PN16 | PN10 | 11 | 69131 | | 88501 |
| 225 x 160 | MR | PN16 | PN10 | 11 | | 616356 | 88502 |

*4.7mm adaptors required.





Electrofusion Fittings

90° EQUAL TEE SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|-----------------|---------------|-------|------|-----|----------|--------------|---------|
| 20 x 20 x 20 | | PN16 | PN10 | 11 | 62090 | 3011020 | 88503 |
| 25 x 25 x 25 | TA(KIT) | PN16 | PN10 | 11 | 67655 | 616335 | 88504 |
| 32 x 32 x 32 | TA(KIT) | PN16 | PN10 | 11 | 71092 | 612161 | 88505 |
| 40 x 40 x 40 | TA(KIT) | PN16 | PN10 | 11 | 71093 | 612162 | 88506 |
| 50 x 50 x 50 | TA(KIT) | PN16 | PN10 | 11 | 71094 | 612163 | 88507 |
| 63 x 63 x 63 | TA(KIT) | PN16 | PN10 | 11 | 71095 | 612164 | 88508 |
| 75 x 75 x 75 | T | PN16 | PN10 | 11 | 71096 | 612165 | 88509 |
| 90 x 90 x 90 | T | PN16 | PN10 | 11 | 71097 | 612166 | 88510 |
| 110 x 110 x 110 | T | PN16 | PN10 | 11 | 71098 | 612167 | 88511 |
| 125 x 125 x 125 | T | PN16 | PN10 | 11 | 71099 | 612168 | 88512 |
| 160 x 160 x 160 | T | PN16 | PN10 | 11 | 71101 | 615277 | 88513 |
| 180 x 180 x 180 | T | PN16 | PN10 | 11 | 71102 | 615691 | 88514 |
| 200 x 200 x 200 | T | PN16 | PN10 | 11 | 71100 | 616266 | 88515 |
| 225 x 225 x 225 | T | PN16 | PN10 | 11 | 71105 | 615692 | 88516 |
| 250 x 250 x 250 | T-XL | PN16 | PN10 | 11 | 71113 | 616412 | 88517 |
| 280 x 280 x 280 | T-XL | PN16 | PN10 | 11 | | 616413 | 89269 |
| 315 x 315 x 315 | T-XL | PN16 | PN10 | 11 | | 616414 | 89297 |

TA-(KIT) are Spigot Tees with coupling.

90° REDUCING TEE SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|-----------------|---------------|-------|------|-----|----------|--------------|---------|
| 1 2 3 | | | | | | | |
| 32 x 32 x 20 | TA red | PN16 | PN10 | 11 | 62021 | 616417 | 88520 |
| 40 x 40 x 32 | TA red | PN16 | PN10 | 11 | 60002 | 616418 | 88524 |
| 50 x 50 x 32 | TA red | PN16 | PN10 | 11 | 62025 | 616419 | 88527 |
| 50 x 50 x 40 | TA red | PN16 | PN10 | 11 | 60004 | 616420 | 88528 |
| 63 x 63 x 32 | TA red | PN16 | PN10 | 11 | 62029 | 616421 | 88530 |
| 63 x 63 x 40 | TA red | PN16 | PN10 | 11 | 62182 | 616422 | 88531 |
| 63 x 63 x 50 | TA red | PN16 | PN10 | 11 | 62183 | 616423 | 88532 |
| 180 x 180 x 125 | | PN16 | PN10 | 11 | 62095 | | 89534 |

1 = Main 2 = Main 3 = Offtake

90° REDUCING TEE OUTLET SPIGOT PIPE SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|-----------------|---------------|-------|------|-----|----------|--------------|---------|
| 250 x 250 x 110 | T red XL | PN16 | PN10 | 11 | 60012 | 616426 | 88552 |
| 250 x 250 x 225 | T red XL | PN16 | PN10 | 11 | | 616427 | 89298 |
| 280 x 280 x 225 | T red XL | PN16 | PN10 | 11 | | 616429 | 89299 |
| 315 x 315 x 225 | T red XL | PN16 | PN10 | 11 | | 616431 | 89301 |

FULL FACED BRANCH SADDLE (W/SS 316 BACKING RING) SDR 11 PE 100

| Size | Water | SDR | Old Code | VX Code |
|----------------|-------|-----|----------|---------|
| 1 2 3 | | | | |
| 125 x 125 x 90 | PN16 | 11 | 80878 | 80870 |
| 180 x 180 x 90 | PN16 | 11 | 80877 | 80871 |

1 = Main 2 = Main 3 = Offtake

Full faced flange and SS ring drilled 4 x 18 @ 46 PCD and 4 x 18 @ 178 PCD

HYDRANT FLANGE ASSEMBLY (W/SS 316 BACKING RING D) SDR 11 PE 100

| Size | Water | SDR | VX Code |
|---------------------|-------|-----|---------|
| 125 x 100 Maxi Stub | PN16 | 11 | 73458 |
| 180 x 100 Maxi Stub | PN16 | 11 | 73464 |

*4.7mm adaptors required



Electrofusion Fittings

90° ELBOW SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|------|---------------|-------|------|-----|----------|--------------|---------|
| 20 | W90° | PN16 | PN10 | 11 | 70520 | 3701020 | 88630 |
| 25 | W90° | PN16 | PN10 | 11 | 70522 | 612091 | 88631 |
| 32 | W90° | PN16 | PN10 | 11 | 70523 | 612093 | 88632 |
| 40 | W90° | PN16 | PN10 | 11 | 70524 | 612095 | 88633 |
| 50 | W90° | PN16 | PN10 | 11 | 70526 | 612097 | 88634 |
| 63 | W90° | PN16 | PN10 | 11 | 70527 | 612099 | 88635 |
| 75 | W90° | PN16 | PN10 | 11 | 62044 | 612101 | 88636 |
| 90 | W90° | PN16 | PN10 | 11 | 70528 | 612103 | 88637 |
| 110 | W90° | PN16 | PN10 | 11 | 70529 | 612105 | 88638 |
| 125 | W90° | PN16 | PN10 | 11 | 70515 | 612107 | 88639 |
| 160 | W90° | PN16 | PN10 | 11 | 70531 | 615276 | 88641 |
| 180 | W90° | PN16 | PN10 | 11 | 70517 | 615689 | 88642 |
| 200 | W90° | PN16 | PN10 | 11 | 71615 | 616265 | 88643 |
| 225 | W90° | PN16 | PN10 | 11 | 71616 | 615690 | 88644 |
| 250 | W90° XL | PN16 | PN10 | 11 | 71617 | 616408 | 88645 |
| 280 | W90° XL | PN16 | PN10 | 11 | | 616409 | 88646 |
| 315 | W90° XL | PN16 | PN10 | 11 | | 616410 | 88647 |

45° ELBOW SDR 11-16 PE 100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|-------|---------------|-------|------|-----|----------|--------------|---------|
| 32 | W45° | PN16 | PN10 | 11 | 69999 | 612092 | 88614 |
| 40 | W45° | PN16 | PN10 | 11 | 69995 | 612094 | 88615 |
| 50 | W45° | PN16 | PN10 | 11 | 70003 | 612096 | 88616 |
| 63 | W45° | PN16 | PN10 | 11 | 70005 | 612098 | 88617 |
| 75 | W45° | PN16 | PN10 | 11 | 70007 | 612100 | 88618 |
| 90 | W45° | PN16 | PN10 | 11 | 70013 | 612102 | 88619 |
| **110 | W45° | PN16 | PN10 | 11 | 69996 | 612104 | 88620 |
| 125 | W45° | PN16 | PN10 | 11 | 70017 | 612106 | 88621 |
| **160 | W45° | PN16 | PN10 | 11 | 69997 | 615275 | 88623 |
| 180 | W45° | PN16 | PN10 | 11 | 70019 | 615687 | 88624 |
| 200 | W45° | PN16 | PN10 | 11 | 71612 | 616264 | 88625 |
| 225 | W45° | PN16 | PN10 | 11 | 71613 | 615688 | 88626 |
| 250 | W45° XL | PN16 | PN10 | 11 | 71614 | 616404 | 88627 |
| 280 | W45° XL | PN16 | PN10 | 11 | | 616405 | 88628 |
| 315 | W45° XL | PN16 | PN10 | 11 | | 616406 | 88629 |

30° ELBOW SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Friatec Code | VX Code |
|-------|---------------|-------|------|-----|--------------|---------|
| 90 | W30° | PN16 | PN10 | 11 | 615272 | 88607 |
| 110 | W30° | PN16 | PN10 | 11 | 615273 | 88608 |
| 125 | W30° | PN16 | PN10 | 11 | 615274 | 88609 |
| **160 | W30° | PN16 | PN10 | 11 | 615340 | 88610 |
| 180 | W30° | PN16 | PN10 | 11 | 616261 | 88611 |
| 200 | W30° | PN16 | PN10 | 11 | 616262 | 88612 |
| 225 | W30° | PN16 | PN10 | 11 | 616263 | 88613 |

11° ELBOW SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Friatec Code | VX Code |
|------|---------------|-------|------|-----|--------------|---------|
| 110 | WS11° | PN16 | PN10 | 11 | 616139 | 88597 |
| 125 | WS11° | PN16 | PN10 | 11 | 616140 | 88598 |
| 160 | WS11° | PN16 | PN10 | 11 | 616141 | 88599 |
| 180 | WS11° | PN16 | PN10 | 11 | 616142 | 88600 |
| 225 | WS11° | PN16 | PN10 | 11 | 616143 | 88601 |

Spigot socket arrangement.

END CAP SDR 11 PE 100

| SIZE | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|------|---------------|-------|------|-----|----------|--------------|---------|
| 20 | MV | PN16 | PN10 | 11 | 71201 | 612025 | 88758 |
| 25 | MV | PN16 | PN10 | 11 | 71203 | 612026 | 88759 |
| 32 | MV | PN16 | PN10 | 11 | 68791 | 612027 | 88760 |
| 40 | MV | PN16 | PN10 | 11 | 68794 | 612028 | 88761 |
| 50 | MV | PN16 | PN10 | 11 | 68804 | 612029 | 88762 |
| 63 | MV | PN16 | PN10 | 11 | 68805 | 612030 | 88763 |
| 75 | MV | PN16 | PN10 | 11 | 71212 | 612031 | 88764 |
| 90 | MV | PN16 | PN10 | 11 | 71215 | 612032 | 88765 |
| 110 | MV | PN16 | PN10 | 11 | 71229 | 612033 | 88766 |
| 125 | MV | PN16 | PN10 | 11 | 71231 | 612034 | 88767 |
| 160 | MV | PN16 | PN10 | 11 | 71235 | 612035 | 88769 |
| 180 | MV | PN16 | PN10 | 11 | 71237 | 616183 | 88770 |
| 200 | MV | PN16 | PN10 | 11 | 71239 | 616184 | 88771 |
| 225 | MV | PN16 | PN10 | 11 | 71241 | 616185 | 88772 |

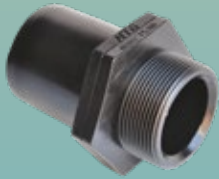
*4.7mm adaptors required

**Suitable for SDR 17-33





Electrofusion Fittings



90° DUCKFOOT ELBOW SDR 11 PE 100

| Size | Frialen Model | Water | SDR | Old Code | Friatec Code | VX Code |
|----------------|---------------|-------|-----|----------|--------------|---------|
| 90 x 90 x 63 | WF90° | PN16 | 11 | | 615989 | 89278 |
| 110 x 110 x 63 | WF90° | PN16 | 11 | 60379 | 615998 | 89276 |

90° TRANSITION ELBOW - MALE BRASS BSP OUTLET SDR 11 PE 100

| Size | Frialen Model | Water | SDR | Old Code | Friatec Code | VX Code |
|----------|---------------|-------|-----|----------|--------------|---------|
| 32 x 1" | WUN90° | PN16 | 11 | 62046 | 612120 | 88654 |
| 32 x 1½" | WUN90° | PN16 | 11 | 62048 | 612140 | 88656 |
| 40 x 1" | WUN90° | PN16 | 11 | 62049 | 612127 | 88657 |
| 40 x 1¼" | WUN90° | PN16 | 11 | 62050 | 612122 | 88658 |
| 40 x 1½" | WUN90° | PN16 | 11 | 62051 | 612121 | 88659 |
| 50 x 1" | WUN90° | PN16 | 11 | 62053 | 612119 | 88661 |
| 50 x 1¼" | WUN90° | PN16 | 11 | 62054 | 612123 | 88662 |
| 50 x 1½" | WUN90° | PN16 | 11 | 62055 | 612124 | 88663 |
| 50 x 2" | WUN90° | PN16 | 11 | 62056 | 615894-10 | 88664 |
| 63 x 1½" | WUN90° | PN16 | 11 | 62058 | 612125 | 88666 |
| 63 x 2" | WUN90° | PN16 | 11 | 62059 | 612126 | 88667 |

MALE ADAPTOR E/F LONG SPIGOT SDR 11 PE 100

| Size | Water | Gas | SDR | Old Code | Supplier | VX Code |
|-----------|-------|------|-----|----------|----------|---------|
| 25 x ¾" | PN16 | PN10 | 11 | 68863 | NTG | 68863 |
| 32 x 1" | PN16 | PN10 | 11 | 68864 | NTG | 68864 |
| 40 x 1" | PN16 | PN10 | 11 | 68865 | NTG | 68865 |
| 40 x 1¼" | PN16 | PN10 | 11 | 68866 | NTG | 68866 |
| 40 x 1½" | PN16 | PN10 | 11 | 68867 | NTG | 68867 |
| *50 x 1½" | PN16 | PN10 | 11 | 68868 | NTG | 68868 |
| 63 x 1½" | PN16 | PN10 | 11 | 68869 | NTG | 68869 |
| 63 x 2" | PN16 | PN10 | 11 | 68870 | NTG | 68870 |

FEMALE ADAPTOR E/F LONG SPIGOT SDR 11 PE 100

| Size | Water | Gas | SDR | Old Code | VX Code |
|----------|-------|------|-----|----------|---------|
| 20 x ½" | PN16 | PN10 | 11 | 90017 | 90017 |
| 25 x ¾" | PN16 | PN10 | 11 | 90018 | 90018 |
| 32 x 1" | PN16 | PN10 | 11 | 90019 | 90019 |
| 40 x 1" | PN16 | PN10 | 11 | | |
| 40 x 1¼" | PN16 | PN10 | 11 | 90020 | 90020 |
| 50 x 1½" | PN16 | PN10 | 11 | 90021 | 90021 |
| 63 x 2" | PN16 | PN10 | 11 | 90022 | 90022 |

MALE BRASS ADAPTOR INSERT LONG SPIGOT SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Old Code | NTG/FRIATEC | VX Code |
|----------|---------------|-------|------|-----|----------|-------------|---------|
| 20 x ½" | | PN16 | PN10 | 11 | 61693 | | 61693 |
| 25 x ¾" | | PN16 | PN10 | 11 | 61694 | | 61694 |
| 32 x 1" | UAN | PN16 | PN10 | 11 | 61697 | 616152 | 88711 |
| 32 x 1¼" | UAN | PN16 | PN10 | 11 | | | 61698 |
| 40 x 1¼" | UAN | PN16 | PN10 | 11 | 61701 | 616153 | 88712 |
| 40 x 1½" | UAN | PN16 | PN10 | 11 | | | 61702 |
| 50 x 1" | UAN | PN16 | PN10 | 11 | | | 61704 |
| 50 x 1½" | UAN | PN16 | PN10 | 11 | 61706 | 616154 | 88713 |
| 50 x 2" | UAN | PN16 | PN10 | 11 | | | 61707 |
| 63 x 2" | UAN | PN16 | PN10 | 11 | 61710 | 616155 | 88714 |
| 75 x 2" | UAN | PN16 | N/A | 11 | | | 61711 |
| 75 x 2½" | UAN | PN16 | N/A | 11 | | | 61712 |
| 90 x 3" | UAN | PN16 | N/A | 11 | | 616613 | 88668 |
| 110 x 4" | UAN | PN16 | N/A | 11 | | 616614 | 88669 |
| 125 x 4" | UAN | PN16 | N/A | 11 | | 616664 | 88670 |

FEMALE BRASS ADAPTOR INSERT LONG SPIGOT SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Old Code | NTG/FRIATEC | VX Code |
|----------|---------------|-------|------|-----|----------|-------------|---------|
| 20 x ½" | | PN16 | PN10 | 11 | 61713 | | 61713 |
| 25 x ¾" | | PN16 | PN10 | 11 | 61714 | | 61714 |
| 32 x 1" | UAM | PN16 | PN10 | 11 | 61716 | 616156 | 88718 |
| 40 x 1" | UAM | PN16 | PN10 | 11 | | | 61718 |
| 40 x 1¼" | UAM | PN16 | PN10 | 11 | 61719 | 616157 | 88719 |
| 40 x 1½" | UAM | PN16 | PN10 | 11 | | | 61720 |
| 50 x 1½" | UAM | PN16 | PN10 | 11 | 61721 | 616158 | 88720 |
| 63 x 1½" | UAM | PN16 | PN10 | 11 | | | 61723 |
| 63 x 2" | UAM | PN16 | PN10 | 11 | 61724 | 616159 | 88721 |
| 75 x 2½" | UAM | PN16 | N/A | 11 | | 616665 | 88671 |
| 90 x 3" | UAM | PN16 | N/A | 11 | | 616623 | 88672 |
| 110 x 4" | UAM | PN16 | N/A | 11 | | 616624 | 88673 |
| 125 x 4" | UAM | PN16 | N/A | 11 | | 616666 | 88674 |

45° TRANSITION ELBOW - MALE BRASS OUTLET SDR 11 PE 100

| Size | Frialen Model | Water | SDR | Old Code | Friatec Code | VX Code |
|----------|---------------|-------|-----|----------|--------------|---------|
| 32 x 1" | WUN45° | PN16 | 11 | 62068 | 612145 | 88732 |
| 40 x 1¼" | WUN45° | PN16 | 11 | 62072 | 612149 | 88728 |
| 40 x 1½" | WUN45° | PN16 | 11 | 62073 | 612139 | 88733 |
| 50 x 1½" | WUN45° | PN16 | 11 | 62077 | 612144 | 88737 |
| 63 x 1½" | WUN45° | PN16 | 11 | 62080 | 612147 | 88740 |
| 63 x 2" | WUN45° | PN16 | 11 | 62081 | 612146 | 88741 |

*4.7mm adaptors required



Electrofusion Fittings

TRANSITION COUPLING - MALE BRASS BSP OUTLET SDR 11 PE 100

| Size | Frialen Model | Water | SDR | Old Code | Friatec Code | VX Code |
|-------------|---------------|-------|-----|----------|--------------|---------|
| 20 x 1/2" | MUN | PN16 | 11 | 62294 | 612710 | 88792 |
| 25 x 3/4" | MUN | PN16 | 11 | 62018 | 612711 | 88793 |
| *32 x 3/4" | | PN16 | 11 | 68785 | | 68785 |
| 32 x 1" | MUN | PN16 | 11 | 71330 | 612712 | 88796 |
| 32 x 1 1/4" | MUN | PN16 | 11 | 62019 | 612709 | 88797 |
| 32 x 1 1/2" | MUN | PN16 | 11 | 62020 | 612698 | 88798 |
| 40 x 1" | MUN | PN16 | 11 | 71282 | 612721 | 88799 |
| 40 x 1 1/4" | MUN | PN16 | 11 | 71283 | 612713 | 88800 |
| 40 x 1 1/2" | MUN | PN16 | 11 | 71284 | 612718 | 88801 |
| 40 x 2" | MUN | PN16 | 11 | 62023 | 612725 | 88802 |
| 50 x 1" | MUN | PN16 | 11 | 71287 | 612719 | 88803 |
| 50 x 1 1/4" | MUN | PN16 | 11 | 71289 | 612716 | 88804 |
| 50 x 1 1/2" | MUN | PN16 | 11 | 71291 | 612714 | 88805 |
| 50 x 2" | MUN | PN16 | 11 | 62027 | 612706 | 88806 |
| 63 x 1 1/4" | MUN | PN16 | 11 | 62028 | 612722 | 88807 |
| 63 x 1 1/2" | MUN | PN16 | 11 | 71292 | 612717 | 88808 |
| 63 x 2" | MUN | PN16 | 11 | 71293 | 612715 | 88809 |
| 75 x 2" | MUN | PN16 | 11 | 71294 | 612694 | 88810 |
| 75 x 2 1/2" | MUN | PN16 | 11 | 71295 | 612695 | 88811 |

TRANSITION COUPLING - FEMALE GUNMETAL BSP OUTLET SDR 11 PE 100

| Size | Frialen Model | Water | SDR | Old Code | Code | VX Code |
|-------------|---------------|-------|-----|----------|--------|---------|
| *32 x 3/4" | | PN16 | 11 | 67658 | | 67658 |
| *32 x 1" | MUM | PN16 | 11 | 71341 | 612595 | 71341 |
| 40 x 1 1/4" | MUM | PN16 | 11 | 71342 | 612596 | 88830 |
| 50 x 1 1/2" | MUM | PN16 | 11 | 71344 | 612692 | 88832 |
| 63 x 1 1/2" | MUM | PN16 | 11 | 71345 | 612708 | 88834 |
| 63 x 2" | MUM | PN16 | 11 | 71340 | 612693 | 88835 |

TRANSITION UNION - FEMALE BRASS BSP OUTLET SDR 11 PE 100

| Size | Frialen Model | Water | SDR | Old Code | Friatec Code | VX Code |
|-------------|---------------|-------|-----|----------|--------------|---------|
| 25 x 3/4" | MUMET | PN16 | 11 | 62797 | 616455 | 88837 |
| 25 x 1" | MUMET | PN16 | 11 | 62273 | 616456 | 88838 |
| 32 x 1" | MUMET | PN16 | 11 | 62298 | 616457 | 88839 |
| 32 x 1 1/4" | MUMET | PN16 | 11 | 62274 | 616458 | 88840 |
| 40 x 1 1/2" | MUMET | PN16 | 11 | 62275 | 616459 | 88842 |
| 50 x 1" | MUMET | PN16 | 11 | 71628 | 616460 | 88843 |
| 50 x 2" | MUMET | PN16 | 11 | 62854 | 616461 | 88844 |
| 63 x 1" | MUMET | PN16 | 11 | | 616462 | 88845 |

*4.7mm adaptors required





SPIGOT SADDLE - WITH UNDERCLAMP SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|-----------|---------------|-------|------|-----|----------|--------------|---------|
| 63 x 32 | SA | PN16 | PN10 | 11 | 62096 | 612757 | 88848 |
| 63 x 50 | SA | PN16 | PN10 | 11 | 62318 | 612759 | 88850 |
| 63 x 63 | SA | PN16 | PN10 | 11 | | 40415311 | 88851 |
| 75 x 50 | SA | PN16 | PN10 | 11 | 62330 | 615020 | 88854 |
| 90 x 32 | SA | PN16 | PN10 | 11 | 62098 | 615285 | 88856 |
| 90 x 63 | SA | PN16 | PN10 | 11 | 62106 | 612819 | 88859 |
| 110 x 32 | SA | PN16 | PN10 | 11 | 62099 | 615334 | 88861 |
| 110 x 50 | SA | PN16 | PN10 | 11 | 62334 | 615031 | 88863 |
| 110 x 63 | SA | PN16 | PN10 | 11 | 62107 | 612760 | 88864 |
| 110 x 90 | SA | PN16 | PN10 | 11 | 69931 | 615411 | 88865 |
| 125 x 32 | SA | PN16 | PN10 | 11 | 62100 | 615087 | 88866 |
| 125 x 63 | SA | PN16 | PN10 | 11 | 62108 | 612761 | 88869 |
| 125 x 90 | SA | PN16 | PN10 | 11 | 62121 | 615412 | 88870 |
| 160 x 32 | SA | PN16 | PN10 | 11 | 62102 | 612886 | 88876 |
| 160 x 63 | SA | PN16 | PN10 | 11 | 62110 | 612762 | 88879 |
| 160 x 90 | SA | PN16 | PN10 | 11 | 62345 | 615413 | 88880 |
| 160 x 110 | SA | PN16 | PN10 | 11 | | 615739 | 89265 |
| 160 x 125 | SA | PN16 | PN10 | 11 | | 615585 | 89266 |
| 180 x 63 | SA | PN16 | PN10 | 11 | 62111 | 612763 | 88884 |
| 180 x 90 | SA | PN16 | PN10 | 11 | 62270 | 615414 | 88885 |
| 180 x 110 | SA | PN16 | PN10 | 11 | | 615948 | 88886 |
| 180 x 125 | SA | PN16 | PN10 | 11 | | 615740 | 88887 |
| 200 x 63 | SA | PN16 | PN10 | 11 | 62116 | 612764 | 88888 |
| 225 x 63 | SA | PN16 | PN10 | 11 | 62119 | 612765 | 88890 |
| 225 x 90 | SA | PN16 | PN10 | 11 | 62360 | 615415 | 88891 |
| 225 x 110 | SA | PN16 | PN10 | 11 | | 616044 | 88892 |
| 225 x 125 | SA | PN16 | PN10 | 11 | | 616045 | 88893 |
| 225 x 160 | SA | PN16 | PN10 | 11 | | 616046 | 88894 |

If you require reductions please use Reducing Couplers on page 89



SHUT OFF SADDLE SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|-----------|---------------|-------|------|-----|----------|--------------|---------|
| 63 x 1½" | SPA | PN16 | PN10 | 11 | | 612753 | 89332 |
| 90 x 2½" | SPA | PN16 | PN10 | 11 | 68736 | 612667 | 88909 |
| 110 x 2½" | SPA | PN16 | PN10 | 11 | 68737 | 612750 | 88910 |
| 125 x 2½" | SPA | PN16 | PN10 | 11 | 68738 | 612751 | 88911 |
| 160 x 2½" | SPA | PN16 | PN10 | 11 | 68739 | 612752 | 88912 |
| 180 x 2½" | SPA | PN16 | PN10 | 11 | 68858 | 612754 | 88913 |
| 200 x 2½" | SPA | PN16 | PN10 | 11 | 68740 | 612755 | 88914 |
| 225 x 2½" | SPA | PN16 | PN10 | 11 | 68741 | 612756 | 88915 |



SHUT OFF SADDLE - TOP LOADING SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Friatec Code | VX Code |
|---------------|---------------|-------|------|-----|--------------|---------|
| 250-315 (560) | SPA-TL | PN16 | PN10 | 11 | 615395 | 89267 |

FRIATOP clamping unit required



Electrofusion Fittings

SPIGOT SADDLE - TOP LOADING SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Friatec Code | VX Code |
|--------------|---------------|-------|------|-----|--------------|---------|
| 250-560 x 32 | SA-TL | PN16 | PN10 | 11 | 615465 | 88899 |
| 250-560 x 63 | SA-TL | PN16 | PN10 | 11 | 615466 | 88900 |

UNI-SA TOP LOADING SADDLE

| Size | Frialen Model | Water | Gas | SDR | Friatec Code | VX Code |
|-------------|---------------|-------|------|-----|--------------|---------|
| 250-280x90 | UNI-SA | PN16 | PN10 | 11 | 616553 | 89493 |
| 250-280x110 | UNI-SA | PN16 | PN10 | 11 | 616554 | 89494 |
| 250-280x125 | UNI-SA | PN16 | PN10 | 11 | 616555 | 89495 |
| 250-280x160 | UNI-SA | PN16 | PN10 | 11 | 616556 | 89496 |
| 315-400x90 | UNI-SA | PN16 | PN10 | 11 | 616557 | 89497 |
| 315-400x110 | UNI-SA | PN16 | PN10 | 11 | 616558 | 89498 |
| 315-400x125 | UNI-SA | PN16 | PN10 | 11 | 616559 | 89499 |
| 315-400x160 | UNI-SA | PN16 | PN10 | 11 | 616560 | 89500 |
| 450-800x90 | UNI-SA | PN16 | PN10 | 11 | 616561 | 89501 |
| 450-800x110 | UNI-SA | PN16 | PN10 | 11 | 616562 | 89502 |
| 450-800x125 | UNI-SA | PN16 | PN10 | 11 | 616563 | 89503 |
| 450-800x160 | UNI-SA | PN16 | PN10 | 11 | 616564 | 89504 |

SPIGOT SADDLE - VACUUM SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Friatec Code | VX Code |
|------------------|---------------|-------|------|-----|--------------|---------|
| 315 x 225 (*160) | SA-XL | PN16 | PN10 | 11 | 616387 | 89368 |
| 315 x 250 | SA-XL | PN16 | PN10 | 11 | 616398 | 89369 |
| 355 x 225 (*160) | SA-XL | PN16 | PN10 | 11 | 616388 | 88901 |
| 355 x 250 | SA-XL | PN16 | PN10 | 11 | 616399 | 89370 |
| 450 x 225 (*160) | SA-XL | PN16 | PN10 | 11 | 616390 | 88903 |
| 450 x 250 | SA-XL | PN16 | PN10 | 11 | 616401 | 88904 |
| 500 x 160 | SA-XL | PN16 | PN10 | 11 | 616381 | 88905 |

SPIGOT SADDLE - VACUUM SDR 17 PE 100

| Size | Frialen Model | Water | Gas | SDR | Friatec Code | VX Code |
|------------|---------------|-------|-----|-----|--------------|---------|
| 500 x 225 | SA-XL | PN10 | PN5 | 17 | 616391 | 89371 |
| 560 x 160 | SA-XL | PN10 | PN5 | 17 | 616373 | 89325 |
| 560 x 225 | SA-XL | PN10 | PN5 | 17 | 616392 | 89326 |
| 630 x 160 | SA-XL | PN10 | PN5 | 17 | 616374 | 89327 |
| 630 x 225 | SA-XL | PN10 | PN5 | 17 | 616393 | 89328 |
| 710 x 160 | SA-XL | PN10 | PN5 | 17 | 616375 | 89329 |
| 710 x 225 | SA-XL | PN10 | PN5 | 17 | 616394 | 89330 |
| 800 x 160 | SA-XL | PN10 | PN5 | 17 | 616376 | 89372 |
| 800 x 225 | SA-XL | PN10 | PN5 | 17 | 616395 | 89373 |
| 900 x 160 | SA-XL | PN10 | PN5 | 17 | 616377 | 88902 |
| 900 x 225 | SA-XL | PN10 | PN5 | 17 | 616396 | 89374 |
| 1000 x 160 | SA-XL | PN10 | PN5 | 17 | 616378 | 89375 |
| 1000 x 225 | SA-XL | PN10 | PN5 | 17 | 616397 | 89376 |
| 1200 x 160 | SA-XL | PN10 | PN5 | 17 | 616383 | 89331 |
| 1200 x 225 | SA-XL | PN10 | PN5 | 17 | 616384 | 89377 |

SDR 11 on request





Electrofusion Fittings



PRESSURE TAPPING VALVE - WITH UNDERCLAMP

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|----------|---------------|-------|------|-----|----------|--------------|---------|
| 50 x 32 | DAV | PN16 | PN10 | 11 | | 615955 | 88917 |
| 63 x 32 | DAV | PN16 | PN10 | 11 | 64037 | 615341 | 88918 |
| 63 x 40 | DAV | PN16 | PN10 | 11 | 64038 | 615342 | 88919 |
| 75 x 32 | DAV | PN16 | PN10 | 11 | 90025 | 615956 | 89302 |
| 90 x 32 | DAV | PN16 | PN10 | 11 | 64041 | 615344 | 89303 |
| 90 x 50 | DAV | PN16 | PN10 | 11 | 64043 | 615346 | 89304 |
| 90 x 63 | DAV | PN16 | PN10 | 11 | 64044 | 615347 | 88929 |
| 110 x 32 | DAV | PN16 | PN10 | 11 | 64045 | 615348 | 89305 |
| 110 x 50 | DAV | PN16 | PN10 | 11 | 64047 | 615350 | 89306 |
| 110 x 63 | DAV | PN16 | PN10 | 11 | 64048 | 615351 | 89307 |
| 125 x 32 | DAV | PN16 | PN10 | 11 | 64049 | 615352 | 89308 |
| 125 x 50 | DAV | PN16 | PN10 | 11 | 63980 | 615354 | 89309 |
| 125 x 63 | DAV | PN16 | PN10 | 11 | 63981 | 615355 | 89310 |
| 140 x 63 | DAV | PN16 | PN10 | 11 | 63985 | 615930 | 89311 |
| 160 x 32 | DAV | PN16 | PN10 | 11 | 63986 | 615356 | 89312 |
| 160 x 50 | DAV | PN16 | PN10 | 11 | 63988 | 615358 | 89313 |
| 160 x 63 | DAV | PN16 | PN10 | 11 | 63989 | 615359 | 89314 |
| 180 x 32 | DAV | PN16 | PN10 | 11 | 63990 | 615361 | 89315 |
| 180 x 50 | DAV | PN16 | PN10 | 11 | 63992 | 615363 | 89316 |
| 180 x 63 | DAV | PN16 | PN10 | 11 | 63993 | 615364 | 89317 |
| 200 x 32 | DAV | PN16 | PN10 | 11 | 90029 | 615366 | 88950 |
| 200 x 50 | DAV | PN16 | PN10 | 11 | 90031 | 615368 | 89318 |
| 200 x 63 | DAV | PN16 | PN10 | 11 | 90032 | 615369 | 89319 |
| 225 x 32 | DAV | PN16 | PN10 | 11 | 90033 | 615374 | 89320 |
| 225 x 50 | DAV | PN16 | PN10 | 11 | 90035 | 615376 | 89321 |
| 225 x 63 | DAV | PN16 | PN10 | 11 | 90036 | 615377 | 89322 |

PRESSURE TAPPING VALVE - TOP LOADING WITH EXTRA LONG OUTLET SPIGOT SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|--------------|---------------|-------|------|-----|----------|--------------|---------|
| 250-315 x 63 | DAV-TL | PN16 | PN10 | 11 | | 616464 | 89323 |
| 355-400 x 63 | DAV-TL | PN16 | PN10 | 11 | 64037 | 616465 | 89324 |



Electrofusion Fittings

PRESSURE TAPPING TEE - WITH UNDERCLAMP SDR 11 PE 100

| Size | Friatec Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code |
|---|---------------|-------|------|-----|----------|--------------|---------|
| Leak free under pressure tapping: Gas and Water | | | | | | | |
| 40 x 20 | DAA | PN16 | PN10 | 11 | 62284 | 612630 | 88963 |
| 50 x 25 | DAA | PN16 | PN10 | 11 | 60020 | 612702 | 88966 |
| 50 x 32 | DAA | PN16 | PN10 | 11 | 62122 | 615080 | 88967 |
| 63 x 20 | DAA | PN16 | PN10 | 11 | 62288 | 612631 | 88968 |
| 63 x 25 | DAA | PN16 | PN10 | 11 | 60021 | 612633 | 88969 |
| 63 x 32 | DAA | PN16 | PN10 | 11 | 62123 | 612632 | 88970 |
| 63 x 40 | DAA | PN16 | PN10 | 11 | 62134 | 612623 | 88971 |
| 63 x 63 | DAA | PN16 | PN10 | 11 | 62156 | 616334 | 88973 |
| 75 x 32 | DAA | PN16 | PN10 | 11 | | 616482 | 88976 |
| 90 x 32 | DAA | PN16 | PN10 | 11 | 62125 | 612634 | 88981 |
| 90 x 40 | DAA (KIT) | PN16 | PN10 | 11 | 62136 | 615656 | 88982 |
| 90 x 50 | DAA | PN16 | PN10 | 11 | 62147 | 612636 | 88983 |
| 90 x 63 | DAA | PN16 | PN10 | 11 | 62158 | 612701 | 88984 |
| 110 x 32 | DAA | PN16 | PN10 | 11 | 62126 | 612637 | 88986 |
| 110 x 40 | DAA (KIT) | PN16 | PN10 | 11 | 62137 | 615662 | 88987 |
| 110 x 50 | DAA | PN16 | PN10 | 11 | 62148 | 612638 | 88988 |
| 110 x 63 | DAA | PN16 | PN10 | 11 | 62159 | 612624 | 88989 |
| 125 x 32 | DAA | PN16 | PN10 | 11 | 62127 | 612649 | 88991 |
| 125 x 50 | DAA | PN16 | PN10 | 11 | 62149 | 612639 | 88993 |
| 125 x 63 | DAA | PN16 | PN10 | 11 | 62160 | 612309 | 88994 |
| 140 x 50 | DAA | PN16 | PN10 | 11 | 62150 | 615037 | 88998 |
| 160 x 32 | DAA | PN16 | PN10 | 11 | 62129 | 612641 | 89001 |
| 160 x 50 | DAA | PN16 | PN10 | 11 | 62151 | 612642 | 89003 |
| 160 x 63 | DAA | PN16 | PN10 | 11 | 62162 | 612650 | 89004 |
| 180 x 32 | DAA | PN16 | PN10 | 11 | 62130 | 612651 | 89006 |
| 180 x 50 | DAA | PN16 | PN10 | 11 | 62152 | 612644 | 89008 |
| 180 x 63 | DAA | PN16 | PN10 | 11 | 62163 | 612652 | 89009 |
| 200 x 32 | DAA | PN16 | PN10 | 11 | 62131 | 612654 | 89011 |
| 200 x 50 | DAA | PN16 | PN10 | 11 | 62153 | 612645 | 89013 |
| 200 x 63 | DAA | PN16 | PN10 | 11 | 68845 | 612659 | 89014 |
| 225 x 32 | DAA | PN16 | PN10 | 11 | 68844 | 612657 | 89016 |
| 225 x 50 | DAA | PN16 | PN10 | 11 | 62154 | 612646 | 89018 |
| 225 x 63 | DAA | PN16 | PN10 | 11 | 62165 | 612655 | 89019 |

For 40mm Saddles order activating key 89228

For 50-75mm Saddles order activating key 89229

For 90-315mm Saddles order activating key 89230

45° WASTEWATER SADDLE

| Size | Old Code | VX Code |
|-----------------|----------|---------|
| *160 -200 x 110 | 71585 | 71585 |
| *225-315 x 110 | 71586 | 71586 |

*4.7mm adaptors required





Electrofusion Fittings

PRESSURE TAPPING TEE - TOP LOADING WITH EXTRA LONG OUTLET SPIGOT SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Friatec Code | VX Code | Price |
|--------------------|---------------|-------|------|-----|--------------|---------|--------|
| 250-315x(400)x63mm | DAA-TL | PN16 | PN10 | 11 | 615339 | 89024 | 192.61 |

250-315mm for pipes SDR11 and SDR17. 355 & 400 SDR17 only.

END CAP FOR TAPPING TEE

| Size | Frialen Model | Water | Gas | SDR | Friatec Code | VX Code | Price |
|------|---------------|-------|------|-----|--------------|---------|-------|
| 50 | | PN16 | PN10 | 11 | 612310 | 89026 | 19.17 |

REPAIR SADDLE - WITH UNDERCLAMP

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code | Price |
|------|---------------|-------|------|-----|----------|--------------|---------|--------|
| 63 | RS | PN16 | PN10 | 11 | 62167 | 612519 | 89028 | 86.66 |
| 90 | VVS | PN16 | PN10 | 11 | 62169 | 615164 | 89030 | 90.93 |
| 110 | VVS | PN16 | PN10 | 11 | 62170 | 615165 | 89031 | 95.18 |
| 125 | VVS | PN16 | PN10 | 11 | 62171 | 615166 | 89032 | 105.15 |
| 160 | VVS | PN16 | PN10 | 11 | 62173 | 615168 | 89034 | 109.38 |
| 180 | VVS | PN16 | PN10 | 11 | 62174 | 615169 | 89035 | 119.36 |
| 200 | VVS | PN16 | PN10 | 11 | | 615170 | 89036 | 242.54 |
| 225 | VVS | PN16 | PN10 | 11 | | 615171 | 89037 | 259.54 |

REPAIR SADDLE VACUUM SDR 17 PE 100

| Size | Frialen Model | Water | Gas | SDR | Friatec Code | VX Code | Price |
|------|---------------|-------|-----|-----|--------------|---------|----------|
| 560 | RS-XL | PN16 | PN5 | 17 | 616367 | 89333 | 4139.49 |
| 630 | RS-XL | PN16 | PN5 | 17 | 616368 | 89334 | 4398.53 |
| 710 | RS-XL | PN16 | PN5 | 17 | 616369 | 89335 | 5429.36 |
| 800 | RS-XL | PN16 | PN5 | 17 | 616370 | 89336 | 6465.59 |
| 900 | RS-XL | PN16 | PN5 | 17 | 616374 | 89428 | 7891.31 |
| 1000 | RS-XL | PN16 | PN5 | 17 | 616372 | 89264 | 9061.53 |
| 1200 | RS-XL | PN16 | PN5 | 17 | 616379 | 89337 | 10323.80 |

REPAIR SADDLE - TOP LOADING SDR 11 PE 100

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code | Price |
|-----------|---------------|-------|------|-----|----------|--------------|---------|--------|
| 250 x 560 | VSC-TL | PN16 | PN10 | 11 | | 615397 | 89275 | 269.85 |

TRANSITION SADDLE - WITH UNDERCLAMP GUNMETAL FEMALE THREAD

| Size | Frialen Model | Water | Gas | SDR | Old Code | Friatec Code | VX Code | Price |
|----------------|---------------|-------|------|-----|----------|--------------|---------|--------|
| 63 x 1½" | VAM-RG | PN16 | PN10 | 11 | | 612743 | 89039 | 328.34 |
| 75 x 1¼" | VAM-RG | PN16 | PN10 | 11 | 68790 | 615213 | 89040 | 177.60 |
| 90 x 1½" | VAM-RG | PN16 | PN10 | 11 | 62271 | 612798 | 89041 | 209.49 |
| 90 x 2" | VAM-RG | PN16 | PN10 | 11 | 62178 | 612778 | 89042 | 333.24 |
| 110 x 1½" | VAM-RG | PN16 | PN10 | 11 | 62180 | 612732 | 89044 | 232.25 |
| 110 x 2" | VAM-RG | PN16 | PN10 | 11 | 62181 | 612733 | 89045 | 282.35 |
| 125 x 1½" | VAM-RG | PN16 | PN10 | 11 | 62373 | 612734 | 89047 | 268.67 |
| 160 -200 x 110 | VAM-RG | PN16 | PN10 | 11 | 62184 | 612735 | 89048 | 296.01 |
| 160 x 1½" | VAM-RG | PN16 | PN10 | 11 | 62375 | 612728 | 89051 | 296.01 |
| 160 x 2" | VAM-RG | PN16 | PN10 | 11 | 62187 | 612729 | 89052 | 314.23 |
| 180 x 1½" | VAM-RG | PN16 | PN10 | 11 | 62376 | 612774 | 89054 | 327.88 |
| 180 x 2" | VAM-RG | PN16 | PN10 | 11 | 62190 | 612776 | 89055 | 341.53 |
| 225 x 2" | VAM-RG | PN16 | PN10 | 11 | 62279 | 612827 | 89057 | 368.87 |

Cut hole after welding and cooling completed.
Strap underpart.

TAPPING SADDLE - PE TO NYLON WITH UNDERPART SDR 11 PE 100

| Size | Old Code | VX Code | Price |
|------------|----------|---------|--------|
| 400kPa gas | | | |
| *40 x 18 | 71499 | 89091 | 164.50 |
| *40 x 50 | 64064 | 89092 | 207.00 |
| *63 x 18 | 64067 | 89095 | 191.06 |
| *63 x 50 | 64068 | 89096 | 200.22 |
| *90 x 18 | 64069 | 89097 | 202.65 |
| *90 x 50 | 64070 | 89098 | 215.49 |
| *110 x 18 | 64071 | 89099 | 217.25 |
| *110 x 50 | 64072 | 89100 | 269.60 |
| *160 x 18 | 64073 | 89101 | 225.75 |
| *160 x 50 | 64074 | 89102 | 310.50 |

Cut hole after welding and cooling completed.

PE - NYLON COUPLING SYSTEM SDR 11 PE 100

| Size | Water | Gas | SDR | Old Code | VX Code | Price |
|------------------------|-------|------|-----|----------|---------|--------|
| 400kPa gas | | | | | | |
| *20PE(M) x 18(F) Nylon | PN16 | PN10 | 11 | 71434 | 89107 | 109.70 |
| *20PE(M) x 23(F) Nylon | PN16 | PN10 | 11 | 71631 | 89108 | 112.60 |
| *25PE(M) x 18(F) Nylon | PN16 | PN10 | 11 | 86990 | 89109 | 108.96 |
| *63PE(M) x 50(M) Nylon | PN16 | PN10 | 11 | 71633 | 89114 | 152.15 |

*4.7mm adaptors required

NOT ALL PRODUCTS IN THIS CATALOGUE ARE AVAILABLE EX-STOCK.





Electrofusion Fittings

TRANSITION COUPLING - POLYETHYLENE TO STEEL SDR 11 PE 100

| Size | Friaten Model | Gas | SDR | Old Code | Friatec Code | VX Code |
|---------------|---------------|------|-----|----------|--------------|---------|
| SDR 11 PN Gas | | | | | | |
| 20 x 15 | USTRS | PN10 | 11 | | 616632 | 88675 |
| 25 x 20 | USTRS | | | | 616633 | 88676 |
| 32 x 1" | USTRS | PN10 | 11 | 62840 | 612780 | 89115 |
| 40 x 1½" | USTRS | PN10 | 11 | 62841 | 612781 | 89116 |
| 50 x 1½" | USTRS | PN10 | 11 | 62842 | 612782 | 89117 |
| 63 x 2" | USTRS | PN10 | 11 | 62843 | 612783 | 89118 |
| 75 x 65 | USTRS | PN10 | 11 | | 616638 | 88677 |
| 90 x 3" | USTR | PN10 | 11 | 62844 | 612784 | 89119 |
| 110 x 4" | USTR | PN10 | 11 | | | 89120 |
| 125 x 4" | USTR | PN10 | 11 | | | 89121 |
| 140 x 125" | USTRS | PN10 | 11 | | 616642 | 88678 |
| 160 x 6" | USTR | PN10 | 11 | 62847 | 612787 | 89122 |
| 200 | USTRS | PN10 | 11 | | 616645 | 88679 |
| 225 x 200 | USTRS | PN10 | 11 | | 616646 | 88680 |
| 250 | USTRS | PN10 | 11 | | 616647 | 88681 |
| 280 x 250 | USTRS | PN10 | 11 | | 616648 | 88682 |
| 315 x 300 | USTRS | PN10 | 11 | | 616649 | 88683 |
| 355 x 300 | USTRS | PN10 | 11 | | 616650 | 88684 |
| 400 | USTRS | PN10 | 11 | | 616651 | 88685 |
| 500 | USTRS | PN10 | 11 | | 616652 | 88686 |
| 630 x 600 | USTRS | PN10 | 11 | | 616653 | 88687 |

Steel end for welding or threading black steel

BALL VALVES SHORT STEM, 1/4 TURN, FULL PORT SDR 11 PE100 (NO PURGE) WITHOUT GEARBOX

| Size | Supplier | Water | SDR | Old Code | VX Code |
|--------------|----------|-------|-----|----------|---------|
| 20 | daeyoun | PN16 | 11 | | 70101 |
| 25 | daeyoun | PN16 | 11 | 60611 | 70102 |
| 32 | daeyoun | PN16 | 11 | 60612 | 70103 |
| 40 | daeyoun | PN16 | 11 | 60613 | 70104 |
| 50 | daeyoun | PN16 | 11 | 60614 | 70105 |
| 63 | daeyoun | PN16 | 11 | 60615 | 70106 |
| 75 | daeyoun | PN16 | 11 | | 70107 |
| 90 | daeyoun | PN16 | 11 | 60617 | 70108 |
| 110 | daeyoun | PN16 | 11 | 60618 | 70109 |
| 110 (91.9ID) | daeyoun | PN16 | 11 | | 70170 |
| 125 | daeyoun | PN16 | 11 | 60619 | 70110 |
| 160 | daeyoun | PN16 | 11 | | 70172 |
| 180 | daeyoun | PN16 | 11 | | 70111 |
| 200 | daeyoun | PN16 | 11 | | 70113 |
| 225 | daeyoun | PN16 | 11 | | 70112 |
| 250 | daeyoun | PN16 | 11 | | 70114 |
| 315 | daeyoun | PN16 | 11 | | 70115 |
| 355 | daeyoun | PN16 | 11 | | 70116 |

BALL VALVES SHORT STEM, 1/4 TURN, FULL PORT SDR 11 PE100 (NO PURGE) WITH GEARBOX

| Size | Supplier | Water | SDR | VX Code |
|------|----------|-------|-----|---------|
| 125 | daeyoun | PN16 | 11 | 70117 |
| 160 | daeyoun | PN16 | 11 | 70173 |
| 180 | daeyoun | PN16 | 11 | 70118 |
| 200 | daeyoun | PN16 | 11 | 70176 |
| 225 | daeyoun | PN16 | 11 | 70119 |
| 250 | daeyoun | PN16 | 11 | 70120 |
| 315 | daeyoun | PN16 | 11 | 70183 |
| 355 | daeyoun | PN16 | 11 | 70121 |
| 400 | daeyoun | PN16 | 11 | 70178 |
| 630 | daeyoun | PN16 | 11 | 70166 |

BALL VALVES SHORT STEM, 1/4 TURN, FULL PORT SDR 11 PE100 (BYPASS) WITH GEARBOX

| Size | Supplier | Water | SDR | VX Code |
|------|----------|-------|-----|---------|
| 125 | daeyoun | PN16 | 11 | 70122 |
| 160 | daeyoun | PN16 | 11 | 70175 |
| 200 | daeyoun | PN16 | 11 | 70171 |
| 225 | daeyoun | PN16 | 11 | 70182 |
| 250 | daeyoun | PN16 | 11 | 70177 |
| 280 | daeyoun | PN16 | 11 | 70167 |
| 315 | daeyoun | PN16 | 11 | 70184 |
| 355 | daeyoun | PN16 | 11 | 70180 |
| 400 | daeyoun | PN16 | 11 | 70179 |

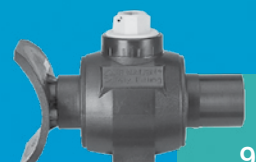
TAPPING BALL VALVES IN HD-PE, 1/4 TURN FOR SIDE TAPPING UNDER PRESSURE

| Size | Friaten Model | Water | Gas | SDR | Friatec Code | VX Code |
|----------|---------------|-------|-----|-----|--------------|---------|
| 110 x 63 | AKHP | PN16 | 10 | 11 | 615427 | 89430 |
| 110 x 90 | AKHP | PN16 | 10 | 11 | 615428 | 89431 |
| 125 x 90 | AKHP | PN16 | 10 | 11 | 615431 | 89432 |
| 160 x 63 | AKHP | PN16 | 10 | 11 | 615433 | 89433 |
| 160 x 90 | AKHP | PN16 | 10 | 11 | 615434 | 89434 |
| 180 x 90 | AKHP | PN16 | 10 | 11 | 615437 | 89435 |
| 225 x 63 | AKHP | PN16 | 10 | 11 | 615439 | 89436 |
| 225 x 90 | AKHP | PN16 | 10 | 11 | 615440 | 89437 |

TAPPING BALL VALVES IN HD-PE, 1/4 TURN TOP LOADING FOR SIDE TAPPING UNDER PRESSURE

| Size | Friaten Model | Water | Gas | SDR | Friatec Code | VX Code |
|--------------------|---------------|-------|-----|-----|--------------|---------|
| 250-450 (560) x 63 | AKHP-TL | PN16 | 10 | 11 | 615525 | 89438 |
| 250-450 (560) x 90 | AKHP-TL | PN16 | 10 | 11 | 615526 | 89439 |

250-450 for pipes SDR11 and 17, 450-560 for pipes SDR17



FRIALEN®- Safety fittings: Assembly of fittings d20 - d225

Quick Guide

Please follow the specifications and processing hints contained in the FRIALEN assembly.

1. Clean pipe of rough contaminations



6. Clean the pipe surface and the fitting interior with PE cleaner, let evaporate, mark insertion depth again



2. Mark the insertion depth



7. Insert the pipe up to the marking, do not jam. Ensure a tension-free assembly of the component parts



3. Remove the oxide layer of the pipe using a scraper tool



8. Contact FRIALEN®- Safety fitting with electrofusion unit, read barcode, start fusion



4. Chamfer the raw edges on the outside and inside. Remove any chips from the pipe interior



9. Document fusion parameters on the pipe. Allow to cool (cooling times!)



5. If required, restore the roundness of irregular/oval pipes using rounding clamps



| Diameter in mm | Cooling time in minutes for FRIALEN® couplers and fittings | | |
|----------------|--|--------------------------------------|----------------------------------|
| | CT Up to which the joint may be moved | Up to the pressurisation up to 8 bar | Up to the pressurisation > 8 bar |
| 20 - 32 | 5 | 8 | 10 |
| 40 - 63 | 7 | 15 | 25 |
| 75 - 110 | 10 | 30 | 40 |
| 125 - 140 | 15 | 35 | 45 |
| 160 - 225 | 20 | 60 | 75 |

Safety fittings

Assembly of Pressure Tapping Tees (DAA)

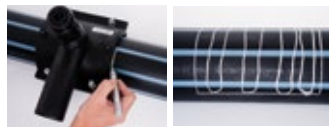
d40 - d225

Quick Guide

1. Clean pipe of rough contaminations



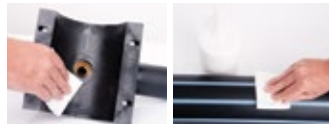
2. Mark the saddle area



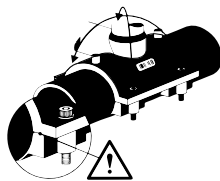
3. Remove the oxide layer from the pipe surface using the scraper tool or hand scraper



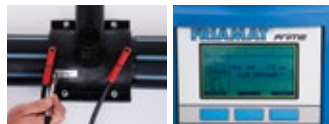
4. Clean the pipe surface and the fitting fusion area with PE cleaner, let evaporate, mark fusion zone again



5. Assemble the fitting. Tighten the screws cross-wise until saddle and bottom section align. Proof for tight fit of the saddle on pipe



6. Contact FRIALEN®-Safety fitting with electrofusion unit, read barcode, start fusion



7. Document fusion parameters on the pipe

Watch cooling time!



8. Fuse branch pipeline with FRIALEN®-Safety fitting according to assembly instruction



9. Observe cooling times before tapping

| Diameter in mm | Cooling time in minutes for FRIALEN® saddle parts | |
|----------------|---|------------------|
| | Up to pressurisation through the outlet | CT Up to tapping |
| 40 – 63 | 15 | 20 |
| 75 – 125 | 20 | 30 |
| 140 – 160 | 30 | 45 |
| 180 – 225 | 50 | 60 |

Remove blanking plug. Turn the drill down up to the lower stop using the matching FRIALEN® activating key and turn anti-clockwise up to the upper stop



10. Turn down the FRIALEN® activating key until the collar of the plug slightly touches the front face of the drill spigot. Afterwards turn back the plug half a turn to relieve the O-Ring tension. We recommend closing the tapping dome with a fusion cap K



THINGS WORTH KNOWING ABOUT FRIALEN®-SAFETY FITTINGS AND THIS PRODUCT RANGE

Quality/Certification

FRIALEN-Safety Fittings and FRIAFIT Couplers are subject to constant quality checks under stringent inspection guidelines, which are part of our comprehensive Quality Management System which is certified to EN ISO 9001:2008.

The FRIALEN/FRIAFIT-Safety Fittings range and our FRIATOOLS hardware are designed to be compatible. We reserve the right to change product details in the catalogue at any time. This is an ongoing commitment with product improvement and product line enhancements taking place continuously. Our continuous quality controls cover FRIALEN/FRIAFIT Safety Fittings, our FRIATOOLS equipment and the quality of the fused joint as a result of the combination of these two components. The operation and functional safety of fusion control units devices from other manufacturers are not subject to our specifications and checks. When installing fittings please follow our installation instructions and the operating instructions for the tooling used. FRIALEN-Safety Fittings and FRIAFIT Couplers are subject to constant quality checks under stringent inspection guidelines, which are part of our comprehensive Quality Management System which is certified to EN ISO 9001:2008.

DVGW Certification/Fusability

FRIALEN Safety Fittings can be fused with SDR 17.6 pipes (s min = 3 mm) to 11 in accordance with DIN 8074, ISO 4437, ISO 4427, EN 1555 and EN 12201. Other SDR sizes on request. FRIALEN Saddle components/Fittings ≤ d 63 can only be used with pipes ≤ SDR 11.

Please also note the details on the Fitting Barcode and further mandatory markings on the product for each SDR level which can be fused.

FRIALEN Safety Fittings can be used with pipes made of PE 100, PE 80, PE 63, PE 50 in accordance with DIN 8074/75, EN 1555-2, EN 12201-2, ISO 4437 and ISO 4427, PE-Xa in accordance with DIN 16892/93, PE-LD in accordance with DIN 8072/73. A melt flow rate of MFR 190/5 in the range of 0.2 to 1.7 g/10 min applies to PE pipes. For components with MFR < 0.20 then you will need to confirm that it is suitable. We would recommend the use of pipes with a limited diameter tolerance range, tolerance class B. PE-LD pipes can be fused at an ambient temperature of > 0 °C.

Check instructions for compatibility of another SDR or seek our technical advice.

FRIALEN-Safety Fittings and FRIAFIT-Couplers are made of PE 100 and fulfil the requirements of EN 1555-3, EN 12201-3, ISO 4427-3 and ISO 4437-3, as well as DVGW test specifications. FRIALEN-Safety Fittings and FRIAFIT-Couplers can be processed with FRIAMAT fusion devices at an ambient temperatures between - 10 °C and + 45 °C.

For connections between different materials, the material or system specific standards and assembly guidelines also apply.

For case by case restrictions when installing, and working with FRIALEN/FRIAFIT Safety Fittings in general, please read our assembly instructions. Our office-based customer support staff will be glad to answer any questions you may have.

Pressure loading capacity

The pressure loading capacity of FRIALEN/FRIAFIT-Safety Fittings made of PE 100 dependent on the SDR (Standard Dimension Ratio) marking.

$$SDR = \frac{\text{Pipe outside diameter } d}{\text{Pipe wall thickness } s}$$

The contributory factors for this are the latest revised standards DIN EN 1555, DIN EN 12201, DIN 8074 and DIN 8075, taking the design factor C into account (calculation coefficient for components made of PE). This gives the following pressure stages:

| Fitting material: PE 100 | Water | Gas |
|-----------------------------|---|--|
| SDR level | maximum operating pressure in bar at C = 1,25 | maximum operating pressure in bar at C = 2 |
| 17 | 10 | 5 |
| 11 | 16 | 10 |
| 9 | 20 | - |
| 7.4 | 25 | - |

Fusion process

FRIALEN-Fittings are fuseable by Universal fusion units, e.g. FRIAMAT. The fusion parameter will be transferred automatically from the barcode on the fitting.

39.5V processing

Most of the FRIALEN-Fittings are fusable by electrofusion units with a constant output voltage of 39.5V by manual input of the fusion time. The fusion time is stated on the barcode label. By using older electrofusion units the allowed processing range is limited to an ambient temperature between -5°C and +35°C. The stated fusion time is to be used for the complete temperature range. Please find a list with suitable fittings on our homepage www.frialen.com.

Cooling times

FRIALEN-Couplers/Elbows/T-Pieces/Transition fittings

The cooling times given on the barcode (CT), are the times after fusing for which the fused joint must not be disturbed.

Longer cooling times should be allowed before pressurisation. When doing this please read our assembly instructions.

FRIALEN-Fittings/Valves/Saddles

The cooling times given on the barcode (CT) are the times before which the fused joint should not be tapped.

A pressure test of the saddle joint/outgoing line can be carried out before the end of the cooling period for the fused joint. When doing this please read our assembly instructions.

Processing

Processing must be carried out in accordance with our assembly instructions, which may also be downloaded from www.frialen.com/www.frialen-xl.com. This webpage will also give you further information on products and processes, certificates and publications.

FRIALEN saddle parts Top-Loading

The dimension information, including the value in brackets, shows the authorized assembly and fusion size range for the saddle part. In some cases, the standard application range is limited by technical restrictions (e.g. drill length/pipe wall thickness or tap diameter/diameter of shut-off saddles). For other areas of application, suitability must be assessed.

Technical hints for processing or use may be attached to the product and must be strictly observed.

Technical Information

The technical details in this product guide are not comprehensive. You can find detailed information on our data sheets, which can also be downloaded from www.frialen.com/www.frialen-xl.com.

Update/Technical Progress

All details are valid as at the time to print. We reserve the right to make changes which are in the interests of technical progress. We do not accept liability for any matters arising as a result of printing errors and/or omissions.

Brand Names

For easier reading, the product guide dispenses with the symbols ® and ™ in continuous text. The following trademarks are registered: FRIALEN®, FRIALOC®, FRIAFIT®, FRIATOOLS®, FRIAMAT®, Sentry GS®, BAIO®, Rilsan® as well as Gas-Stop™.

Spigot Fittings for Butt Welding





Spigot Fittings for Butt & Electrofusion Welding



STUB FLANGE LONG SPIGOT - PE100 SDR11

| Size | VX Code |
|------|---------|
| 20 | 62694 |
| 25 | 64032 |
| 32 | 64033 |
| 40 | 64034 |
| 50 | 62289 |
| 63 | 69722 |
| 75 | 69723 |
| 90 | 69769 |
| 110 | 69724 |
| 125 | 69725 |
| 140 | 62292 |
| 160 | 69726 |
| 180 | 69727 |
| 200 | 69728 |
| 225 | 69730 |
| 250 | 69731 |
| 280 | 69732 |
| 315 | 69733 |
| 355 | 69790 |
| 400 | 69792 |
| *450 | 30440 |
| *500 | 73420 |
| *560 | 73421 |
| *630 | 73433 |
| *710 | 73438 |

* With pipe extension

STUB FLANGE LONG SPIGOT - PE 100 SDR17

| Size | VX Code |
|-------|---------|
| 63 | 62475 |
| 75 | 62486 |
| 90 | 62489 |
| 110 | 62490 |
| 125 | 62491 |
| 140 | 62493 |
| 160 | 62495 |
| 180 | 69721 |
| 200 | 62497 |
| 225 | 62499 |
| 250 | 62500 |
| 280 | 62674 |
| 315 | 62686 |
| 355 | 69791 |
| 400 | 69793 |
| *450 | 62769 |
| *500 | 69797 |
| *560 | 69798 |
| *630 | 69799 |
| *710 | 69800 |
| *800 | 69801 |
| *900 | 69802 |
| *1000 | 69803 |

* With pipe extension

STUB FLANGE SHORT SPIGOT - PE100 SDR 11

| Size | VX Code |
|------------|---------|
| 200 | 71184 |
| 225 | 71185 |
| 250 | 71186 |
| 280 | 71187 |
| 315 | 71188 |
| 355 | 71189 |
| 400 | 71190 |
| 450(DN450) | 71191 |
| 500 | 73435 |
| 560 | 71192 |
| 630 | 71198 |
| 710 | 62361 |

STUB FLANGE SHORT SPIGOT - PE100 SDR 17

| Size | VX Code |
|------------|---------|
| 200 | 71168 |
| 225 | 71169 |
| 250 | 71305 |
| 280 | 71301 |
| 315 | 71285 |
| 355 | 71173 |
| 400 | 71174 |
| 450(DN450) | 71175 |
| 500 | 71176 |
| 560 | 71193 |
| 630 | 62410 |
| 710 | 62398 |
| 800 | 71199 |
| 900 | 65414 |
| 1000 | 71202 |

Spigot Fittings for Butt & Electrofusion Welding

MAXI STUB C/W STAINLESS STEEL BACKING RING PN16 SDR11

| Size | VX Code |
|-----------|---------|
| 110 x 3" | 73451 |
| 140 x 4" | 73452 |
| 125 x 4" | 73458 |
| 180 x 4" | 73464 |
| 180 x 6" | 73455 |
| 200 x 6" | 73459 |
| 250 x 8" | 73460 |
| 315 x 10" | 84351 |
| 355 x 12" | 84352 |

90° SWEEP BEND LONG SPIGOT - PE100 SDR11

| Size | VX Code |
|------|---------|
| 63 | 62558 |
| 75 | 62559 |
| 90 | 62560 |
| 110 | 62561 |
| 125 | 62562 |
| 140 | 62563 |
| 160 | 62564 |
| 180 | 70404 |
| 200 | 62565 |
| 225 | 62566 |
| 250 | 62567 |
| 280 | 62568 |
| 315 | 62569 |
| 355 | 62570 |
| 400 | 62571 |
| 450 | 62746 |
| 500 | 62717 |
| 560 | 62747 |
| 630 | 62749 |
| 710 | 62386 |
| 800 | 75172 |
| 900 | 62771 |
| 1000 | 62775 |

90° SWEEP BEND LONG SPIGOT - PE100 SDR17

| Size | VX Code |
|------|---------|
| 63 | 62525 |
| 75 | 62526 |
| 90 | 62527 |
| 110 | 62528 |
| 125 | 62529 |
| 140 | 62530 |
| 160 | 62531 |
| 180 | 70382 |
| 200 | 62532 |
| 225 | 62547 |
| 250 | 62534 |
| 280 | 62535 |
| 315 | 62536 |
| 355 | 62537 |
| 400 | 62538 |
| 450 | 62391 |
| 500 | 62700 |
| 560 | 62392 |
| 630 | 62393 |
| 710 | 62394 |
| 800 | 62750 |
| 900 | 62752 |
| 1000 | 62754 |





Spigot Fittings for Butt & Electrofusion Welding

45° SWEEP BEND - EXTENDED PE100 SDR11

| Size | VX Code |
|------|---------|
| 63 | 62638 |
| 75 | 62639 |
| 90 | 62640 |
| 110 | 62641 |
| 125 | 62642 |
| 140 | 62643 |
| 160 | 62644 |
| 180 | 70403 |
| 200 | 62645 |
| 225 | 62646 |
| 250 | 62647 |
| 280 | 62648 |
| 315 | 62649 |
| 355 | 62650 |
| 400 | 62651 |
| 450 | 62759 |
| 500 | 62761 |
| 560 | 70513 |
| 630 | 70514 |
| 710 | 62762 |
| 800 | 75174 |

45° SWEEP BEND EXTENDED - PE100 SDR17

| Size | VX Code |
|------|---------|
| 63 | 62605 |
| 75 | 62606 |
| 90 | 62607 |
| 110 | 62608 |
| 125 | 62609 |
| 140 | 62610 |
| 160 | 62611 |
| 180 | 70383 |
| 200 | 62612 |
| 225 | 62613 |
| 250 | 62614 |
| 280 | 62615 |
| 315 | 62616 |
| 355 | 62617 |
| 400 | 62618 |
| 450 | 62763 |
| 500 | 62703 |
| 560 | 62764 |
| 630 | 70538 |
| 710 | 62512 |
| 800 | 62755 |
| 900 | 62765 |
| 1000 | 62766 |

Spigot Fittings for Butt & Electrofusion Welding

90° ELBOW LONG SPIGOT - PE100 SDR11

| Size | VX Code |
|------|---------|
| 20 | 62954 |
| 25 | 62955 |
| 32 | 62956 |
| 40 | 62957 |
| 50 | 62958 |
| 63 | 62959 |
| 75 | 62960 |
| 90 | 62961 |
| 110 | 62962 |
| 125 | 62963 |
| 140 | 62866 |
| 160 | 62964 |
| 180 | 62965 |
| 200 | 62966 |
| 225 | 62967 |
| 250 | 62968 |
| 280 | 62969 |
| 315 | 62970 |
| 355 | 62984 |
| 400 | 62985 |

90° ELBOW LONG SPIGOT - PE100 SDR17

| Size | VX Code |
|------|---------|
| 63 | 62971 |
| 75 | 62972 |
| 90 | 62973 |
| 110 | 62974 |
| 125 | 62975 |
| 140 | 62882 |
| 160 | 62976 |
| 180 | 62977 |
| 200 | 62978 |
| 225 | 62979 |
| 250 | 62441 |
| 280 | 62981 |
| 315 | 62982 |
| 355 | 62986 |
| 400 | 62987 |



Spigot Fittings for Butt & Electrofusion Welding



45° ELBOW LONG SPIGOT - PE100 SDR11

| Size | VX Code |
|------|---------|
| 20 | 62990 |
| 25 | 62991 |
| 32 | 62992 |
| 40 | 62993 |
| 50 | 62994 |
| 63 | 62995 |
| 75 | 62996 |
| 90 | 62997 |
| 110 | 62998 |
| 125 | 62999 |
| 160 | 63000 |
| 140 | 63025 |
| 180 | 63001 |
| 200 | 63002 |
| 225 | 63003 |
| 250 | 63004 |
| 280 | 63005 |
| 315 | 63006 |
| 355 | 62988 |
| 400 | 62989 |



45° ELBOW LONG SPIGOT - PE100 SDR17

| Size | VX Code |
|------|---------|
| 63 | 63007 |
| 75 | 63008 |
| 90 | 63009 |
| 110 | 63010 |
| 125 | 63011 |
| 140 | 63038 |
| 160 | 63012 |
| 180 | 63013 |
| 200 | 63014 |
| 225 | 63015 |
| 250 | 63016 |
| 280 | 63017 |
| 315 | 63018 |
| 355 | 63019 |
| 400 | 63023 |

Spigot Fittings for Butt & Electrofusion Welding

90° TEE LONG SPIGOT - PE100 SDR11

| Size | VX Code |
|------|---------|
| 20 | 63146 |
| 25 | 63147 |
| 32 | 63148 |
| 40 | 63149 |
| 50 | 63150 |
| 63 | 63151 |
| 75 | 63152 |
| 90 | 63153 |
| 110 | 63154 |
| 125 | 63155 |
| 140 | 63145 |
| 160 | 63156 |
| 180 | 63157 |
| 200 | 63158 |
| 225 | 63159 |
| 250 | 63160 |
| 280 | 63161 |
| 315 | 63162 |
| 355 | 62430 |
| 400 | 63112 |

90° TEE LONG SPIGOT - PE100 SDR17

| Size | VX Code |
|------|---------|
| 63 | 63163 |
| 75 | 63164 |
| 90 | 63165 |
| 110 | 63166 |
| 125 | 63167 |
| 140 | 63144 |
| 160 | 63168 |
| 180 | 63169 |
| 200 | 63170 |
| 225 | 63171 |
| 250 | 63172 |
| 280 | 63173 |
| 315 | 63174 |
| 355 | 63179 |
| 400 | 63180 |

90° TEE SEGMENTED - PE100 SDR11

| Size | VX Code |
|------|---------|
| 450 | |
| 500 | |
| 500 | |
| 560 | |
| 630 | |
| 710 | |
| 800 | |
| 900 | |
| 1000 | |

90° TEE SEGMENTED - PE100 SDR17

| Size | VX Code |
|------|---------|
| 450 | 63293 |
| 500 | |
| 560 | |
| 630 | 62397 |
| 710 | 63297 |
| 800 | |
| 900 | |
| 1000 | |



Spigot Fittings for Butt & Electrofusion Welding



REDUCING TEE LONG SPIGOT - PE100 SDR11

| Size | VX Code |
|-----------|---------|
| 50 x 25 | 63229 |
| 50 x 32 | 63230 |
| 50 x 40 | 63240 |
| 63 x 32 | 63261 |
| 63 x 40 | 63269 |
| 63 x 50 | 63243 |
| 75 x 32 | 63244 |
| 75 x 40 | 63294 |
| 75 x 50 | 63245 |
| 75 x 63 | 63246 |
| 90 x 50 | 63295 |
| 90 x 63 | 63247 |
| 90 x 75 | 63248 |
| 110 x 32 | 63320 |
| 110 x 50 | 63321 |
| 110 x 63 | 63249 |
| 110 x 75 | 63250 |
| 110 x 90 | 63251 |
| 125 x 90 | 63252 |
| 125 x 110 | 86635 |
| 140 x 90 | 63322 |
| 140 x 110 | 63323 |
| 140 x 125 | 63324 |
| 160 x 63 | 63254 |
| 160 x 75 | 63255 |
| 160 x 90 | 63256 |
| 160 x 110 | 63257 |
| 160 x 125 | 63325 |
| 160 x 140 | 63326 |
| 180 x 160 | 63195 |
| 180 x 90 | 63258 |
| 180 x 110 | 63215 |
| 180 x 125 | 63259 |
| 200 x 63 | 63192 |
| 200 x 90 | 63193 |
| 200 x 110 | 63202 |
| 200 x 125 | 87742 |
| 200 x 160 | 63203 |
| 225 x 90 | 63262 |
| 225 x 110 | 63263 |
| 225 x 125 | 63264 |
| 250 x 90 | 63327 |
| 250 x 110 | 63328 |
| 250 x 125 | 63329 |
| 250 x 160 | 63335 |
| 250 x 200 | 63336 |
| 250 x 225 | 63341 |
| 280 x 250 | 63348 |
| 280 x 110 | 63344 |
| 280 x 160 | 63345 |
| 280 x 200 | 63346 |
| 280 x 225 | 63347 |
| 315 x 110 | 63351 |
| 315 x 160 | 63352 |
| 315 x 200 | 63353 |
| 315 x 225 | 63354 |
| 315 x 250 | 62411 |

Spigot Fittings for Butt & Electrofusion Welding

REDUCING TEE LONG SPIGOT - PE100 SDR17

| Size | VX Code |
|-----------|---------|
| 75 x 63 | 63270 |
| 90 x 63 | 63271 |
| 90 x 75 | 63272 |
| 110 x 63 | 63273 |
| 110 x 75 | 63274 |
| 110 x 90 | 63275 |
| 125 x 90 | 63276 |
| 125 x 110 | 63277 |
| 140 x 90 | 63355 |
| 140 x 110 | 63358 |
| 140 x 125 | 63359 |
| 160 x 63 | 63278 |
| 160 x 75 | 63279 |
| 160 x 90 | 63280 |
| 160 x 110 | 63281 |
| 160 x 125 | 63360 |
| 160 x 140 | 63361 |
| 180 x 90 | 63228 |
| 180 x 110 | 63362 |
| 180 x 125 | 63283 |
| 180 x 160 | 63260 |
| 200 x 63 | 63365 |
| 200 x 90 | 63366 |
| 200 x 110 | 63367 |
| 200 x 125 | 63368 |
| 200 x 160 | 63370 |
| 225 x 90 | 63236 |
| 225 x 110 | 63371 |
| 225 x 125 | 63238 |
| 225 x 160 | 63289 |
| 250 x 90 | 63373 |
| 250 x 110 | 63374 |
| 250x 125 | 63376 |
| 250 x 160 | 63383 |
| 250 x 200 | 63384 |
| 250 x 225 | 63414 |
| 280 x 110 | 63422 |
| 280 x 160 | 63423 |
| 280 x 200 | 63425 |
| 280 x 225 | 63431 |
| 280 x 250 | 63432 |
| 315 x 110 | 63433 |
| 315 x 160 | 63437 |
| 315 x 200 | 63438 |
| 315 x 225 | 63449 |
| 315 x 250 | 63450 |

45° EQUAL TEE- PE100 SDR11

| Size | VX Code |
|------|---------|
| 63 | 63299 |
| 75 | 63300 |
| 90 | 63301 |
| 110 | 63302 |
| 125 | 63303 |
| 160 | 63304 |
| 180 | 63305 |
| 200 | 63306 |
| 225 | 63307 |
| 250 | 63308 |

45° EQUAL TEE- PE100 SDR17

| Size | VX Code |
|------|---------|
| 63 | 63309 |
| 75 | 63310 |
| 90 | 63311 |
| 110 | 63312 |
| 125 | 63313 |
| 160 | 63314 |
| 180 | 63315 |
| 200 | 63316 |
| 225 | 63317 |
| 250 | 63319 |





Spigot Fittings for Butt & Electrofusion Welding

STEP REDUCER SHORT SPIGOT - PE100 SDR11

| Size | VX Code |
|-----------|---------|
| 450 x 315 | 63421 |
| 630 x 450 | 63454 |

STEP REDUCER SHORT SPIGOT - PE100 SDR17

| Size | VX Code |
|-----------|---------|
| 225 x 160 | 63427 |
| 315 x 225 | 63428 |
| 450 x 315 | 63429 |
| 630 x 450 | 63430 |

REDUCER LONG SPIGOT - PE100 SDR11

| Size | VX Code |
|-----------|---------|
| 25 x 20 | 62245 |
| 32 x 20 | 62377 |
| 32 x 25 | 62236 |
| 40 x 25 | 62217 |
| 40 x 32 | 62237 |
| 50 x 25 | 62242 |
| 50 x 32 | 62238 |
| 50 x 40 | 62796 |
| 63 x 25 | 62742 |
| 63 x 32 | 62239 |
| 63 x 40 | 62240 |
| 63 x 50 | 62241 |
| 75 x 32 | 62230 |
| 75 x 63 | 62244 |
| 75 x 40 | 62231 |
| 75 x 50 | 62243 |
| 90 x 50 | 62251 |
| 90 x 63 | 62246 |
| 90 x 75 | 62247 |
| 110 x 63 | 62248 |
| 110 x 75 | 62276 |
| 110 x 90 | 62250 |
| 125 x 63 | 62221 |
| 125 x 75 | 62283 |
| 125 x 90 | 62252 |
| 125 x 110 | 62253 |
| 140 x 75 | 62310 |
| 140 x 90 | 62313 |
| 140 x 110 | 62314 |
| 140 x 125 | 62256 |
| 160 x 90 | 62800 |
| 160 x 110 | 62257 |
| 160 x 125 | 62258 |
| 160 x 140 | 62259 |
| 180 x 110 | 70140 |
| 180 x 125 | 62260 |
| 180 x 140 | 62315 |
| 180 x 160 | 62262 |
| 200 x 110 | 70163 |
| 200 x 140 | 62263 |
| 200 x 160 | 62264 |
| 200 x 180 | 62316 |
| 225 x 110 | 62328 |
| 225 x 160 | 62795 |
| 225 x 180 | 62329 |
| 225 x 200 | 62335 |
| 250 x 160 | 70680 |
| 250 x 180 | 62337 |
| 250 x 200 | 70193 |
| 250 x 225 | 74254 |
| 280 x 200 | 73437 |
| 280 x 200 | 62343 |
| 280 x 225 | 62346 |
| 280 x 250 | 62347 |
| 315 x 225 | 62348 |
| 315 x 250 | 70212 |
| 315 x 280 | 62349 |
| 400 x 315 | 62350 |

Spigot Fittings for Butt & Electrofusion Welding

REDUCER LONG SPIGOT - PE100 SDR17

| Size | VX Code |
|-----------|---------|
| 75 x 63 | 62770 |
| 90 x 63 | 62772 |
| 90 x 75 | 62773 |
| 110 x 63 | 62774 |
| 110 x 75 | 62374 |
| 110 x 90 | 62776 |
| 125 x 63 | 62422 |
| 125 x 75 | 62425 |
| 125 x 90 | 62778 |
| 125 x 110 | 62779 |
| 140 x 75 | 62437 |
| 140 x 90 | 62453 |
| 140 x 110 | 62456 |
| 140 x 125 | 62782 |
| 160 x 90 | 62783 |
| 160 x 110 | 62784 |
| 160 x 125 | 62785 |
| 160 x 140 | 62786 |
| 180 x 110 | 62466 |
| 180 x 125 | 62787 |
| 180 x 140 | 62467 |
| 180 x 160 | 62473 |
| 200 x 110 | 30701 |
| 200 x 140 | 62484 |
| 200 x 160 | 62791 |
| 200 x 180 | 62492 |
| 225 x 110 | 62496 |
| 225 x 160 | 62793 |
| 225 x 180 | 62540 |
| 225 x 200 | 62544 |
| 250 x 160 | 70680 |
| 250 x 180 | 62593 |
| 250 x 200 | 63490 |
| 250 x 225 | 62599 |
| 280 x 200 | 62689 |
| 280 x 225 | 62707 |
| 280 x 250 | 62708 |
| 315 x 225 | 62710 |
| 315 x 250 | 62714 |
| 315 x 280 | 62736 |
| 400 x 315 | 62737 |





Spigot Fittings for Butt & Electrofusion Welding

END CAP LONG SPIGOT PE100 SDR11

| Size | VX Code |
|------|---------|
| 20 | 63385 |
| 25 | 63386 |
| 32 | 63387 |
| 40 | 63388 |
| 50 | 63389 |
| 63 | 63390 |
| 75 | 63391 |
| 90 | 63392 |
| 110 | 63393 |
| 125 | 63394 |
| 140 | 63375 |
| 160 | 63395 |
| 180 | 63396 |
| 200 | 63397 |
| 225 | 63398 |
| 250 | 63399 |
| 280 | 63400 |
| 315 | 63401 |
| 355 | 62431 |
| 400 | 62429 |

Spigot Fittings for Butt & Electrofusion Welding

STEEL BACKING FLANGES AS2129: TABLE D PN10

| Size | Flange Size | Galv. VX Code | S/Steel 316 VX Code |
|------|-------------|---------------|---------------------|
| *20 | 15 | 84481 | 83466 |
| *25 | 20 | 84483 | |
| *32 | 25 | 84485 | 83480 |
| *40 | 32 | 84487 | 83493 |
| *50 | 40 | 84489 | 83495 |
| *63 | 50 | 84491 | 83505 |
| *75 | 65 | | 83463 |
| *90 | 80 | 84495 | 83592 |
| 110 | 100 | 84497 | 83597 |
| 125 | 100 | 84585 | 84530 |
| 125 | 125 | 84499 | 83499 |
| 140 | 125 | 84501 | 83501 |
| 160 | 150 | 84503 | 83593 |
| 180 | 150 | 84533 | 83594 |
| 200 | 200 | 84505 | 83595 |
| 225 | 200 | 84507 | 83596 |
| 250 | 250 | 84509 | 84532 |
| 280 | 250 | 84511 | 83502 |
| 315 | 300 | 84513 | 84590 |
| 355 | 350 | 84515 | 83503 |
| 400 | 400 | 84517 | 83599 |
| 450 | 450 | 84519 | 83504 |
| 500 | 500 | 84521 | 83589 |
| 560 | 550 | 84523 | 83604 |
| 630 | 600 | 84525 | 83606 |
| 710 | 700 | 84527 | 65419 |
| 800 | 800 | 84529 | 85452 |
| 900 | 900 | 65457 | |
| 1000 | 1000 | 84531 | 84538 |

* Please refer to Table E Flange Prices

STEEL BACKING FLANGES A.N.S.I. 150 (A105)

| Size | Flange Size | Galv. VX Code | S/Steel 316 VX Code |
|------|-------------|---------------|---------------------|
| 63 | 2" | 84563 | 86857 |
| 75 | 2½" | 84564 | 83462 |
| 90 | 3" | 84565 | 83608 |
| 110 | 4" | 84566 | 83609 |
| 125 | 5" | 84567 | 83611 |
| 140 | 5" | 84568 | |
| 160 | 6" | 84569 | 84597 |
| 180 | 6" | 84409 | 83612 |
| 200 | 8" | 84570 | 83535 |
| 225 | 8" | 84571 | 83538 |
| 250 | 10" | 84572 | 83542 |
| 280 | 10" | 84573 | 83537 |
| 315 | 12" | 84574 | 83539 |
| 355 | 14" | 84575 | 83613 |
| 400 | 16" | 84576 | 83543 |
| 450 | 18" | 84577 | 83544 |
| 500 | 20" | 84578 | 83545 |
| 630 | 24" | 84580 | 83546 |



Spigot Fittings for Butt & Electrofusion Welding



STEEL BACKING FLANGES AS2129: TABLE E PN16

| Size | Flange Size | Galv. VX Code | S/Steel 316 VX Code |
|------|-------------|---------------|---------------------|
| 20 | 15 | 84480 | |
| 25 | 20 | 84482 | 83464 |
| 32 | 25 | 84484 | 83497 |
| 40 | 32 | 84486 | 83465 |
| 50 | 40 | 84488 | 83479 |
| 63 | 50 | 84490 | 83478 |
| 75 | 65 | 84492 | 83471 |
| 90 | 80 | 84494 | 83472 |
| 110 | 100 | 84496 | 83477 |
| 125 | 100 | 85586 | 83598 |
| 125 | 125 | 84498 | 83473 |
| 140 | 125 | 84500 | 84591 |
| 160 | 150 | 84502 | 84592 |
| 180 | 150 | 84596 | 83481 |
| 200 | 200 | 84504 | 84594 |
| 225 | 200 | 84506 | 83482 |
| 250 | 250 | 84508 | 83474 |
| 280 | 250 | 84510 | 83483 |
| 315 | 300 | 84512 | 83476 |
| 355 | 350 | 84514 | 83475 |
| 400 | 400 | 84516 | 83509 |
| 450 | 450 | 84518 | 83484 |
| 500 | 500 | 84520 | 83485 |
| 560 | 550 | 84522 | |
| 630 | 600 | 84524 | 83486 |
| 710 | 700 | 84526 | |
| 800 | 800 | 84528 | |
| 900 | 900 | | 65417 |
| 1000 | 1000 | | 83487 |

STEEL BACKING FLANGES AS4087 FIGURE B7 PN16

| Size | Flange Size | Galv. VX Code | S/Steel 316 VX Code |
|------|-------------|---------------|---------------------|
| 63 | 50 | | 64636 |
| 75 | 65 | | 84493 |
| 90 | 80 | 84476 | 84474 |
| 110 | 100 | 84477 | 83516 |
| 125 | 100 | | 83507 |
| 160 | 150 | | 83517 |
| 180 | 150 | 84468 | 83508 |
| 200 | 200 | 84478 | 84475 |
| 225 | 225 | | 83506 |
| 250 | 250 | 84469 | 84536 |
| 315 | 300 | 84479 | 84537 |
| 355 | 350 | 84470 | |

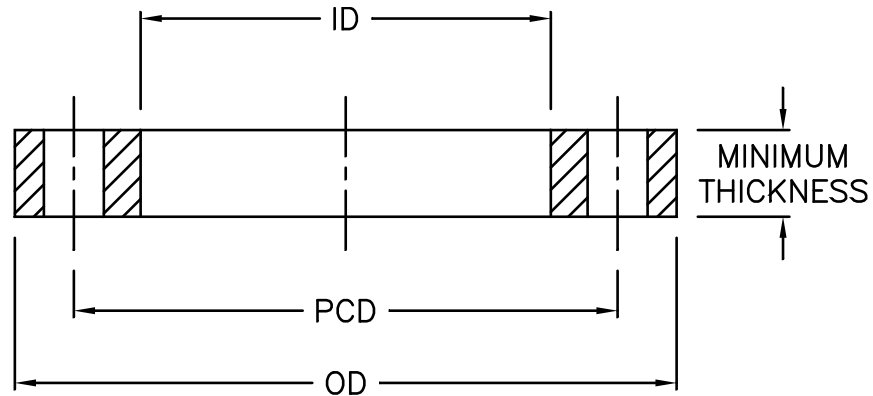


Table 1: STEEL BACKING FLANGES
AS 2129 : TABLE D

| Nominal Pipe OD | Flange Size | OD | ID | Minimum Thickness | PCD | Bolt Hole No. x Dia. | Bolt Size |
|-----------------|-------------|------|------|-------------------|------|----------------------|-----------|
| 20 | 15 | | | | | | |
| 25 | 20 | | | | | | |
| 32 | 25 | | | | | | |
| 40 | 32 | | | | | | |
| 50 | 40 | | | | | | |
| 63 | 50 | | | | | | |
| 75 | 65 | | | | | | |
| 90 | 80 | | | | | | |
| 110 | 100 | 215 | 128 | 10 | 178 | 4X18 | M16 |
| 125 | 100 | 215 | 135 | 10 | 178 | 4X18 | M16 |
| 125 | 125 | 255 | 140 | 13 | 210 | 8X18 | M16 |
| 140 | 125 | 255 | 158 | 13 | 210 | 8X18 | M16 |
| 160 | 150 | 280 | 178 | 13 | 235 | 8X18 | M16 |
| 180 | 150 | 280 | 188 | 13 | 235 | 8X18 | M16 |
| 200 | 200 | 335 | 235 | 13 | 292 | 8X18 | M16 |
| 225 | 200 | 335 | 238 | 13 | 292 | 8X18 | M16 |
| 250 | 250 | 405 | 288 | 16 | 356 | 8X22 | M20 |
| 280 | 250 | 405 | 294 | 16 | 356 | 8X22 | M20 |
| 315 | 300 | 455 | 338 | 19 | 406 | 12X22 | M20 |
| 355 | 350 | 525 | 376 | 22 | 470 | 12X26 | M24 |
| 400 | 400 | 580 | 430 | 22 | 521 | 12X26 | M24 |
| 450 | 450 | 640 | 470 | 25 | 584 | 12X26 | M24 |
| 500 | 500 | 705 | 533 | 29 | 641 | 16X26 | M24 |
| 560 | 550 | 760 | 618 | 29 | 699 | 16X30 | M27 |
| 630 | 600 | 825 | 645 | 32 | 756 | 16X30 | M27 |
| 710 | 700 | 910 | 740 | 35 | 845 | 20X30 | M27 |
| 800 | 800 | 1060 | 843 | 41 | 984 | 20X36 | M33 |
| 900 | 900 | 1175 | 947 | 48 | 1092 | 24X36 | M33 |
| 1000 | 1000 | 1255 | 1050 | 51 | 1175 | 24X36 | M33 |

Refer to Table 2

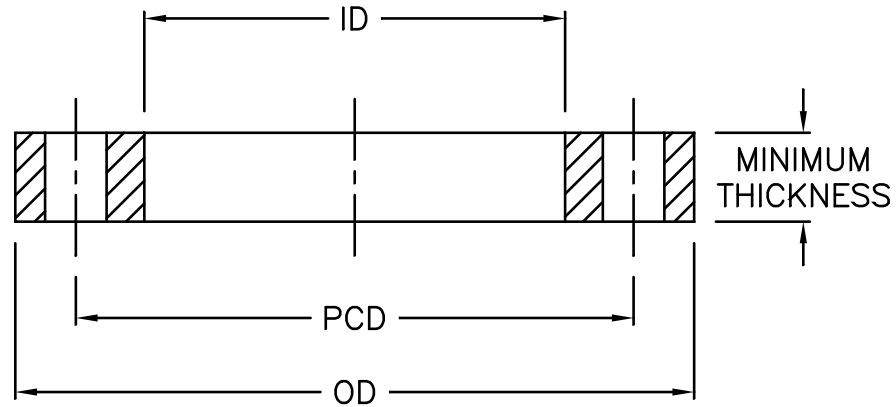


Table 2: STEEL BACKING FLANGES

AS 2129 : TABLE E

| Nominal Pipe OD | Flange Size | OD | ID | Minimum Thickness | PCD | Bolt Hole No. x Dia. | Bolt Size |
|-----------------|-------------|------|------|-------------------|------|----------------------|-----------|
| 20 | 15 | 95 | 28 | 6 | 67 | 4X14 | M12 |
| 25 | 20 | 100 | 34 | 6 | 73 | 4X14 | M12 |
| 32 | 25 | 115 | 42 | 7 | 83 | 4X14 | M12 |
| 40 | 32 | 120 | 51 | 8 | 87 | 4X14 | M12 |
| 50 | 40 | 135 | 62 | 9 | 98 | 4X14 | M12 |
| 63 | 50 | 150 | 78 | 10 | 114 | 4X18 | M16 |
| 75 | 65 | 165 | 92 | 10 | 127 | 4X18 | M16 |
| 90 | 80 | 185 | 108 | 11 | 146 | 4X18 | M16 |
| 110 | 100 | 215 | 128 | 13 | 178 | 8X18 | M16 |
| 125 | 100 | 215 | 135 | 13 | 178 | 8X18 | M16 |
| 125 | 125 | 255 | 140 | 14 | 210 | 8X18 | M16 |
| 140 | 125 | 255 | 158 | 14 | 210 | 8X18 | M16 |
| 160 | 150 | 280 | 178 | 17 | 235 | 8X22 | M20 |
| 180 | 150 | 280 | 188 | 17 | 235 | 8X22 | M20 |
| 200 | 200 | 335 | 235 | 19 | 292 | 8X22 | M20 |
| 225 | 200 | 335 | 238 | 19 | 292 | 8X22 | M20 |
| 250 | 250 | 405 | 288 | 22 | 356 | 12X22 | M20 |
| 280 | 250 | 405 | 294 | 22 | 356 | 12X22 | M20 |
| 315 | 300 | 455 | 338 | 25 | 406 | 12X26 | M24 |
| 355 | 350 | 525 | 376 | 29 | 470 | 12X26 | M24 |
| 400 | 400 | 580 | 430 | 32 | 521 | 12X26 | M24 |
| 450 | 450 | 640 | 470 | 35 | 584 | 16X26 | M24 |
| 500 | 500 | 705 | 533 | 38 | 641 | 16X26 | M24 |
| 560 | 550 | 760 | 618 | 44 | 699 | 16X30 | M27 |
| 630 | 600 | 825 | 645 | 48 | 756 | 16X33 | M30 |
| 710 | 700 | 910 | 740 | 51 | 845 | 20X33 | M30 |
| 800 | 800 | 1060 | 843 | 54 | 984 | 20X36 | M33 |
| 900 | 900 | 1175 | 947 | 64 | 1092 | 24X36 | M33 |
| 1000 | 1000 | 1255 | 1050 | 67 | 1175 | 24X39 | M36 |

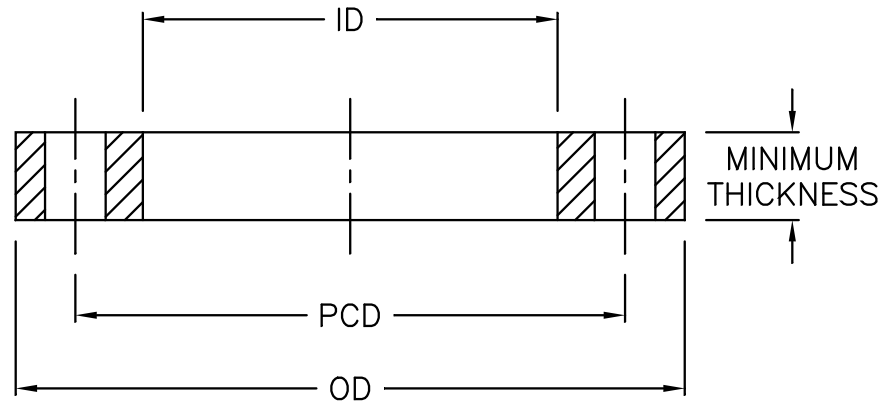


Table 3: STEEL BACKING FLANGES

A.N.S.I. 150

| Nominal Pipe OD | Flange Size | OD | ID | Minimum Thickness | PCD | Bolt Hole No. x Dia. | Bolt Size |
|-----------------|-------------|-----|-----|-------------------|-------|----------------------|-----------|
| 20 | ½" | 90 | 28 | 11.2 | 60.5 | 4X16 | M14 |
| 25 | ¾" | 98 | 34 | 12.8 | 70 | 4X16 | M14 |
| 32 | 1" | 108 | 42 | 14.2 | 79.5 | 4X16 | M14 |
| 40 | 1 ¼" | 117 | 51 | 15.7 | 89 | 4X16 | M14 |
| 50 | 1 ½" | 127 | 62 | 17.5 | 98.5 | 4X16 | M14 |
| 63 | 2" | 152 | 78 | 19.0 | 120.5 | 4X20 | M18 |
| 75 | 2 ½" | 178 | 92 | 22.3 | 139.5 | 4X20 | M18 |
| 90 | 3" | 191 | 108 | 23.9 | 152 | 4X20 | M18 |
| 110 | 4" | 229 | 128 | 23.9 | 190.5 | 8X20 | M18 |
| 125 | 5" | 254 | 135 | 23.9 | 216 | 8X22 | M20 |
| 140 | 5" | 254 | 158 | 23.9 | 216 | 8X22 | M20 |
| 160 | 6" | 279 | 178 | 25.4 | 241 | 8X22 | M20 |
| 180 | 6" | 279 | 188 | 25.4 | 241 | 8X22 | M20 |
| 200 | 8" | 343 | 235 | 28.4 | 298.5 | 8X22 | M20 |
| 225 | 8" | 343 | 238 | 28.4 | 298.5 | 8X22 | M20 |
| 250 | 10" | 406 | 288 | 30.2 | 362 | 12X26 | M24 |
| 280 | 10" | 406 | 294 | 30.2 | 362 | 12X26 | M24 |
| 315 | 12" | 482 | 338 | 31.8 | 432 | 12X26 | M24 |
| 355 | 14" | 533 | 376 | 35.0 | 476 | 12X30 | M27 |
| 400 | 16" | 600 | 430 | 36.6 | 540 | 16X30 | M27 |
| 450 | 18" | 635 | 470 | 39.6 | 578 | 16X33 | M30 |
| 500 | 20" | 700 | 533 | 43.0 | 635 | 20X33 | M30 |
| 630 | 24" | 815 | 645 | 47.8 | 750 | 20X36 | M33 |

As per ISO 9624: "The inside diameter of the loose backing flange shall conform to the design of the flange adaptor.

In some applications, values of the inside diameter of the loose backing flange differing from those given in the tables may be used."

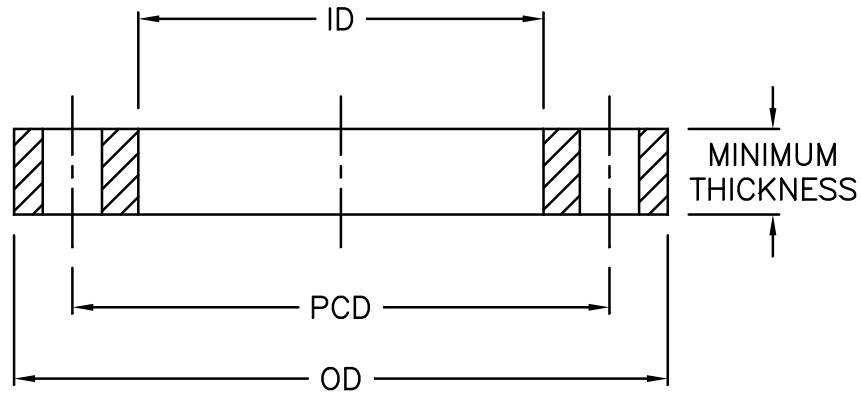


Table 6: STEEL BACKING FLANGES

AS 4087 - Figure B7 PN16

| Nominal Pipe OD | Flange Size | OD | ID | Minimum Thickness | PCD | Bolt Hole No. x Dia. | Bolt Size |
|-----------------|-------------|------|------|-------------------|------|----------------------|-----------|
| 63 | 50 | 150 | 78 | 11 | 114 | 4X18 | M16 |
| 75 | 65 | 165 | 92 | 11 | 127 | 4X18 | M16 |
| 90 | 80 | 185 | 108 | 11 | 146 | 4X18 | M16 |
| 110 | 100 | 215 | 128 | 13 | 178 | 4X18 | M16 |
| 125 | 125 | 255 | 140 | 14 | 210 | 4X18 | M16 |
| 160 | 150 | 280 | 178 | 13 | 235 | 8X18 | M16 |
| 180 | 150 | 280 | 178 | 17 | 235 | 8X18 | M16 |
| 200 | 200 | 335 | 235 | 19 | 292 | 8X18 | M16 |
| 225 | 225 | 370 | 238 | 19 | 324 | 8X18 | M16 |
| 250 | 250 | 405 | 288 | 19 | 356 | 8X22 | M20 |
| 315 | 300 | 455 | 338 | 23 | 406 | 12X22 | M20 |
| 355 | 350 | 525 | 376 | 30 | 470 | 12X26 | M24 |
| n/a | 375 | 550 | n/a | 30 | 495 | 12X26 | M24 |
| 400 | 400 | 580 | 430 | 30 | 521 | 12X26 | M24 |
| 450 | 450 | 640 | 470 | 30 | 584 | 12X26 | M24 |
| 500 | 500 | 705 | 533 | 38 | 641 | 16X26 | M24 |
| 630 | 600 | 825 | 645 | 48 | 756 | 16X30 | M27 |
| 710 | 700 | 910 | 740 | 56 | 845 | 20X30 | M27 |
| n/a | 750 | 995 | n/a | 56 | 927 | 20X33 | M30 |
| 800 | 800 | 1060 | 843 | 56 | 984 | 20X36 | M33 |
| 900 | 900 | 1175 | 947 | 66 | 1092 | 24X36 | M33 |
| 1000 | 1000 | 1255 | 1050 | 66 | 1175 | 24X36 | M33 |

Note: This table has bolting compatibility with AS 2129 Table D flanges.



HDPE Pipe & Fittings

Akatherm is a specialist manufacturer of HDPE drainage systems. With over 40 years experience Akatherm has a strong focus and dedication to innovation and quality in HDPE waste water technologies.

Based in the Netherlands, Akatherm exports products around the globe and has an extensive proven track record in the supply and manufacture of high quality HDPE drainage systems.

As a member of the Aliaxis group of companies, Akatherm has access to a worldwide presence and 15,000 employees dedicated to the development and supply of special plastic pipe and fitting products.

Akatherm has been active in the Australian market for more than a decade, and has been specified for use in some of the country's most prestigious projects, including Q1, the highest residential building in the southern hemisphere.

THE AKATHERM ADVANTAGES

RANGE

Akatherm offers a comprehensive product range that includes pipe, fittings, traps, adaptors and the innovative Akavent. This means Akatherm offers a full system to suit a range of installation requirements.

A range of pre-fabricated products are available as stock items, allowing a faster and easier installation process. Plus adaptors allow for connection to existing PVC or copper pipes.

APPROVALS

Akatherm meets the tough requirements of the AS/NZS 5065 and 4401 standards, which provides confidence when installed.

QUALITY

As an ISO9001 accredited manufacturer, Akatherm has over 40 years experience and technical knowledge dedicated to deliver the highest quality finished product.

INSTALLATION

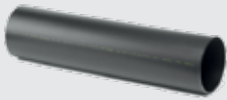
A key benefit of HDPE is that it allows for the use of electrofusion. This ensures a fast, effective, permanent and high integrity joint between pipes and fittings, making installation easy. When required HDPE also allows for butt welding and mechanical jointing, offering versatility to meet a range of challenging installation requirements.

AKAVENT MULTI-STOREY SEWER DRAINAGE SYSTEM

The Akavent Multi-Storey Sewer Drainage System comprises 110mm and 160mm high-density HDPE plastic fittings that eliminate the relief venting requirements of traditional drainage systems.

The Akavent Multi-Storey Sewer Drainage System was launched in late 2003 and is operational in the 15-storey Flynn Apartments building in Brisbane and the 80-storey Q1 tower at Surfers Paradise on the Gold Coast, the tallest residential building in the southern hemisphere.

akatherm HDPE Drainage Pipe & Fittings



AKATHERM HDPE DRAINAGE PIPE

| Size | Min QTY | Akatherm Code | VX Code |
|----------|---------|---------------|---------|
| 50mm/5m | 1 | 100500 | 53805 |
| 56mm/5m | 1 | 105600 | 53806 |
| 63mm/5m | 1 | 100600 | 53807 |
| 75mm/5m | 1 | 100700 | 53808 |
| 90mm/5m | 1 | 100900 | 53809 |
| 110mm/5m | 1 | 101100 | 53810 |
| 125mm/5m | 1 | 101200 | 53811 |
| 160mm/5m | 1 | 101600 | 53812 |
| 200mm/5m | 1 | 102000 | 53813 |
| 250mm/5m | 1 | 102500 | 53814 |
| 315mm/5m | 1 | 103100 | 53815 |

ELECTROFUSION COUPLER

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 40mm | 1 | 410495 | 53561 |
| 50mm | 1 | 410595 | 53562 |
| 56mm | 1 | 415695 | 53572 |
| 63mm | 1 | 410695 | 53563 |
| 75mm | 1 | 410795 | 53564 |
| 90mm | 1 | 410995 | 53565 |
| 110mm | 1 | 411195 | 53566 |
| 125mm | 1 | 411295 | 53567 |
| 160mm | 1 | 411695 | 53568 |
| 200mm | 1 | 412065 | 53569 |
| 250mm | 1 | 412565 | 53570 |
| 315mm | 1 | 413165 | 53571 |

ELECTROFUSION EQUIPMENT

| Size | Min QTY | Akatherm Code | VX Code |
|----------|---------|---------------|---------|
| 40-160mm | 1 | HSTS160 | 53741 |
| 40-315mm | 1 | HSTS315 | 53742 |

BEND 90° WITH ONE LONG SIDE (BUTT TO EF)

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 50mm | 1 | 110592 | 53301 |
| 56mm | 1 | 115692 | 53314 |
| 63mm | 1 | 110692 | 53303 |
| 75mm | 1 | 110792 | 53305 |
| 90mm | 1 | 110992 | 53306 |
| 110mm | 1 | 111192 | 53307 |
| 125mm | 1 | 111292 | 53309 |

BEND 90° FOR BUTTWELDING ONLY

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 160mm | 1 | 111691 | 53310 |
| 200mm | 1 | 112091 | 53311 |
| 250mm | 1 | 112591 | 53312 |
| 315mm | 1 | 113191 | 53313 |

ELBOW 88.5° FOR BUTT OR EF

| Size | Min QTY | Akatherm Code | VX Code |
|--------|---------|---------------|---------|
| 50mm | 1 | 120588 | 53318 |
| 56mm | 1 | 125688 | 53341 |
| 63mm | 1 | 120688 | 53320 |
| 75mm | 1 | 120788 | 53323 |
| 90mm | 1 | 120988 | 53326 |
| 110mm | 1 | 121188 | 53329 |
| 125mm | 1 | 121288 | 53331 |
| 160mm | 1 | 121688 | 53333 |
| 200mm* | 1 | 122088 | 53335 |
| 250mm* | 1 | 122588 | 53337 |
| 315mm* | 1 | 123188 | 53339 |

*Fabricated

BENDS

| Size | Min QTY | Akatherm Code | VX Code |
|-------------|---------|---------------|---------|
| 15°/110mm* | 1 | 181115 | 53406 |
| 15°/200mm | 1 | 181615 | 53408 |
| 15°/250mm | 1 | 182515 | 53410 |
| 15°/315mm | 1 | 183115 | 53411 |
| 30°/110mm* | 1 | 181130 | 53407 |
| 30°/160mm | 1 | 181630 | 53409 |
| 88.5°/110mm | 1 | 111198 | 53308 |

*Fabricated

akatherm HDPE Drainage Pipe & Fittings

ELBOW 45° FOR BUTT OR EF

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 50mm | 1 | 120545 | 53317 |
| 56mm | 1 | 125645 | 53340 |
| 63mm | 1 | 120645 | 53319 |
| 75mm | 1 | 120745 | 53321 |
| 75mm | 1 | 120746* | 53322* |
| 90mm | 1 | 120945 | 53324 |
| 90mm | 1 | 120946* | 53325* |
| 110mm | 1 | 121145 | 53327 |
| 110mm | 1 | 121146* | 53328* |
| 125mm | 1 | 121245 | 53330 |
| 160mm | 1 | 121645 | 53332 |
| 200mm | 1 | 122045 | 53334 |
| 250mm | 1 | 122545 | 53336 |
| 315mm | 1 | 123145 | 53338 |

* One sided extended

BEND 180° FOR BUTTWELDING □

| Size | Min QTY | Akatherm Code | VX Code |
|------|---------|---------------|---------|
| 50mm | 1 | 110599 | 53302 |
| 56mm | 1 | 115699 | 53315 |
| 63mm | 1 | 110699 | 53304 |

AERATOR SINGLE STACK / VENTILATION BRANCH □

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 110mm | 1 | 601117 | 53653 |
| 160mm | 1 | 601617 | 53654 |



 akatherm HDPE Drainage Pipe & Fittings



DOUBLE BRANCH 45° FOR BUTT OR EF

| Size | Min QTY | Akatherm Code | VX Code |
|-------------------------|---------|---------------|---------|
| Double Branch 45° 110mm | 1 | 361111 | 53545 |

Y PIECE 60° □

| Size | Min QTY | Akatherm Code | VX Code |
|-----------|---------|---------------|---------|
| 110/110mm | 1 | 331100 | 53538 |
| 160/110mm | 1 | 331600 | POA |

Y BRANCH 45° FOR BUTT OR EF (Oblique or OB Junction) □

| Size | Min QTY | Akatherm Code | VX Code |
|------------|---------|---------------|---------|
| 50/50mm | 1 | 300505 | 53482 |
| 56/50mm | 1 | 305605 | 53536 |
| 56/56mm | 1 | 305656 | 53537 |
| 63/50mm | 1 | 300605 | 53483 |
| 63/56mm | 1 | 300656 | 53485 |
| 63/63mm | 1 | 300606 | 53484 |
| 75/50mm | 1 | 300705 | 53487 |
| 75/56mm | 1 | 300756 | 53490 |
| 75/63mm | 1 | 300706 | 53488 |
| 75/75mm | 1 | 300707 | 53489 |
| 90/50mm | 1 | 300905 | 53491 |
| 90/56mm | 1 | 300956 | 53495 |
| 90/63mm | 1 | 300906 | 53492 |
| 90/75mm | 1 | 300907 | 53493 |
| 90/90mm | 1 | 300909 | 53494 |
| 110/50mm | 1 | 301105 | 53497 |
| 110/56mm | 1 | 301156 | 53502 |
| 110/63mm | 1 | 301106 | 53498 |
| 110/75mm | 1 | 301107 | 53499 |
| 110/90mm | 1 | 301109 | 53500 |
| 110/110mm | 1 | 301111 | 53501 |
| 125/50mm | 1 | 301205 | 53503 |
| 125/56mm | 1 | 301256 | 53509 |
| 125/63mm | 1 | 301206 | 53504 |
| 125/75mm | 1 | 301207 | 53505 |
| 125/90mm | 1 | 301209 | 53506 |
| 125/110mm | 1 | 301211 | 53507 |
| 125/125mm | 1 | 301212 | 53508 |
| 160/75mm | 1 | 301607 | 53512 |
| 160/90mm | 1 | 301609 | 53513 |
| 160/110mm | 1 | 301611 | 53514 |
| 160/125mm | 1 | 301612 | 53515 |
| 160/160mm | 1 | 301616 | 53516 |
| 200/75mm | 1 | 302007 | 53517 |
| 200/90mm | 1 | 302009 | 53518 |
| 200/110mm | 1 | 302011 | 53519 |
| 200/125mm | 1 | 302012 | 53520 |
| 200/160mm | 1 | 302016 | 53521 |
| 200/200mm | 1 | 302020 | 53522 |
| 250/110mm* | 1 | 302511 | 53524 |
| 250/125mm | 1 | 302512 | 53525 |
| 250/160mm | 1 | 302516 | 53526 |
| 250/200mm* | 1 | 302520 | 53527 |
| 250/250mm* | 1 | 302525 | 53528 |
| 315/110mm* | 1 | 303111 | 53529 |
| 315/125mm | 1 | 303112 | 53530 |
| 315/160mm* | 1 | 303116 | 53531 |
| 315/200mm* | 1 | 303120 | 53532 |
| 315/250mm* | 1 | 303125 | 53533 |
| 315/315mm* | 1 | 303131 | 53534 |

*Fabricated

akatherm HDPE Drainage Pipe & Fittings

BRANCH 88.5° FOR BUTT OR EF (square junction)

| Size | Min QTY | Akatherm Code | VX Code |
|------------|---------|---------------|---------|
| 50/50mm | 1 | 200505 | 53412 |
| 56/50mm | 1 | 205605 | 53462 |
| 56/56mm | 1 | 205656 | 53463 |
| 63/50mm | 1 | 200605 | 53414 |
| 63/56mm | 1 | 200656 | 53416 |
| 63/63mm | 1 | 200606 | 53415 |
| 75/50mm | 1 | 200705 | 53418 |
| 75/56mm | 1 | 200756 | 53421 |
| 75/63mm | 1 | 200706 | 53419 |
| 75/75mm | 1 | 200707 | 53420 |
| 90/50mm | 1 | 200905 | 53423 |
| 90/63mm | 1 | 200906 | 53424 |
| 90/75mm | 1 | 200907 | 53425 |
| 90/90mm | 1 | 200909 | 53426 |
| 110/50mm | 1 | 201105 | 53428 |
| 110/56mm | 1 | 201156 | 53433 |
| 110/63mm | 1 | 201106 | 53429 |
| 110/75mm | 1 | 201107 | 53430 |
| 110/90mm | 1 | 201109 | 53431 |
| 110/110mm | 1 | 201111 | 53432 |
| 125/125mm | 1 | 201212 | 53437 |
| 160/50mm | 1 | 201605 | 53439 |
| 160/63mm | 1 | 201606 | 53440 |
| 160/75mm | 1 | 201607 | 53441 |
| 160/90mm | 1 | 201609 | 53442 |
| 160/110mm | 1 | 201611 | 53443 |
| 160/160mm | 1 | 201616 | 53444 |
| 200/160mm | 1 | 202016 | 53449 |
| 200/200mm* | 1 | 202020 | 53450 |
| 250/110mm* | 1 | 202511 | 53451 |
| 250/125mm | 1 | 202512 | 53452 |
| 250/160mm | 1 | 202516 | 53453 |
| 250/250mm* | 1 | 202525 | 53455 |
| 315/110mm | 1 | 203111 | 53456 |
| 315/125mm | 1 | - | 53457 |
| 315/160mm | 1 | 203116 | 53458 |
| 315/200mm | 1 | - | 53459 |
| 315/250mm | 1 | 203125 | 53460 |
| 315/315mm | 1 | 203131 | 53461 |

* Fabricated

CLEAN OUT BRANCH 90° FOR BUTT OR EF (inspection opening)

| Size | Min QTY | Akatherm Code | VX Code |
|------------|---------|---------------|---------|
| 50mm | 1 | 230500 | 53464 |
| 56mm | 1 | 235600 | 53473 |
| 63mm | 1 | 230600 | 53465 |
| 75mm* | 1 | 230700 | 53466 |
| 90mm* | 1 | 230900 | 53467 |
| 110mm | 1 | 231120 | 53468 |
| 160/110mm* | 1 | 231600 | 53469 |

* Fabricated

CLEAN OUT BRANCH 45° FOR BUTT OR EF (inspection opening)

| Size | Min QTY | Akatherm Code | VX Code |
|-----------|---------|---------------|---------|
| 110/100mm | 1 | 331100 | 53538 |
| 160/110mm | 1 | 331600 | POA |

SWEPT JUNCTION 88.5° FOR BUTT OR EF

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 110mm | 1 | 251111 | 53480 |

BALL BRANCH FOR BUTT OR EF

| Size | Min QTY | Akatherm Code | VX Code |
|---------------|---------|---------------|---------|
| 110/110x90° | 1 | 241101 | 53474 |
| 110/110x90°* | 1 | 441101 | 53604 |
| 110/110x135° | 1 | 241102 | 53475 |
| 110/110x135° | 1 | 341102 | 53540 |
| 110/110x180°* | 1 | 241103 | 53476 |
| 125/110x90° | 1 | 341201 | 53541 |
| 125/110x135° | 1 | 241202 | 53478 |
| 125/110x135° | 1 | 341202 | 53542 |
| 125/110x180° | 1 | 241203 | 53479 |

*Fabricated



 akatherm HDPE Drainage Pipe & Fittings

4 WAY RISER

| Size | Min QTY | Akatherm Code | VX Code |
|--------------|---------|---------------|---------|
| 110mm x 56mm | 1 | 185656 | 53733 |
| 90mm x 56mm | 1 | 189656 | 53734 |

EXPANSION SOCKET FOR EF

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 50mm | 1 | 400520 | 53551 |
| 56mm | 1 | 405620 | 53560 |
| 63mm | 1 | 400620* | 53710 |
| 75mm | 1 | 420720 | 53735 |
| 90mm | 1 | 420920 | 53747 |
| 110mm | 1 | 421120 | 53582 |
| 160mm | 1 | 421620 | 53584 |
| 200mm | 1 | 402020* | 53557 |
| 250mm | 1 | 402520* | 53558 |
| 315mm | 1 | 403120* | 53559 |

* Butt Weld only.

END CAP BUTT WELD ONLY

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 50mm | 1 | 670507 | 53663 |
| 56mm | 1 | 675607 | 53673 |
| 60mm | 1 | 670607 | 53664 |
| 75mm | 1 | 670707 | 53666 |
| 90mm | 1 | 670907 | 53667 |
| 110mm | 1 | 671107 | 53668 |
| 160mm | 1 | 671609 | 53669 |
| 250mm | 1 | 672509 | 53671 |

END CAP TAIL

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 56mm | 1 | 241103 | 53763 |
| 110mm | 1 | 675607 | 53764 |

SNAP SOCKET FOR BUTT WELDING ONLY

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 50mm | 1 | 400510 | 53708 |
| 63mm | 1 | 400610 | 53709 |
| 75mm | 1 | 400710 | 53553 |
| 90mm | 1 | 400910 | 53712 |
| 110mm | 1 | 401110 | 53713 |
| 160mm | 1 | 401610 | 53714 |
| 200mm | 1 | 402010 | 53715 |

ADAPTOR FOR PVC & COPPER use with snap or expansion socket FOR BUTT WELDING

| Size | Min QTY | Akatherm Code | VX Code |
|--------------------------------|---------|---------------|---------|
| 80mm dwv PVC/ copper - 90 HDPE | 1 | 400821 | 53736 |
| 100mm copper - 110 HDPE | 1 | 401121 | 53737 |

- For 50mm dwv PVC - 56 HDPE (use standard snap/expansion socket)
- For 100mm dwv PVC - 110 HDPE (use standard snap/expansion socket)
- For 150mm dwv PVC - 160 HDPE (use standard snap/expansion socket)

PLUG IN SOCKET

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 50mm | 1 | 420550 | 53578 |
| 56mm | 1 | 425650 | 53585 |
| 63mm | 1 | 420650* | 53579* |
| 75mm | 1 | 420750 | 53580 |
| 90mm | 1 | 420950* | 53581* |
| 110mm | 1 | 421150 | 53583 |

* Butt Weld only

SCREW COUPLER SHORT

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 50mm | 1 | 430530 | 53588 |
| 56mm | 1 | 435630 | 53603 |
| 63mm | 1 | 430630 | 53591 |
| 75mm | 1 | 430730 | 53593 |
| 90mm | 1 | 430930 | 53596 |
| 110mm | 1 | 431130 | 53600 |

akatherm HDPE Drainage Pipe & Fittings

WASTE CONNECTOR

| Size | Min QTY | Akatherm Code | VX Code |
|-----------|---------|---------------|---------|
| 40x1 1/2" | 1 | 980482 | 53706 |
| 50x2" | 1 | 980583 | 53707 |

REDUCER CONCENTRIC FOR BUTT OR EF

| Size | Min QTY | Akatherm Code | VX Code |
|-----------|---------|---------------|---------|
| 50/40mm | 1 | 150504 | 53349 |
| 56/40mm | 1 | 155604 | 53378 |
| 56/50mm | 1 | 155605 | 53379 |
| 63/50mm | 1 | 150605 | 53351 |
| 63/56mm | 1 | 150656 | 53352 |
| 75/50mm | 1 | 150705 | 53353 |
| 75/56mm | 1 | 150756 | 53355 |
| 75/63mm | 1 | 150706 | 53354 |
| 90/50mm | 1 | 150905 | 53357 |
| 90/56mm | 1 | 150956 | 53360 |
| 90/63mm | 1 | 150906 | 53358 |
| 90/75mm | 1 | 150907 | 53359 |
| 110/50mm | 1 | 151105 | 53361 |
| 110/56mm | 1 | 151156 | 53365 |
| 110/63mm | 1 | 151106 | 53362 |
| 110/75mm | 1 | 151107 | 53363 |
| 110/90mm | 1 | 151109 | 53364 |
| 125/75mm | 1 | 151207 | 53367 |
| 125/90mm | 1 | 151209 | 53368 |
| 160/110mm | 1 | 151611 | 53371 |
| 160/125mm | 1 | 151612 | 53372 |
| 200/160mm | 1 | 152016 | 53373 |
| 250/160mm | 1 | 152516 | 53374 |
| 250/200mm | 1 | 152520 | 53375 |

REDUCER ECCENTRIC OR LEVEL INVERT TAPER (L.I.T.) FOR BUTT OR EF

| Size | Min QTY | Akatherm Code | VX Code |
|------------|---------|---------------|---------|
| 56/50mm | 1 | 165605 | 53405 |
| 63/50mm | 1 | 160605 | 53381 |
| 63/56mm | 1 | 160656 | 53382 |
| 75/50mm | 1 | 160705 | 53383 |
| 75/56mm | 1 | 160756 | 53385 |
| 75/63mm | 1 | 160706 | 53384 |
| 90/50mm | 1 | 160905 | 53387 |
| 90/56mm | 1 | 160956 | 53390 |
| 90/63mm | 1 | 160906 | 53388 |
| 90/75mm | 1 | 160907 | 53389 |
| 110/50mm | 1 | 161105 | 53392 |
| 110/56mm | 1 | 161156 | 53396 |
| 110/63mm | 1 | 161106 | 53393 |
| 110/75mm | 1 | 161107 | 53394 |
| 110/90mm | 1 | 161109 | 53395 |
| 125/75mm | 1 | 161207 | 53399 |
| 125/90mm | 1 | 161209 | 53400 |
| 125/110mm | 1 | 161211 | 53401 |
| 160/110mm | 1 | 161611 | 53402 |
| 160/125mm | 1 | 161612 | 53403 |
| 200/110mm† | 1 | 142011 | 53342 |
| 200/125mm† | 1 | 142012 | 53343 |
| 200/160mm† | 1 | 142016 | 53344 |
| 250/200mm† | 1 | 142520 | 53345 |
| 315/200mm* | 1 | 143120 | 53346 |
| 315/250mm† | 1 | 143125 | 53347 |

*Fabricated †One side extended in length

FEMALE THREAD ADAPTOR SHORT FOR BUTT WELD ONLY

| Size | Min QTY | Akatherm Code | VX Code |
|-----------------|---------|---------------|---------|
| 50 x 1" BSP | 1 | 910580 | 53676 |
| 50 x 1 1/4" BSP | 1 | 910581 | 53677 |
| 50 x 1 1/2" BSP | 1 | 910582 | 53678 |
| 63 x 1 1/2" BSP | 1 | 910682 | 53679 |
| 63 x 2" BSP | 1 | 910683 | 53680 |



 **akatherm HDPE Drainage Pipe & Fittings**



MALE THREAD ADAPTOR SHORT BUTT WELD ONLY

| Size | Min QTY | Akatherm Code | VX Code |
|-----------------|---------|---------------|---------|
| 50 x 1" BSP | 1 | 960580 | 53692 |
| 50 x 1 1/4" BSP | 1 | 960581 | 53693 |
| 63 x 1 1/2" BSP | 1 | 960682 | 53694 |
| 63 x 2" BSP | 1 | 960683 | 53695 |

STUB FLANGE FOR BUTT WELDING

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 40mm | 1 | 470402* | 53605* |
| 50mm | 1 | 470502* | 53606* |
| 63mm | 1 | 470602* | 53607* |
| 75mm | 1 | 470702* | 53608* |
| 90mm | 1 | 470902 | 53609 |
| 110mm | 1 | 471102 | 53610 |
| 125mm | 1 | 471202 | 53611 |
| 160mm | 1 | 471602 | 53612 |
| 200mm | 1 | 472002* | 53613* |
| 250mm | 1 | 472502* | 53614* |
| 315mm | 1 | 473102* | 53615* |

* Butt weld only ☐

SILT BUCKET/TRAP (S.S. Lid & Bucket) BUTT WELDING

| Size | Min QTY | Akatherm Code | VX Code |
|----------------------|---------|---------------|---------|
| 160mm x 110mm Outlet | 1 | 183161 | 53732 |
| 250mm x 110mm Outlet | 1 | 183251 | 53731 |

DISCONNECTOR TRAP (ADJUSTABLE) FOR EF

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 90mm | 1 | 182909 | 53720 |
| 110mm | 1 | 182111 | 53721 |

DISCONNECTOR TRAPS (FIXED) FOR EF

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 110mm | 1 | 181111 | 53722 |

PALLAZI TRAP/FLOOR TRAP (FIXED)

| Size | Min QTY | Akatherm Code | VX Code |
|--------------|---------|---------------|---------|
| 90mm x 56mm | 1 | 183956 | 53719 |
| 90mm x 63mm | 1 | 183906 | 53717 |
| 90mm x 75mm | 1 | 183907 | 53718 |
| 110mm x 75mm | 1 | 183117 | 53716 |

"P" TYPE FIXTURE TRAP FOR E/F

| Size | Min QTY | Akatherm Code | VX Code |
|-----------------|---------|---------------|---------|
| 50mm x 40mm BSP | 1 | 180001 | 53728 |
| 50mm x 50mm BSP | 1 | 180002 | 53729 |
| 56mm x 50mm BSP | 1 | 180004 | 53730 |

"S" TYPE FIXTURE TRAP FOR E/F

| Size | Min QTY | Akatherm Code | VX Code |
|-----------------|---------|---------------|---------|
| 50mm x 40mm BSP | 1 | 180005 | 53725 |
| 50mm x 50mm BSP | 1 | 180006 | 53726 |
| 56mm x 50mm BSP | 1 | 180008 | 53727 |

MALE THREAD ADAPTOR LONG BUTT WELD OR E/F

| Size | Min QTY | Akatherm Code | VX Code |
|-------------------|---------|---------------|---------|
| 50mm x 1" BSP | 1 | 970580 | 53700 |
| 50mm x 1 1/4" BSP | 1 | 970581 | 53701 |
| 50mm x 1 1/2" BSP | 1 | 970582 | 53702 |
| 56mm x 2" BSP | 1 | 975683 | 53705 |
| 63mm x 1 1/2" BSP | 1 | 970682 | 53703 |
| 63mm x 2" BSP | 1 | 970683 | 53704 |



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FEMALE THREAD ADAPTOR LONG BUTT WELD OR E/F

| Size | Min QTY | Akatherm Code | VX Code |
|-------------------|---------|---------------|---------|
| 50mm x 1" BSP | 1 | 920580 | 53684 |
| 50mm x 1 1/4" BSP | 1 | 920581 | 53685 |
| 50mm x 1 1/2" BSP | 1 | 920582 | 53686 |
| 50mm x 2" BSP | 1 | 920583 | POA |
| 56mm x 2" BSP | 1 | 925683 | 53689 |
| 63mm x 1 1/2" BSP | 1 | 920682 | 53687 |
| 63mm x 2" BSP | 1 | 920683 | 53688 |
| 75mm x 2 1/2" BSP | 1 | 920784 | POA |

FLANGE BUSHING FOR SCREW COUPLER

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 50mm | 1 | 430505 | 53587 |
| 56mm | 1 | 435605 | 53602 |
| 110mm | 1 | 431105 | 53598 |

INSPECTION SCREW LOCK LONG

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 50mm | 1 | 660540 | 53656 |
| 56mm | 1 | 665640 | 53661 |
| 75mm | 1 | 660740 | 53658 |
| 110mm | 1 | 661140 | 53660 |

RUBBER SEAL FOR FLOOR-LAVATORY

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 129mm | 1 | 501113 | 53620 |

TRAP CONNECTION SOCKET

| Size | Min QTY | Akatherm Code | VX Code |
|------|---------|---------------|---------|
| 40mm | 1 | 510401 | 53624 |
| 50mm | 1 | 510502 | 53626 |
| 56mm | 1 | 515602 | 53635 |

PUDDLE FLANGE

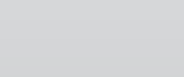
| Size | Min QTY | Code | VX Code |
|-------|---------|------|---------|
| 110mm | 1 | - | 98521 |

INSPECTION OUTLET

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 100mm | 1 | - | 53744 |
| 160mm | 1 | - | 53745 |

LONG SIDED ELBOW

| Size | Min QTY | Akatherm Code | VX Code |
|-------|---------|---------------|---------|
| 110mm | 1 | 111192 | 53743 |





Tools & Accessories

FRIATEC was founded in 1863 in Mannheim, Germany and has successfully brought to market many innovative ranges. FRIATEC's patented Electrofusion system is world leading and has been used in projects all around the globe. The FRIALEN range is rated to PN16 and is commonly used in the civil, mining and irrigation sectors. The FRIAFIT range of fittings is rated to PN10 and is most suited to applications with lower pressures, such as those found in irrigation and sewerage situations. FRIATEC's innovative electrofusion products include many unique features, all of which are designed to improve the speed of installation and use without compromising on the quality and longevity of the connection made.

FRIATOOLS TECHNICAL EQUIPMENT

FRIATEC is pioneer for Electrofusion of HDPE pipe systems. The innovative developments, in this area have their roots in the company. Nobody knows more about Electrofusion and Electrofusion tools and accessories than FRIATEC. As a market leader, FRIATEC influence significant development of suitable equipment and accessories for more than 30 years.

Today, under the umbrella term of FRIATOOLS, FRIATEC provide a sophisticated and complete range comprising FRIAMAT fusion units, as well as mechanical tools such as scraper tools and rounding clamps.



FRIAMAT basic

Universal fusion unit without documentation function

- As all other FRIAMAT fusion units, the FRIAMAT basic offers a perfect combination of high performance and easy and safe handling.
- This is supplemented by the unique features of the FRIAMAT series:
- Fusion of d 20 to d 900
- Extra-long fusion and mains cable
- Easy cable rewind
- Robust design made of weather- and wear-resistant materials
- Large accessories tray
- 20 languages selectable
- The FRIAMAT basic is an absolute lightweight among the fusion units and thus makes working at the construction site easy
- Primes up to 900mm

| Version | Friatools Code | Vx Code |
|----------------------|----------------|---------|
| with reader wand | 613104 | 89162 |
| with barcode scanner | 614104 | 89163 |



FRIAMAT prime

Universal fusion unit with traceability- and documentation function

- The FRIAMAT prime is literally the prime unit among the fusion units. Its large display and its clear operating menu simplify the handling and prevent operating errors. The unit also offers options for a comprehensive documentation of fusion and traceability data.
- Includes the FRIATEC Memory-Stick (USB) for easy data transfer
- Large graphical display for comfortable user guidance
- Supervisor pass for individual unit settings
- Input of GPS coordinates
- Input of information texts through barcode
- Infrared remote control as optional input device
- Up to 500 fusion processes can be directly stored
- Optional increase of the memory capacity through Memory-Card
- Primes up to 900mm

| Version | Friatools Code | Vx Code |
|----------------------|----------------|---------|
| with reader wand | 613103 | 89160 |
| with barcode scanner | 614103 | 89161 |



FRIAMAT XL

Large pipe fusion unit with traceability and documentation function

- Extra powerful electrofusion unit for the processing of the FRIALEN XL product range.
- Also Universally usable for the entire FRIALEN and FRIAFIT Range.
- Graphic maxi display for easier operator assistance.
- USB interface for data transfer via FRIATEC memory stick (included)
- Language Section
- Adjustable buzzer volume
- Manual emergency entry.
- Extra long power cable 4m with CEE connector 400v
- Extra-long fusion cable 4m
- Weight approx. 50kg

| Version | Friatools Code | Vx Code |
|----------------------|----------------|---------|
| with barcode scanner | 614091 | 89252 |

SCAN

Barcode scanner

- FRIAMAT barcode scanner designed for rough use at construction sites.
- For a quick reading of fusion and traceability barcodes. With handy scanner bag for storage.
- Can be used for all current FRIAMAT electrofusion units in this product range, elderly units on request.

| Friatools Code | Vx Code |
|----------------|---------|
| 623645 | 89247 |



FWLESST

Reader wand

- FRIAMAT reader wand for reading of fusion- and traceability barcodes.
- Can be used for all FRIAMAT electrofusion units.

| Friatools Code | Vx Code |
|----------------|---------|
| 623645 | 89164 |



MEMSTICK

Memory-Stick

- Memory-Stick for the storage of fusion data in FRIATRACE database, as pdf- or csv-data.
- Transfer of fusion data from FRIAMAT electrofusion units (only documentation units) for processing to the PC.

| Friatools Code | Vx Code |
|----------------|---------|
| 624023 | 89165 |



FRIATRACE

Database software FRIATRACE

Software for processing of fusion data including traceability data from FRIAMAT fusion units with traceability- and documentation function. Suitable for operating systems Windows 2000/ XP / Windows 7. With database function (all fusion data in one database) for individual evaluation, copying, sorting, searching, formatting, editing etc.

Available as:

- FRIATRACE database software consisting of FRIATRACE CD-Rom, connecting cable PC – fusion unit and programme description or
- FRIATRACE combi-package consisting of FRIATRACE CD-Rom, Memory-Stick and programme description.

| Article description | Friatools Code | Vx Code |
|-----------------------------|----------------|---------|
| FRIATRACE database software | 613280 | 89166 |
| FRIATRACE combi-package | 624026 | 89167 |



ALTK (FMT)

Aluminium transport boxes

- For transport and storage of FRIAMAT fusion units of the relevant product range FRIATOOLS.
- Transport boxes for older FRIAMAT types on request.

| Article description | Friatools Code | Vx Code |
|--------------------------------------|----------------|---------|
| FRIAMAT prime / basic (from Q2/2014) | 627600 | 89168 |
| FRIAMAT prime / basic (to Q2/2014) | 627001 | 89169 |



CONTACT4

Socket contacts 4.0 mm

- Socket contacts 4.0 mm.
- Can be used for all FRIAMAT fusion units.

| Friatools Code | Vx Code |
|----------------|---------|
| 624530 | 89170 |





ADFL

Adapter for flat contacts

- For sliding onto socket contacts of all FRIAMAT fusion units.

| Friatools Code | Vx Code |
|----------------|---------|
| 613236 | 89171 |



ADBK

Adapter for 4 - 4.7mm socket contacts

- For sliding onto socket contacts of all FRIAMAT fusion units.

| Friatools Code | Vx Code |
|----------------|---------|
| 613237 | 89172 |



ADPC

Adapter for 4.7 - 4mm socket contacts

- For sliding onto socket contacts of all welders 4.7mm compatible.

| Friatools Code | Vx Code |
|----------------|---------|
| 613240 | 89248 |



Vinidex Welding Wipes

- Welding wipes for pipe cleaning. 120 wipes per tube.

| Vx Code |
|---------|
| 99600 |



FWGS RA

Compact scraper tool for pipes and outlets d 25 - d 63

- Dimension-bound compact scraper tool for the reliable removal of the oxide layer of HD-PE and PE-Xa pipes and at the outlets of FRIALEN safety fittings (see product range FRIALEN).
- Super long scraping length, in the diameter d 32 also for FRIALONG long couplers.
- Scraper blade made of carbide with 2 edges (twice the service life).
- Automatic compensation of pipe out-of-roundness and tolerances. Manual operation, with hand crank or cordless screwdriver.

| Article description | Dimension | SDR | Friatools Code | Vx Code |
|---------------------|----------------|------------------|----------------|---------|
| FWSG RA 25 | d 25 | SDR 7,4 / SDR 11 | 613576 | 89253 |
| FWSG RA 32 | d 32 | SDR 11 | 613580 | 89254 |
| FWSG RA 40 | d 40 | SDR 11 | 613581 | 89255 |
| FWSG RA 50 | d 50 | SDR 11 | 613582 | 89256 |
| FWSG RA 63 | d 63 | SDR 11 | 613583 | 89257 |
| Hand crank | all dimensions | | 613579 | 89280 |

FWSG 63

Scraper tool for pipes d 20 - d 63

- For the reliable removal of the oxide layer of HD-PE and PE-Xa pipes.
- Scraper blade made of carbide for a long life.
- Even swarf removal thanks to a spring-loaded scraper blade and automatic feed. Inclusive of a replacement scraper blade.
- The tool is delivered in a handy aluminium transport box.

| Friatools Code | Vx Code |
|----------------|---------|
| 613305 | 89173 |

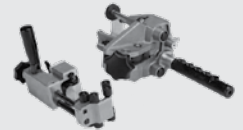


FWSG 63/225

Scraper tool set for pipes d 20 - d 225

- For the reliable removal of the oxide layer of HD-PE and PE-Xa pipes.
- Scraper blade made of carbide for a long life.
- Even swarf removal thanks to a spring-loaded scraper blade and automatic feed.
- Inclusive of a replacement scraper blade for each tool and FRIATEC maintenance spray.
- The tools are delivered in a handy aluminium transport box.

| Friatools Code | Vx Code |
|----------------|---------|
| 613316 | 89259 |

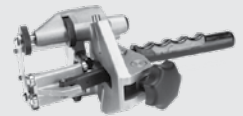


FWSG 225

Scraper tool for pipes d 75 - d 225

- For the reliable removal of the oxide layer of HD-PE and PE-Xa pipes.
- Scraper blade made of carbide for a long life.
- Even swarf removal thanks to a spring-loaded scraper blade and automatic feed.
- Inclusive of a replacement scraper blade and FRIATEC maintenance spray.
- The tool is delivered in a handy aluminium transport box.

| Friatools Code | Vx Code |
|----------------|---------|
| 613311 | 89258 |



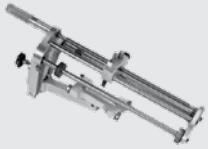
FWSG SE

Scraper tools for pipe ends and saddle areas d 63 - d 315

- Dimension-bound scraper tool for the reliable removal of the oxide layer of HD-PE and PE-Xa pipe ends and in the saddle area.
- Scraper blade designed as turning blade with 2 blades (twice the service life).
- Easy clamping thanks to the open design of the scraper tool.
- The tool is delivered in a handy aluminium transport box.

| Article description | Dimension | Friatools Code | Vx Code |
|---------------------|-----------|----------------|---------|
| FWSG SE 63 | d 63 | 613562 | 89175 |
| FWSG SE 75 | d 75 | 613563 | 89176 |
| FWSG SE 90 | d 90 | 613564 | 89177 |
| FWSG SE 110 | d 110 | 613565 | 89178 |
| FWSG SE 125 | d 125 | 613566 | 89179 |
| FWSG SE 140 | d 140 | 613567 | 89180 |
| FWSG SE 160 | d 160 | 613568 | 89181 |
| FWSG SE 180 | d 180 | 613569 | 89182 |
| FWSG SE 200 | d 200 | 613570 | 89183 |
| FWSG SE 225 | d 225 | 613571 | 89184 |
| FWSG SE 250 | d 250 | 613572 | 89185 |
| FWSG SE 280 | d 280 | 613573 | 89186 |
| FWSG SE 315 | d 315 | 613574 | 89187 |



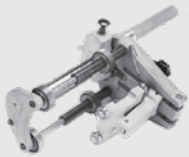


FWSG 710 L Scraper tool for pipes d 250 - d 710

- For the reliable removal of the oxide layer of HD-PE and PE-Xa pipes for half or entire coupler length.
- Scraper blade made of carbide for a long life. Even swarf removal thanks to a spring-loaded scraper blade and automatic feed.
- Inclusive of a replacement scraper blade and FRIATEC maintenance spray.

The tool is delivered in a handy aluminium transport box.

| Friatools Code | Vx Code |
|----------------|---------|
| 613642 | 89174 |



FWSG 710 S Scraper tool for pipes d 250 - d 710 and spigot fittings

- For the reliable removal of the oxide layer on spigot fittings.
- Additionally it is also possible to scrape HD-PE and PE-Xa-pipes (maximum along half length of couplers d 710).
- Scraper blade made of carbide for a long life.
- Even swarf removal thanks to a spring-loaded scraper blade and automatic feed.
- Includes replacement blade and FRIATEC maintenance spray.
- The tool is delivered in a handy aluminium transport box.

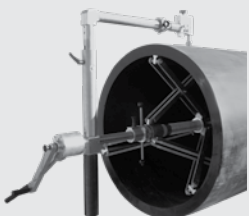
| Friatools Code | Vx Code |
|----------------|---------|
| 613639 | 89260 |



FWSG 900 L Scraper tool for pipes d 630 - d 900

- For the reliable removal of the oxide layer of HD-PE pipes for half or entire coupler length.
- Scraper blade made of carbide for a long life.
- Even swarf removal thanks to a spring-loaded scraper blade and automatic feed.
- Includes replacement blade and FRIATEC maintenance spray
- The tool is delivered in a handy aluminium transport box.

| Friatools Code | Vx Code |
|----------------|---------|
| 613644 | 89281 |



FWSG XL Large pipe scraper tool for pipes d 800 to d 1200

- For the reliable removal of the oxide layer of large pipes made of HD-PE in the diameter range d 800 to d 1200, SDR11-SDR33.
- Modular design for easy handling and quick assembly.
- Diameter adjustment through quick setting.
- Center-supported drive via hand crank.
- Automatic compensation of pipe out-of-roundness and tolerances through spring-supported adjustable blade unit.
- Scraper blade designed as turning blade with 2 cutting edges (twice the service life).

| Friatools Code | Vx Code |
|----------------|---------|
| 613645 | 89251 |

FWSGE Replacement blades for scraper tools



- Replacement blades made of carbide (long storage and service life).

| Article description | Unit type | Marking | Friatools Code | Vx Code |
|---------------------|------------------------------|----------------|----------------|---------|
| FWSGE 3 | FWSG 225 / FWSG 315 / FWS-GA | coloured red | 613322 | 89249 |
| FWSGE 4 | FWSG 63 | coloured green | 613323 | 89188 |
| FWSGE 5 | FWSG 710 L/S / FWSG 900 L | coloured blue | 613324 | 89189 |

consisting of 3 x replacement blades, 1 x torx screw and 1 x torx wrench.

- Replacement blade, designed as turning blade (twice the service life).

| Article description | Unit type | Friatools Code | Vx Code |
|---------------------|-------------------------|----------------|---------|
| FWSGE 8 | for FWSG SE (all types) | 613327 | 89190 |



consisting of 1 x replacement blade, 1 x hexagon socket screw and 1 hexagon socket wrench.

- Replacement blade, designed as turning blade (twice the service life).

| Article description | Unit type | Friatools Code | Vx Code |
|---------------------|-------------------|----------------|---------|
| FWSGE 10 | FWSG RA 32 and 40 | 613329 | 89282 |
| FWSGE 11 | FWSG RA 50 and 63 | 613330 | 89283 |



consisting of 1 x replacement blade, 1 x torx screw and and 1 x torx wrench.

- Replacement blade and guide plate designed for large pipe processing; designed as turning blade and turning plate (twice the service life).

| Article description | Unit type | Friatools Code | Vx Code |
|---------------------|-------------|----------------|---------|
| FWSGE 12 | for FWSG XL | 613331 | 89191 |



consisting of 1 x replacement blade, 1 x guide plate, 2 x torx screws and 1 torx wrench.

PFSP FRIATEC maintenance spray

- For cleaning and caring for scraper tools. Content: 100 ml.
- Please observe appropriate safety and application instructions on the agent container and on operating instructions included with scraper tools.



| | Friatools Code | Vx Code |
|--|----------------|---------|
| | 613301 | 89192 |

ALTK (FWSG) Aluminium transport boxes

- For the transport and storage of scraper tools.

| Unit type | Friatools Code | Vx Code |
|-------------------------|----------------|---------|
| FWSG 63 | 613307 | 89193 |
| FWSG 225 and FWSG 3/225 | 613309 | 89194 |
| FWSG 710 S | 613308 | 89195 |
| FWSG 710 L | 613314 | 89196 |
| FWSG 900 L | 613304 | 89197 |
| FWSG SE | 613318 | 89198 |





S Scrapers

| Description | Vx Code |
|---|---------|
| Harris Scraper 1 1/2' width | 71034 |
| Harris Scraper 2 1/2' width | 89200 |
| Harris Scraper Blade 1 1/2' Width (pack of 2) | 71036 |
| Harris Scraper Blade 2 1/2' (pack of 2) | 89201 |



FWZXL Hand scraper for large pipes

- For removing oxide layers on large HD-PE pipes which are unable to treat using appropriate scraper tools.
- Ideal for preparing surfaces for the processing of FRIALEN XL saddle fittings.
- Also suitable for deburring cut edges.

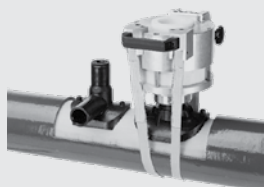
| Friatools Code | Vx Code |
|----------------|---------|
| 613299 | 89250 |



FWPM FRIALEN-/FRIAFIT-Marker (silver)

- For the marking of HD-PE and PE-Xa-pipes.
- Colour silver. Sold individually.

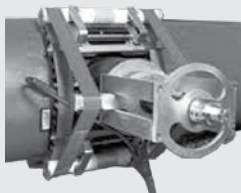
| Friatools Code | Vx Code |
|----------------|---------|
| 613069 | 89227 |



FRIATOP Clamping unit (Top Loading)

- For the assembly of FRIALEN XL Top Loading saddle parts without lower clamp (see product range FRIALEN XL) for all pipe diameters in the appropriate range of dimensions with extra elastic pneumatic spring system and for the optimum build-up of jointing pressure during fusion process.

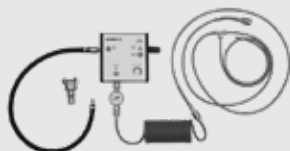
| Article Description | Outlet dimension | Friatools Code | Vx Code |
|---------------------|------------------|----------------|---------|
| FRIATOP Clamp | d 32,63,90 | 613350 | 89202 |



UNI CLAMP

- Instead of cost-intensively integrating a T-piece, a branch or vent can be very comfortably created using the FRIALEN spigot saddle SA-UNI. The spigot outlet can be fused with FRIALEN couplers MB or UB.

| Article description | Outlet dimension | Ø hole saw | Friatools Code | Vx Code |
|---------------------|------------------|------------|----------------|---------|
| SA-UNI Clamp | d 90-250 | 68-187 mm | 613385 | 89505 |



VACUSET XL Clamping unit (Vacuum)

- For the assembly of FRIALEN XL spigot saddles SA-XL with outlet d 160, d 225 and d 250, as well as for the assembly of FRIALEN XL repair saddles RS-XL
- Consisting of VACUBOX XL, manometer, and hose connections.
- Plug connection NW 7.2 or claw coupling for connection to a construction site compressor.
- The tool is delivered in a handy aluminium transport box.
- For the assembly of FRIALEN XL spigot saddles SA-XL plungers (PRESSKO) are required.

| Friatools Code | Vx Code |
|----------------|---------|
| 613820 | 89203 |

PRESSKO Plunger for VACUSET XL clamping unit

- Nominal width-related plunger with stop plate and plug connection NW 7.2 for assembly on the FRIALEN XL spigot saddle SA-XL with outlet d 160, d 225 or d 250 and for the connection of the VACUSET XL.

| Spigot saddle | Outlet dimension | Friatools Code | Vx Code |
|----------------|------------------|----------------|---------|
| FRIALEN SA-XL | d 160 | 613821 | 89204 |
| FRIALEN SA-XL | d 225 | 613822 | 89205 |
| FRIALEN SA-XL | d 250 | 613823 | 89206 |
| FRIAFIT ASA-VL | d 225 | 613823 | 89207 |



FWAB XL Drilling equipment FWAB XL

- Drilling equipment FWAB XL for drilling HD-PE pipes in unpressurised condition through the outlet spigot SA-XL.
- Drive with drilling machine. Consisting of hole saw (nominal width-related), hole saw adapter SDS max, extension for hole saw adapter, centre drill with ejector and retaining shell, and 1 x hexagon wrench.
- The tool is delivered in a handy aluminium transport box.

| Article description | Outlet dimension | Ø hole saw | Friatools Code | Vx Code |
|---------------------|------------------|------------|----------------|---------|
| FWAB-XL 90 | d 90 | - | 613832 | 89506 |
| FWAB-XL 110 | d 110 | - | 613833 | 89507 |
| FWAB-XL 125 | d 125 | - | 613834 | 89508 |
| FWAB-XL 160 | d 160 | 123 mm | 613829 | 89208 |
| FWAB XL 225 | d 225 | 172 mm | 613830 | 89209 |
| FWAB XL 250 | d 250 | 187 mm | 613831 | 89210 |

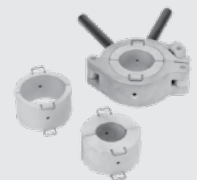


FWXR Manual rounding clamps for pipes d 63 - d 250

- For retrospective rounding of HD-PE and PE-Xa-pipes. Covering several dimensions due to the use of reducer spherical shells.

(Fig. shows FWXR-S1)

| Article description | Basic size | Reducer spherical shells | Friatools Code | Vx Code |
|---------------------|------------|--------------------------|----------------|---------|
| FWXR-S1 | d 63 | d 32, 40 und 50 | 613416 | 89212 |
| FWXR-S2 | d 110 | d 90 | 613431 | 89213 |
| FWXR-S3 | d 160 | d 125 | 613439 | 89214 |
| FWXR-S4 | d 200 | d 180 | 613443 | 89215 |
| FWXR-S5 | d 250 | d 225 | 613444 | 89216 |



FWXRH Hydraulic rounding clamps for pipes d 280 - d 900

- For the retrospective rounding of HD-PE pipes.
- These rounding clamps are also available for hire.
- Prices and availability of dimensions on request.

(Fig. shows hydraulic rounding clamp d 800)

| Dimension | Friatools Code | Vx Code |
|-----------|----------------|---------|
| d 280 | 613452 | 89233 |
| d 315 | 613461 | 89234 |
| d 355 | 613462 | 89235 |
| d 400 | 613463 | 89236 |
| d 450 | 613464 | 89237 |
| d 500 | 613465 | 89238 |
| d 560 | 613467 | 89239 |
| d 630 | 613466 | 89240 |
| d 710 | 613468 | 89241 |
| d 800 | 613460 | 89242 |
| d 900 | 613458 | 89243 |





RPS

Repair set

- Repair kit for containing residual water during repair and installation work on d 90 - d 900 HD-PE water pipes.
- Consisting of a universal repair set with pump, pressure gauge, drill, connecting hose, and additionally repair balloons for each pipe dimensions.
- Optional extension set consisting of additional connection hose and pressure gauge.
- From pipe dimensions d 355 the drilling equipment FWAB XL 225 (Order-Nr. 613830) is required.
- The repair set up to d 225 requires VVS repair and reinforcing saddles
- Pipe dimensions from d 250 require VSC-TL or RS-XL repair saddles
- Prices and availability on request.

| Article description | Dimension | Friatools Code | Vx Code |
|-----------------------|---------------|----------------|---------|
| Repair set | universal | 613701 | 89217 |
| Extension set | universal | 613715 | 89218 |
| Repair balloon type 1 | d 90 - d 180 | 613702 | 89219 |
| Repair balloon type 2 | d 200 - d 315 | 613703 | 89220 |
| Repair balloon type 3 | d 355 - d 450 | 613704 | 89221 |
| Repair balloon type 4 | d 500 - d 560 | 613705 | 89222 |
| Repair balloon type 5 | d 630 | 613706 | 89223 |
| Repair balloon type 6 | d 710 | 613707 | 89224 |
| Repair balloon type 7 | d 800 | 613708 | 89225 |
| Repair balloon type 8 | d 900 | 613709 | 89226 |



FWSS

Activating key for pressure tapping tees

- For drill activation subject to diameter (d1) of the DAA, DAA-TL and DAA-TL/RE (see product range FRIALEN).

| d ₁ | Size | Friatools Code | Vx Code |
|----------------|------|----------------|---------|
| 40 | 10mm | 613242 | 89228 |
| 50-75 | 17mm | 613248 | 89229 |
| 90-315 | 19mm | 613250 | 89230 |



FIXBLOC

Fixation for absorbing arial thrust and tensil forces

- The FIXBLOC is used on PE pipes for the creation of fixed point, as a pull-out protection, assembly aid or fixation to pipe bearing. Strength per fixed point up to 40 KN. Multiple applications possible around the pipe circumference. Processing is carried out with standard tensioning belts with belt width 50mm which are guided securely by two belt clips (easily removable). Minimum length approx. 3,5 x d pipe (longer for multiple applications). If the belt cannot be passed around the circumference of the pipe, the clamping device FIXBLOC-FWFB (only for hire, order no. 613380) can be used, e.g. in case of a PE-Liner, which must be anchored against the concrete wall of a manhole.

| d ₁ | Size | Friatools Code | Vx Code | Vx Code |
|----------------|--------|----------------|---------|---------|
| 160 | 1600mm | 680600 | 89557 | 89557 |

AC

Alignment Clamps

| Description | Vx Code |
|--|---------|
| EFRAC 16-32 Uni-Clamp | 71011 |
| EFRAC 16-63 Uni-Clamp | 71012 |
| EFRAC 180 Kit - Delux, complete with knuckled bar, standard liners and bag | 71013 |
| EFRAC 180 90d tee adaptor clamp | 71014 |
| EFAC 63mm - 180mm Alignment Clamps | 71015 |
| 45/90 Adaptor Kit for EFAC 180 | 71016 |
| 63mm Liner, each (4 required) | 71017 |
| 75mm Liner, each (4 required) | 71018 |
| 90mm Liner, each (4 required) | 71019 |
| 110mm Liner, each (4 required) | 71020 |
| 125mm Liner, each (4 required) | 71021 |
| 140mm Liner, each (4 required) | 71022 |
| 160mm Liner, each (4 required) | 71023 |
| EFRAC 250 Alignment Clamp | 71024 |
| Liner 250/180 (4 required) | 71025 |



EFRAC 16-32 Uni-Clamp

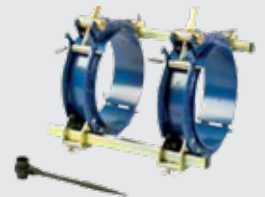


EFRAC 180 Delux Kit

MPK

Manual Positioning Kit

| Description | Vx Code |
|---------------------------------|---------|
| 280mm Positioning Clamp | 71026 |
| 315mm Positioning Clamp | 71027 |
| 355mm Positioning Clamp | 71028 |
| 400mm Positioning Clamp | 71029 |
| Hydraulic positioning kit 400mm | 71030 |
| Hydraulic positioning kit 500mm | 71031 |
| Hydraulic positioning kit 630mm | 71032 |
| Hydraulic positioning kit 710mm | 71033 |



RT

Rerounding Tools

| Description | Vx Code |
|--|---------|
| Hydraulic Re-rounding clamp + pump 400mm | 71002 |
| Set of Reducing shells (3pcs) 400 to 355mm | 71003 |
| Set of Reducing shells (3pcs) 400 to 315mm | 71004 |
| Hydraulic Re-rounding clamp + pump 500mm | 71005 |
| Set of Reducing shells (3pcs) 500 to 450mm | 71006 |
| Set of Reducing shells (3pcs) 500 to 400mm | 71007 |
| Hydraulic Re-rounding clamp + pump 630mm | 71008 |
| Set of Reducing shells (3pcs) 630 to 560mm | 71009 |
| Set of Reducing shells (3pcs) 630 to 500mm | 71010 |





SOUHF Squeeze Off Unit

| Description | Vx Code |
|--|---------|
| SOU63HF Squeeze Off Unit 20-63mm | 71038 |
| SOU125 Squeeze Off Unit 63-125mm SDR 11 - 17.6 | 71039 |



SOU200 Squeeze Off Unit

| Description | Vx Code |
|---|---------|
| SOU200 Squeeze Off Unit 63-200mm SDR 11, 125-200mm SDR 17.6 | 71040 |



SEC Secateurs

| Description | Vx Code |
|--|---------|
| 6-24mm PE Pipe cutter, ratchet action, plastic coated handles | 71041 |
| 6-42mm PE Pipe cutter, HEAVY DUTY, ratchet action plastic coated handles | 71042 |
| 3-63mm PE Pipe Cutter, ratchet action | 71043 |

FRIAMAT UNITS AT A GLANCE

| Technical data* | FRIAMAT [®] prime | FRIAMAT [®] basic |
|--|--|--|
| Input voltage range | 190...250Vac | 190...250Vac |
| Frequency range | 44...66 Hz | 44...66 Hz |
| Current consumption | max. 16A ac | max. 16A ac |
| Power | 3.5kW | 3.5kW |
| Fuse | 16A slow (external) | 16A slow (external) |
| Housing | Type of protection IP 54 Protection class II | Type of protection IP 54 Protection class II |
| Main switch | Yes | Yes |
| Mains cable | 5 m with two-pole plug | 5 m with two-pole plug |
| Fusion cable | 4 m | 4 m |
| Weight** | 13 kg | 13 kg |
| Barcode type | Code 2/5 (interleaved) Code 128 | Code 2/5 (interleaved) |
| Working temperature range*** | -20 °C to +50 °C | -20 °C to +50 °C |
| Fusion current monitoring | Short-circuit and interruption | Short-circuit and interruption |
| Communication interfaces | USB Parallel Memory-Card slot (PCMCIA standard) | No |
| Service interface | Serial | Serial |
| Large display | Yes | No |
| Connectors 4.0 mm | Yes | Yes |
| Manual emergency programming | Yes | Yes |
| Remote start pass | Optional | Optional |
| Infrared remote control | Optional | No |
| Fusion pass | Optional | No |
| Supervisor pass | Yes | No |
| FRIATRACE | Optional | No |
| FRIATEC Memory-Stick | Yes | No |
| FRIATEC Memory-Card | Optional | No |
| Documentation of fusion and traceability data | Yes | No |
| Recordable fusion in unit | 500 | No |
| Data storage by Memory-Card | Yes, more than 60,000 data records | No |
| Languages | 20 | 20 |
| Quality class proof | CE mark | CE mark |
| Transport box | Yes | Yes |

*: Technical changes reserved

** : Incl. extra-long fusion and mains cable

***: For fusion of fittings of other manufacturers, please absolutely observe the information about the working temperature range!

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