



Adroit Piping Systems Pty Ltd

PRODUCT APPRAISAL REPORT NO PA 1616 Issue 4

PE100 Spigot Polyethylene fittings

AS/NZS 4129:2020 Fittings for polyethylene (PE) pipes for pressure applications

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Peer Reviewers

Name/Title	Organisation	Date
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Alan Whittle, WSAA Consultant	WSAA	14 October 2016
Carl Radford, Product Appraisal Manager	WSAA	19 April 2017
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Carl Radford, Product Appraisal Manager	WSAA	28 April 2022

Overview of WSAA

The Water Services Association of Australia (WSAA) is the peak industry body representing the urban water industry. Our members provide water and sewerage services to over 20 million customers in Australia and New Zealand and many of Australia's largest industrial and commercial enterprises.

Based around our vision of 'customer driven, enriching life', WSAA facilitates collaboration, knowledge sharing, networking and cooperation within the urban water industry. We are proud of the collegiate attitude of our members which has led to industry-wide approaches to national water issues.

WSAA can demonstrate success in the standardisation of industry performance monitoring and benchmarking, as well as many research outcomes of national significance. The WSAA Executive retains strong links with policy makers and legislative bodies and their influencers, to monitor emerging issues of importance to the urban water industry.

WSAA was formed in 1995 as a non-profit organisation to foster the exchange of information between industry, government and the community, and to promote sustainable water resource management.

The urban water industry is committed to anchoring its services to customers' values, and to enrich communities where water services have broad economic, environmental and social values. In line with this our main activities focus on four areas:

1. influencing national and state policies on the provision of urban water services and sustainable water resource management
2. promoting debate on environmentally sustainable development and management of water resources and the community health requirements of public water supplies
3. improving industry performance and establishing benchmarks and industry leading practices for water service processes; and
4. fostering the exchange of information on education, training, research, water and wastewater management and treatment and other matters of common interest.

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1 EXECUTIVE SUMMARY

Adroit Piping Systems Pty Ltd is an Australian company providing a range of PE100 pipe fittings and related products for the utilities, plumbing, mining and gas industries.

This appraisal is for a range of Adroit PE100 spigot ended moulded fittings including reducers, full face and stub flanges, SDR adapters, reinforced forged tees, end caps, machined tees and pre-formed sweep bends in sizes from DN 63 to DN 1200.

This Issue 4 is a replacement for the previous version of the appraisal which had reached its 5-year expiry date.

Issue 3 was to extend fittings sizes up to DN 1200 and also to extend the range to include SDR adapters, machined equal tees, machined reducing tees and machined scour tees.

All fittings are suitable for butt welding. The reinforced reducing tees and sweep bends are also suitable for electrofusion welding.

The fittings are for use with AS/NZS 4130 PE pipes with pressure ratings of PN10 (SDR 17), PN12.5 (SDR13.6), PN16 (SDR11), PN20 (SDR9) and PN25 (SDR 7.4).

Adroit Piping Systems has an ISO 9001:2015 Quality Management System.

The products are covered by ISO Type 5 product certification to AS/NZS 4129:2020 *Fittings for use with polyethylene (PE) pipes for pressure applications*.

Adroit PE100 spigot fittings described within this appraisal meet the requirements of WSA PS 208 *Plastics Fittings for Pressure Applications with PE pipe – Drinking Water, Non-Drinking Water Supply and Sewerage* and are considered as 'fit for purpose'.

1.1 Recommendations

It is recommended that WSAA members, subject to any specific requirements of the member, accept or authorise the Adroit polyethylene (PE) fittings as detailed in this report for use in pressure applications including water supply and sewerage provided the design, installation, acceptance testing and operation are in accordance with the relevant Standards, WSAA Codes and manufacturer's requirements.

2 THE APPLICANT

The Applicant is Adroit Piping Systems Pty Ltd.

2.1 The Manufacturer / Supplier

Adroit Piping Systems Pty Ltd, established in 1996, is an Australian company based in Sydney with offices in Melbourne and Brisbane.

The company is a manufacturer, importer and fabricator of PE100 pipe fittings and related products for the utilities, plumbing, mining and gas industries.

Adroit also offers in house training for electrofusion and butt welding of PE and hires and services welding equipment.

3 THE PRODUCT

This appraisal is for a range of Adroit PE100 spigot ended moulded fittings including reducers, full face and stub flanges, SDR adapters, reinforced forged tees, end caps, machined tees and pre-formed sweep bends.

The Adroit PE fittings are suitable for use with polyethylene (PE) pipes manufactured in accordance with AS/NZS 4130 for the conveyance of drinking water, non-drinking water, and sewage in buried and above ground pressure applications.

The fittings are available with pressure ratings of PN10 (SDR 17), PN12.5 (SDR13.6), PN16 (SDR11), PN20 (SDR9) and PN25 (SDR 7.4).

All fittings are suitable for butt welding. The reinforced reducing tees and sweep bends are also suitable for electrofusion welding.

Flanges are suitable for connection to AS/NZS 4087 Table B5 PN16 flanges. Alternative flange compatibilities can be supplied on request including AS 2129 Table E and ANSI 150.

See Table 1 for details of the range.

TABLE 1 ADROIT PE FITTINGS RANGE

Product	PN	SDR	Size Range (mm)
Concentric Reducers	10, 12.5, 16, 20, 25	17, 13.6, 11, 9, 7.4	DN 63x50 to DN 1200x1000
Eccentric Reducers	10, 12.5, 16, 20, 25	17, 13.6, 11, 9, 7.4	DN 63x50 to DN 1200x1000
SDR Adapters	10, 12.5, 16, 20, 25	17, 13.6, 11, 9, 7.4	DN 63 to DN 1200
Stub Flanges	10, 12.5, 16, 20, 25	17, 13.6, 11, 9, 7.4	DN 63 to DN 1200
Full Face Flanges	10, 12.5, 16, 20, 25	17, 13.6, 11, 9, 7.4	DN 32 to DN 1200
End Caps	10, 12.5, 16, 20, 25	17, 13.6, 11, 9, 7.4	DN 20 to DN 1200
Reinforced Forge Moulded Reducing Tees	10, 12.5, 16, 20	17, 13.6, 11, 9	DN 200x90 to DN 1200x630
Machined Equal Tees	10, 12.5, 16, 20, 25	17, 13.6, 11, 9, 7.4	DN 63 to DN 1200
Machined Reducing Tees	10, 12.5, 16, 20, 25	17, 13.6, 11, 9, 7.4	DN 200x110 to DN 1200x1000
Machined Scour Tees	10, 12.5, 16, 20, 25	17, 13.6, 11, 9, 7.4	DN 200x110 to DN 1200x1000
Sweep Bends	10, 12.5, 16, 20, 25	17, 13.6, 11, 9, 7.4	DN 20 to DN 1000 11°, 22°, 30°, 45°, 60°, 75°, 90°

4 SCOPE OF THE APPRAISAL

The scope of this appraisal is for PE100 spigot ended fittings as detailed in Section 3 and included in the ISO Type 5 Product Certification Schedule referenced in Appendix B.

5 APPRAISAL CRITERIA

5.1 Quality Assurance Requirements

The WSAA Product Appraisal Technical Advisory Group accepts PE100 fittings manufactured in compliance with AS/NZS 4129:2020 and duly certified by means of an ISO Type 5 product certification scheme undertaken by a JAS-ANZ accredited Certification Assessment Body (CAB) or by an international accreditation system recognised by JAS-ANZ.

The manufacturer is generally expected to have a production management and control system that has been duly accredited in accordance with AS/NZS ISO 9001 as a prerequisite to undergoing a product certification audit.

The ISO Type 5 Product Certification Scheme shall meet the criteria described in WSA TN-08.

5.2 Performance Requirements

Adroit PE100 fittings have been appraised for compliance with AS/NZS 4129:2020 *Fittings for polyethylene (PE) pipes for pressure applications*.

Appraisal criteria are also determined by the WSAA Product Appraisal Technical Advisory Group and regularly reviewed to ensure that the criteria reflect the requirements of WSAA members.

The following Product Specification is also relevant to this application:

WSA PS 208 *Plastics Fittings for Pressure Applications with PE pipe – Drinking Water, Non-Drinking Water Supply and Sewerage.*

A copy of the Product Specification is available at the following link:

<https://www.wsaa.asn.au/shop/product/53481>

6 COMPLIANCE WITH APPRAISAL CRITERIA

6.1 Compliance with Quality Assurance Requirements

Adroit Piping Systems has submitted the following quality certificates:

- ISO 9001:2015 Certificate of Registration No. QMS40134 issued to Adroit Piping Systems Pty Ltd by SAI-Global Pty Ltd.
- AS/NZS 4129:2020 ISO Type 5 Product Certification Licence No. 3016 issued to Adroit Piping Systems Pty Ltd by Australian Certification Services Pty Ltd.

Copies of the Quality Assurance and Product Certification licences have been included in Appendix B and are also available from WSAA.

6.2 Compliance with Performance Requirements

6.2.1 Polyethylene Material Composition

It is a requirement of AS/NZS 4129 that PE fittings are manufactured from polyethylene compounds complying with AS/NZS 4131.

Adroit has provided documentation to indicate that the following PE100 compounds are utilised in the manufacture of the fittings: Qenos Alkadyne HDF 193B, Bourouge BorSafe HE3490LS.

Both of these compounds are listed in the PIPA Industry Guidelines POP004 as complying with AS/NZS 4131 and are also listed as complying with the temperature rating requirements of POP013.

6.2.2 PE100 Pipe

Adroit has undertaken that PE100 pipe used in the manufacture of sweep bends will be sourced from suppliers with ISO Type 5 product certification to AS/NZS 4130 and a current WSAA Appraisal.

6.2.3 Effect on Water.

The PE compounds used for moulding the fittings, as detailed in 6.3.1, are listed in POP004 and includes confirmation that certification to AS/NZS 4020 is current.

6.2.4 Type Testing

Type test requirements were completed for the original version of this Appraisal and are not required to be repeated.

7 FITTING INSTRUCTIONS, TRAINING AND INSTALLATION

Polyethylene piping systems have been commonly used in the Australian water industry for many years. Electrofusion welding and butt fusion processes may be used for joining pipe-to-pipe or fitting-to-pipe. All welding is required to be performed by welders who have successfully completed training by a Registered Training Organisation, endorsed by the Plastics Industry Pipe Association for the relevant welding method(s).

The Plastics Industry Pipe Association provides technical guidelines for electrofusion welding in the following documents.

(a) POP001 *Electrofusion Jointing of Pipe and fittings for Pressure Applications*

(b) POP003 *Butt Fusion Jointing of PE Pipes and Fittings – Recommended Parameters.*

POP001 contains recommendations for equipment required, jointing, maintenance, servicing and calibration procedures, training and records to be kept.

POP003 is a guide to the butt fusion of polyethylene pipe using AS/NZS 4130 material as a basis, recommending the butt fusion procedures and parameters as specified in ISO 21307.

Copies of these documents can be downloaded from the PIPA website at www.pipa.com.au

Polyethylene pipe systems should be installed in accordance with AS/NZS 2033:2008 *Installation of polyethylene pipe systems.*

PE fittings should be stored in accordance with the storage requirements of POP005 *Packaging, handling and storage of polyethylene pipe and fittings.*

8 PRODUCT MARKING

Adroit Piping Systems PE fittings are marked in accordance with the requirements of AS/NZS 4129. Branding information is provided on an adhesive sticker applied to the fitting.

- Manufacturers Name or trademark: Adroit Piping Systems
- Date or batch code:
- Nominal size: e.g., 200
- The grade and type of material: PE100
- Classification: e.g., SDR11 PN16
- The number of this Standard: AS/NZS 4129.
- CertificationMark and Licence No:

In addition to the above marking requirements post formed bends are marked with the angle of the bend: e.g., 90⁰

See Figure 1 for an example of marking.



FIGURE 1 EXAMPLE OF MARKING

9 PACKAGING AND TRANSPORTATION

The method and packaging of Adroit products are size and type dependent with different types of products having different packaging. Most products are strapped directly onto pallets and wrapped in plastic film using cardboard to protect the products from damage.

Where possible fittings are placed in individual cardboard boxes.

Further information is available in Adroit Document 16-QAP – *Preservation of Product relating to handling, packaging and delivery of products, AS/NZS 2033 Installation of polyethylene pipe systems, PIPA POP005 Packaging, Handling and Storage of Polyethylene Pipes and Fittings* and PIPA TN002 *Weathering of PE pipes*.

10 PRODUCT WARRANTY

The products are covered by the normal commercial and legal requirements of the *Competition and Consumer Act 2010 (Cth)*, which covers manufacture to the relevant standard, and details of Adroit Piping Systems warranty is included in their terms and conditions of sale.

11 WATER AGENCY EXPERIENCE WITH THE PRODUCT OR FIELD-TESTING REPORT

The products within this appraisal are commonly utilised in the water industry and Adroit products have been approved by many Australian Water Agencies.

12 OUTCOMES OF EXPERT PANEL PRODUCT REVIEW

There are no outstanding issues.

13 FUTURE WORKS

There are no outstanding future work items.

14 DISCLAIMER

This Product Appraisal Report (Report) is issued by the Water Services Association of Australia Limited on the understanding that:

This Report applies to the product(s) as submitted. Any changes to the product(s) either minor or major shall void this Report.

To maintain the recommendations of this Report any such changes shall be detailed and notified to the Product Appraisal Manager for consideration and review of the Report and appropriate action. Appraisals and their recommendations will be the subject of continuous review dependent upon the satisfactory performance of products.

WSAA reserves the right to undertake random audits of product manufacture and installation. Where products fail to maintain appraised performance requirements the appraisal and its recommendations may be modified and reissued. Appraisal reports will be reviewed and reissued at regular intervals not exceeding five (5) years.

The following information explains a number of very important limits on your ability to rely on the information in this Report. Please read it carefully and take it into account when considering the contents of this Report.

Any enquiries regarding this report should be directed to the Program Manager, Carl Radford, Phone: 03 8605 7601 email carl.radford@wsaa.asn.au.

14.1 Issue of Report

This Report has been published and/or prepared by the Water Services Association of Australia Limited and nominated Project Manager and peer group of technical specialists (the Publishers).

The Report has been prepared for use within Australia only by technical specialists that have expertise in the function of products such as those appraised in the Report (the Recipients).

By accepting this Report, the Recipient acknowledges and represents to the Publisher(s) and each person involved in the preparation of the Report that the Recipient has understood and accepted the terms of this Disclaimer.

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The information and any recommendation contained (expressly or by implication) in this Report are provided in good faith (and subject to the limitations noted in this Report). However, you should treat the information as indicative only. You should not rely on that information or any such recommendation except to the extent that you reach an agreement to the contrary with the Publisher(s).

This Report does not contain all information that a person might require for the purposes of assessing any product discussed or appraised within it. The product appraisal criteria used in preparing this Report may not address all relevant aspects of the Product.

Recipients should seek independent evidence of any matter which is material to their decisions in connection with an assessment of the Product and consult their own advisers for any technical information required. Any decision to use the Product should take into account the reliability of that independent evidence obtained by the Recipient regarding the Product.

Recipients should also independently verify and assess the appropriateness of any recommendation in the Report, especially given that any recommendation will not take into account a Recipient's particular needs or circumstances.

WSAA has not evaluated the extent of the product liability and professional indemnity insurance that the provider of the product maintains. Recipients should ensure that they evaluate the allocation of liability for product defects and any professional advice obtained in relation to the product or its specification including the requirements for product liability and professional indemnity insurance.

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14.4 No Warranty

The Publisher(s) do[es] not, in any way, warrant that steps have been taken to verify or audit the accuracy or completeness of the information in this Report, or the accuracy, completeness or reasonableness of any recommendation in this Report.

APPENDIX A - PRODUCT LITERATURE

A copy of the complete catalogue is available from Adroit at <http://www.adroitpiping.com.au/> or from WSAA. Relevant sections from the product catalogue are included below.

ADROIT Piping Systems

ADROIT Piping Systems

INNOVATIVE PIPING SYSTEMS

PRODUCT CATALOGUE

www.adroitpiping.com.au

PRODUCT CATALOGUE

1300 004 373

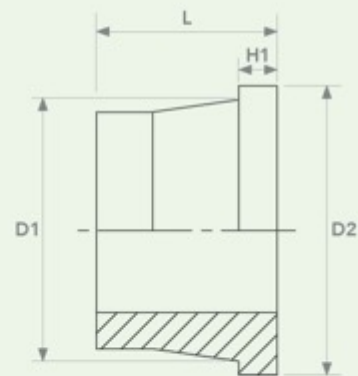


- REGULAR FIT
- ELECTRO FUSION
- BUTT WELD FITTINGS**
- LOGIC SPOUT
- SLIDING BRIS
- SHARP BRIS
- STANDARD BRIS
- FORGE MOULDED TEES
- FORGE SOUL TEES
- MATCHED TEES
- HANDED TEES & JUNCTIONS
- PIPE SPOOLS
- ACCESSORIES
- UTILITY TOOLING
- HOME ORNAMENT SYSTEMS
- MO-FIT
- SEMI-VIEW
- ARTIC COMPRESSOR
- SUPPORT & TECHNICAL INFO

BUTT WELD STUB FLANGE

PE100 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR9 CODE	SDR11 CODE	SDR17 CODE	D1 (mm)	D2 (mm)	L (mm)	H1 (mm)
63	4413.0063	4414.0063	4416.0063	75	95	50	15
75	4413.0075	4414.0075	4416.0075	88	108	50	15
90	4413.0090	4414.0090	4416.0090	103	129	80	17
110	4413.0110	4414.0110	4416.0110	124	158	80	18
125	4413.0125	4414.0125	4416.0125	128	158	80	25
140	4413.0140	4414.0140	4416.0140	151	187	80	25
160	4413.0160	4414.0160	4416.0160	168	213	80	25
180	4413.0180	4414.0180	4416.0180	190	213	80	30
200	4413.0200	4414.0200	4416.0200	225	270	95	30
225	4413.0225	4414.0225	4416.0225	230	270	95	30
250	4413.0250	4414.0250	4416.0250	284	322	100	35
280	4413.0280	4414.0280	4416.0280	294	334	100	35
315	4413.0315	4414.0315	4416.0315	335	380	105	35
355	4413.0355	4414.0355	4416.0355	366	442	110	40
400	4413.0400	4414.0400	4416.0400	420	495	110	45
450	4413.0450	4414.0450	4416.0450	470	545	110	45
500	4413.0500	4414.0500	4416.0500	520	596	125	60
560	4413.0560	4414.0560	4416.0560	580	657	125	60
630	4413.0630	4414.0630	4416.0630	650	710	130	60
710	4413.0710	4414.0710	4416.0710	735	800	130	60
800	4413.0800	4414.0800	4416.0800	825	940	130	60
900	4413.0900	4414.0900	4416.0900	940	1050	130	60
1000	4413.1000	4414.1000	4416.1000	1025	1125	130	60
1200	4413.1200	4414.1200	4416.1200	1230	1330	170	80

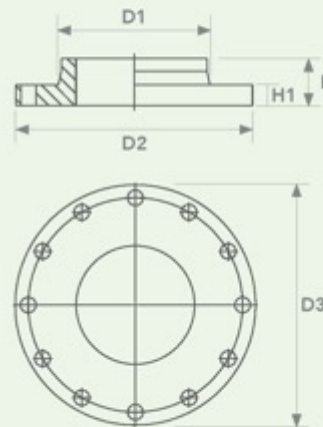


FULL FACE FLANGE RANGE

ANY DRILL PATTERN | PE100 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR9 CODE	SDR11 CODE	SDR17 CODE	D1 (mm)	D2 (mm)	D3 (mm)	L (mm)	H1 (mm)
63	3593.0063	3594.0063	3596.0063	75	95	150	50	15
75	3593.0075	3594.0075	3597.0075	88	108	165	50	15
90	3593.0090	3594.0090	3596.0090	103	129	185	80	17
110	3593.0110	3594.0110	3596.0110	124	158	215	80	18
125	3593.0125	3594.0125	3596.0125	128	158	255	80	25
140	3593.0140	3594.0140	3596.0140	151	187	255	80	25
160	3593.0160	3594.0160	3596.0160	168	213	280	80	25
180	3593.0180	3594.0180	3596.0180	190	213	280	80	30
200	3593.0200	3594.0200	3596.0200	225	270	335	95	30
225	3593.0225	3594.0225	3596.0225	230	270	335	495	30
250	3593.0250	3594.0250	3596.0250	284	322	405	100	35
280	3593.0280	3594.0280	3596.0280	294	334	405	100	35
315	3593.0315	3594.0315	3596.0315	335	380	455	105	35
355	3593.0355	3594.0355	3596.0355	366	442	525	110	40
400	3593.0400	3594.0400	3596.0400	420	495	580	110	45
450	3593.0450	3594.0450	3596.0450	470	545	640	110	45
500	3593.0500	3594.0500	3596.0500	520	596	705	125	60
560	3593.0560	3594.0560	3596.0560	580	657	760	125	60
630	3593.0630	3594.0630	3596.0630	650	710	825	130	60
710	3593.0710	3594.0710	3596.0710	735	800	910	130	60
800	3593.0800	3594.0800	3596.0800	825	940	1060	130	60
900	3593.9000	3594.9000	3596.0900	940	1050	-	130	60
1000	3593.1000	3594.1000	3596.1000	1025	1125	1225	130	60
1200	3593.1200	3594.1200	3596.1200	1230	1330	-	170	80

Note: Any drill patterns available upon request



- PRESSURE PIPE
- ELECTRO FUSION
- BUTT WELD FITTINGS
- LONG SPOUT
- BACKING BENDS
- SWEEP BENDS
- SEGMENTED BENDS
- FORGE MOLDED TEES
- FORGE SCOUR TEES
- MATCHED TEES
- FABRICATED TEES & JUNCTIONS
- PPE SPOOLS
- ACCESSORIES
- INTEGRITY TOOLING
- HOPE DRAINAGE SYSTEMS
- FOG FITS
- SHOWERVIEW
- METRIC COMPRESSION
- SUPPORT & TECHNICAL INFO



BUTT WELD CONCENTRIC REDUCER (4033 / 4034 / 4036)

PE100 | SDR9 | SDR11 | SDR17

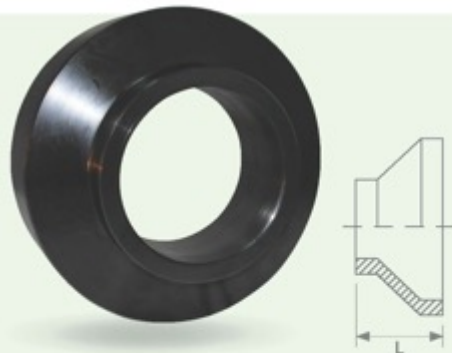
SIZE (mm)	SDR9 CODE	SDR11 CODE	SDR17 CODE	L (mm)	SIZE (mm)	SDR9 CODE	SDR11 CODE	SDR17 CODE	L (mm)
63 x 50	4033.6351	4034.6351	4036.6351	60	225 x 110	4033.2211	4034.2211	4036.2211	120
75 x 50	4033.7550	4034.7550	4036.7550	70	225 x 125	4033.2212	4034.2212	4036.2212	120
75 x 63	4033.7563	4034.7563	4036.7563	85	225 x 140	4033.2214	4034.2214	4036.2214	115
90 x 50	4033.9050	4034.9050	4036.9050	75	225 x 160	4033.2216	4034.2216	4036.2216	115
90 x 63	4033.9063	4034.9063	4036.9063	75	225 x 180	4033.2218	4034.2218	4036.2218	115
90 x 75	4033.9075	4034.9075	4036.9075	75	225 x 200	4033.2220	4034.2220	4036.2220	115
110 x 50	4033.1150	4034.1150	4036.1150	90	250 x 90	4033.2590	4034.2590	4036.2590	120
110 x 63	4033.1163	4034.1163	4036.1163	105	250 x 110	4033.2511	4034.2511	4036.2511	120
110 x 75	4033.1175	4034.1175	4036.1175	95	250 x 125	4033.2512	4034.2512	4036.2512	120
110 x 90	4033.1190	4034.1190	4036.1190	100	250 x 140	4033.2514	4034.2514	4036.2514	115
125 x 63	4033.1263	4034.1263	4036.1263	120	250 x 160	4033.2516	4034.2516	4036.2516	115
125 x 75	4033.1275	4034.1275	4036.1275	100	250 x 180	4033.2518	4034.2518	4036.2518	115
125 x 90	4033.1290	4034.1290	4036.1290	110	250 x 200	4033.2521	4034.2521	4036.2521	115
125 x 110	4033.1211	4034.1211	4036.1211	102	250 x 225	4033.2522	4034.2522	4036.2522	115
140 x 63	4033.1463	4034.1463	4036.1463	110	280 x 90	4033.2890	4034.2890	4036.2890	120
140 x 75	4033.1475	4034.1475	4036.1475	110	280 x 110	4033.2811	4034.2811	4036.2811	120
140 x 90	4033.1490	4034.1490	4036.1490	110	280 x 125	4033.2812	4034.2812	4036.2812	120
140 x 110	4033.1411	4034.1411	4036.1411	110	280 x 140	4033.2814	4034.2814	4036.2814	115
140 x 125	4033.1412	4034.1412	4036.1412	110	280 x 160	4033.2816	4034.2816	4036.2816	115
160 x 63	4033.1663	4034.1663	4036.1663	120	280 x 180	4033.2818	4034.2818	4036.2818	115
160 x 75	4033.1675	4034.1675	4036.1675	120	280 x 200	4033.2820	4034.2820	4036.2820	115
160 x 90	4033.1690	4034.1690	4036.1690	140	280 x 225	4033.2822	4034.2822	4036.2822	115
160 x 110	4033.1611	4034.1611	4036.1611	128	280 x 250	4033.2825	4034.2825	4036.2825	115
160 x 125	4033.1612	4034.1612	4036.1612	122	315 x 90	4033.3190	4034.3190	4036.3190	120
160 x 140	4033.1614	5034.1614	4036.1614	120	315 x 110	4033.3111	4034.3111	4036.3111	120
180 x 63	4033.1863	4034.1863	4036.1863	120	315 x 125	4033.3112	4034.3112	4036.3112	120
180 x 75	4033.1875	4034.1875	4036.1875	120	315 x 140	4033.3114	4034.3114	4036.3114	120
180 x 90	4033.1890	4034.1890	4036.1890	143	315 x 160	4033.3116	4034.3116	4036.3116	120
180 x 110	4033.1811	4034.1811	4036.1811	130	315 x 180	4033.3118	4034.3118	4036.3118	120
180 x 125	4033.1812	4034.1812	4036.1812	143	315 x 200	4033.3120	4034.3120	4036.3120	120
180 x 160	4033.1816	4034.1816	4036.1816	130	315 x 225	4033.3122	4034.3122	4036.3122	120
200 x 63	4033.2063	4034.2063	4036.2063	120	315 x 250	4033.3125	4034.3125	4036.3125	120
200 x 75	4033.2075	4034.2075	4036.2075	120	315 x 280	4033.3128	4034.3128	4036.3128	120
200 x 90	4033.2090	4034.2090	4036.2090	120	355 x 90	4033.3590	4034.3590	4036.3590	120
200 x 110	4033.2011	4034.2011	4036.2011	120	355 x 110	4033.3511	4034.3511	4036.3511	120
200 x 125	4033.2012	4034.2012	4036.2012	120	355 x 125	4033.3512	4034.3512	4036.3512	120
200 x 140	4033.2014	4034.2014	4036.2014	120	355 x 140	4033.3514	4034.3514	4036.3514	120
200 x 160	4033.2016	4034.2016	4036.2016	120	355 x 160	4033.3516	4034.3516	4036.3516	120
200 x 180	4033.2018	4034.2018	4036.2018	120	355 x 180	4033.3510	4034.3510	4036.3518	120
225 x 90	4033.2290	4034.2290	4036.2290	120	355 x 200	4033.3520	4034.3520	4036.3520	120



BUTT WELD CONCENTRIC REDUCER (4033 / 4034 / 4036)

PE100 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR9 CODE	SDR11 CODE	SDR17 CODE	L (mm)	SIZE (mm)	SDR9 CODE	SDR11 CODE	SDR17 CODE	L (mm)
355 x 225	4033.3522	4034.3522	4036.3522	120	630 x 280	4033.6328	4034.6328	4036.6328	125
355 x 250	4033.3525	4034.3525	4036.3525	120	630 x 315	4033.6331	4034.6331	4036.6331	125
355 x 280	4033.3528	4034.3528	4036.3528	120	630 x 355	4033.6335	4034.6335	4036.6335	125
355 x 315	4033.3531	4034.3531	4036.3531	120	630 x 400	4033.6340	4034.6340	4036.6340	125
400 x 90	4033.4090	4034.4090	4036.4090	125	630 x 450	4033.6345	4034.6345	4036.6345	125
400 x 110	4033.4011	4034.4011	4036.4011	125	630 x 500	4033.6350	4034.6350	4036.6350	125
400 x 125	4033.4012	4034.4012	4036.4012	125	630 x 560	4033.6356	4034.6356	4036.6356	125
400 x 140	4033.4014	4034.4014	4036.4014	125	710 x 355	4033.7135	4034.7135	4036.7135	125
400 x 160	4033.4016	4034.4016	4036.4016	125	710 x 400	4033.7140	4034.7140	4036.7140	125
400 x 180	4033.4018	4034.4018	4036.4018	125	710 x 450	4033.7145	4034.7145	4036.7145	125
400 x 200	4033.4021	4034.4021	4036.4021	125	710 x 500	4033.7150	4034.7150	4036.7150	125
400 x 225	4033.4022	4034.4022	4036.4022	125	710 x 560	4033.7156	4034.7156	4036.7156	125
400 x 250	4033.4025	4034.4025	4036.4025	125	710 x 630	4033.7163	4034.7163	7036.7163	125
400 x 280	4033.4028	4034.4028	4036.4028	125	800 x 400	4033.8040	4034.8040	4036.8040	125
400 x 315	4033.4031	4034.4031	4036.4031	125	800 x 450	4033.8045	4034.8045	4036.8045	125
400 x 355	4033.4035	4034.4035	4036.4035	125	800 x 500	4033.8050	4034.8050	4036.8050	125
450 x 160	4033.4516	4034.4516	4036.4516	125	800 x 560	4033.8056	4034.8056	4036.8056	125
450 x 180	4033.4518	4034.4518	4036.4518	125	800 x 630	4033.8063	4034.8063	4036.8063	125
450 x 200	4033.4520	4034.4520	4036.4520	125	800 x 710	4033.8071	4034.8071	4036.8071	125
450 x 225	4033.4522	4034.4522	4036.4522	125	900 x 560	4033.9056	4034.9056	4036.9056	125
450 x 250	4033.4525	4034.4525	4036.4525	125	900 x 630	4033.9063	4034.9063	4036.9063	125
450 x 280	4033.4528	4034.4528	4036.4528	125	900 x 710	4033.9071	4034.9071	4036.9071	125
450 x 315	4033.4531	4034.4531	4036.4531	125	900 x 800	4033.9080	4034.9080	4036.9080	125
450 x 355	4033.4535	4034.4535	4036.4535	125	1000 x 500	4033.1050	4034.1050	4036.1050	125
500 x 200	4033.5021	4034.5021	4036.5021	125	1000 x 560	4033.1056	4034.1056	4036.1056	125
500 x 225	4033.5022	4034.5022	4036.5022	125	1000 x 630	4033.1063	4034.1063	4036.1063	125
500 x 250	4033.5026	4034.5026	4036.5026	125	1000 x 710	4033.1071	4034.1071	4036.1071	125
500 x 280	4033.5028	4034.5028	4036.5028	125	1000 x 800	4033.1080	4034.1080	4036.1080	125
500 x 315	4033.5031	4034.5031	4036.5031	125	1000 x 900	4033.1090	4034.1090	4036.1090	125
500 x 355	4033.5035	4034.5035	4036.5035	125					
500 x 400	4033.5041	4034.5041	4036.5041	125					
500 x 450	4033.5045	4034.5045	4036.5045	125					
560 x 250	4033.5625	4034.5625	4036.5625	125					
560 x 280	4033.5628	4034.5628	4036.5628	125					
560 x 315	4033.5631	4034.5631	4036.5631	125					
560 x 355	4033.5635	4034.5635	4036.5635	125					
560 x 400	4033.5640	4034.5640	4036.5640	125					
560 x 450	4033.5645	4034.5645	4036.5645	125					
560 x 500	4033.5650	4034.5650	4036.5650	125					
630 x 250	4033.6325	4034.6325	4036.6325	125					



PRESSURE PIPE

ELECTRO FUSION

BUTT WELD FITTINGS

LONG SPIGOT

BACKING BENDS

SWEEP BENDS

SEGMENTED BENDS

FORGE MOLDED TEES

FORGE SCOUR TEES

MATCHED TEES

FABRICATED TEES & JUNCTIONS

PPE SPOOLS

ACCESSORIES

INTEGRITY TOOLING

HOPE DRAINAGE SYSTEMS

FOG FITS

SENSEVIEW

METRIC COMPRESSION

CLIPPORT & TECHNICAL INFO

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REGULAR
PIPE

ELECTRO
FUSION

BUTT WELD
FITTINGS

LONG
SPIGOT

BLIND
ENDS

SHARP
ENDS

STANDARD
ENDS

FORGE
MOLDED
TEES

FORGE
SOUL
TEES

MACHINED
TEES

HANDCRAFTED
TEES &
JUNCTIONS

PIPE
SPIGOTS

ACCESSORIES

WELDING
TOOLING

HOME
DIY
SYSTEMS

MO-FIT

SEWERVIEW

ARTIFICIAL
COMPRESSION

SUPPORT &
TECHNICAL
INFO

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BUTT WELD ECCENTRIC REDUCER (4044/4046)

PE100 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR9 CODE	SDR11 CODE	SDR17 CODE	L (mm)	SIZE (mm)	SDR9 CODE	SDR11 CODE	SDR17 CODE	L (mm)
63 x 50	4043.6351	4044.6351	4046.6351	100	225 x 110	4043.2211	4044.2211	4046.2211	115
75 x 50	4043.7550	4044.7550	4046.7550	100	225 x 125	4043.2212	4044.2212	4046.2212	115
75 x 63	4043.7563	4044.7563	4046.7563	100	225 x 140	4043.2214	4044.2214	4046.2214	115
90 x 50	4043.9050	4044.9050	4046.9050	100	225 x 160	4043.2216	4044.2216	4046.2216	115
90 x 63	4043.9063	4044.9063	4046.9063	100	225 x 180	4043.2218	4044.2218	4046.2218	115
90 x 75	4043.9075	4044.9075	4046.9075	100	225 x 200	4043.2220	4044.2220	4046.2220	115
110 x 50	4043.1150	4044.1150	4046.1150	100	250 x 90	4043.2590	4044.2590	4046.2590	115
110 x 63	4043.1163	4044.1163	4046.1163	100	250 x 110	4043.2511	4044.2511	4046.2511	115
110 x 75	4043.1175	4044.1175	4046.1175	100	250 x 125	4043.2512	4044.2512	4046.2512	120
110 x 90	4043.1190	4044.1190	4046.1190	100	250 x 140	4043.2514	4044.2514	4046.2514	120
125 x 63	4043.1263	4044.1263	4046.1263	100	250 x 160	4043.2516	4044.2516	4046.2516	120
125 x 75	4043.1275	4044.1275	4046.1275	100	250 x 180	4043.2518	4044.2518	4046.2518	120
125 x 90	4043.1290	4044.1290	4046.1290	100	250 x 200	4043.2520	4044.2520	4046.2520	120
125 x 110	4043.1211	4044.1211	4046.1211	100	250 x 225	4043.2522	4044.2522	4046.2522	120
140 x 63	4043.1463	4044.1463	4046.1463	100	280 x 90	4043.2890	4044.2890	4046.2890	120
140 x 75	4043.1475	4044.1475	4046.1475	100	280 x 110	4043.2811	4044.2811	4049.2811	120
140 x 90	4043.1490	4044.1490	4046.1490	100	280 x 125	4043.2812	4044.2812	4046.2812	120
140 x 110	4043.1410	4044.1410	4049.1411	100	280 x 140	4043.2814	4044.2814	4046.2814	120
140 x 125	4043.1412	4044.1412	4046.1412	100	280 x 160	4043.2816	4044.2816	4046.2816	120
160 x 63	4043.1663	4044.1663	4046.1663	110	280 x 180	4043.2818	4044.2818	4046.2818	120
160 x 75	4043.1675	4044.1675	4046.1675	110	280 x 200	4043.2820	4044.2820	4046.2820	120
160 x 90	4043.1690	4044.1690	4046.1690	110	280 x 225	4043.2822	4044.2822	4046.2822	120
160 x 110	4043.1611	4044.1611	4046.1611	110	280 x 250	4043.2825	4044.2825	4046.2825	120
160 x 125	4043.1612	4044.1612	4046.1612	110	315 x 90	4043.3190	4044.3190	4046.3190	120
160 x 140	4043.1614	4044.1614	4046.1614	110	315 x 110	4043.3111	4044.3111	4046.3111	120
180 x 63	4043.1863	4044.1863	4046.1863	110	315 x 125	4043.3112	4044.3112	4046.3112	120
180 x 75	4043.1875	4044.1875	4046.1875	110	315 x 140	4043.3114	4044.3114	4046.3114	120
180 x 90	4043.1890	4044.1890	4046.1890	110	315 x 160	4043.3116	4044.3116	4046.3116	120
180 x 110	4043.1811	4044.1811	4046.1811	110	315 x 180	4043.3118	4044.3118	4046.3118	120
180 x 125	4043.1812	4044.1812	4046.1812	110	315 x 200	4043.3120	4044.3120	4046.3120	120
180 x 160	4043.1816	4044.1816	4046.1816	110	315 x 225	4043.3122	4044.3122	4046.3122	120
200 x 63	4043.2063	4044.2063	4046.2063	115	315 x 250	4043.3125	4044.3125	4046.3125	120
200 x 75	4043.2075	4044.2075	4046.2075	115	315 x 280	4043.3128	4044.3128	4046.3128	120
200 x 90	4043.2090	4044.2090	4046.2090	115	355 x 90	4043.3590	4044.3590	4046.3590	125
200 x 110	4043.2011	4044.2011	4046.2011	115	355 x 110	4043.3511	4044.3511	4046.3511	125
200 x 125	4043.2012	4044.2012	4046.2012	115	355 x 125	4043.3512	4044.3512	4046.3512	125
200 x 140	4043.2014	4044.2014	4046.2014	115	355 x 140	4043.3514	4044.3514	4046.3514	125
200 x 160	4043.2016	4044.2016	4046.2016	115	355 x 160	4043.3516	4044.3516	4046.3516	125
200 x 180	4043.2018	4044.2018	4046.2018	115	355 x 180	4043.3518	4044.3518	4046.3518	125
225 x 90	4043.2290	4044.2290	4046.2290	115	355 x 200	4043.3520	4044.3520	4046.3520	125

BUTT WELD ECCENTRIC REDUCER (4044/4046)

PE100 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR9 CODE	SDR11 CODE	SDR17 CODE	L (mm)	SIZE (mm)	SDR9 CODE	SDR11 CODE	SDR17 CODE	L (mm)
355 x 225	4043.3522	4044.3522	4046.3522	125	630 x 280	4043.6328	4044.6328	4046.6328	145
355 x 250	4043.3525	4044.3525	4046.3525	125	630 x 315	4043.6331	4044.6331	4046.6331	145
355 x 280	4043.3528	4044.3528	4046.3528	125	630 x 355	4043.6335	4044.6335	4046.6335	145
355 x 315	4043.3531	4044.3531	4046.3531	125	630 x 400	4043.6340	4044.6340	4046.6340	145
400 x 90	4043.4090	4044.4090	4046.4090	130	630 x 450	4043.6345	4044.6345	4046.6345	145
400 x 110	4043.4011	4044.4011	4046.4011	130	630 x 500	4043.6350	4044.6350	4046.6350	145
400 x 125	4043.4012	4044.4012	4046.4012	130	630 x 560	4043.6356	4044.6356	4046.6356	145
400 x 140	4043.4014	4044.4014	4046.4014	130	710 x 355	4043.7135	4044.7135	4046.7135	145
400 x 160	4043.4016	4044.4016	4046.4016	130	710 x 400	4043.7140	4044.7140	4046.7140	145
400 x 180	4043.4018	4044.4018	4046.4018	130	710 x 450	4043.7145	4044.7145	4046.7145	145
400 x 200	4043.4020	4044.4020	4046.4020	130	710 x 500	4043.7150	4044.7150	4046.7150	145
400 x 225	4043.4022	4044.4022	4046.4022	130	710 x 560	4043.7156	4044.7156	4046.7156	145
400 x 250	4043.4025	4044.4025	4046.4025	130	710 x 630	4043.7163	4044.7163	4046.7163	145
400 x 280	4043.4028	4044.4028	4046.4028	130	800 x 400	4043.8040	4044.8040	4046.8040	145
400 x 315	4043.4031	4044.4031	4046.4031	130	800 x 450	4043.8045	4044.8045	4046.8045	145
400 x 355	4043.4035	4044.4035	4046.4035	130	800 x 500	4043.8050	4044.8050	4046.8050	145
450 x 160	4043.4516	4044.4516	4046.4516	135	800 x 560	4043.8056	4044.8056	4046.8056	145
450 x 180	4043.4518	4044.4518	4046.4518	135	800 x 630	4043.8063	4044.8063	4046.8063	145
450 x 200	4043.4520	4044.4520	4046.4520	135	800 x 710	4043.8071	4044.8071	4046.8071	145
450 x 225	4043.4522	4044.4522	4046.4522	135	900 x 560	4043.9056	4044.9056	4046.9056	125
450 x 250	4043.4525	4044.4525	4046.4525	135	900 x 630	4043.9063	4044.9063	4046.9063	125
450 x 280	4043.4528	4044.4528	4046.4528	135	900 x 710	4043.9071	4044.9071	4046.9071	125
450 x 315	4043.4531	4044.4531	4046.4531	135	900 x 800	4043.9080	4044.9080	4046.9080	125
450 x 355	4043.4535	4044.4535	4046.4535	135	1000 x 500	4043.1050	4044.1050	4046.1050	145
500 x 200	4043.5020	4044.5020	4046.5020	145	1000 x 560	4043.1056	4044.1056	4046.1056	145
500 x 225	4043.5022	4044.5022	4046.5022	145	1000 x 630	4043.1063	4044.1063	4046.1063	145
500 x 250	4043.5025	4044.5025	4046.5025	145	1000 x 710	4043.1071	4044.1071	4046.4071	145
500 x 280	4043.5028	4044.5028	4046.5028	145	1000 x 800	4043.1080	4044.1080	4046.1080	145
500 x 315	4043.5031	4044.5031	4046.5031	145	1000 x 900	4043.1090	4044.1090	4046.1090	145
500 x 355	4043.5035	4044.5035	4046.5035	145					
500 x 400	4043.5040	4044.5040	4046.5040	145					
500 x 450	4043.5045	4044.5045	4046.5045	145					
560 x 250	4043.5625	4044.5625	4046.5625	145					
560 x 280	4043.5628	4044.5628	4046.5628	145					
560 x 315	4043.5631	4044.5631	4046.5631	145					
560 x 355	4043.5635	4044.5635	4046.5635	145					
560 x 400	4043.5640	4044.5640	4046.5640	145					
560 x 450	4043.5645	4044.5645	4046.5645	145					
560 x 500	4043.5650	4044.5650	4046.5650	145					
630 x 250	4043.6325	4044.6325	4046.6325	145					



PRESSURE PIPE

ELECTRO FUSION

BUTT WELD FITTINGS

LONG SPIGOT

BACKING BENDS

SWEEP BENDS

SEGMENTED BENDS

FORCE MOLDED TEES

FORCE SCOUR TEES

MATCHED TEES

FABRICATED TEES & JUNCTIONS

PPE SPOOLS

ACCESSORIES

INTEGRITY TOOLING

HOSE DRAINAGE SYSTEMS

FOG FITS

SOFTVIEW

METRIC COMPRESSION

SUPPORT & TECHNICAL INFO

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REGULAR
PIPE

ELECTRO
FUSION

BUTT WELD
FITTINGS

LONG
SPROUT

BLIND
ENDS

SHARP
ENDS

STANDARD
ENDS

FORGE
MOULDED
TEES

FORGE
SOUL
TEES

MATCHED
TEES

HANDCRAFTED
TEES &
JUNCTIONS

PIPE
SPIGOLS

ACCESSORIES

UTILITY
TOOLING

HOME
DIY
SYSTEMS

HOOPS

SEWER
VIEW

ARTIFICIAL
COMPRESSION

SUPPORT &
TECHNICAL
INFO

BUTT WELD END CAP (4273 / 4274 / 4276)

PE100 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR9 CODE	SDR11 CODE	SDR17 CODE	L (mm)
20	4273.0020	4274.0020	4276.0020	100
25	4273.0025	4274.0025	4276.0025	100
32	4273.0032	4274.0032	4276.0032	100
40	4273.0040	4274.0040	4276.0040	100
50	4273.0050	4274.0050	4276.0050	100
63	4273.0063	4274.0063	4276.0063	100
75	4273.0075	4274.0075	4276.0075	100
90	4273.0090	4274.0090	4276.0090	100
110	4273.0110	4274.0110	4276.0110	100
125	4273.0125	4274.0125	4276.0125	100
140	4273.0140	4274.0140	4276.0140	100
160	4273.0160	4274.0160	4276.0160	100
180	4273.0180	4274.0180	4276.0180	100
200	4273.0200	4274.0200	4276.0200	100
225	4273.0225	4274.0225	4276.0225	100
250	4273.0250	4274.0250	4276.0250	100
280	4273.0280	4274.0280	4276.0280	100
315	4273.0315	4274.0315	4276.0315	100
355	4273.0355	4274.0355	4276.0355	140
400	4273.0400	4274.0400	4276.0400	140
450	4273.0450	4274.0450	4276.0450	140
560	4273.0560	4274.0560	4276.0560	140
630	4273.0630	4274.0630	4276.0630	140
710	4273.0710	4274.0710	4276.0710	140
800	4273.0800	4274.0800	4276.0800	140
900	4273.0900	4274.0900	4276.0900	140
1000	4273.1000	4274.1000	4276.1000	140



- REGULAR PIPE
- ELECTRO FUSION
- JOINT WELD FITTINGS
- LONG SPOUT
- SLICING BENDS
- SWEEP BENDS**
- STANDARD BENDS
- FORGE MOUNDED TEES
- FORGE SQUARE TEES
- MACHINED TEES
- HANDCRAFTED TEES & JUNCTIONS
- PIPE SPOOLS
- ACCESSORIES
- WELDING TOOLING
- PIPE ORDNANCE SYSTEMS
- MOO FITS
- SEWERVIEW
- ARTIFICIAL COMPRESSION
- SUPPORT & TECHNICAL INFO

11° SWEEP BENDS (6802 / 6803 / 6804 / 6806)

PE100 | SDR7.4 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR7.4 CODE	SDR9 CODE	SDR11 CODE	SDR17 CODE	A (mm)	B (mm)	R (mm)
20	6802.0020	6803.0020	6804.0020	6806.0020	130	100	100
25	6802.0025	6803.0025	6804.0025	6806.0025	130	100	100
32	6802.0032	6803.0032	6804.0032	6806.0032	134	100	128
40	6802.0040	6803.0040	6804.0040	6806.0040	140	100	160
50	6802.0050	6803.0050	6804.0050	6806.0050	146	100	175
63	6802.0063	6803.0063	6804.0063	6806.0063	160	100	225
75	6802.0075	6803.0075	6804.0075	6806.0075	230	150	305
90	6802.0090	6803.0090	6804.0090	6806.0090	230	150	305
110	6802.0110	6803.0110	6804.0110	6806.0110	280	180	380
125	6802.0125	6803.0125	6804.0125	6806.0125	280	180	380
140	6802.0140	6803.0140	6804.0140	6806.0140	320	200	460
160	6802.0160	6803.0160	6804.0160	6806.0160	320	200	460
180	6802.0180	6803.0180	6804.0180	6806.0180	360	225	518
200	6802.0200	6803.0200	6804.0200	6806.0200	320	250	535
225	6802.0225	6803.0225	6804.0225	6806.0225	400	250	535
250	6802.0250	6803.0250	6804.0250	6806.0250	460	300	615
280	6802.0280	6803.0280	6804.0280	6806.0280	510	350	615
315	6802.0315	6803.0315	6804.0315	6806.0315	605	400	715
355	6802.0355	6803.0355	6804.0355	6806.0355	710	500	780
400	6802.0400	6803.0400	6804.0400	6806.0400	830	550	1070
450	6802.0450	6803.0450	6804.0450	6806.0450	840	550	1100
500	6802.0500	6803.0500	6804.0500	6806.0500	1030	700	1250
560	6802.0560	6803.0560	6804.0560	6806.0560	1040	700	1282
630	6802.0630	6803.0630	6804.0630	6806.0630	1050	700	1315
710	6802.0710	6803.0710	6804.0710	6806.0710	1310	900	1562
800	6802.0800	6803.0800	6804.0800	6806.0800	1360	900	1760
900	6802.0900	6803.0900	6804.0900	6806.0900	1460	950	2000
1000	6802.1000	6803.1000	6804.1000	6806.1000	1550	1000	2100

Note: Bends of any required angle can be made to order.



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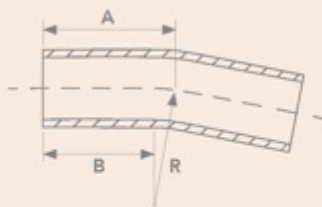
INNOVATIVE PIPING SYSTEMS | P: +61 2 9684 9999 | F: +61 2 9898 9498 | E: sales@adroitpiping.com.au | W: www.adroitpiping.com.au

15° SWEEP BENDS (6812 / 6813 / 6814 / 6816)

PE100 | SDR7.4 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR7.4 CODE	SDR9 CODE	SDR11 CODE	SDR17 CODE	A (mm)	B (mm)	R (mm)
20	6812.0020	6813.0020	6814.0020	6816.0020	130	100	100
25	6812.0025	6813.0025	6814.0025	6816.0025	130	100	100
32	6812.0032	6813.0032	6814.0032	6816.0032	134	100	128
40	6812.0040	6813.0040	6814.0040	6816.0040	140	100	160
50	6812.0050	6813.0050	6814.0050	6816.0050	146	100	175
63	6812.0063	6813.0063	6814.0063	6816.0063	160	100	225
75	6812.0075	6813.0075	6814.0075	6816.0075	230	150	305
90	6812.0090	6813.0090	6814.0090	6816.0090	230	150	305
110	6812.0100	6813.0110	6814.0110	6816.0110	280	180	380
125	6812.0125	6813.0125	6814.0125	6816.0125	280	180	380
140	6812.0140	6813.0140	6814.0140	6816.0140	320	200	460
160	6812.0160	6813.0160	6814.0160	6816.0160	320	200	460
180	6812.0180	6813.0180	6814.0180	6816.0180	360	225	518
200	6812.0200	6813.0200	6814.0200	6816.0200	320	250	535
225	6812.0225	6813.0225	6814.0225	6816.0225	400	250	535
250	6812.0250	6813.0250	6814.0250	6816.0250	460	300	615
280	6812.0280	6813.0280	6814.0280	6816.0280	510	350	615
315	6812.0315	6813.0315	6814.0315	6816.0315	605	400	715
355	6812.0355	6813.0355	6814.0355	6816.0355	710	500	780
400	6812.0400	6813.0400	6814.0400	6816.0400	830	550	1070
450	6812.0450	6813.0450	6814.0450	6816.0450	840	550	1100
500	6812.0500	6813.0500	6814.0500	6816.0500	1030	700	1250
560	6812.0560	6813.0560	6814.0560	6816.0560	1040	700	1282
630	6812.0630	6813.0630	6814.0630	6816.0630	1050	700	1315
710	6812.0710	6813.0710	6814.0710	6816.0710	1310	900	1562
800	6812.0800	6813.0800	6814.0800	6816.0800	1360	900	1760
900	6812.0900	6813.0900	6814.0900	6816.0900	1460	950	2000
1000	6812.1000	6813.1000	6814.1000	6816.1000	1550	1000	2100

Note: Bends of any required angle can be made to order.



- PRESSURE PIPE
- ELECTRO FUSION
- BUTT WELD FITTINGS
- LONG SHOOTS
- BACKING BENDS
- SWEEP BENDS**
- SEGMENTED BENDS
- FORGE MOLDED TEES
- FORGE SCOUR TEES
- MATCHED TEES
- FABRICATED TEES & JUNCTIONS
- PIPE SPOOLS
- ACCESSORIES
- INTEGRITY TOOLING
- HOPE DRAINAGE SYSTEMS
- FOG FITS
- SHOWERVIEW
- METRIC COMPRESSION
- SUPPORT & TECHNICAL INFO

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- REGULAR PIPE
- ELECTRO FUSION
- JOINT WELD FITTINGS
- LONG SPOUT
- SLACING BENDS
- SWEEP BENDS**
- STANDARD BENDS
- FORME MOULDED TEES
- FORME SQUARE TEES
- MATCHED TEES
- HANDED TEES & JUNCTIONS
- PIPE SPOOLS
- ACCESSORIES
- UTILITY TOOLING
- HOME DRAINAGE SYSTEMS
- MOO FITS
- SEWERVIEW
- ARTIFIC COMPRESSION
- SUPPORT & TECHNICAL INFO

22° SWEEP BENDS (6792 / 6793 / 6794 / 6796)

PE100 | SDR7.4 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR7.5 CODE	SDR9 CODE	SDR11 CODE	SDR17 CODE	A (mm)	B (mm)	R (mm)
20	6792.0020	6793.0020	6794.0020	6796.0020	130	100	100
25	6792.0025	6793.0025	6794.0025	6796.0025	130	100	100
32	6792.0032	6793.0032	6794.0032	6796.0032	134	100	128
40	6792.0040	6793.0040	6794.0040	6796.0040	140	100	160
50	6792.0050	6793.0050	6794.0050	6796.0050	146	100	175
63	6792.0063	6793.0063	6794.0063	6796.0063	160	100	225
75	6792.0075	6793.0075	6794.0075	6796.0075	230	150	305
90	6792.0090	6793.0090	6794.0090	6796.0090	230	150	305
110	6792.0110	6793.0110	6794.0110	6796.0110	280	180	380
125	6792.0125	6793.0125	6794.0125	6796.0125	280	180	380
140	6792.0140	6793.0140	6794.0140	6796.0140	320	200	460
160	6792.0160	6793.0160	6794.0160	6796.0160	320	200	460
180	6792.0180	6793.0180	6794.0180	6796.0180	360	225	518
200	6792.0200	6793.0200	6794.0200	6796.0200	320	250	535
225	6792.0225	6793.0225	6794.0225	6796.0225	400	250	535
250	6792.0250	6793.0250	6794.0250	6796.0250	460	300	615
280	6792.0280	6793.0280	6794.0280	6796.0280	510	350	615
315	6792.0315	6793.0315	6794.0315	6796.0315	605	400	715
355	6792.0355	6793.0355	6794.0355	6796.0355	710	500	780
400	6792.0400	6793.0400	6794.0400	6796.0400	830	550	1070
450	6792.0450	6793.0450	6794.0450	6796.0450	840	550	1100
500	6792.0500	6793.0500	6794.0500	6796.0500	1030	700	1250
560	6792.0560	6793.0560	6794.0560	6796.0560	1040	700	1282
630	6792.0630	6793.0630	6794.0630	6796.0630	1050	700	1315
710	6792.0710	6793.0710	6794.0710	6796.0710	1310	900	1562
800	6792.0800	6793.0800	6794.0800	6796.0800	1360	900	1760
900	6792.0900	6793.0900	6794.0900	6796.0900	1460	950	2000
1000	6792.1000	6793.1000	6794.1000	6796.1000	1550	1000	2100

Note: Bends of any required angle can be made to order.

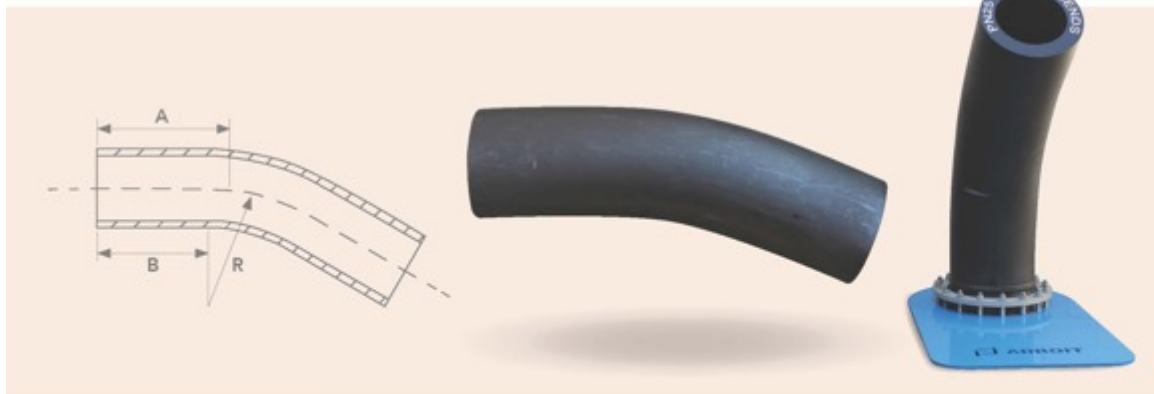


30° SWEEP BENDS (6782 / 6783 / 6784 / 6786)

PE100 | SDR7.4 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR7.5 CODE	SDR9 CODE	SDR11 CODE	SDR17 CODE	A (mm)	B (mm)	R (mm)
20	6782.0020	6783.0020	6784.0020	6786.0020	130	100	100
25	6782.0025	6783.0025	6784.0025	6786.0025	130	100	100
32	6782.0032	6783.0032	6784.0032	6786.0032	134	100	128
40	6782.0040	6783.0040	6784.0040	6786.0040	140	100	160
50	6782.0050	6783.0050	6784.0050	6786.0050	146	100	175
63	6782.0063	6783.0063	6784.0063	6786.0063	160	100	225
75	6782.0075	6783.0075	6784.0075	6786.0075	230	150	305
90	6782.0090	6783.0090	6784.0090	6786.0090	230	150	305
110	6782.0110	6783.0110	6784.0110	6786.0110	280	180	380
125	6782.0125	6783.0125	6784.0125	6786.0125	280	180	380
140	6782.0140	6783.0140	6784.0140	6786.0140	320	200	460
160	6782.0160	6783.0160	6784.0160	6786.0160	320	200	460
180	6782.0180	6783.0180	6784.0180	6786.0180	360	225	518
200	6782.0200	6783.0200	6784.0200	6786.0200	320	250	535
225	6782.0225	6783.0225	6784.0225	6786.0225	400	250	535
250	6782.0250	6783.0250	6784.0250	6786.0250	460	300	615
280	6782.0280	6783.0280	6784.0280	6786.0280	510	350	615
315	6782.0315	6783.0315	6784.0315	6786.0315	605	400	715
355	6782.0355	6783.0355	6784.0355	6786.0355	710	500	780
400	6782.0400	6783.0400	6784.0400	6786.0400	830	550	1070
450	6782.0450	6783.0450	6784.0450	6786.0450	840	550	1100
500	6782.0500	6783.0500	6784.0500	6786.0500	1030	700	1250
560	6782.0560	6783.0560	6784.0560	6786.0560	1040	700	1282
630	6782.0630	6783.0630	6784.0630	6786.0630	1050	700	1315
710	6782.0710	6783.0710	6784.0710	6786.0710	1310	900	1562
800	6782.0800	6783.0800	6784.0800	6786.0800	1360	900	1760
900	6782.0900	6783.0900	6784.0900	6786.0900	1460	950	2000
1000	6782.1000	6783.1000	6784.1000	6786.1000	1550	1000	2100

Note: Bends of any required angle can be made to order.



- PRESSURE PIPE
- ELECTRO FUSION
- BUTT WELD FITTINGS
- LONG SPIGOT
- BACKING BENDS
- SWEEP BENDS**
- SEGMENTED BENDS
- FORGE MOLDED TEES
- FORGE SCOUR TEES
- MATCHED TEES
- FABRICATED TEES & JUNCTIONS
- PIPE SPOOLS
- ACCESSORIES
- INTEGRITY TOOLING
- HOPE DRAINAGE SYSTEMS
- FOG FITS
- SEWERVIEW
- METRIC COMPRESSION
- SUPPORT & TECHNICAL INFO



- REGULAR PIPE
- ELECTRO FUSION
- HIGH DENSITY POLYETHYLENE
- LONG SPIGOT
- SLIP ON BENDS
- SWEEP BENDS**
- STANDARD BENDS
- FORGE MOULDED TEES
- FORGE SOUL TEES
- MACHINED TEES
- HANDCRAFTED TEES & JUNCTIONS
- PIPE SPOOLS
- ACCESSORIES
- WELDING TOOLS
- PIPE ORANGE SYSTEMS
- MO-FITS
- SEWERVIEW
- ARTIFICIAL COMPRESSION
- SUPPORT & TECHNICAL INFO

45° SWEEP BENDS (6772 / 6773 / 6774 / 6776)

PE100 | SDR7.4 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR7.4 CODE	SDR9 CODE	SDR11 CODE	SDR17 CODE	A (mm)	B (mm)	R (mm)
20	6772.0020	6773.0020	6774.0020	6776.0020	140	100	100
25	6772.0025	6773.0025	6774.0025	6776.0025	140	100	100
32	6772.0032	6773.0032	6774.0032	6776.0032	150	100	128
40	6772.0040	6773.0040	6774.0040	6776.0040	165	100	160
50	6772.0050	6773.0050	6774.0050	6776.0050	170	100	175
63	6772.0063	6773.0063	6774.0063	6776.0063	190	100	225
75	6772.0075	6773.0075	6774.0075	6776.0075	270	150	305
90	6772.0090	6773.0090	6774.0090	6776.0090	270	150	305
110	6772.0110	6773.0110	6774.0110	6776.0110	340	180	380
125	6772.0125	6773.0125	6774.0125	6776.0125	340	180	380
140	6772.0140	6773.0140	6774.0140	6776.0140	390	200	460
160	6772.0160	6773.0160	6774.0160	6776.0160	390	200	460
180	6772.0180	6773.0180	6774.0180	6776.0180	440	225	518
200	6772.0200	6773.0200	6774.0200	6776.0200	470	250	535
225	6772.0225	6773.0225	6774.0225	6776.0225	470	250	535
250	6772.0250	6773.0250	6774.0250	6776.0250	550	300	615
280	6772.0280	6773.0280	6774.0280	6776.0280	605	350	615
315	6772.0315	6773.0315	6774.0315	6776.0315	695	400	715
355	6772.0355	6773.0355	6774.0355	6776.0355	820	500	780
400	6772.0400	6773.0400	6774.0400	6776.0400	990	550	1070
450	6772.0450	6773.0450	6774.0450	6776.0450	1005	550	1100
500	6772.0500	6773.0500	6774.0500	6776.0500	1215	700	1250
560	6772.0560	6773.0560	6774.0560	6776.0560	1230	700	1282
630	6772.0630	6773.0630	6774.0630	6776.0630	1245	700	1315
710	6772.0710	6773.0710	6774.0710	6776.0710	1550	900	1562
800	6772.0800	6773.0800	6774.0800	6776.0800	1630	900	1760
900	6772.0900	6773.0900	6774.0900	6776.0900	1460	950	2000
1000	6772.1000	6773.1000	6774.1000	6776.1000	1870	1000	2100

Note: Bends of any required angle can be made to order.



60° SWEEP BENDS (6762 / 6763 / 6764 / 6766)

PE100 | SDR7.4 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR7.4 CODE	SDR9 CODE	SDR11 CODE	SDR17 CODE	A (mm)	B (mm)	R (mm)
20	6762.0020	6763.0020	6764.0020	6766.0020	155	100	100
25	6762.0025	6763.0025	6764.0025	6766.0025	155	100	100
32	6762.0032	6763.0032	6764.0032	6766.0032	170	100	128
40	6762.0040	6763.0040	6764.0040	6766.0040	190	100	160
50	6762.0050	6763.0050	6764.0050	6766.0050	200	100	175
63	6762.0063	6763.0063	6764.0063	6766.0063	230	100	225
75	6762.0075	6763.0075	6764.0075	6766.0075	320	150	305
90	6762.0090	6763.0090	6764.0090	6766.0090	320	150	305
110	6762.0110	6763.0110	6764.0110	6766.0110	400	180	380
125	6762.0125	6763.0125	6764.0125	6766.0125	400	180	380
140	6762.0140	6763.0140	6764.0140	6766.0140	465	200	460
160	6762.0160	6763.0160	6764.0160	6766.0160	465	200	460
180	6762.0180	6763.0180	6764.0180	6766.0180	523	225	98
200	6762.0200	6763.0200	6764.0200	6766.0200	560	250	535
225	6762.0225	6763.0225	6764.0225	6766.0225	560	250	535
250	6762.0250	6763.0250	6764.0250	6766.0250	655	300	615
280	6762.0280	6763.0280	6764.0280	6766.0280	705	350	615
315	6762.0315	6763.0315	6764.0315	6766.0315	810	400	715
355	6762.0355	6763.0355	6764.0355	6766.0355	950	500	780
400	6762.0400	6763.0400	6764.0400	6766.0400	1160	550	1070
450	6762.0450	6763.0450	6764.0450	6766.0450	1885	550	110
500	6762.0500	6763.0500	6764.0500	6766.0500	1420	700	1250
560	6762.0560	6763.0560	6764.0560	6766.0560	1440	700	1282
630	6762.0630	6763.0630	6764.0630	6766.0630	1460	700	1315
710	6762.0710	6763.0710	6764.0710	6766.0710	1800	900	1562
800	6762.0800	6763.0800	6764.0800	6766.0800	1920	900	1760
900	6762.0900	6763.0900	6764.0900	6766.0900	1460	950	2000
1000	6762.1000	6763.1000	6764.1000	6766.1000	2210	1000	2100

Note: Bends of any required angle can be made to order.



PRESSURE PIPE
 ELECTRO FUSION
 BUTT WELD FITTINGS
 LONG SPOUT
 BACKING BENDS
SWEEP BENDS
 SEGMENTED BENDS
 FORGE MOLDED TEES
 FORGE SCOUR TEES
 MACHINED TEES
 FABRICATED TEES & JUNCTIONS
 PIPE SPOOLS
 ACCESSORIES
 INTEGRITY TOOLING
 HOPE DRAINAGE SYSTEMS
 FOOT FITS
 SENSORS
 METRIC COMPRESSION
 SUPPORT & TECHNICAL INFO

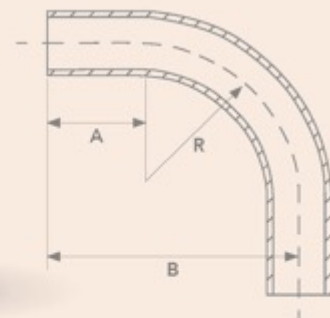
- REGULAR PIPE
- ELECTRO FUSION
- JOINT WELD FITTINGS
- LONG SPOUT
- SLICING BENDS
- SWEEP BENDS**
- STANDARDISED BENDS
- FORGE Moulded TEES
- FORGE SOUL TEES
- MACHINED TEES
- HANDED TEES & JUNCTIONS
- PIPE SPOOLS
- ACCESSORIES
- UTILITY TOOLING
- HOME DRAINAGE SYSTEMS
- MO-FITS
- SEWERVIEW
- ARTIFICIAL COMPRESSION
- SUPPORT & TECHNICAL INFO

90° SWEEP BENDS (6752 / 6753)

PE100 | SDR7.4 | SDR9 | SDR11 | SDR17

SIZE (mm)	SDR7.4 CODE	SDR9 CODE	SDR11 CODE	SDR17 CODE	A (mm)	B (mm)	R (mm)
20	6752.0020	6753.0020	6754.0020	6756.0020	200	100	100
25	6752.0025	6753.0025	6754.0025	6756.0025	200	100	100
32	6752.0032	6753.0032	6754.0032	6756.0032	228	100	128
40	6752.0040	6753.0040	6754.0040	6756.0040	260	100	160
50	6752.0050	6753.0050	6754.0050	6756.0050	275	100	175
63	6752.0063	6753.0063	6754.0063	6756.0063	325	100	225
75	6752.0075	6753.0075	6754.0075	6756.0075	455	150	305
90	6752.0090	6753.0090	6754.0090	6756.0090	455	150	305
110	6752.0110	6753.0110	6754.0110	6756.0110	560	180	380
125	6752.0125	6753.0125	6754.0125	6756.0125	560	180	380
140	6752.0140	6753.0140	6754.0140	6756.0140	660	200	460
160	6752.0160	6753.0160	6754.0160	6756.0160	660	200	460
180	6752.0180	6753.0180	6754.0180	6756.0180	743	225	518
200	6752.0200	6753.0200	6754.0200	6756.0200	785	250	535
225	6752.0225	6753.0225	6754.0225	6756.0225	785	250	535
250	6752.0250	6753.0250	6754.0250	6756.0250	915	300	615
280	6752.0280	6753.0280	6754.0280	6756.0280	965	350	615
315	6752.0315	6753.0315	6754.0315	6756.0315	1115	400	715
355	6752.0355	6753.0355	6754.0355	6756.0355	1280	500	780
400	6752.0400	6753.0400	6754.0400	6756.0400	1620	550	1070
450	6752.0450	6753.0450	6754.0450	6756.0450	1650	550	1100
500	6752.0500	6753.0500	6754.0500	6756.0500	1950	700	1250
560	6752.0560	6753.0560	6754.0560	6756.0560	1982	700	1282
630	6752.0630	6753.0630	6754.0630	6756.0630	2015	700	1315
710	6752.0710	6753.0710	6754.0710	6756.0710	2462	900	1562
800	6752.0800	6753.0800	6754.0800	6756.0800	2660	900	1760
900	6752.0900	6753.0900	6754.0900	6756.0900	1460	950	2000
1000	6752.1000	6753.1000	6754.1000	6756.1000	3100	1000	2100

Note: Bends of any required angle can be made to order.

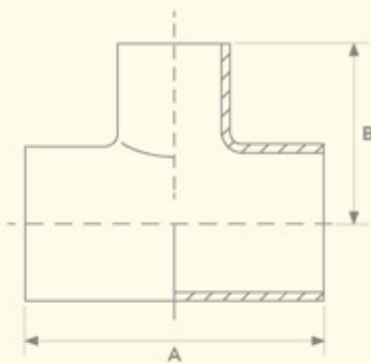


- REGULAR PIPE
- ELECTRO FUSION
- HIGH END FITTINGS
- LONG SPOOL
- MAJOR BENDS
- SHARP BENDS
- STANDARD BENDS
- FORGE MOULDED TEES**
- FORGE SOLE TEE
- MATCHED TEES
- HANDMADE TEES & JUNCTIONS
- PIPE SPOOLS
- ACCESSORIES
- UTILITY TOOLING
- PIPE ORANGE SYSTEMS
- MO-FITS
- SEAMLESS
- ARTIFICIAL COMPRESSION
- SUPPORT & TECHNICAL INFO

FORGE MOULDED REDUCING TEE - STANDARD RANGE

PE100 | SDR11 | SDR17

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA	ODB	A	B
6163.2090	6164.2090	6166.2090	200	90	600	55
6163.2011	6164.2011	6166.2011	200	110	600	550
6163.2290	6164.2290	6166.2290	225	90	600	550
6163.2590	6164.2590	6166.2590	250	90	600	650
6163.2511	6164.2511	6166.2511	250	110	600	650
6163.2516	6164.2516	6166.2516	250	160	600	650
6163.2890	6164.2890	6166.2890	280	90	600	650
6163.2810	6164.2810	6166.2810	280	110	600	650
6163.2816	6164.2816	6166.2816	280	160	600	650
6163.2820	6164.2820	6166.2820	280	200	600	650
6163.3190	6164.3190	6166.3190	315	90	600	700
6163.3111	6164.3111	6166.3111	315	110	600	700



Note: A and B must be designated

Note: The pressure rating of the standard range of forge moulded reducing tees is not equivalent to the rating of the pipe. De-rating factors are available upon request.



FORGE MOULDED REDUCING TEE - STANDARD RANGE

PE100 | SDR11 | SDR17

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA	ODB	A	B
6163.3116	6164.3116	6166.3116	315	160	650	700
6163.3120	6164.3120	6166.3120	315	200	650	700
6163.3590	6164.3590	6166.3590	355	90	650	700
6163.3511	6164.3511	6166.3511	355	110	650	700
6163.3516	6164.3516	6166.3516	355	160	650	700
6163.3520	6164.3520	6166.3520	355	200	700	700
6163.3522	6164.3522	6166.3522	355	225	700	700
6163.3525	6164.3525	6166.3525	355	250	700	700
6163.4090	6164.4090	6166.4090	400	90	800	750
6163.4011	6164.4011	6166.4011	400	110	800	750
6163.4016	6164.4016	6166.4016	400	160	800	750
6163.4020	6164.4020	6166.4020	400	200	900	750
6163.4022	6164.4022	6166.4022	400	225	900	750
6163.4025	6164.4025	6166.4025	400	250	900	750
6163.4028	6164.4028	6166.4028	400	280	900	750
6163.4590	6164.4590	6166.4590	450	90	900	750
6163.4511	6164.4511	6166.4511	450	110	900	750
6163.4516	6164.4516	6166.4516	450	160	900	750
6163.4520	6164.4520	6166.4520	450	200	1000	750
6163.4522	6164.4522	6166.4522	450	225	1000	750
6163.4525	6164.4525	6166.4525	450	250	1000	800
6163.4528	6164.4528	6166.4528	450	280	1000	800
6163.4531	6164.4531	6166.4531	450	315	1000	800
6163.5016	6164.5016	6166.5016	500	160	1000	800
6163.5020	6164.5020	6166.5020	500	200	1000	800
6163.5022	6164.5022	6166.5022	500	225	1000	800
6163.5025	6164.5025	6166.5025	500	250	1000	900
6163.5028	6164.5028	6166.5028	500	280	1000	900
6163.5031	6164.5031	6166.5031	500	315	1000	900
6163.5035	6164.5035	6166.5035	500	355	1000	900
6163.5620	6164.5620	6166.5620	560	200	1000	900
6163.5622	6164.5622	6166.5622	560	225	1000	900
6163.5625	6164.5625	6166.5625	560	250	1000	900
6163.5628	6164.5628	6166.5628	560	280	1000	1200
6163.5631	6164.5631	6166.5631	560	315	1000	1200
6163.5635	6164.5635	6166.5635	560	355	1000	1200
6163.6320	6164.6320	6166.6320	630	200	1000	1200
6163.6322	6164.6322	6166.6322	630	225	1000	1200
6163.6325	6164.6325	6166.6325	630	250	1000	1200
6163.6328	6164.6328	6166.6328	630	280	1000	1200

- FORGE MOULDED REDUCING TEES
- FORGE MOULDED SCOUR TEES
- MATCHED TEES
- FABRICATED TEES & JUNCTIONS
- PPE SPOOLS
- ACCESSORIES
- INTEGRITY TOOLING
- HOSE DRAINAGE SYSTEMS
- FOG FITS
- SHOWER
- METRIC COMPRESSION
- SUPPORT & TECHNICAL INFO
- PRESSURE PIPE
- ELECTRO FUSION
- BUTT WELD FITTINGS
- LONG SPOUT
- BACKING BENDS
- SWEEP BENDS
- SEGMENTED BENDS



- REGULAR PIPE
- ELECTRO FUSION
- HUTT MILD FITTINGS
- LONG SPOUT
- SLACING BENDS
- SHARP BENDS
- STANDARD BENDS
- FORGE MOULDED TEES**
- FORGE SQUARE TEES
- MATCHED TEES
- HANDCUT TEES & JUNCTIONS
- PIPE SPOOLS
- ACCESSORIES
- REGULAR TOOLING
- HOME DRAINAGE SYSTEMS
- MO-FIT
- SEWER/VEH
- ARTIFICIAL COMPRESSION
- SUPPORT & TECHNICAL INFO

FORGE MOULDED REDUCING TEE - STANDARD RANGE

PE100 | SDR11 | SDR17

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA	ODB	A	B
6163.6331	6164.6331	6166.6331	630	315	1100	1200
6163.6335	6164.6335	6166.6335	630	355	1100	1200
6163.6340	6164.6340	6166.6340	630	400	1200	1200
6163.6345	6164.6345	6166.6345	630	450	1200	1200
6163.7190	6164.7190	6166.7190	710	90	1100	1200
6163.7110	6164.7110	6166.7110	710	110	1100	1200
6163.7112	6164.7112	6166.7112	710	125	1100	1200
6163.7116	6164.7116	6166.7116	710	160	1100	1200
6163.7118	6164.7118	6166.7118	710	180	1100	1200
6163.7120	6164.7120	6166.7120	710	200	1100	1200
6163.7122	6164.7122	6166.7122	710	225	1100	1200
6163.7125	6164.7125	6166.7125	710	250	1100	1200
6163.7128	6164.7128	6166.7128	710	280	1200	1200
6163.7131	6164.7131	6166.7131	710	315	1200	1200
6163.7135	6164.7135	6166.7135	710	355	1200	1200
6163.7140	6164.7140	6166.7140	710	400	1300	1500
6163.7145	6164.7145	6166.7145	710	450	1300	1500
6163.8090	6164.8090	6166.8090	800	90	1100	1200
6163.8011	6164.8011	6166.8011	800	110	1100	1200
6163.8012	6164.8012	6166.8012	800	125	1100	1200
6163.8016	6164.8016	6166.8016	800	160	1100	1200
6163.8018	6164.8018	6166.8018	800	180	1100	1200
6163.8020	6164.8020	6166.8020	800	200	1100	1200
6163.8022	6164.8022	6166.8022	800	225	1100	1200
6163.8025	6164.8025	6166.8025	800	250	1200	1200
6163.8028	6164.8028	6166.8028	800	280	1200	1200
6163.8031	6164.8031	6166.8031	800	315	1200	1200
6163.8035	6164.8035	6166.8035	800	355	1300	1200
6163.8040	6164.8040	6166.8040	800	400	1300	1600
6163.8045	6164.8045	6166.8045	800	450	1400	1600
6163.8050	6164.8050	6166.8050	800	500	1400	1600
6163.9090	6164.9090	6166.9090	900	90	1200	1200
6163.9011	6164.9011	6166.9011	900	110	1200	1200
6163.9012	6164.9012	6166.9012	900	125	1200	1200
6163.9016	6164.9016	6166.9016	900	160	1200	1200
6163.9018	6164.9018	6166.9018	900	180	1200	1200
6163.9020	6164.9020	6166.9020	900	200	1200	1200
6163.9022	6164.9022	6166.9022	900	225	1200	1200
6163.9025	6164.9025	6166.9025	900	250	1200	1200
6163.9028	6164.9028	6166.9028	900	280	1200	1200



FORGE MOULDED REDUCING TEE - STANDARD RANGE

PE100 | SDR11 | SDR17

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA	ODB	A	B
6163.9031	6164.9031	6166.9031	900	315	1200	1200
6163.9035	6164.9035	6166.9035	900	355	1300	1200
6163.9040	6164.9040	6166.9040	900	400	1300	1600
6163.9045	6164.9045	6166.9045	900	450	1400	1600
6163.9050	6164.9050	6166.9050	900	500	1400	1600
6163.9056	6164.9056	6166.9056	900	560	1500	1600
6163.1090	6164.1090	6166.1090	1000	90	1400	1200
6163.1011	6164.1011	6166.1011	1000	110	1400	1200
6163.1012	6164.1012	6166.1012	1000	125	1400	1200
6163.1016	6164.1016	6166.1016	1000	160	1400	1200
6163.1018	6164.1018	6166.1018	1000	180	1400	1200
6163.1020	6164.1020	6166.1020	1000	200	1400	1200
6163.1022	6164.1022	6166.1022	1000	225	1400	1200
6163.1025	6164.1025	6166.1025	1000	250	1400	1200
6163.1028	6164.1028	6166.1028	1000	280	1400	1200
6163.1031	6164.1031	6166.1031	1000	315	1500	1200
6163.1035	6164.1035	6166.1035	1000	355	1500	1200
6163.1040	6164.1040	6166.1040	1000	400	1500	1700
6163.1045	6164.1045	6166.1045	1000	450	1600	1700
6163.1050	6164.1050	6166.1050	1000	500	1600	1700
6163.1056	6164.1056	6166.1056	1000	560	1700	1700
6163.1063	6164.1063	6166.1063	1000	630	1700	1700
6163.1290	6164.1290	6166.1290	1200	90	1500	1300
6163.1211	6164.1211	6166.1211	1200	110	1500	1300
6163.1212	6164.1212	6166.1212	1200	125	1500	1300
6163.1216	6164.1216	6166.1216	1200	160	1500	1300
6163.1218	6164.1218	6166.1218	1200	180	1500	1300
6163.1220	6164.1220	6166.1220	1200	200	1500	1300
6163.1222	6164.1222	6166.1222	1200	225	1500	1300
6163.1225	6164.1225	6166.1225	1200	250	1500	1300
6163.1228	6164.1228	6166.1228	1200	280	1500	1300
6163.1231	6164.1231	6166.1231	1200	315	1600	1300
6163.1235	6164.1235	6166.1235	1200	355	1600	1300
6163.1240	6164.1240	6166.1240	1200	400	1700	1800
6163.1245	6164.1245	6166.1245	1200	450	1700	1800
6163.1250	6164.1250	6166.1250	1200	500	1800	1800
6163.1256	6164.1256	6166.1256	1200	560	1800	1800
6163.1263	6164.1263	6166.1263	1200	630	1800	1800
6163.1271	6164.1271	6166.1271	1200	710	1800	1800

Note: Other sizes available upon request.

- PRESSURE PIPE
- ELECTRO FUSION
- BUTT WELD FITTINGS
- LONG SPOUT
- BACKING BENDS
- SWEEP BENDS
- SEGMENTED BENDS
- FORGE MOULDED TEES**
- FORGE SCOUR TEES
- MATCHED TEES
- FABRICATED TEES & JUNCTIONS
- PPE SPOOLS
- ACCESSORIES
- INTEGRITY TOOLING
- HOPE DRAINAGE SYSTEMS
- FOG FITS
- SHOWERVIEW
- METRIC COMPRESSION
- SUPPORT & TECHNICAL INFO

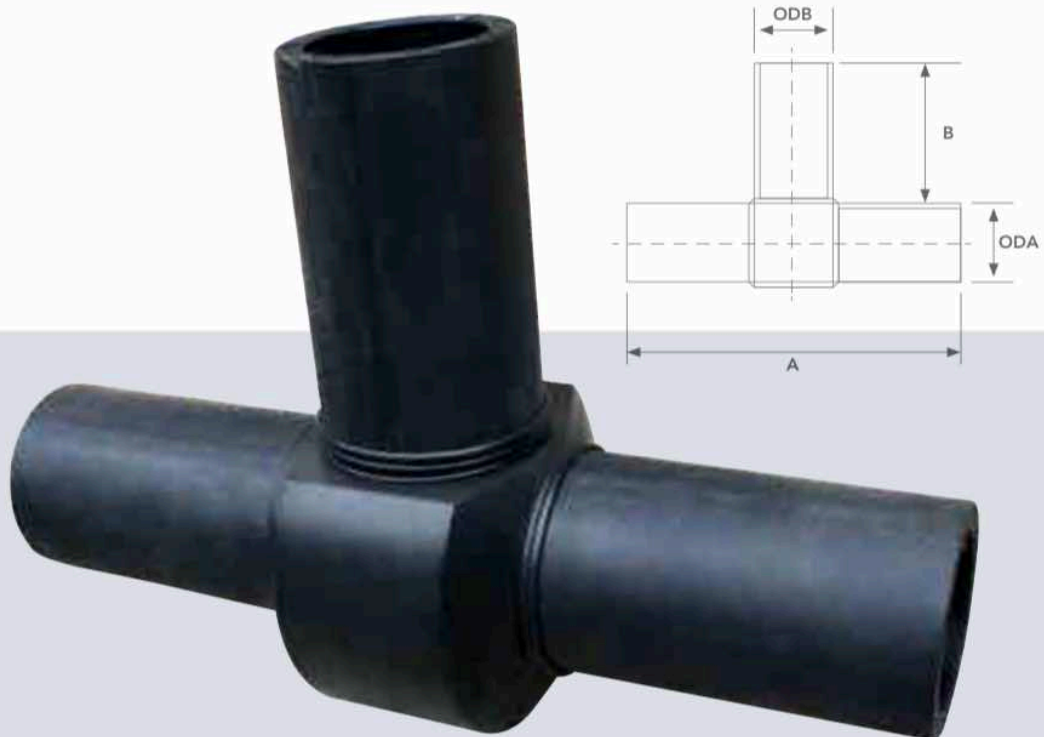
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FULLY RATED MACHINED TEES

PE100 | SDR11 | SDR17

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA (mm)	ODB (mm)	A (mm)	B (mm)
106163.2090	106164.2090	106166.2090	200	90	600	550
106163.2011	106164.2011	106166.2011	200	110	600	550
106163.2012	106164.2012	106166.2012	200	125	600	550
106163.2016	106164.2016	106166.2016	200	160	600	550
106163.2018	106164.2018	106166.2018	200	180	600	550
106163.0200	106164.0200	106166.0200	200	200	600	550
106163.2290	106164.2290	106166.2290	225	90	600	550
106163.2211	106164.2211	106166.2211	225	110	600	550
106163.2212	106164.2212	106166.2212	225	125	600	550
106163.2216	106164.2216	106166.2216	225	160	600	550
106163.2218	106164.2218	106166.2218	225	180	600	550
106163.2220	106164.2220	106166.2220	225	200	600	550
106163.0225	106164.0225	106166.0225	225	225	600	550
106163.2590	106164.2590	106166.2590	250	90	600	650
106163.2511	106164.2511	106166.2511	250	110	600	650
106163.2512	106164.2512	106166.2512	250	125	600	650



FULLY RATED MACHINED TEES

PE100 | SDR11 | SDR17

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA (mm)	ODB (mm)	A (mm)	B (mm)
106163.2516	106164.2516	106166.2516	250	160	600	650
106163.2518	106164.2518	106166.2518	250	180	600	650
106163.2520	106164.2520	106166.2520	250	200	600	650
106163.2522	106164.2522	106166.2522	250	225	600	650
106163.0250	106164.0250	106166.0250	250	250	600	650
106163.2890	106164.2890	106166.2890	280	90	600	650
106163.2811	106164.2811	106166.2811	280	110	600	650
106163.2812	106164.2812	106166.2812	280	125	600	650
106163.2816	106164.2816	106166.2816	280	160	600	650
106163.2818	106164.2818	106166.2818	280	180	600	650
106163.2820	106164.2820	106166.2820	280	200	600	650
106163.2822	106164.2822	106166.2822	280	225	600	650
106163.2825	106164.2825	106166.2825	280	250	600	650
106163.0280	106154.0280	106156.0280	280	280	600	650
106163.3190	106164.3190	106166.3190	315	90	600	700
106163.3110	106164.3110	106166.3110	315	110	600	700
106163.3112	106164.3112	106166.3112	315	125	600	700
106163.3116	106164.3116	106166.3116	315	160	650	700
106163.3118	106164.3118	106166.3118	315	180	650	700
106163.3120	106164.3120	106166.3120	315	200	650	700
106163.3122	106164.3122	106166.3122	315	225	650	700
106163.3125	106164.3125	106166.3125	315	250	650	700
106163.3128	106164.3128	106166.3128	315	280	650	700
106163.0315	106164.0315	106166.0315	315	315	650	700
106163.3590	106164.3590	106166.3590	355	90	650	700
106163.3511	106164.3511	106166.3511	355	110	650	700
106163.3512	106164.3512	106166.3512	355	125	650	700
106163.3516	106164.3516	106166.3516	355	160	650	700
106163.3518	106164.3518	106166.3518	355	180	700	700
106163.3520	106164.3520	106166.3520	355	200	700	700
106163.3522	106164.3522	106166.3522	355	225	700	700
106163.3525	106164.3525	106166.3525	355	250	700	700
106163.3528	106164.3528	106166.3528	355	280	700	700
106163.3531	106164.3531	106166.3531	355	315	700	700
106163.0355	106164.0355	106166.0355	355	355	700	700
106163.4090	106164.4090	106166.4090	400	90	800	750
106163.4011	106164.4011	106166.4011	400	110	800	750
106163.4012	106164.4012	106166.4012	400	125	800	750
106163.4016	106164.4016	106166.4016	400	160	800	750
106163.4018	106164.4018	106166.4018	400	180	800	750

FULLY RATED MACHINED TEES

PE100 | SDR11 | SDR17

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA (mm)	ODB (mm)	A (mm)	B (mm)
106163.4020	106164.4020	106166.4020	400	200	900	750
106163.4022	106164.4022	106166.4022	400	225	900	750
106163.4025	106164.4025	106166.4025	400	250	900	750
106163.4028	106164.4028	106166.4028	400	280	900	750
106163.4031	106164.4031	106166.4031	400	315	900	750
106163.4035	106164.4035	106166.4035	400	355	900	750
106153.0400	106154.0400	106156.0400	400	400	900	750
106163.4590	106164.4590	106166.4590	450	90	900	750
106163.4511	106164.4511	106166.4511	450	110	900	750
106163.4512	106164.4512	106166.4512	450	125	900	750
106163.4516	106164.4516	106166.4516	450	160	900	750
106163.4518	106164.4518	106166.4518	450	180	900	750
106163.4520	106164.4520	106166.4520	450	200	1000	750
106163.4522	106164.4522	106166.4522	450	225	1000	750
106163.4525	106164.4525	106166.4525	450	250	1000	800
106163.4528	106164.4528	106166.4528	450	280	1000	800
106163.4531	106164.4531	106166.4531	450	315	1000	800
106163.4535	106164.4535	106166.4535	450	355	1000	800
106163.4540	106164.4540	106166.4540	450	400	1000	800
106163.0450	106164.0450	106166.0450	450	450	1000	800
106163.5090	106164.5090	106166.5090	500	90	1000	800
106163.5011	106164.5011	106166.5011	500	110	1000	800
106163.5012	106164.5012	106166.5012	500	125	1000	800
106163.5016	106164.5016	106166.5016	500	160	1000	800
106163.5018	106164.5018	106166.5018	500	180	1000	800
106163.5020	106164.5020	106166.5020	500	200	1000	800
106163.5022	106164.5022	106166.5022	500	225	1000	800
106163.5025	106164.5025	106166.5025	500	250	1000	900
106163.5028	106164.5028	106166.5028	500	280	1000	900
106163.5031	106164.5031	106166.5031	500	315	1000	900
106163.5035	106164.5035	106166.5035	500	355	1000	900
106163.5040	106164.5040	106166.5040	500	400	1000	900
106163.5045	106164.5045	106166.5045	500	450	1000	900
106163.0500	106164.0500	106166.0500	500	500	1000	900
106163.5690	106164.5690	106166.5690	560	90	1000	900
106163.5611	106164.5611	106166.5611	560	110	1000	900
106163.5612	106164.5612	106166.5612	560	125	1000	900
106163.5616	106164.5616	106166.5616	560	160	1000	900
106163.5618	106164.5618	106166.5618	560	180	1000	900
106163.5620	106164.5620	106166.5620	560	200	1000	900

FULLY RATED MACHINED TEES

PE100 | SDR11 | SDR17

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA (mm)	ODB (mm)	A (mm)	B (mm)
106163.5622	106164.5622	106166.5622	560	225	1000	900
106163.5625	106164.5625	106166.5625	560	250	1000	900
106163.5628	106164.5628	106166.5628	560	280	1000	1200
106163.5631	106164.5631	106166.5631	560	315	1000	1200
106163.5635	106164.5635	106166.5635	560	355	1000	1200
106163.5640	106164.5640	106166.5640	560	400	1000	1200
106163.5645	106164.5645	106166.5645	560	450	1000	1200
106163.5650	106164.5650	106166.5650	560	500	1000	1200
106163.0560	106164.0560	106166.0560	560	560	1000	1200
106163.6390	106164.6390	106166.6390	630	90	1000	1200
106163.6311	106164.6311	106166.6311	630	110	1000	1200
106163.6312	106164.6312	106166.6312	630	125	1000	1200
106163.6316	106164.6316	106166.6316	630	160	1000	1200
106163.6318	106164.6318	106166.6318	630	180	1000	1200
106163.6320	106164.6320	106166.6320	630	200	1000	1200
106163.6322	106164.6322	106166.6322	630	225	1000	1200
106163.6325	106164.6325	106166.6325	630	250	1000	1200
106163.6328	106164.6328	106166.6328	630	280	1000	1200
106163.6331	106164.6331	106166.6331	630	315	1100	1200
106163.6335	106164.6335	106166.6335	630	355	1100	1200
106163.6340	106164.6340	106166.6340	630	400	1200	1200
106163.6345	106164.6345	106166.6345	630	450	1200	1200
106163.6350	106164.6350	106166.6350	630	500	1200	1200
106163.6356	106164.6356	106166.6356	630	560	1200	1200
106163.0630	106164.0630	106166.0630	630	630	1200	1200
106163.7190	106164.7190	106166.7190	710	90	1100	1200
106163.7110	106164.7110	106166.7110	710	110	1100	1200
106163.7112	106164.7112	106166.7112	710	125	1100	1200
106163.7116	106164.7116	106166.7116	710	160	1100	1200
106163.7118	106164.7118	106166.7118	710	180	1100	1200
106163.7120	106164.7120	106166.7120	710	200	1100	1200
106163.7122	106164.7122	106166.7122	710	225	1100	1200
106163.7125	106164.7125	106166.7125	710	250	1100	1200
106163.7128	106164.7128	106166.7128	710	280	1200	1200
106163.7131	106164.7131	106166.7131	710	315	1200	1200
106163.7135	106164.7135	106166.7135	710	355	1200	1200
106163.7140	106164.7140	106166.7140	710	400	1300	1500
106163.7145	106164.7145	106166.7145	710	450	1300	1500
106163.7150	106164.7150	106166.7150	710	500	1300	1500
106163.7156	106164.7156	106166.7156	710	560	1300	1500

FULLY RATED MACHINED TEES

PE100 | SDR11 | SDR17

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA (mm)	ODB (mm)	A (mm)	B (mm)
106163.7163	106164.7163	106166.7163	710	630	1300	1500
106163.0710	106164.0710	106166.0710	710	710	1300	1500
106163.8090	106164.8090	106166.8090	800	90	1100	1200
106163.8011	106164.8011	106166.8011	800	110	1100	1200
106163.8012	106164.8012	106166.8012	800	125	1100	1200
106163.8016	106164.8016	106166.8016	800	160	1100	1200
106163.8018	106164.8018	106166.8018	800	180	1100	1200
106163.8020	106164.8020	106166.8020	800	200	1100	1200
106163.8022	106164.8022	106166.8022	800	225	1100	1200
106163.8025	106164.8025	106166.8025	800	250	1200	1200
106163.8028	106164.8028	106166.8028	800	280	1200	1200
106163.8031	106164.8031	106166.8031	800	315	1200	1200
106163.8035	106164.8035	106166.8035	800	355	1300	1200
106163.8040	106164.8040	106166.8040	800	400	1300	1600
106163.8045	106164.8045	106166.8045	800	450	1400	1600
106163.8050	106164.8050	106166.8050	800	500	1400	1600
106163.8056	106164.8056	106166.8056	800	560	1500	1600
106163.8063	106164.8063	106166.8063	800	630	1500	1600
106163.8071	106164.8071	106166.8071	800	710	1500	1600
106163.0800	106164.0800	106166.0800	800	800	1500	1600
106163.9090	106164.9090	106166.9090	900	90	1200	1200
106163.9011	106164.9011	106166.9011	900	110	1200	1200
106163.9012	106164.9012	106166.9012	900	125	1200	1200
106163.9016	106164.9016	106166.9016	900	160	1200	1200
106163.9018	106164.9018	106166.9018	900	180	1200	1200
106163.9020	106164.9020	106166.9020	900	200	1200	1200
106163.9022	106164.9022	106166.9022	900	225	1200	1200
106163.9025	106164.9025	106166.9025	900	250	1200	1200
106163.9028	106164.9028	106166.9028	900	280	1200	1200
106163.9031	106164.9031	106166.9031	900	315	1200	1200
106163.9035	106164.9035	106166.9035	900	355	1300	1200
106163.9040	106164.9040	106166.9040	900	400	1300	1600
106163.9045	106164.9045	106166.9045	900	450	1400	1600
106163.9050	106164.9050	106166.9050	900	500	1400	1600
106163.9056	106164.9056	106166.9056	900	560	1500	1600
106163.9063	106164.9063	106166.9063	900	630	1500	1600
106163.9071	106164.9071	106166.9071	900	710	1500	1600
106163.9080	106164.9080	106166.9080	900	800	1500	1600
106163.0900	106164.0900	106166.0900	900	900	1500	1600
106163.1090	106164.1090	106166.1090	1000	90	1400	1200

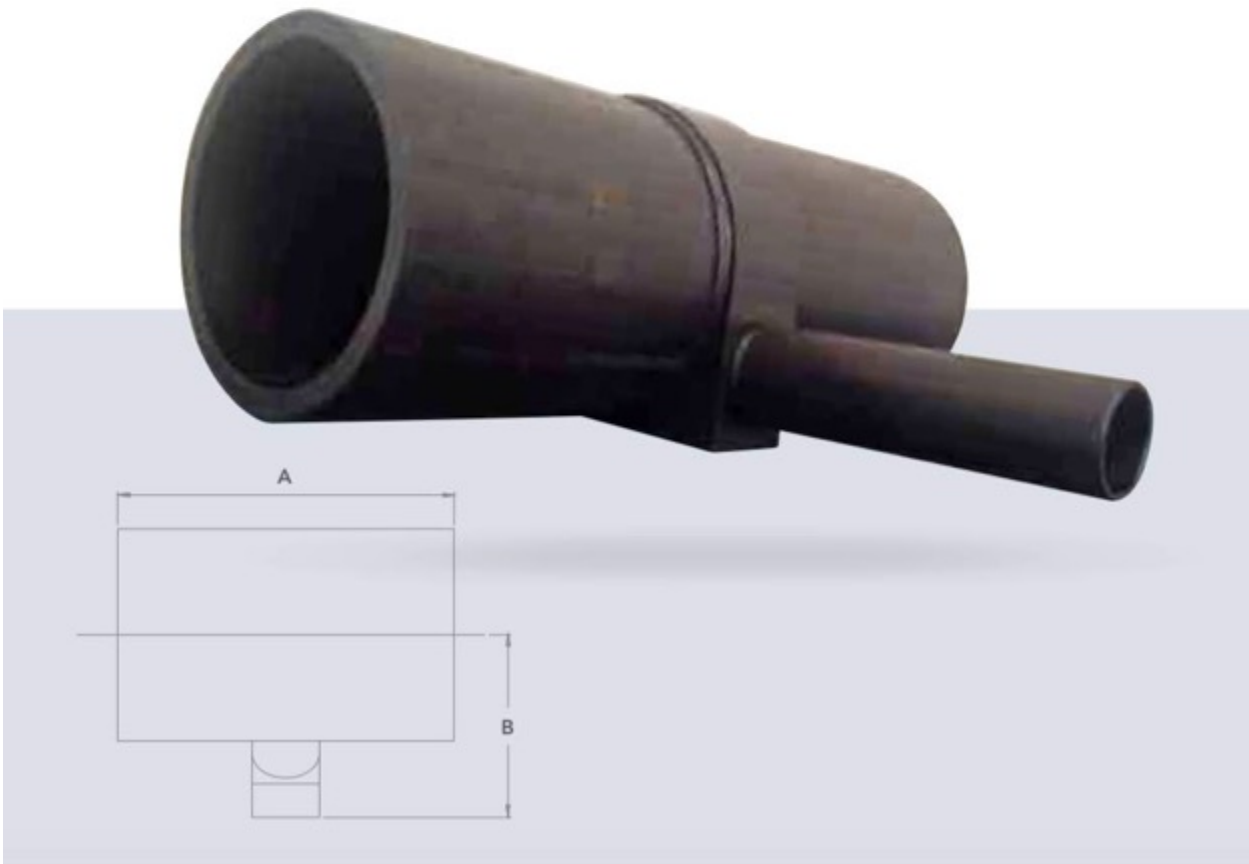
FULLY RATED MACHINED TEES

PE100 | SDR11 | SDR17

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA (mm)	ODB (mm)	A (mm)	B (mm)
106163.1011	106164.1011	106166.1011	1000	110	1400	1200
106163.1012	106164.1012	106166.1012	1000	125	1400	1200
106163.1016	106164.1016	106166.1016	1000	160	1400	1200
106163.1018	106164.1018	106166.1018	1000	180	1400	1200
106163.1020	106164.1020	106166.1020	1000	200	1400	1200
106163.1022	106164.1022	106166.1022	1000	225	1400	1200
106163.1025	106164.1025	106166.1025	1000	250	1400	1200
106163.1028	106164.1028	106166.1028	1000	280	1400	1200
106163.1031	106164.1031	106166.1031	1000	315	1500	1200
106163.1035	106164.1035	106166.1035	1000	355	1500	1200
106163.1040	106164.1040	106166.1040	1000	400	1500	1700
106163.1045	106164.1045	106166.1045	1000	450	1600	1700
106163.1050	106164.1050	106166.1050	1000	500	1600	1700
106163.1056	106164.1056	106166.1056	1000	560	1700	1700
106163.1063	106164.1063	106166.1063	1000	630	1700	1700
106163.1071	106164.1071	106166.1071	1000	710	1700	1700
106163.1080	106164.1080	106166.1080	1000	800	1700	1700
106163.1091	106164.1091	106166.1091	1000	900	1700	1700
106163.1000	106164.1000	106166.1000	1000	1000	1700	1700
106163.1290	106164.1290	106166.1290	1200	90	1500	1300
106163.1211	106164.1211	106166.1211	1200	110	1500	1300
106163.1212	106164.1212	106166.1212	1200	125	1500	1300
106163.1216	106164.1216	106166.1216	1200	160	1500	1300
106163.1218	106164.1218	106166.1218	1200	180	1500	1300
106163.1220	106164.1220	106166.1220	1200	200	1500	1300
106163.1222	106164.1222	106166.1222	1200	225	1500	1300
106163.1225	106164.1225	106166.1225	1200	250	1500	1300
106163.1228	106164.1228	106166.1228	1200	280	1500	1300
106163.1231	106164.1231	106166.1231	1200	315	1600	1300
106163.1235	106164.1235	106166.1235	1200	355	1600	1300
106163.1240	106164.1240	106166.1240	1200	400	1700	1800
106163.1245	106164.1245	106166.1245	1200	450	1700	1800
106163.1250	106164.1250	106166.1250	1200	500	1800	1800
106163.1256	106164.1256	106166.1256	1200	560	1800	1800
106163.1263	106164.1263	106166.1263	1200	630	1800	1800
106163.1271	106164.1271	106166.1271	1200	710	1800	1800
106163.1280	106164.1280	106166.1280	1200	800	1800	1800
106163.1291	106164.1291	106166.1291	1200	900	1800	1800
106163.1210	106164.1210	106166.1210	1200	1000	1800	1800
106163.1200	106164.1200	106166.1200	1200	1200	1800	1800

FULLY RATED MACHINED SCOUR TEES

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA (mm)	ODB (mm)	A (mm)	B (mm)
106163.2090	106164.2090	106166.2090	200	90	600	550
106163.2011	106164.2011	106166.2011	200	110	600	550
106163.2012	106164.2012	106166.2012	200	125	600	550
106163.2016	106164.2016	106166.2016	200	160	600	550
106163.2018	106164.2018	106166.2018	200	180	600	550
106163.0200	106164.0200	106166.0200	200	200	600	550
106163.2290	106164.2290	106166.2290	225	90	600	550
106163.2211	106164.2211	106166.2211	225	110	600	550
106163.2212	106164.2212	106166.2212	225	125	600	550
106163.2216	106164.2216	106166.2216	225	160	600	550
106163.2218	106164.2218	106166.2218	225	180	600	550
106163.2220	106164.2220	106166.2220	225	200	600	550
106163.0225	106164.0225	106166.0225	225	225	600	550
106163.2590	106164.2590	106166.2590	250	90	600	650
106163.2511	106164.2511	106166.2511	250	110	600	650
106163.2512	106164.2512	106166.2512	250	125	600	650



FULLY RATED MACHINED SCOUR TEES

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA (mm)	ODD (mm)	A (mm)	B (mm)
106163.2516	106164.2516	106166.2516	250	160	600	650
106163.2518	106164.2518	106166.2518	250	180	600	650
106163.2520	106164.2520	106166.2520	250	200	600	650
106163.2522	106164.2522	106166.2522	250	225	600	650
106163.0250	106164.0250	106166.0250	250	250	600	650
106163.2890	106164.2890	106166.2890	280	90	600	650
106163.2811	106164.2811	106166.2811	280	110	600	650
106163.2812	106164.2812	106166.2812	280	125	600	650
106163.2816	106164.2816	106166.2816	280	160	600	650
106163.2818	106164.2818	106166.2818	280	180	600	650
106163.2820	106164.2820	106166.2820	280	200	600	650
106163.2822	106164.2822	106166.2822	280	225	600	650
106163.2825	106164.2825	106166.2825	280	250	600	650
106163.0280	106154.0280	106156.0280	280	280	600	650
106163.3190	106164.3190	106166.3190	315	90	600	700
106163.3110	106164.3110	106166.3110	315	110	600	700
106163.3112	106164.3112	106166.3112	315	125	600	700
106163.3116	106164.3116	106166.3116	315	160	650	700
106163.3118	106164.3118	106166.3118	315	180	650	700
106163.3120	106164.3120	106166.3120	315	200	650	700
106163.3122	106164.3122	106166.3122	315	225	650	700
106163.3125	106164.3125	106166.3125	315	250	650	700
106163.3128	106164.3128	106166.3128	315	280	650	700
106163.0315	106164.0315	106166.0315	315	315	650	700
106163.3590	106164.3590	106166.3590	355	90	650	700
106163.3511	106164.3511	106166.3511	355	110	650	700
106163.3512	106164.3512	106166.3512	355	125	650	700
106163.3516	106164.3516	106166.3516	355	160	650	700
106163.3518	106164.3518	106166.3518	355	180	700	700
106163.3520	106164.3520	106166.3520	355	200	700	700
106163.3522	106164.3522	106166.3522	355	225	700	700
106163.3525	106164.3525	106166.3525	355	250	700	700
106163.3528	106164.3528	106166.3528	355	280	700	700
106163.3531	106164.3531	106166.3531	355	315	700	700
106163.0355	106164.0355	106166.0355	355	355	700	700
106163.4090	106164.4090	106166.4090	400	90	800	750
106163.4011	106164.4011	106166.4011	400	110	800	750
106163.4012	106164.4012	106166.4012	400	125	800	750
106163.4016	106164.4016	106166.4016	400	160	800	750
106163.4018	106164.4018	106166.4018	400	180	800	750

FULLY RATED MACHINED SCOUR TEES

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA (mm)	ODB (mm)	A (mm)	B (mm)
106163.4020	106164.4020	106166.4020	400	200	900	750
106163.4022	106164.4022	106166.4022	400	225	900	750
106163.4025	106164.4025	106166.4025	400	250	900	750
106163.4028	106164.4028	106166.4028	400	280	900	750
106163.4031	106164.4031	106166.4031	400	315	900	750
106163.4035	106164.4035	106166.4035	400	355	900	750
106153.0400	106154.0400	106156.0400	400	400	900	750
106163.4590	106164.4590	106166.4590	450	90	900	750
106163.4511	106164.4511	106166.4511	450	110	900	750
106163.4512	106164.4512	106166.4512	450	125	900	750
106163.4516	106164.4516	106166.4516	450	160	900	750
106163.4518	106164.4518	106166.4518	450	180	900	750
106163.4520	106164.4520	106166.4520	450	200	1000	750
106163.4522	106164.4522	106166.4522	450	225	1000	750
106163.4525	106164.4525	106166.4525	450	250	1000	800
106163.4528	106164.4528	106166.4528	450	280	1000	800
106163.4531	106164.4531	106166.4531	450	315	1000	800
106163.4535	106164.4535	106166.4535	450	355	1000	800
106163.4540	106164.4540	106166.4540	450	400	1000	800
106163.0450	106164.0450	106166.0450	450	450	1000	800
106163.5090	106164.5090	106166.5090	500	90	1000	800
106163.5011	106164.5011	106166.5011	500	110	1000	800
106163.5012	106164.5012	106166.5012	500	125	1000	800
106163.5016	106164.5016	106166.5016	500	160	1000	800
106163.5018	106164.5018	106166.5018	500	180	1000	800
106163.5020	106164.5020	106166.5020	500	200	1000	800
106163.5022	106164.5022	106166.5022	500	225	1000	800
106163.5025	106164.5025	106166.5025	500	250	1000	900
106163.5028	106164.5028	106166.5028	500	280	1000	900
106163.5031	106164.5031	106166.5031	500	315	1000	900
106163.5035	106164.5035	106166.5035	500	355	1000	900
106163.5040	106164.5040	106166.5040	500	400	1000	900
106163.5045	106164.5045	106166.5045	500	450	1000	900
106163.0500	106164.0500	106166.0500	500	500	1000	900
106163.5690	106164.5690	106166.5690	560	90	1000	900
106163.5611	106164.5611	106166.5611	560	110	1000	900
106163.5612	106164.5612	106166.5612	560	125	1000	900
106163.5616	106164.5616	106166.5616	560	160	1000	900
106163.5618	106164.5618	106166.5618	560	180	1000	900
106163.5620	106164.5620	106166.5620	560	200	1000	900

FULLY RATED MACHINED SCOUR TEES

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA (mm)	ODB (mm)	A (mm)	B (mm)
106163.5622	106164.5622	106166.5622	560	225	1000	900
106163.5625	106164.5625	106166.5625	560	250	1000	900
106163.5628	106164.5628	106166.5628	560	280	1000	1200
106163.5631	106164.5631	106166.5631	560	315	1000	1200
106163.5635	106164.5635	106166.5635	560	355	1000	1200
106163.5640	106164.5640	106166.5640	560	400	1000	1200
106163.5645	106164.5645	106166.5645	560	450	1000	1200
106163.5650	106164.5650	106166.5650	560	500	1000	1200
106163.0560	106164.0560	106166.0560	560	560	1000	1200
106163.6390	106164.6390	106166.6390	630	90	1000	1200
106163.6311	106164.6311	106166.6311	630	110	1000	1200
106163.6312	106164.6312	106166.6312	630	125	1000	1200
106163.6316	106164.6316	106166.6316	630	160	1000	1200
106163.6318	106164.6318	106166.6318	630	180	1000	1200
106163.6320	106164.6320	106166.6320	630	200	1000	1200
106163.6322	106164.6322	106166.6322	630	225	1000	1200
106163.6325	106164.6325	106166.6325	630	250	1000	1200
106163.6328	106164.6328	106166.6328	630	280	1000	1200
106163.6331	106164.6331	106166.6331	630	315	1100	1200
106163.6335	106164.6335	106166.6335	630	355	1100	1200
106163.6340	106164.6340	106166.6340	630	400	1200	1200
106163.6345	106164.6345	106166.6345	630	450	1200	1200
106163.6350	106164.6350	106166.6350	630	500	1200	1200
106163.6356	106164.6356	106166.6356	630	560	1200	1200
106163.0630	106164.0630	106166.0630	630	630	1200	1200
106163.7190	106164.7190	106166.7190	710	90	1100	1200
106163.7110	106164.7110	106166.7110	710	110	1100	1200
106163.7112	106164.7112	106166.7112	710	125	1100	1200
106163.7116	106164.7116	106166.7116	710	160	1100	1200
106163.7118	106164.7118	106166.7118	710	180	1100	1200
106163.7120	106164.7120	106166.7120	710	200	1100	1200
106163.7122	106164.7122	106166.7122	710	225	1100	1200
106163.7125	106164.7125	106166.7125	710	250	1100	1200
106163.7128	106164.7128	106166.7128	710	280	1200	1200
106163.7131	106164.7131	106166.7131	710	315	1200	1200
106163.7135	106164.7135	106166.7135	710	355	1200	1200
106163.7140	106164.7140	106166.7140	710	400	1300	1500
106163.7145	106164.7145	106166.7145	710	450	1300	1500
106163.7150	106164.7150	106166.7150	710	500	1300	1500
106163.7156	106164.7156	106166.7156	710	560	1300	1500

FULLY RATED MACHINED SCOUR TEES

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA (mm)	ODD (mm)	A (mm)	B (mm)
106163.7163	106164.7163	106166.7163	710	630	1300	1500
106163.0710	106164.0710	106166.0710	710	710	1300	1500
106163.8090	106164.8090	106166.8090	800	90	1100	1200
106163.8011	106164.8011	106166.8011	800	110	1100	1200
106163.8012	106164.8012	106166.8012	800	125	1100	1200
106163.8016	106164.8016	106166.8016	800	160	1100	1200
106163.8018	106164.8018	106166.8018	800	180	1100	1200
106163.8020	106164.8020	106166.8020	800	200	1100	1200
106163.8022	106164.8022	106166.8022	800	225	1100	1200
106163.8025	106164.8025	106166.8025	800	250	1200	1200
106163.8028	106164.8028	106166.8028	800	280	1200	1200
106163.8031	106164.8031	106166.8031	800	315	1200	1200
106163.8035	106164.8035	106166.8035	800	355	1300	1200
106163.8040	106164.8040	106166.8040	800	400	1300	1600
106163.8045	106164.8045	106166.8045	800	450	1400	1600
106163.8050	106164.8050	106166.8050	800	500	1400	1600
106163.8056	106164.8056	106166.8056	800	560	1500	1600
106163.8063	106164.8063	106166.8063	800	630	1500	1600
106163.8071	106164.8071	106166.8071	800	710	1500	1600
106163.0800	106164.0800	106166.0800	800	800	1500	1600
106163.9090	106164.9090	106166.9090	900	90	1200	1200
106163.9011	106164.9011	106166.9011	900	110	1200	1200
106163.9012	106164.9012	106166.9012	900	125	1200	1200
106163.9016	106164.9016	106166.9016	900	160	1200	1200
106163.9018	106164.9018	106166.9018	900	180	1200	1200
106163.9020	106164.9020	106166.9020	900	200	1200	1200
106163.9022	106164.9022	106166.9022	900	225	1200	1200
106163.9025	106164.9025	106166.9025	900	250	1200	1200
106163.9028	106164.9028	106166.9028	900	280	1200	1200
106163.9031	106164.9031	106166.9031	900	315	1200	1200
106163.9035	106164.9035	106166.9035	900	355	1300	1200
106163.9040	106164.9040	106166.9040	900	400	1300	1600
106163.9045	106164.9045	106166.9045	900	450	1400	1600
106163.9050	106164.9050	106166.9050	900	500	1400	1600
106163.9056	106164.9056	106166.9056	900	560	1500	1600
106163.9063	106164.9063	106166.9063	900	630	1500	1600
106163.9071	106164.9071	106166.9071	900	710	1500	1600
106163.9080	106164.9080	106166.9080	900	800	1500	1600
106163.0900	106164.0900	106166.0900	900	900	1500	1600
106163.1090	106164.1090	106166.1090	1000	90	1400	1200

FULLY RATED MACHINED SCOUR TEES

SDR9 CODE	SDR11 CODE	SDR17 CODE	ODA (mm)	ODD (mm)	A (mm)	B (mm)
106163.1011	106164.1011	106166.1011	1000	110	1400	1200
106163.1012	106164.1012	106166.1012	1000	125	1400	1200
106163.1016	106164.1016	106166.1016	1000	160	1400	1200
106163.1018	106164.1018	106166.1018	1000	180	1400	1200
106163.1020	106164.1020	106166.1020	1000	200	1400	1200
106163.1022	106164.1022	106166.1022	1000	225	1400	1200
106163.1025	106164.1025	106166.1025	1000	250	1400	1200
106163.1028	106164.1028	106166.1028	1000	280	1400	1200
106163.1031	106164.1031	106166.1031	1000	315	1500	1200
106163.1035	106164.1035	106166.1035	1000	355	1500	1200
106163.1040	106164.1040	106166.1040	1000	400	1500	1700
106163.1045	106164.1045	106166.1045	1000	450	1600	1700
106163.1050	106164.1050	106166.1050	1000	500	1600	1700
106163.1056	106164.1056	106166.1056	1000	560	1700	1700
106163.1063	106164.1063	106166.1063	1000	630	1700	1700
106163.1071	106164.1071	106166.1071	1000	710	1700	1700
106163.1080	106164.1080	106166.1080	1000	800	1700	1700
106163.1091	106164.1091	106166.1091	1000	900	1700	1700
106163.1000	106164.1000	106166.1000	1000	1000	1700	1700
106163.1290	106164.1290	106166.1290	1200	90	1500	1300
106163.1211	106164.1211	106166.1211	1200	110	1500	1300
106163.1212	106164.1212	106166.1212	1200	125	1500	1300
106163.1216	106164.1216	106166.1216	1200	160	1500	1300
106163.1218	106164.1218	106166.1218	1200	180	1500	1300
106163.1220	106164.1220	106166.1220	1200	200	1500	1300
106163.1222	106164.1222	106166.1222	1200	225	1500	1300
106163.1225	106164.1225	106166.1225	1200	250	1500	1300
106163.1228	106164.1228	106166.1228	1200	280	1500	1300
106163.1231	106164.1231	106166.1231	1200	315	1600	1300
106163.1235	106164.1235	106166.1235	1200	355	1600	1300
106163.1240	106164.1240	106166.1240	1200	400	1700	1800
106163.1245	106164.1245	106166.1245	1200	450	1700	1800
106163.1250	106164.1250	106166.1250	1200	500	1800	1800
106163.1256	106164.1256	106166.1256	1200	560	1800	1800
106163.1263	106164.1263	106166.1263	1200	630	1800	1800
106163.1271	106164.1271	106166.1271	1200	710	1800	1800
106163.1280	106164.1280	106166.1280	1200	800	1800	1800
106163.1291	106164.1291	106166.1291	1200	900	1800	1800
106163.1210	106164.1210	106166.1210	1200	1000	1800	1800
106163.1200	106164.1200	106166.1200	1200	1200	1800	1800

APPENDIX B - QUALITY CERTIFICATIONS

Copies of the following Quality Certification Certificates are available from WSAA

TABLE B1 ADROIT PIPING SYSTEMS PTY LTD – MANAGEMENT SYSTEMS

67 – 69 Atkins Road Ermington NSW 2115 Australia	
Quality Systems Standard	AS/NZS ISO9001:2015
Certification Licence No.	QMS40134
Certifying Agency	SAI Global
First Date of Certification	23 May 2013
Current Date of Certification	9 February 2022
Expiry Date of Certification	22 May 2025

TABLE B2 ADROIT PIPING SYSTEMS PTY LTD – PRODUCT CERTIFICATION

67 – 69 Atkins Road Ermington NSW 2115 Australia	
Product Standard/Spec.	AS/NZS 4129:2020
Certificate No.	3016
Issuing Certification Body	Australian Certification Services
First Date of Certification	24 July 2017
Current Date of Certification	29 July 2021
Expiry Date of Certification	23 July 2022



CERTIFICATE OF REGISTRATION

This is to certify that:

Adroit Piping Systems Pty Ltd

ABN 83 136 425 619

67-69 Atkins Rd Ermington NSW 2115 AUSTRALIA

operates a

QUALITY MANAGEMENT SYSTEM

which complies with the requirements of

ISO 9001:2015

for the following scope

The supply of pipe, fittings, equipment, tooling and ancillary items required for the installation of High Density Polyethylene (HDPE) piping systems, including the manufacturing of fittings and specialized fabrications from HDPE pipe.

Certificate No: QMS40134

Issued: 9 February 2022

Originally Certified: 23 May 2013

Expires: 22 May 2025

Current Certification: 9 February 2022

Calin Moldovean
President, Business Assurance
SAI Global Assurance



WWW.JAS-ANZ.ORG/REGISTER

Registered by:

SAI Global Certification Services Pty Ltd (ACN 108 716 669) 680 George Street Sydney NSW 2000 Australia with SAI Global Pty Limited 680 George Street Sydney NSW 2000 Australia ("SAI Global") and subject to the SAI Global Terms and Conditions for Certification. While all due care and skill was exercised in carrying out this assessment, SAI Global accepts responsibility only for proven negligence. This certificate remains the property of SAI Global and must be returned to SAI Global upon its request. To verify that this certificate is current please refer to SAI Global On-Line Certification register at <http://register.saiglobal.com/>



The ISO Type 5 Product Certification Product Schedule contains 336 pages and has not been included here. A complete copy is available from Adroit or WSAA.



PRODUCT CONFORMITY SCHEME – FULL CERTIFICATION

Certification Licence

Australian Certification Services Pty Ltd grants to:

Adroit Piping Systems Pty Ltd

Trading as ADROIT PIPING SYSTEMS

the right to use the Certification Mark as shown above in conjunction with the Certificate No. on product/s as identified in the Schedule and as listed on the Australian Certification Services Website www.certificationservices.com.au and have been shown to comply with the relevant Standard/s referred to below. The Licensee is granted a licence to use the Certification Mark subject to the rules governing the use.

Product Type: Polyethylene (PE) Fittings
 Product Range: Sweep Bend Concentric Reducer Stub Flange Eccentric Reducer Full Face Flange Spigot End Cap Reducing Tee Forged SDR Adaptor Equal Tees Scour Tee
Scour Cap Cross Tee Transition Fittings (GAS)
 Application: WATER and GAS
 Brand: ADROIT
 Evaluated to: AS/NZS 4129:2020 Fittings for polyethylene (PE) pipes for pressure applications

Paul Greig
General Manager

Issue Date: 29th July 2021
 Initial Issue Date: 24th July 2017
 Expiry Date: 23rd July 2022

Certificate No.: 3016

This certificate remains the property of Australian Certification Services Pty Ltd

The Product Conformity Scheme (PCS) – Full Certification is a conformity assessment scheme based on ISO/IEC 17067 (system 5) and SA HB 18.28



APPENDIX C - SUPPLIER CONTACTS

Adroit Piping Systems Pty Ltd

67 – 69 Atkins Road

Ermington NSW 2115

Telephone 1300 004 373

Email: sales@adroitpiping.com.au

Website: www.adroitpiping.com.au/

