



Assets Planning and Delivery Group
Engineering

Strategic Product Specification

SPS 106

Ductile Iron Pipe Fittings for Pressure Applications

VERSION 2
REVISION 5

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FOREWORD

Each Strategic Product Specification has been prepared to inform Water Corporation staff, consultants, contractors and land developers of the requirements for selecting and acquiring a manufactured product to be used in strategic Corporation infrastructure. The definition of 'Product' includes items that comprise assembled components, equipment or plant for mechanical, electrical and civil infrastructure applications.

The objective of a Strategic Product Specification is to specify fit-for-purpose Product which will contribute to the provision of effective water services at least whole-of-life cost and with least risk to service standards and safety. A Strategic Product Specification also provides uniform standards for compatibility of new water infrastructure with existing water assets.

Many Strategic Product Specifications have drawn on the design, asset management and operational experience of Product performance in live service gained by the Corporation over time. Some Strategic Product Specifications have drawn on the experience of the water industry nationally by referencing Australian or WSAA standards.

Strategic Product Specifications are intended for reference and use in the following typical procurement scenarios:

- Capital funded infrastructure design and construction work;
- Private developer funded subdivision infrastructure for takeover by the Corporation;
- Operationally funded infrastructure design and construction work;
- Corporation period contracts for Product purchases;
- Product purchases for stock or for miscellaneous minor work.

A published Strategic Product Specification will, in some cases, comprise technical content that is typical of a range of products of the same type (type specification) but may exclude specific requirements that should apply to a particular project or application. In such cases, the project designer is required to document the supplementary project specific requirements in the appropriate Clause of the 'Project Specific Requirements' Appendix of the Specification.

The text of a published Specification should not be directly modified. In the event that a text variation is considered necessary to accommodate the needs of a particular project or application, the text modification should be documented in the appropriate Clause of a 'Project Specific Requirements' Appendix.

Enquiries relating to the technical content of this Specification should be directed to the Principal Engineer, Wastewater Conveyance Section, Infrastructure Design Branch to whom all enquiries relating to the technical content of the Specification should be directed. Future Specification changes, if any, will be issued to registered Specification users as and when published.

Head Of Engineering

This document is prepared without the assumption of a duty of care by the Water Corporation. The document is not intended to be nor should it be relied on as a substitute for professional engineering design expertise or any other professional advice.

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REVISION STATUS

The revision status of this specification is shown section by section below.

REVISION STATUS						
SECT.	VER./REV.	DATE	PAGES REVISED	REVISION DESCRIPTION (Section, Clause, Sub-Clause)	RVWD.	APRV.
0	2/0	02.03.07	All	New Version	KR	LL
0	2/1	25.06.14	All	Substituted Generic Foreword	KR	DV
ALL	2/4	10.10.24	N/A	Scheduled review, minor formatting no content updates required	KR	KP
1	2/0	02.03.07	All	New Version	KR	LL
1	2/1	25.06.14	All	1.1 to 1.4 updated as template	KR	DV
1	2/3	03.05.17	6-7, 9	1.3, 1.4.2 – 1.4.5, 1.4.21 updated	KR	KP
2	2/0	02.03.07	All	New Version	KR	LL
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2	2/2	26.10.16	10	2.1 to 2.4 minor technical edits	KR	KP
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SPS 106

Ductile Iron Pipe Fittings for Pressure Applications

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1 Scope and General

1.1 Scope

This specification shall apply to the manufacture, supply, transportation, handling, delivery and storage of ductile iron pipe fittings for water and wastewater pressure applications, hereinafter referred to as Product. The Specification also details acceptance criteria for ductile iron pressure pipe intended for infrastructure project use and the means of demonstrating compliance with the Specification.

1.2 Service Conditions

For compliance with this specification, DI pipe fittings shall be designed for a service life expectancy in excess of 100 calendar years when used for waterworks purposes in buried pressurised applications in Western Australia.

1.3 Reference Documents

The following documents are referenced in this Specification:

AS

1646	Elastomeric seals for waterworks purposes (<i>Performance requirements in AS 681</i>)
681.1	Elastomeric seals - Material requirements for pipe joint seals used in water and drainage applications - Vulcanized rubber
681.2	Elastomeric seals - Material requirements for pipe joint seals used in water and drainage applications - Thermoplastic elastomers
681.3	Elastomeric seals - Material requirements for pipe joint seals used in water and drainage applications - Cellular materials of vulcanized rubber
681.4	Elastomeric seals - Material requirements for pipe joint seals used in water and drainage applications - Cast polyurethane sealing elements
2550.1	Cranes, hoists and winches – Safe use – General requirements
2550.5	Cranes, hoists and winches – Safe use – Mobile
4087	Metallic flanges for waterworks purposes

AS/NZS

2280	Ductile iron pipes and fittings
2566.1	Buried flexible pipelines - Structural design
2566.1 Supp 1	Buried flexible pipelines - Part 1: Structural design - Commentary
2032	Installation of PVC pipe systems
4020	Products for use in contact with drinking water
4158	Thermal-bonded polymeric coatings on valves and fittings for water industry purposes

AS/NZS ISO

9001	Quality management systems – requirements
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AS/NZS ISO/IEC

17065	Conformity assessment – Requirements for bodies certifying products, processes and services
17067	Conformity assessment – Fundamentals of product certification and guidelines for product certification schemes

ISO/IEC

17000	Conformity assessment – Vocabulary and general principles
17025	General requirements for the competence of testing and calibration laboratories
17026 (TR)	Conformity assessment – Example of a certification scheme for tangible products
17030	Conformity assessment – General requirements for third party marks of conformity
Guide 28	Conformity assessment — Guidance on a third-party certification system for products

PIPA

POP101	PVC Pressure Pipes Design for Dynamic Stresses
TN003	Temperature Derating of PVC Pipes for Pressure Applications

1.4 Definitions and Notation

The following definitions are intended to clarify the terminology used in this Specification.

1.4.1 Australian Standards®

Standards that are developed, published and maintained by Standards Australia.

1.4.2 Certificate

A formal certificate issued by a Conformity Assessment (or Certification) Body as an outcome of a compliance audit in accordance with a third party product Certification System.

1.4.3 Certification Body

An independent impartial (or third party) organisation that fulfills the requirements of AS/ANZ ISO/IEC 17065 for bodies certifying products and more commonly known over recent years as a Conformity Assessment Body.

1.4.4 Certification Mark

A proprietary mark of product conformity issued in accordance with ISO/IEC 17030.

1.4.5 Certification System

An impartial third party product certification scheme or combination of schemes, as exemplified in ISO/IEC TR 17026, that are in accordance with the fundamentals of AS/NZS ISO/IEC 17067 and with the guiding principles of ISO/IEC Guide HB 18.28.

NOTE: The effect of this is to require maintenance by the manufacturer of effective production control planning in addition to full type testing from independently sampled production and subsequent verification of conformity with specified standards.

1.4.6 Compliant Product

Product that has been assessed, by means of Product Appraisal, as conforming with standards and specifications that are specified by the Corporation.

1.4.7 Corporation

The Water Corporation of Western Australia.

1.4.8 Manufacturer

An entity or combination of entities that are responsible for selection, processing and control of Product constituent materials or compounds and for the processing equipment that collectively result in the manufactured product.

1.4.9 Notation

Statements governed by use of the word 'shall' are mandatory or 'normative' requirements of the Specification. Statements expressed by use of the words 'should' or 'may' are 'informative' but not mandatory and are provided for information and guidance. Notes in Specification text are informative. Notes that form part of Specification Tables are normative. An Appendix to the Specification that is designated 'normative' contains mandatory requirements. An Appendix that is designated 'informative' is provided for information and guidance only. The term 'specified' includes requirements of the Specification and requirements stated or referenced in other project documentation.

1.4.10 Officer

A duly authorised representative or appointed agent of the Corporation.

1.4.11 Product

A single unit or multiple units of manufactured end product or an assembly of manufactured component products, materials or equipment. This Specification and accompanying Purchasing Schedule define the nature and details of Product to be supplied.

NOTES

- 1:** An end product is most commonly an output of manufacturing processes that result in finished end products having the same features and characteristics and can be the result of a single or multiple production batches.
- 2:** Manufactured equipment and assemblies of Product components or materials are commonly procured for mechanical, electrical and civil infrastructure applications.

1.4.12 Product Appraisal

A formal process whereby Product, including product design, is subjected to systematic engineering assessment to determine Product fitness for prescribed end uses and to evaluate conformity of its production systems with specified standards and requirements. Product Appraisal includes verification of the extent of compliance in accordance with the requirements of a relevant 'Technical Compliance Schedule'.

1.4.13 Product Assessor

An organization, Officer or other person who, having demonstrated specialist product knowledge and competence acceptable to the Corporation, is appointed to evaluate Product, appraises the Product and issues one or more Product Verification Reports.

1.4.14 Product Certification

A formal process whereby the production and management systems for the manufacture of Product, are assessed by a Certification Body to evaluate compliance of these systems with specified product standards and tests in accordance with Certification Scheme rules.

1.4.15 Product Verification Report

A formal report wherein a Product Assessor evaluates the extent of Product compliance with the specified product standards and specifications.

NOTE: Verification may be on a project-by-project basis or at agreed intervals, as appropriate to the scope of a Purchasing Schedule and Product end use, subject to determination by the Corporation.

1.4.16 Product Warranty

A formal express undertaking by a Supplier that indemnifies the Corporation against the consequences of supplied Product failure to comply with specified fitness for application and in-service life expectancy performance requirements.

1.4.17 Purchasing Schedule

A Corporation purchase order, tender, schedule of prices, bill of quantities, or specification that details the nature, quantity and other characteristics of Product to be supplied, purchased or installed.

1.4.18 Quality System

A management system that establishes, documents, implements and maintains organizational structures, resources, responsibilities, processes and procedures for the manufacture of Product and provision of Product related services in accordance with the requirements of AS/NZS ISO 9001.

1.4.19 Standards Australia

The peak non-government standards development body in Australia which develops Australian Standards®.

1.4.20 Strategic Product

An essential infrastructure component whose performance is critical to the elimination of risk to the safe and effective provision of water services, which are functions of the Corporation under the Water Corporation Act as licensed under the Water Services Coordination Act.

NOTE: Strategic product is a component of permanent Corporation infrastructure. Ancillary operational and safety equipment that does not form part of permanent infrastructure but offers exceptional enhancements in operational performance or personnel safety may also be deemed strategic.

1.4.21 Strategic Product Appraisal Process

The process described in Section 3 of the Strategic Products Register whereby manufactured products and equipment are evaluated and authorised for use in Corporation infrastructure, subject to compliance with the specified product performance requirements.

1.4.22 Supplier

An entity or combination of entities that is responsible for the supply of Product.

NOTE: A Supplier may be a Manufacturer, owner, producer, distributor, vendor, agent, tenderer or contractor for supply of Product or Product related service.

1.4.23 Testing

The determination of Product characteristics by inspection and by the application of specified test procedures.

2 Materials, Design and Performance

2.1 General

DI pipe fittings shall be in accordance with AS/NZS 2280 including compliance with the requirements of AS/NZS 4158 for thermal-bonded polymeric coating externally and lining internally. Fittings shall comply with AS/NZS 4020 for use in contact with drinking and recycled water, for an exposure of 15000 mm² of internal fitting surface area to a litre of water.

NOTES

- 1:** The design and installation of buried flexible pipelines including ductile iron pipe fittings should be in accordance with AS/NZS 2566.1 and AS/NZS 2566.2 respectively.
- 2:** Requirements for socketed DI pipe fittings that can axially restrain unbalanced pipeline forces in buried or above ground applications (e.g. Tyton-Lok system) are not given in this specification. Appropriate requirements including installation and operational constraints should be specified in project documentation by the pipeline system designer.
- 3:** Pipe fitting end configuration should be selected so as to avoid the insertion of any DI (or other metallic) pipe spigot into a plastics pipe socket.

2.2 Flanged Fittings

Flanged DI pipe fittings shall have integrally cast flanges in accordance with AS 4087 Figures B5 (PN 16) or B6 (PN 35) as appropriate to the pipeline system design pressure specified for the particular project application by the system designer.

NOTES

- 1:** Flanged pipeline component pressure rating should exceed the specified maximum allowable operating pressure (MAOP) of the pipeline system.
- 2:** Pipeline system flange configuration and gaskets should be in accordance with Corporation design standard DS 38-02 as appropriate to the particular project application.
- 3:** Pipe fittings having screw-on flanges should not be used except as may be acceptable to the Corporation for specific project applications on the basis of justified design and installation methodology proposals.

2.3 Fitting Joint Seals

The elastomeric joint seals of socketed pipe fittings shall be EPDM or SBR, shall comply with AS 1646 (incorporating AS 681.1, 681.2, 681.3 and 681.4) and AS/NZS 4020 and shall be supplied by the manufacturer of the pipe fittings.

Note: Joint lubricants for use with pipe fittings should be limited to water-based emulsions with a bactericide of approved composition complying with AS/NZS 4020. Joint lubricants should be supplied by the pipe fittings manufacturer.

2.4 Dimensions

Minimum depths of entry for socketed ductile iron pipe fittings shall be in accordance with Table 3.1 of AS/NZS 2280 as appropriate to plastics pipe jointing applications. The effective lengths of special socketed fittings (which differ from those dimensioned in Appendix H of AS/NZS 2280) shall be verified during production by direct measurement in accordance with Appendix E of AS/NZS 2280 and shall be notified to the Corporation for specific referencing in its Strategic Products Register.

2.5 Pressure Classification

The pressure classification of ductile iron pipe fittings to be supplied shall be as defined in the Purchasing Schedule. Designated pressure classifications shall be clearly marked on ductile iron fittings.

3 Transportation, Handling and Storage

3.1 General

Transportation, handling and storage facilities shall be designed to prevent Product damage or defects and maintain Product free of deleterious matter. Product shall not be dropped off elevated vehicle platforms or sites. Mechanical handling equipment shall be in accordance with AS 2550.1, AS 2550.3, AS 2550.5 and AS 2550.11 and shall be appropriate to the loads to be lifted. Manual handling shall be in accordance with the National Standard for Manual Handling and the National Code of Practice for Manual Handling, published by National Occupational Health and Safety Commission, Australia. Product restraint during transportation shall be in accordance with Load Restraint Guide – Guidelines for Safe Carriage of Loads of Road Vehicles, published jointly by the Federal Office of Road Safety and the National Road Transport Commission, Australia.

Note: Where wire ropes or chains are used for loading and unloading, they should not come into direct contact with Product. Lifting elements in direct contact with Product should be of a non-abrasive design e.g. elastomeric or fabric webbing straps. During transportation, Product restraints should be checked for tension at regular intervals of travel and should not be released until the transporting vehicle is resting in a secure stable disposition on level ground.

3.2 Preservation of Product in Storage

Pipe fittings shall be packaged so as to prevent point loading, chafing, scoring, impact or other incidental pipe damage during transportation, handling and storage operations. Packaged pipe fittings shall include sufficient joint lubricant for supplied pipe fittings. Product shall be stored in original Product packaging in accordance with the published requirements of the manufacturer, prior to installation. Component materials shall be protected from extended exposure to direct sunlight and high temperatures. Storage of elastomeric pipe joint seals shall comply with the requirements of AS 1646 (incorporating AS 681.1, 681.2, 681.3 and 681.4). Designated Product storage areas shall be of sufficient size to accommodate Product deliveries and shall be flat, reasonably level and free of combustible vegetation, sharp stones or projections that could cause Product damage or defects.

4 Quality Assurance

4.1 Certification

4.1.1 Certification of Product

Compliance with this Specification shall be certified by means of an ISO Type 5 Product Certification Scheme i.e. a scheme that meets the criteria described in HB 18.28 (ISO/IEC Guide 28), conducted by a JAS-ANZ accredited Certification Body. Each Certificate shall expressly attest conformity of all product items with the nominated Standards. Wherever specified, Certificates shall be submitted to the Officer nominated for this purpose. Product shall be marked in accordance with the requirements of the Certification Body.

Note: Conformity of Product - including related accessories and services - with nominated Standards and specified requirements may be verified by means of a Product Verification Report provided by a Product Assessor. The Product Verification Report should identify all relevant Certificates of product conformity, duly issued in accordance with Certification Scheme rules.

4.1.2 Quality System

The processes for manufacture, supply, transportation, handling, delivery and storage of product to be supplied in accordance with this Specification shall form part of a documented Quality System. The System shall be certified by a Certification Body as complying with the requirements of AS/NZS ISO 9001 and shall provide for identification and traceability, control of production and delivery to the specified destination, customer verification and control of documents and records.

4.1.3 Product Re-verification

Product conformity with the Specification shall be subject to re-verification by a Product Assessor when, during the agreed product supply period, there occurs any:

- Substantive change in product design or material formulation or performance
- Product failure to perform in operational service to the nominated performance specifications.

Re-verification shall require the issue of a new or supplementary Product Verification Report. Product components and test outcomes that are not significantly affected by the product change of failure may be excluded from the scope of re-verification, provided that these outcomes have already been reported in a current valid Product Verification Report that is acceptable to the Corporation.

Wherever the requirements of the Specification apply to a product supply period in excess of three years, continuing acceptance of product shall be subject to re-verification. The purpose of re-verification shall be to confirm the continuing conformity of product quality and production processes with the requirements of the Specification.

4.2 Compliance and Acceptance

4.2.1 Means of Demonstrating Compliance

Compliance with this Specification shall be demonstrated by means of Product Appraisal and issue by a Product Assessor of a Product Verification Report that confirms compliance. Otherwise, Product shall be deemed non-compliant and ineligible for registration as Product authorised for use in Corporation infrastructure.

NOTES

1: Where a project includes design work including Product design, Product Appraisal may form part of the project design review process and the Product Assessor may be a member of the project design review team.

2: A Product Verification Report should verify the extent of compliance with the Specification including all relevant 'Technical Compliance Schedule' Appendices and the currency of a Certificate where relevant to the Product.

4.2.2 Acceptance Criteria

For acceptance, Product shall be supplied as specified in the Purchasing Schedule.

Prior to the implementation of any arrangement to supply Product, the Supplier shall, in accordance with specified requirements:

- Nominate applicable Product Warranty terms; and
- Provide documentary verification in the form of a current valid Certificate or Product Verification Report as appropriate to the Product; and
- Detail each element of Product that does not comply with the specified requirements together with the extent of non-compliance.

NOTE: Where the Specification includes Technical Compliance Schedules, the nature and extent of all non-compliances should be provided in accordance with the appropriate Schedules.

4.3 Non-compliant Product

4.3.1 General

Product whose design, workmanship or performance fails to conform to the specified requirements shall be clearly tagged and quarantined by the Supplier as non-compliant and shall be subject to rejection for return to and replacement by the Supplier.

4.3.2 Manufacturing Repairs (In-process)

Welding, the use of fillers and other repairs shall generally not be permissible on Product which is in the course of production. Repairs to custom-built Products may be considered only if determined by the Corporation to be minor casting repair work in non-strategic location. Accordingly, details of any defect which the Manufacturer considers can be repaired; together with details of proposed repair procedures shall be submitted in writing for determination by the Corporation.

The Manufacturer shall make provision in its production Quality System and in the appropriate ITP's for sufficient hold points whenever casting defects are encountered. Production work on non-compliant components shall cease and repair work shall not commence until the following details have been confirmed by the Corporation in writing:

- (a) that repair of the non-compliant components in lieu of their replacement is acceptable; and
- (b) that proposed repair procedures are acceptable; and
- (c) that any proposal to vary the terms of the original Product Warranty is acceptable.

4.3.3 Product Warranty

The Supplier shall replace non-compliant Product with Product that conforms to the acceptance criteria or shall repair or rectify all faults, damage or losses caused by defective Product. Except as may otherwise be specified, the Product Warranty shall indemnify and keep indemnified the Corporation against all losses suffered by the Corporation as a result of non-compliant Product for a period no less than 24 months after Product delivery or 12 months after Product installation, whichever period elapses first.

4.3.4 Product Repair

All reasonable proposals for repair or remedy of defects will be considered, provided that each such proposal is accompanied by a methodology statement that accords with the performance objectives of this Specification, as determined by the Corporation. For acceptance, a proposal for repair or remedy of Product defects shall not void or otherwise diminish the provisions of the Product Warranty.

5 Appendix A

5.1 Material Master Records

The following Material Master Records comprise Corporation catalogue numbers that are unique to the particular products tabulated herein for the purposes of Corporation activities or work.

MMR	Purchase Order Description (Adaptor/Connector)
9749	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN80; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit AC Pipe.
13611	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN100 x 152mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, Blue PVC, AC and GWI Pipe.
6793	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN100 x 203mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, AC & GWI Pipe.
21321	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN35; Flanged to AS 4087 Figure B6 to Spigot; DN100 x 203mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI and AC Pipe.
13612	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN150 x 152mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, Blue PVC, AC and GWI Pipe.
6794	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN150 x 203mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, AC and GWI Pipe.
6795	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN200 x 229mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, AC and GWI Pipe.
13613	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN200 x 152mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, Blue PVC, AC and GWI Pipe.
21612	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN225 x 155mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, Blue PVC and AC Pipe.
21697	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN225 x 230mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, AC and GWI Pipe.

MMR	Purchase Order Description (Adaptor/Connector)
22015	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN250 x 1250mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
18816	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN250 x 170mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, Blue PVC, AC and GWI Pipe.
19474	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN250 x 230mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, AC and GWI Pipe.
21629	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN300 x 255mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, AC and GWI Pipe.
21320	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN300 x 300mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, Blue PVC and AC Pipe.
21303	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN35; Flanged to AS 4087 Figure B6 to Socket; C/W Fitted Elastomeric Seal Joint; DN300 x 300mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, Blue PVC and AC Pipe.
22016	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN375 x 1150mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
22014	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN375 x 1500mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21688	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN375 x 190mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, Blue PVC and AC Pipe.
21690	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN375 x 280mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, AC and GWI Pipe.
21512	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN450 x 200mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, Blue PVC and AC Pipe.
21953	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN450 x 280mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, AC and GWI Pipe.

MMR	Purchase Order Description (Adaptor/Connector)
21613	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN500 x 215mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, Blue PVC and AC Pipe.
21731	Adaptor, Straight, Flange To Pipe; Ductile Cast Iron; Connector; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN500 x 305mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, AC and GWI Pipe.

MMR	Purchase Order Description (Bend – 6 Degree)
21054	Elbow, Pipe; Ductile Cast Iron; 6 Degree Bend; DN100; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21055	Elbow, Pipe; Ductile Cast Iron; 6 Degree Bend; DN150; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21066	Elbow, Pipe; Ductile Cast Iron; 6 Degree Bend; DN200; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21314	Elbow, Pipe; Ductile Cast Iron; 6 Degree Bend; DN300; PN20; Socket to Socket; C/W Fitted Elastomeric Seal Joints; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.

MMR	Purchase Order Description (Bend – 11-1/4 Degree)
1951	Elbow, Flange; Ductile Cast Iron; 11-1/4 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN100; Thermal Bonded Polymeric Coating (Internal and External) To AS/NZS 4158.
13552	Elbow, Pipe; Ductile Cast Iron; 11-1/4 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
1956	Elbow, Flange; Ductile Cast Iron; 11-1/4 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13553	Elbow, Pipe; Ductile Cast Iron; 11-1/4 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.

MMR	Purchase Order Description (Bend – 11-1/4 Degree)
1961	Elbow, Flange; Ductile Cast Iron; 11-1/4 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13554	Elbow, Pipe; Ductile Cast Iron; 11-1/4 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
18809	Elbow, Flange; Ductile Cast Iron; 11-1/4 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
18364	Elbow, Pipe; Ductile Cast Iron; 11-1/4 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21310	Elbow, Flange; Ductile Cast Iron; 11-1/4 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21319	Elbow, Flange; Ductile Cast Iron; 11-1/4 Degree Bend; PN35; Flanged to AS 4087 Figure B6; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21305	Elbow, Pipe; Ductile Cast Iron; 11-1/4 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21324	Elbow, Flange; Ductile Cast Iron; 11-1/4 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21342	Elbow, Flange; Ductile Cast Iron; 11-1/4 Degree Bend; PN35; Flanged to AS 4087 Figure B6; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21326	Elbow, Pipe; Ductile Cast Iron; 11-1/4 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21730	Elbow, Flange to Pipe; Ductile Cast Iron; 11-1/4 Degree Bend; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and Blue PVC Pipe.
21350	Elbow, Flange; Ductile Cast Iron; 11-1/4 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21607	Elbow, Pipe; Ductile Cast Iron; 11-1/4 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21340	Elbow, Pipe; Ductile Cast Iron; 11-1/4 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and Blue PVC Pipe.

MMR	Purchase Order Description (Bend – 22-1/2 Degree)
1953	Elbow, Flange; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13555	Elbow, Pipe; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
1958	Elbow, Flange; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13556	Elbow, Pipe; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
1963	Elbow, Flange; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13557	Elbow, Pipe; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
18810	Elbow, Flange; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
18365	Elbow, Pipe; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21309	Elbow, Flange; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21652	Elbow, Pipe; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit Series 1 DI Fittings and White PVC Pipe.
21318	Elbow, Flange; Ductile Cast Iron; 22-1/2 Degree Bend; PN35; Flanged to AS 4087 Figure B6; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21643	Elbow, Flange; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158;
21343	Elbow, Flange; Ductile Cast Iron; 22-1/2 Degree Bend; PN35; Flanged to AS 4087 Figure B6; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21687	Elbow, Pipe; Ductile Cast Iron; 22-1/2 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21344	Elbow, Flange; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.

MMR	Purchase Order Description (Bend – 22-1/2 Degree)
21608	Elbow, Pipe; Ductile Cast Iron; 22-1/2 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21341	Elbow, Pipe; Ductile Cast Iron; 22-1/2 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and Blue PVC Pipe.

MMR	Purchase Order Description (Bend – 45 Degree)
1954	Elbow, Flange; Ductile Cast Iron; 45 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13558	Elbow, Pipe; Ductile Cast Iron; 45 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
1959	Elbow, Flange; Ductile Cast Iron; 45 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13559	Elbow, Pipe; Ductile Cast Iron; 45 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
1964	Elbow, Flange; Ductile Cast Iron; 45 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13560	Elbow, Pipe; Ductile Cast Iron; 45 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
18811	Elbow, Flange; Ductile Cast Iron; 45 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
18366	Elbow, Pipe; Ductile Cast Iron; 45 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21316	Elbow, Flange; Ductile Cast Iron; 45 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21317	Elbow, Flange; Ductile Cast Iron; 45 Degree Bend; PN35; Flanged to AS 4087 Figure B6; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21641	Elbow, Pipe; Ductile Cast Iron; 45 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.

MMR	Purchase Order Description (Bend – 45 Degree)
21325	Elbow, Flange; Ductile Cast Iron; 45 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21644	Elbow, Pipe; Ductile Cast Iron; 45 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI & Blue PVC and AC Pipe.
21732	Elbow, Flange to Pipe; Ductile Cast Iron; 45 Degree Bend; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI & Blue PVC Pipe.
21346	Elbow, Flange; Ductile Cast Iron; 45 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21609	Elbow, Pipe; Ductile Cast Iron; 45 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.

MMR	Purchase Order Description (Bend – 90 Degree)
14985	Elbow, Flange to Pipe; Ductile Cast Iron; 90 Degree Washout Bend; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
1955	Elbow, Flange; Ductile Cast Iron; 90 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
1967	Elbow, Flange; Ductile Cast Iron; 90 Degree; PN16; Flanged to AS 4087 Figure B5; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; Asymmetric - 457mm Long Leg x 108mm Short Leg. Note: Non-Standard Fitting.
13561	Elbow, Pipe; Ductile Cast Iron; 90 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC & AC Pipe.
21739	Elbow, Flange; Ductile Cast Iron; 90 Degree Bend; PN35; Flanged to AS 4087 Figure B6; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
1960	Elbow, Flange; Ductile Cast Iron; 90 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
1969	Elbow, Flange; Ductile Cast Iron; 90 Degree; PN16; Flanged to AS 4087 Figure B5; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; Asymmetric - 400mm Long Leg x 190.5mm Short Leg. Note: Non-Standard Fitting.

MMR	Purchase Order Description (Bend – 90 Degree)
13562	Elbow, Pipe; Ductile Cast Iron; 90 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
1965	Elbow, Flange; Ductile Cast Iron; 90 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13563	Elbow, Pipe; Ductile Cast Iron; 90 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21642	Elbow, Flange to Pipe; Ductile Cast Iron; 90 Degree Bend; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and Blue PVC Pipe.
18812	Elbow, Flange; Ductile Cast Iron; 90 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
18367	Elbow, Pipe; Ductile Cast Iron; 90 Degree Bend; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21640	Elbow, Flange; Ductile Cast Iron; 90 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21307	Elbow, Pipe; Ductile Cast Iron; 90 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21919	Elbow, Flange; Ductile Cast Iron; 90 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21352	Elbow, Flange to Pipe; Ductile Cast Iron; 90 Degree Bend; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and Blue PVC Pipe.
21639	Elbow, Pipe; Ductile Cast Iron; 90 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21351	Elbow, Flange to Pipe; Ductile Cast Iron; 90 Degree Bend; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI & Blue PVC Pipe.
21349	Elbow, Flange; Ductile Cast Iron; 90 Degree Bend; PN16; Flanged to AS 4087 Figure B5; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21610	Elbow, Pipe; Ductile Cast Iron; 90 Degree Bend; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.

MMR	Purchase Order Description (Cap)
13614	Cap, Pipe; Ductile Cast Iron; Socketed; PN16; C/W Fitted Elastomeric Seal Joint; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
13615	Cap, Pipe; Ductile Cast Iron; Socketed; PN16; C/W Fitted Elastomeric Seal Joint; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
13616	Cap, Pipe; Ductile Cast Iron; Socketed; PN16; C/W Fitted Elastomeric Seal Joint; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
18359	Cap, Pipe; Ductile Cast Iron; Socketed; PN16; C/W Fitted Elastomeric Seal Joint; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21315	Cap, Pipe; Ductile Cast Iron; Socketed; PN16; C/W Fitted Elastomeric Seal Joint; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21713	Cap, Pipe; Ductile Cast Iron; Socketed; PN35; C/W Fitted Elastomeric Seal Joint; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.

MMR	Purchase Order Description (Coupling)
13541	Coupling, Pipe; Ductile Cast Iron; Socket to Socket; PN16; C/W Fitted Elastomeric Seal Joints; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
13542	Coupling, Pipe; Ductile Cast Iron; Socket to Socket; PN16; C/W Fitted Elastomeric Sealing Joints; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
13543	Coupling, Pipe; Ductile Cast Iron; Socket to Socket; PN16; C/W Fitted Elastomeric Seal Joints; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
18363	Coupling, Pipe; Ductile Cast Iron; Socket to Socket; PN16; C/W Fitted Elastomeric Seal Joints; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21304	Coupling, Pipe; Ductile Cast Iron; Socket to Socket; PN35; C/W Fitted Elastomeric Seal Joints; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21689	Coupling, Pipe; Ductile Cast Iron; Socket to Socket; PN35; C/W Fitted Elastomeric Seal Joints; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.

MMR	Purchase Order Description (Coupling)
21611	Coupling, Pipe; Ductile Cast Iron; Socket to Socket; PN35; C/W Fitted Elastomeric Seal Joints; DN450; Thermal Bonded Polymeric Coating (Internal & External) to AS/NZS 4158; To Suit CI, DI, Blue PVC & AC Pipe.

MMR	Purchase Order Description (Flange - Blank)
2051	Flange, Pipe, Blind; Ductile Cast Iron; Blank Type Raised Face; PN16; To AS 4087 Figure B5; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
2052	Flange, Pipe, Blind; Ductile Cast Iron; Blank Type Raised Face; PN16; To AS 4087 Figure B5; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
2053	Flange, Pipe, Blind; Ductile Cast Iron; Blank Type Raised Face; PN16; To AS 4087 Figure B5; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21866	Flange, Pipe, Blind; Ductile Cast Iron; Blank Type Raised Face; PN16; To AS 4087 Figure B5; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
2054	Flange, Pipe, Blind; Ductile Cast Iron; Blank Type Raised Face; PN16; To AS 4087 Figure B5; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21867	Flange, Pipe, Blind; Ductile Cast Iron; Blank Type Raised Face; PN16; To AS 4087 Figure B5; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21618	Flange, Pipe, Blind; Ductile Cast Iron; Blank Type Raised Face; PN16; To AS 4087 Figure B5; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
2050	Flange, Pipe; Ductile Cast Iron; Screw-on Type Raised Face; PN16; Drilled to AS 4087 Figure B5; Bore Threaded to AS ISO 7.1 Series RP2; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.

MMR	Purchase Order Description (Hydrant Riser)
2102	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN16; Flanged to AS 4087 Figure B5; DN100 x 100mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; Note: Holes Slotted One End to Edge of Flange-Refer AS 2280 Figure J7.
2103	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN16; Flanged to AS 4087 Figure B5; DN100 x 150mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21737	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN35; Flanged to AS 4087 Figure B6; DN100 x 150mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
2105	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN16; Flanged to AS 4087 Figure B5; DN100 x 225mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.

MMR	Purchase Order Description (Hydrant Riser)
2106	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN16; Flanged to AS 4087 Figure B5; DN100 x 300mm Long; Thermal Bonded Polymeric Coating (Internal & External) to AS/NZS 4158.
20594	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN16; Flanged to AS 4087 Figure B5; DN100 x 450mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21061	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN16; Flanged to AS 4087 Figure B5; DN100 x 500mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
20595	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN16; Flanged to AS 4087 Figure B5; DN100 x 600mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21060	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN16; Flanged to AS 4087 Figure B5; DN100 x 1000mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21323	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN16; Flanged to AS 4087 Figure B5; DN100 x 1300mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
22936	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN16; Flanged to AS 4087 Figure B5; DN150 x 300mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
22093	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN16; Flanged to AS 4087 Figure B5; DN150 x 500mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
22064	Coupling, Pipe; Ductile Cast Iron; Hydrant Riser; PN16; Flanged to AS 4087 Figure B5; DN150 x 600mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.

MMR	Purchase Order Description (Puddle Flange)
21855	Pipe Assembly; Ductile Cast Iron; Flange Connector with Puddle Flange; PN16; Flanged to AS 4087 Figure B5; DN375 x 915mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
22013	Pipe Assembly; Ductile Cast Iron; Spigot Connector with Puddle Flange; PN16; Flanged to AS 4087 Figure B5 to Spigot; DN300 x 800mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21736	Pipe Assembly; Ductile Cast Iron; Socket Connector with Puddle Flange; PN16; Flanged to AS 4087 Figure B5 to Socket; C/W Fitted Elastomeric Seal Joint; DN450 x 900mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit DI, Blue PVC and AC Pipe.
21734	Pipe Assembly; Ductile Cast Iron; Flange Connector with Puddle Flange; PN16; Flanged to AS 4087 Figure B5; DN450 x 1200mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21735	Pipe Assembly; Ductile Cast Iron; Flange Connector with Puddle Flange; PN16; Flanged to AS 4087 Figure B5; DN500 x 1000mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.

MMR	Purchase Order Description (Reducer)
9401	Reducer, Pipe; Ductile Cast Iron; PN16; Spigot to Spigot; DN100 x DN58; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit AC Pipe.
2098	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN100 x DN80; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
9745	Reducer, Pipe; Ductile Cast Iron; PN16; Spigot to Spigot; DN100 x DN80; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit AC Pipe.
21322	Reducer, Pipe; Ductile Cast Iron; PN16; Eccentric; Flanged to AS 4087 Figure B5; DN150 x DN100; 235mm Length; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
2099	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN150 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13997	Reducer, Pipe; Ductile Cast Iron; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN150 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
9402	Reducer, Pipe; Ductile Cast Iron; PN16; Spigot to Flange (AS 4087 Figure B5); DN150 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit AC Pipe.
22171	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN150 x DN125; 266mm Length; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21700	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN150 x DN80; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
2100	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN200 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
2101	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN200 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13996	Reducer, Pipe; Ductile Cast Iron; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN200 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
9403	Reducer, Pipe; Ductile Cast Iron; PN16; Spigot to Flange (AS 4087 Figure B5); DN200 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit AC Pipe.
21995	Reducer, Pipe; Ductile Cast Iron; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN225 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21699	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN250 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.

MMR	Purchase Order Description (Reducer)
22063	Reducer, Pipe; Ductile Cast Iron; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN250 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
22009	Reducer, Pipe; Ductile Cast Iron; PN16; Eccentric; Flanged to AS 4087 Figure B5; DN250 x DN200; 254mm Length; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
19974	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN250 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
18357	Reducer, Pipe; Ductile Cast Iron; PN16; Socket to Flange (AS 4087 Figure B5); C/W Fitted Elastomeric Seal Joint; DN250 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC & AC Pipe.
21947	Reducer, Pipe; Ductile Cast Iron; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN250 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21701	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN250 x DN225; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
22170	Reducer, Pipe; Ductile Cast Iron; PN16; Eccentric; Flanged to AS 4087 Figure B5; DN300 x DN150; 508mm Length; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
22010	Reducer, Pipe; Ductile Cast Iron; PN16; Spigot to Spigot; DN300 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21924	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN300 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21844	Reducer, Pipe; Ductile Cast Iron; PN16; Eccentric; Flanged to AS 4087 Figure B5; DN300 x DN200; 387mm Length; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21920	Reducer, Pipe; Ductile Cast Iron; PN16; Socket to Flange (AS 4087 Figure B5); C/W Fitted Elastomeric Seal Joint; DN300 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21698	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN300 x DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21925	Reducer, Pipe; Ductile Cast Iron; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN300 x DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21691	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN375 x DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
22208	Reducer, Pipe; Ductile Cast Iron; PN16; Socket to Flange (AS 4087 Figure B5); C/W Fitted Elastomeric Seal Joint; DN375 x DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.

MMR	Purchase Order Description (Reducer)
22012	Reducer, Pipe; Ductile Cast Iron; PN16; Eccentric; Flanged to AS 4087 Figure B5; DN375 x DN300; 337mm Length; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21692	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN375 x DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21747	Reducer, Pipe; Ductile Cast Iron; PN16; Socket to Flange (AS 4087 Figure B5); C/W Fitted Elastomeric Seal Joint; DN375 x DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21615	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN450 x DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
22011	Reducer, Pipe; Ductile Cast Iron; PN16; Socket to Flange (AS 4087 Figure B5); C/W Fitted Elastomeric Seal Joint; DN450 x DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21707	Reducer, Pipe; Ductile Cast Iron; PN16; Eccentric; Flanged to AS 4087 Figure B5; DN450 x DN375; 356mm Length; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21714	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN450 x DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21353	Reducer, Pipe; Ductile Cast Iron; PN16; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN450 x DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and Blue PVC Pipe.
21616	Reducer, Pipe; Ductile Cast Iron; PN35; Socket to Socket; C/W Fitted Elastomeric Seal Joints; DN450 x DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and Blue PVC Pipe.
21868	Reducer, Pipe; Ductile Cast Iron; PN16; Eccentric; Flanged to AS 4087 Figure B5; DN500 x DN300; 667mm Length; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21617	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN500 x DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21869	Reducer, Pipe; Ductile Cast Iron; PN16; Eccentric; Flanged to AS 4087 Figure B5; DN500 x DN450; 305mm Length; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21614	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN500 x DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21733	Reducer, Pipe; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN525 (21IN) x DN500 x 248mm Long; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.

MMR	Purchase Order Description (Tee)
21738	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN80; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
2133	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13548	Tee, Flange to Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange (AS 4087 Figure B5); C/W Fitted Elastomeric Seal Joints; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC & AC Pipe.
13544	Tee, Pipe; Ductile Cast Iron; PN16; Socketed; C/W Fitted Elastomeric Seal Joints; DN100; Thermal Bonded Polymeric Coating (Internal & External) to AS/NZS 4158; To Suit CI, DI, Blue PVC, and AC Pipe.
5603	Tee, Pipe; Ductile Cast Iron; PN16; Spigoted; DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
2134	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN150 x DN150 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13549	Tee, Flange to Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange (AS 4087 Figure B5); C/W Fitted Elastomeric Seal Joints; DN150 x DN150 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
13545	Tee, Pipe; Ductile Cast Iron; PN16; Socketed; C/W Fitted Elastomeric Seal Joints; DN150 x DN150 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC, and AC Pipe.
5604	Tee, Pipe; Ductile Cast Iron; PN16; Spigoted; DN150 x DN150 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
21744	Tee, Flange; Ductile Cast Iron; PN35; Flanged to AS 4087 Figure B6; DN150 x DN150 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
2135	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21740	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange (AS 4087 Figure B5); C/W Fitted Elastomeric Seal Joints; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
13546	Tee, Pipe; Ductile Cast Iron; PN16; Socketed; C/W Fitted Elastomeric Seal Joints; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
18978	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Spigot to Spigot to Flange (AS 4087 Figure B5); DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.

MMR	Purchase Order Description (Tee)
5605	Tee, Pipe; Ductile Cast Iron; PN16; Spigoted; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
2136	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN200 x DN200 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13550	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange (AS 4087 Figure B5); C/W Fitted Elastomeric Seal Joints; DN200 x DN200 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
9824	Tee, Pipe; Ductile Cast Iron; PN16; Spigoted; DN200 x DN200 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, and AC Pipe.
2137	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN200 x DN200 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13551	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange (AS 4087 Figure B5); C/W Fitted Elastomeric Seal Joints; DN200 x DN200 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21949	Tee, Pipe; Ductile Cast Iron; PN16; Socketed; C/W Fitted Elastomeric Seal Joints; DN250 x DN250 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
9825	Tee, Pipe; Ductile Cast Iron; PN16; Spigoted; DN200 x DN200 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, and AC Pipe.
2138	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
13547	Tee, Pipe; Ductile Cast Iron; PN16; Socketed; C/W Fitted Elastomeric Seal Joints; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC, and AC Pipe.
5606	Tee, Pipe; Ductile Cast Iron; PN16; Spigoted; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
21946	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Spigot to Spigot to Flange AS 4087 Figure B5; DN200 x DN200 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
18813	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN250 x DN250 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
18360	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN250 x DN250 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
18814	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN250 x DN250 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.

MMR	Purchase Order Description (Tee)
18361	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN250 x DN250 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
20187	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Spigot to Spigot to Flange AS 4087 Figure B5; DN250 x DN250 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
18815	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN250 x DN250 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21948	Tee, Pipe; Ductile Cast Iron; PN16; Socketed; C/W Fitted Elastomeric Seal Joints; DN250 x DN250 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
18362	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange (AS4087 Figure B5); C/W Fitted Elastomeric Seal Joints; DN250 x DN250 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
20186	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Spigot to Spigot to Flange (AS 4087 Figure B5); DN250 x DN250 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
20185	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Spigot to Spigot to Flange (AS 4087 Figure B5); DN250 x DN250 x DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
19973	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21511	Tee, Pipe; Ductile Cast Iron; PN16; Socketed; C/W Fitted Elastomeric Seal Joints; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21794	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN300 x DN300 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21306	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN300 x DN300 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21645	Tee, Pipe; Ductile Cast Iron; PN16; Socketed; C/W Fitted Elastomeric Seal Joints; DN300 x DN300 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC, and AC Pipe.
21301	Tee, Flange; Ductile Cast Iron; PN35; Flanged to AS 4087 Figure B6; DN300 x DN300 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.

MMR	Purchase Order Description (Tee)
21308	Tee, Flange To Pipe; Ductile Cast Iron; PN35; Socket to Socket to Flange AS 4087 Figure B6; C/W Fitted Elastomeric Seal Joints; DN300 x DN300 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21646	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN300 x DN300 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21312	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN300 x DN300 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21745	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Spigot to Spigot to Flange AS 4087 Figure B5; DN300 x DN300 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
22029	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN300 x DN300 x DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21647	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN300 x DN300 x DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21648	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Spigot to Spigot to Flange AS 4087 Figure B5; DN300 x DN300 x DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
21793	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN300; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21606	Tee, Flange to Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN375 x DN375 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21746	Tee, Pipe; Ductile Cast Iron; PN35; Socketed; C/W Fitted Elastomeric Seal Joints; DN375 x DN375 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC, and AC Pipe.
21694	Tee, Flange to Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN375 x DN375 x DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21693	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN375 x DN375 x DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.

MMR	Purchase Order Description (Tee)
21695	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21696	Tee, Pipe; Ductile Cast Iron; PN35; Socketed; C/W Fitted Elastomeric Seal Joints; DN375; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC, and AC Pipe.
21601	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN450 x DN450 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21605	Tee, Flange to Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN450 x DN450 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21604	Tee, Flange to Pipe; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN450 x DN450 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21602	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21603	Tee, Pipe; Ductile Cast Iron; PN35; Socketed; C/W Fitted Elastomeric Seal Joints; DN450; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC, and AC Pipe.
5599	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Spigot to Spigot to Flange (AS 4087 Figure B5); DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; Air Valve and Hydrant Tee; To Suit CI, DI, and AC Pipe.
5600	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Spigot to Spigot to Flange (AS 4087 Figure B5); DN150 x DN150 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; Air Valve and Hydrant Tee; To Suit CI, DI and AC Pipe.
5601	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Spigot to Spigot to Flange (AS 4087 Figure B5); DN200 x DN200 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; Air Valve and Hydrant Tee; To Suit CI, DI and AC Pipe.
5602	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Spigot to Spigot to Flange (AS 4087 Figure B5); DN200 x DN200 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; Air Valve and Hydrant Tee; To Suit CI, DI, Blue PVC, and AC Pipe.
20188	Tee, Flange To Pipe; Ductile Cast Iron; PN16; Spigot to Spigot to Flange (AS 4087 Figure B5); DN250 x DN250 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; Air Valve and Hydrant Tee; To Suit CI, DI and AC Pipe.

MMR	Purchase Order Description (Tee)
21651	Tee, Flange To Pipe; Scour Tee; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN250 x DN250 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21302	Tee, Flange; Scour Tee; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN300 x DN300 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
21649	Tee, Flange To Pipe; Scour Tee; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN300 x DN300 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21311	Tee, Flange To Pipe; Scour Tee; Ductile Cast Iron; PN35; Socket to Socket to Flange AS 4087 Figure B6; C/W Fitted Elastomeric Seal Joints; DN300 x DN300 x DN100; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21918	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN300 x DN300 x DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21327	Tee, Flange; Scour Tee; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN375 x DN375 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
21916	Tee, Flange To Pipe; Scour Tee; Ductile Cast Iron; PN16; Socket to Socket to Flange AS 4087 Figure B5; C/W Fitted Elastomeric Seal Joints; DN375 x DN375 x DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI, Blue PVC and AC Pipe.
21917	Tee, Flange; Ductile Cast Iron; PN16; Flanged to AS 4087 Figure B5; DN375 x DN375 x DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.

MMR	Purchase Order Description (Wye)
21750	Wye, Pipe; Flange Wye; Ductile Cast Iron; PN16; Flanged AS 4087 Figure B5; DN150; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158.
21748	Wye, Pipe; Spigot-Flange Wye; Ductile Cast Iron; PN16; Spigot to Spigot; Flanged to AS 4087 Figure B5; DN200; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.
21749	Wye, Pipe; Spigot-Flange Wye; Ductile Cast Iron; PN16; Spigot to Spigot; Flanged to AS 4087 Figure B5; DN250; Thermal Bonded Polymeric Coating (Internal and External) to AS/NZS 4158; To Suit CI, DI and AC Pipe.

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