



WSAA PRODUCT APPRAISAL CERTIFICATE

Fernco Australia Pty Ltd PA Saddles for Non-Pressure Plastics Sewerage Pipes

This appraisal is for a range of Fernco PA Saddles designed to allow connection of DN 150 property service connection sewers into DN 300 to DN 600 structured and plain wall plastics pipes for non-pressure sewers.

Flexseal Couplings Ltd, Fernco's European manufacturing and operational hub, based in the UK, is the manufacturer of the PA Saddles. Hydroflow Distributors Pty Ltd is the non-exclusive distributor of Fernco PA Saddles within Australasia.

The saddle body, snap ring and packer rings are manufactured from ABS material with an EPDM seal. The bolt ring and flange are manufactured from glass filled nylon and the fasteners are Grade 316 stainless steel. The saddles are rated at 50kPa.

Installation of the saddle requires a 177mm hole to be drilled into the host pipe at 90° to the axis of the pipe. The saddle is then inserted into the hole and four bolts are evenly tightened to secure the saddle on to the pipe and activate the sealing mechanism. The primary interaction between the seal and the pipe is at the internal edge of the cut face.

Orientation of the saddle outlet within $\pm 90^\circ$ to the vertical is possible dependant on practical access for installation purposes.

The socket outlet of the saddle accommodates the direct installation of a DN 150 (160mm OD) PVC-U DWV pipe. DN 150 pipes with alternative OD's or DN 100 pipes may be installed using appropriate flexible couplings.

Quality certification and details of products are included in the attached Schedules A and B.

Product Category	Saddles
PA Number:	2040
Supplier	Fernco Australia Pty Ltd
Brand	Fernco
Standards	-
WSAA Product Specification	WSA PS 251 - <i>Saddles for Structured Wall and Plain Wall Non-Pressure Plastics Pipes - Sewerage</i>
Issue date	27 August 2022
Expiry date	26 August 2027
Recommendations	It is recommended that WSAA members, subject to any specific requirements of the member, accept or authorise Fernco PA Saddles to allow DN 150 property service sewers to be connected into DN 300 to DN 600 structured and plain wall plastics pipes for non-pressure sewers, provided they are installed in accordance with WSAA codes and the manufacturer's requirements.
Disclaimer	The disclaimer on Page 2 explains a number of very important limits on your ability to rely on the information in this Product Appraisal Certificate and the assessment criteria used to underlay it. Please read it carefully and take it into account when considering the content in this Certificate.

1. Disclaimer

This Product Appraisal Certificate (Certificate) is issued by WSAA on the understanding that:

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

To maintain the recommendations of this Certificate any such changes shall be detailed and notified to the Product Appraisal Manager for consideration and review of the Certificate including the product appraisal criteria underlying it 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. Certificates will be reviewed and reissued at regular intervals not exceeding five (5) years.

WSAA reserves the right to withdraw this Certificate at any time in its sole and absolute discretion for any reason.

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

Any enquiries regarding this Certificate should be directed to the Product Appraisal Manager Phone: 03 8605 7601 email carl.radford@wsaa.asn.au.

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This Certificate has been published and/or prepared by WSAA and nominated Project Manager and peer group of technical specialists (the Publishers).

The Certificate and the underlying product appraisal criteria have been prepared for use within Australia only by technical specialists that have expertise in the function of products such as those appraised in the Certificate (the Recipients).

By accepting this Certificate, the Recipient acknowledges and represents to the Publisher(s) and each person involved in the preparation of the Certificate and product appraisal criteria underlying it that the Recipient has understood and accepted the terms of this Disclaimer.

1.2. Limits on Reliance on Information and Recommendations

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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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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 Certificate, or the accuracy, completeness or reasonableness of any recommendation in this Certificate.

QUALITY AND PRODUCT CERTIFICATIONS

Copies of Quality Certificates are available from WSAA.

SCHEDULE A1 FLEXSEAL COUPLINGS LIMITED – MANAGEMENT SYSTEMS

Newlands Way Wombwell Barnsley South Yorkshire UK	
Quality Systems Standard	ISO 9001:2015
Certification Licence No.	FM 91289
Certifying Agency	BSI
First Date of Certification	24 November 2004
Current Date of Certification	8 February 2022
Expiry Date of Certification	7 February 2025

SCHEDULE B2 HYDROFLOW DISTRIBUTORS LIMITED – MANAGEMENT SYSTEMS

24 Harcourt Road Altona Vic	
Quality Systems Standard	ISO 9001:2015
Certification Licence No.	2516
Certifying Agency	Telarc
First Date of Certification	5 August 2011
Current Date of Certification	1 September 2020
Expiry Date of Certification	5 August 2023

SCHEDULE B3 FLEXSEAL COUPLINGS LIMITED – WRC APPROVAL

Newlands Way Wombwell Barnsley South Yorkshire UK	
Product Standard/Spec.	WRc Assessment Schedule
Certificate No.	PT/426/0518
Issuing Certification Body	WRc
First Date of Certification	9/2009
Current Date of Certification	30 May 2018
Expiry Date of Certification	30 May 2023



PRODUCT LITERATURE



Saddles for Plastic Pipes

- No adhesives, sealant or concrete required
- Eliminates need to pre-order a factory-made junction
- For use on new or existing drainage systems
- Reduces material and labour costs
- Increases positioning flexibility
- Can be combined with a product 'add-on' to connect different size laterals
- Small and lightweight, easy to transport and handle for quick installation
- Installation unaffected by weather conditions
- Robust and should not be damaged under normal site conditions
- WRc Approved™



Fernco's range of saddles for structured wall, twinwall and smooth plastic pipes are an approved and more flexible option than pipe junctions when connecting lateral (or branch) pipes into main drain pipelines. The saddles are ideal solutions and provide multiple benefits when used on new or existing drainage systems.

Fernco have designed a range of lateral connection saddle products specifically for plastic pipes to ensure the market has an 'off the shelf' solution for the most common connections. Fernco's range of saddles for plastic pipes ensure an airtight and watertight seal between a main pipe and a smaller lateral (or branch) pipe.

Saddles offer the same solution as pipe junctions, for example, when lateral pipes from new build houses, road gullies etc need to be connected into the system mains. Both saddles and junctions offer this connection but with clear differences in the installation methods.

To ensure Fernco offers its customers peace of mind, all saddles for plastic pipes hold WRc Approval, which is recognised by the UK Water Authorities.

Junction method

Excavate around the entire external surface of the main pipeline.....Excavate a small top section of the main pipeline

Cut and remove an entire section of the pipeline.....Core a hole into the main pipeline

Using appropriate mechanical lifting equipment, lift out the old pipe and lift in and fit a new junction.....Connect a lightweight saddle into the cored hole

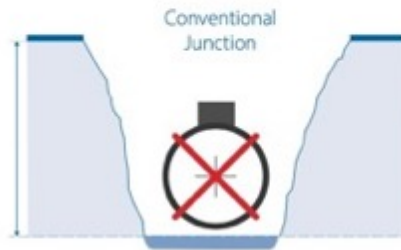
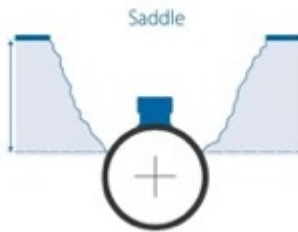


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Main Benefits of using a saddle over a junction



- Lower materials cost – the larger the pipes the greater the savings become
- Savings in labour time and cost
- Significantly reduced excavation requirements
- No heavy lifting equipment required
- Improved health & safety



- Can be installed at any angle along the top half of the main pipeline.
 - Access only required to the installation location, minimises the excavation required.
 - The additional flexibility provided allows for the most efficient and effective drainage layout to be utilised.
- (Disclaimer: It is important to ensure that the ground is prepared correctly and that suitable bedding and backfill material is used, depending on the soil type and the loading required.)*

**Lateral Connection
Saddle Variants**

	 PA Saddle	 UA Saddle
Main Pipe Application	Plastic Structured Wall DN300-600	Plastic Structured Wall DN700 and above
Main Pipe Wall Thickness	To be advised on enquiry	25-125mm
Lateral Application	160mm PVC (Lateral Pipe Adaptors available to connect different sizes/materials)	All (Flexible coupling required to secure connection)
Lateral pipe deflection	Max: 8.5°	Max: 5°
WRc Cert Number	PT/426/0518	PT/425/0717



PA Saddle

For Plastic Pipes



PA Spacer Ring

An additional spacer will be supplied and fitted to the PA saddle when connecting to thin-walled DN300 pipes such as smooth PVC.

Product Code	PAXXX
Description	Fernco PA Saddle Lateral Connection
Lateral Pipe Size	160mm PVC as standard
Material	EPDM ABS plastic G/F nylon 1.4401 (316) Stainless Steel
Lateral Pipe Deflection	Max: 8.5°
Pressure Rating	0.5 bar / 7.25 psi
Vacuum	-0.3 bar
Jetting Resistance	180 bar
Standards	BS EN 681-1 BS EN 13259:2018 BS EN 295-3 WIS 4-35-01 WRc Approved™ - PT/426/0518

Main Pipe Requirements

Pipe Size	Main pipe: DN300-600 (Twinwall & structured wall) DN300 (Thin-walled Pipe)
Wall Thickness	Various
Drilled Hole Size	177mm (+2mm/-0.5mm)

Quick Tip:

The PA Saddle will accept a 160mm PVC lateral pipe as standard, however, the saddle can be made universal by adding a Lateral Pipe Adaptor. The adaptor can be installed into the saddle which can branch off to fit a different material DN150 pipe or a smaller DN100 pipe.

Product Code	Lateral Pipe Size Suitability
PA110	Suitable for all DN100 pipes with an outside diameter between 110-122mm
PA130	Suitable for all DN100/DN125 pipes with an outside diameter between 121-136mm
PA140	Suitable for all DN100/DN125 pipes with an outside diameter between 130-145mm
PA170	Suitable for all DN150 pipes with an outside diameter between 161-175mm
PA180	Suitable for all DN150 pipes with an outside diameter between 170-192mm
PA200	Suitable for all DN150 pipes with an outside diameter between 190-215mm





Installation

The installation method for the PA saddle and the UA saddle is the same.



4 easy steps

1. Using a suitable holesaw, core a hole of 177mm (+2mm/-0.5mm) diameter in the wall of the pipe into which the saddle is to be fitted. It is important that the hole is perpendicular to the pipe and that the holesaw is long enough to cut through the wall in one pass (1). Remove any burring or flashing from the edges of the hole by using a de-burring tool and wipe the inside surface clean. Apply lubricant to the outer face of the inner sleeve and seal of the saddle.
2. Insert the saddle into the hole so that the saddle flange sits snugly onto the pipe. (2a/2b).

When a spacer is required, ensure the spacer is securely positioned onto the rubber seal. The curvature of both the flange and spacer (highlighted blue) must be in the same orientation (2c).

3. Using a 'T' handled 6mm hexagon tool, turn the screws in a clockwise direction alternately by approximately 5 rotations at a time (3). Continue turning the screws until the underside of the head touches the face of the bolt ring.
4. Connect the lateral pipe to the PA Saddle by pushing 160mm PVC into the saddle inlet (4a), or connect the lateral pipe to the UA Saddle using a suitable flexible coupling (4b).



SUPPLIER CONTACTS

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