Lateral Connections

Additional outlets for main pipes:
A suitable solution for every application

www.fernco.de/en

wrc approved

We introduce:

Lateral Connections

Fernco is an innovative developer of saddles that connect pipes laterally to a main pipe. We can provide a solution for almost any application.

- no adhesive, sealant or concrete required
- no factory-made outlet required
- reduces material and labour costs
- greatly increased placement possibilities
- multiple connection options in combination with other Fernco products
- small and lightweight, easy to transport and quick to install
- Installation independent of weather conditions
- durable thanks to high quality materials

Industries:

House building

Construction industry

Road construction

Infrastructure

Maintenance

Domestic services

A change for the better

Due to their flexibility and minimisation of effort, Fernco connection elements offer a wealth of advantages over the installation of factory-made outlets. This greatly simplifies the work from procurement to the construction site.

Cost savings:

- One person is sufficient to perform the work.
- instead of a special pipe branch: only one saddle is needed

Time savings:

- reduced excavation time
- reduced installation time

Worker Safety:

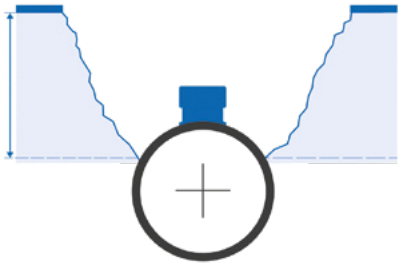
- low weight
- no lifting gear required to remove the pipe and lift the new connection into place

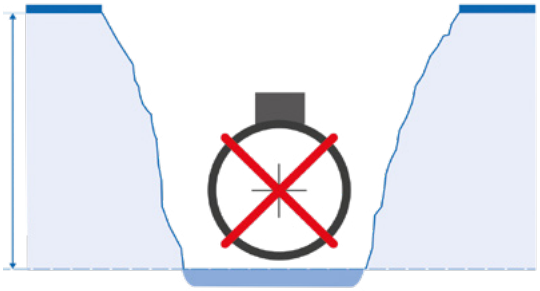
Safety:

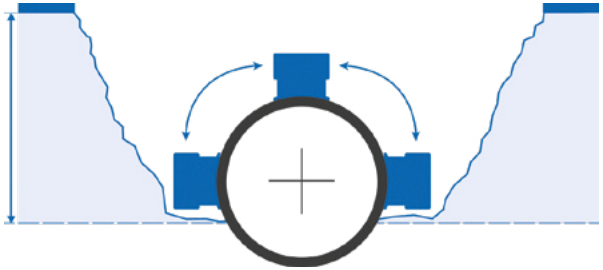
- The pipe bed and surrounding material remain untouched.
- excavation only up to the connection point

Products where the pipe bedding does not need to be removed:

FA-Saddles: ☑ PA-Saddle: ☑ Storm-T: ☑ TA-Saddle: ☐ UA-Saddle: ☑







Flexibility:

- installation in any position along the upper half of the main tube.
- The added flexibility allows you to choose the most effective positioning.

	FA-ST page 6	FA-UNI page 8	FA-B page 10	
main pipe	Clay DN 250N – 350H, or 200VT – 300VT	Concrete*/Clay from DN 250**	Concrete* DN 300 and more	
wall thickness main pipe	22 – 50 mm	min. 23 mm	50 – 150 mm	
lateral pipe	Any DN 150 pipe except concrete (with bushes)	Any DN 150 pipe except concrete (+ Multibush, if needed)	**FA150B:** Any DN 150 pipe except concrete (+ Multibush, if needed)	**FA200B:** Any DN 200 pipe except concrete (single DN 225 pipes)

* Additional sealant against corrosion is recommended for the core bore before installing the saddle.

** If required, FA150B can be connected to larger pipes as an alternative to FA150U.

	Storm-T page 12	PA page 16	UA page 18
main pipe	plastic pipes DN 300 – 600	plastic pipes DN 300 – 600	double-walled pipes from DN 700
wall thickness main pipe	5 – 60 mm	on request	30 – 122 mm
lateral pipe	Any DN 150 pipe	DN 160 plastic pipes (Side pipe adapters available for connecting different sizes/materials)	Any DN 150 pipe (in combination with a Fernco coupling)

Saddle FA-ST

Connecting to DN250N – 350H and 200VT – 300VT

Lateral Pipe Bushes Configuration

OD lateral pipe	Bush	Material Lateral Pipe	Illustration
160 – 166 mm	B12/160	DN 150 cast iron (SMU, SML), 160 mm plastic	
170 – 177 mm	B08/170	DN 150 cast iron, Ultra-Rib	
178 mm	B04/178	structured pipes	
180 – 190 mm	none	clay	✕ none needed

The FA150ST saddle is suitable for the lateral connection of vitrified clay pipes to vitrified clay main pipes DN 250 N/H, 300 N/H as well as to vitrified clay jacking pipes DN 200, DN 250 and DN 300.

In connection with bushes, all other types of DN 150 pipes can be connected, e.g.:
PVCu, cast iron, GRP, ductile iron, HDPE, PP

Product Name	Saddle FA-ST
Product Group	Lateral Connections
Product Code	FA150ST
Materials	EPDM elastomer, ABS and PP plastics, V2A 1.4301 (304) Stainless Steel
Pressure Rating	1 bar / 14.5 PSI
Vacuum	-0,25 (-0.3) bar
Vertical Load	20 kN / approx. 2 t
Connecting to	Vitrified Clay Pipes
Standards	EN 681-1 CE
Temperature Range	-50 to 80 °C constant, 100 °C intermittent
UV Resistant	✓
Oil / petrol Resistance	✕
Fire Performance	Class F
Soil Suitability	✓
Flush-mounted suitability	✓
Tensile Strength	✕
Lateral Pipe Deflection	5°
Deformation	5 %
Jetting Resistance	180 bar
Tightening Torque	6 Nm
Requirements for the main pipes	
Pipe Size	Clay DN 250N – 350H Jacking Pipes 200 VT – 300 VT
Wall Thickness	22 – 50 mm
Drilled Hole Size	172 mm (+1 / -0 mm)

Technical data sheet available at www.fernco.de/en

Universal Saddle FA-UNI

Connection to vitrified clay/concrete from DN 250

Strong grip on the lateral pipe with a 6 Nm stainless steel clamp band

Removable shims make the product universal by allowing connection to different pipe sizes with only one saddle variant

Integrated shear load support

Configuring the spacer rings

main pipe	rings needed	wall thickness	lateral pipe	illustration
170 – 177 mm	2	23 – 40 mm	Any DN 150 pipe (might need Multibush depending on material)	
178 mm	1	40.5 – 53 mm	Any DN 150 pipe (might need Multibush depending on material)	
180 – 190 mm	none	53,5+ mm	Any DN 150 pipe (might need Multibush depending on material)	✕ no ring needed

Component parts

Configuring the Multibush on the lateral pipe

OD lateral pipe	Compensation by Multibush	material lateral pipe	illustration
160 – 166 mm	12 mm: folded	DN 150 cast iron (SMU, SML), 160 mm PVC	
170 – 177 mm	8 mm: large end	DN 150 cast iron, Ultra-Rib	
178 mm	4 mm: small end	structured pipes	
180 – 190 mm	none	clay	✕ none needed

Multibush 4 – 12 mm

Product code: **MB150**

Product Name	Unisaddle FA-UNI
Product Group	Lateral Connections
Product Code	FA150U
Materials	EPDM elastomer V2A 1.4301 (304) Stainless Steel ABS Plastic
Pressure Rating	1 bar / 14.5 PSI
Vacuum	-0.25 (-0.3) bar
Vertical Load	20 kN / approx. 2 t
Connecting to	Clay/Concrete from DN 250
Standards	EN 681-1 CE
Heat resistance	-50 to 80 °C constant, 100 °C intermittent
UV Resistance	✓
Oil / Petrol Resistance	✕
Fire Performance	Class F
Soil Suitability	✓
Flush-mounted suitability	✓
Tensile Strength	✕
Lateral Pipe Deflection	max. 7°
Deformation	5 %
Jetting Resistance	180 bar
Tightening Torque	6 Nm
Requirements for the main pipes	
Pipe Size	from DN 250
Wall Thickness	min. 23 mm
Drilled Hole Size	172 mm (+1 / -0 mm)

Technical data sheet available at www.fernco.de/en

Installation video on YouTube: youtu.be/iYkupjjtCHo

Saddle FA-B

Connecting to Concrete: One Saddle for all Wall Thicknesses

FA150B: Lateral Pipe Multibush Configuration

OD lateral pipe	Multibush	Material Lateral Pipe	Illustration
160 – 166 mm	12 mm: folded	DN 150 cast iron (SMU, SML), 160 mm plastic	
170 – 177 mm	8 mm: large end	DN 150 cast iron, Ultra-Rib	
178 mm	4 mm: small end	structured pipes	
180 – 190 mm	none	Vitrified Clay	✕ none needed

FA200B: Lateral Pipe Multibush Configuration

OD lateral pipe	Multibush	Material Lateral Pipe	Illustration
200 – 208 mm	MB200	200 mm plastic	
210 – 230 mm	up to MB200	DN 200 cast iron (SML, SMU, Ensign)	
231 – 250 mm	none	DN 200 clay; (DN 225 Ultra-rib / Quantum / plastic)	✕ none needed

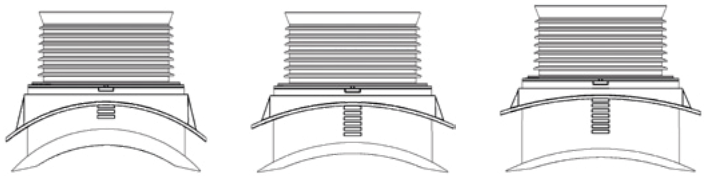
Product Name	Saddle FA-B
Product Group	Lateral Connections
Product Code	FAXXXB
Materials	EPDM elastomer, ABS plastic V2A 1.4301 (304) Stainless Steel
Pressure Rating	1 bar / 14.5 PSI
Vacuum	-0,25 (-0.3) bar
Vertical Load	20 kN / approx. 2 t
Connecting to	Concrete Pipes
Standards	EN 681-1 CE
Temperature Range	-50 to 80 °C constant, 100 °C intermittent
UV Resistant	✓
Oil / petrol Resistance	✕
Fire Performance	Class F
Soil Suitability	✓
Flush-mounted suitability	✓
Tensile Strength	✕
Lateral Pipe Deflection	max. 5.7°
Deformation	5 %
Jetting Resistance	180 bar
Tightening Torque	6 Nm
Requirements for the main pipes	
Pipe Size	FA150B: DN 300+ Concrete FA200B: DN 400+ Concrete
Wall Thickness	50 – 150 mm
Drilled Hole Size	FA150B: 172 mm (+1 / -0 mm) FA200B: 232 mm (+1 / -0 mm)

Technical data sheet available at www.fernco.de/en

Installation video on YouTube: youtu.be/Pwnce25ywv4

Saddle Storm-T

Connecting to plastic pipes DN 300 – 600



	ST150-300	ST150-375-450	ST150-500-600
Main Pipe	DN 300	DN 375 – 450	DN 500 – 600
Wall Thickness Range	5 – 30.5 mm	5 – 45 mm	10 – 60 mm
Drilled Hole Size	177 mm (+1 / -0.5 mm)		
Size Lateral Pipe	DN 150		

Product Name	Saddle Storm-T
Product Group	Lateral Connections
Product Code	ST150-XXX
Materials	EPDM elastomer ABS plastic
Pressure Rating	0.5 bar / 7.25 PSI
Vacuum	-0.3 bar
Connecting to	any plastic pipe
Standards	EN 681-1 CE
Temperature Range	-50 to 80 °C constant, 100 °C intermittent
UV Resistant	✓
Oil / petrol Resistance	✗
Fire Performance	Class F
Soil Suitability	✓
Flush-mounted suitability	✓
Tensile Strength	✗
Lateral Pipe Deflection	max. 4.5°
Deformation	10 % of the main pipe
Jetting Resistance	180 bar

Technical data sheet available at www.fernco.de/en

Installation video on YouTube: youtu.be/GCSMiZuCzDM

Saddle TA

Connecting to smooth PVC pipes OD 200 – 600

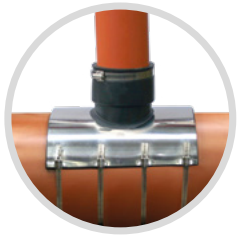
Overview of the TA range

Product Code	OD main pipe (mm)	lateral PVC pipe (mm)	Drilled Hole Size	Connection Angle
TA11090	160 – 400	110	127 mm	90°
TA11045	160 – 400	110	oval[2]	45°
TA16090	200 – 400	160	172 mm	90°
TA16045	200 – 400	160	oval[2]	45°
TA20045[1]	300 – 600	200	oval[2]	45°

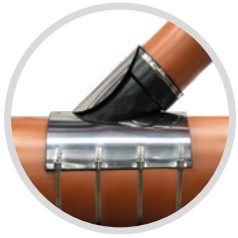
[1] All steel parts of the TA20045 are made of V4A (1.4404).

[2] For a 45° connection into PVC, the rubber seal can be used as a template and the oval hole cut with a suitable saw. If a 45° connection into stoneware or concrete is required, use an appropriate drilling jig.

TA11090
TA16090



TA11045
TA16045
TA20045



Product Name	Saddle TA
Product Group	Lateral Connections
Product Code	TAXXXXX
Materials	Flexible PVC, Neoprene, V2A 1.4301 (304) Stainless Steel. More materials on request.
Pressure Rating	0.5 bar / 7.25 PSI
Vacuum	–
Vertical Load	–
Connecting to	all smooth pipes
Standards	CE
Temperature Range	-34 to 40 °C constant, 60 °C intermittent Neoprene: -45 to 100 °C
UV Resistant	✓
Oil / petrol Resistance	✗
Fire Performance	Class F
Soil Suitability	✓
Flush-mounted suitability	✓
Tensile Strength	✗
Lateral Pipe Deflection	max. 5°
Deformation	10 % of the main pipe
Jetting Resistance	180 bar
Tightening Torque	6 / 13 Nm

Technical data sheet available at www.fernco.de/en

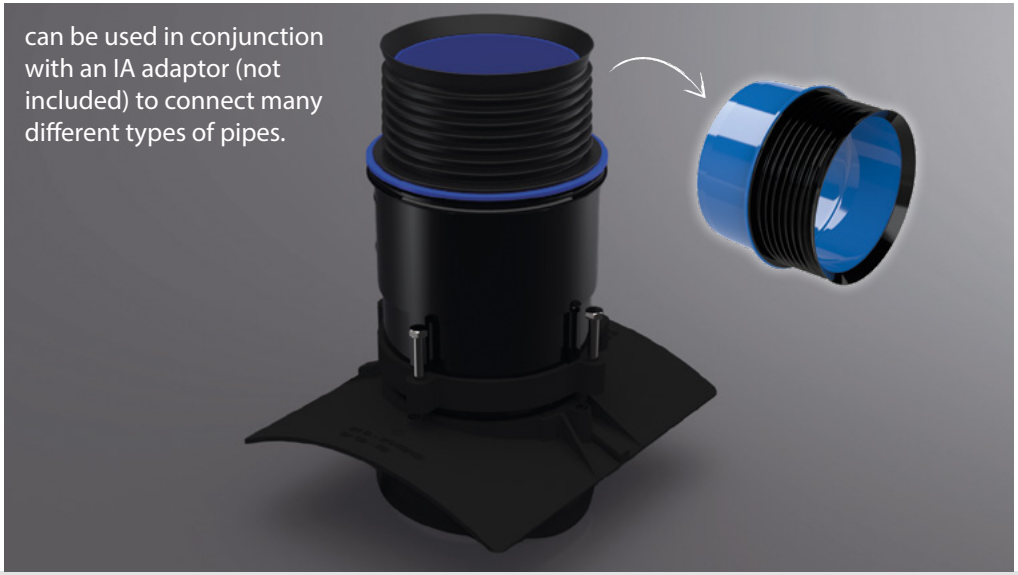
Installation video on YouTube: youtu.be/DL90ufTk1qU

Saddle PA

Connecting to all 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.



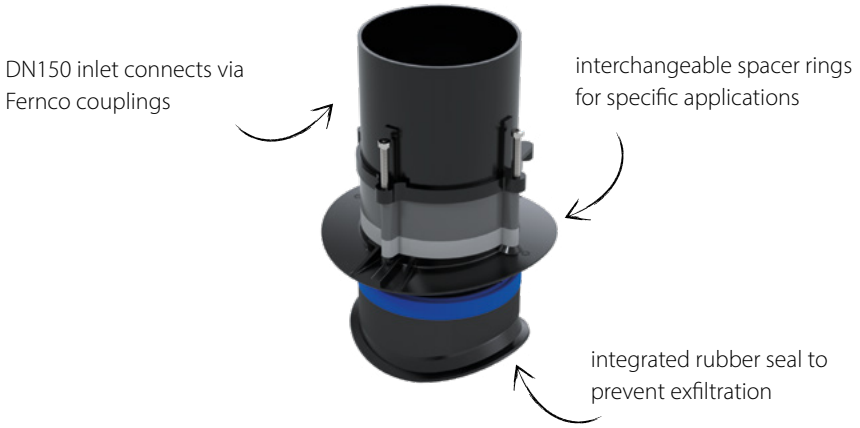
Product Name	Saddle PA
Product Group	Lateral Connections
Product Code	PAXXX
Materials	EPDM elastomer, ABS plastic G/F Nylon, V2A 1.4301 (304) Stainless Steel
Pressure Rating	0.5 bar / 7.25 PSI
Vacuum	-0.3 bar
Vertical Load	20 kN / approx. 2 t
Connecting to	smooth or structured plastic pipes
Standards	EN 681-1 CE
Temperature Range	-50 to 80 °C constant, 100 °C intermittent
UV Resistant	✓
Oil / petrol Resistance	✗
Fire Performance	Class F
Soil Suitability	✓
Flush-mounted suitability	✓
Tensile Strength	✗
Lateral Pipe Deflection	max. 8.5°
Deformation	10 % of the main pipe
Jetting Resistance	180 bar
Tightening Torque	6 Nm
Requirements for the main pipes	
Pipe Size	DN 300 – 600 (structured pipes) DN 300, 400, 500 (thin-walled pipes)
Wall Thickness	varies
Drilled Hole Size	177 mm (+1 / -0 mm)

Technical data sheet available at www.fernco.de/en

Installation video on YouTube: youtu.be/EAAF21uXLKA

Saddle UA

Connecting to twin-wall DN 700 and more



Common Couplings for DN 150 Lateral Pipes

Product Code Couplings	Size Range Lateral Pipes
AC1602	110 – 122 mm
AC1603	121 – 136 mm
SC165 / DC165	160 mm
SC175 / DC175	165 – 175 mm
AC1924	170 – 192 mm

Product Name	Saddle UA
Product Group	Lateral Connections
Product Code	UAXX
Materials	EPDM elastomer, ABS plastic, G/F Nylon, V2A 1.4301 (304) Stainless Steel
Pressure Rating	0.5 bar / 7.25 PSI
Vacuum	-0.3 bar
Connecting to	twin-walled pipes ≤ DN 700
Standards	EN 681-1 CE
Temperature Range	-50 to 80 °C constant, 100 °C intermittent
UV Resistant	✓
Oil / petrol Resistance	✗
Fire Performance	Class F
Soil Suitability	✓
Flush-mounted suitability	✓
Tensile Strength	✗
Lateral Pipe Deflection	max. 5°
Deformation	10 % of the main pipe
Jetting Resistance	180 bar
Tightening Torque	6 Nm
Requirements for the main pipes	
Pipe Size	DN 700 – 3000
Wall Thickness	30 – 122 mm
Drilled Hole Size	177 mm (+1 / -0.5 mm)

Standards and Services

Fernco is committed to manufacturing products to the highest standards.

To demonstrate and enforce this, the company implements a quality management system that meets the requirements of ISO 9001:2015.

The result is a range of connectors where the risk of defects or failures is virtually zero when installed correctly. Fernco combines quality with a culture of innovation, offering customers products and services that add real value to their businesses.

You need it tomorrow? No problem!

Fernco offers a unique combination of service and delivery that allows us to respond to our customers' needs. You can choose between our standard 2-3 day delivery or next day delivery before 9am, 10am or 12pm, either to site or to a local builders merchant.

If it's a real emergency, call us to see if we can arrange same-day delivery.

A WRc Approved™ range

The WRc Approved™ program is a recognised and established certification scheme in the construction industry. It provides assurance to suppliers, buyers and end users that products are fit for purpose. The scheme reduces procurement risks by ensuring that quality, performance and installation processes have been tested to the most stringent requirements and in accordance with BS EN 295.

Fernco offers a range of lateral connection and pipe joint products that are WRc approved.

Product code	Description	FA-ST	FA-UNI	FA150-B	FA200-B	UA	PA	Storm-T	TA
TDM14	Torque wrench 6-30 Nm	✓	✓	✓	✓				✓
T-N15	Hexagon Spanner Head 1/4 inch x 8 mm	✓	✓	✓	✓				✓
ESH150B	Drive-in tool for FA150	✓	✓	✓					
ESH200B	Drive-in tool for FA200				✓				
HS-K90/127	Core bit for PVCu Pipes (127 mm) requires mounting HS-AUF150								✓
HS-K90/172	Core bit for PVCu Pipes (172 mm) requires mounting HS-AUF150								✓
HS-K90/177	Core bit for PVCu Pipes (177 mm) requires mounting HS-AUF150					✓	✓	✓	
HS-AUF150	Mounting Hexagon for Core Bit					✓	✓	✓	✓
T-TC30-200	Circle Cutter 30-200 mm for PVCu						✓	✓	✓
T-TAK	T-wrench 6 mm hexagon socket					✓	✓		
PL250NX	Lubricant 250 g tube			✓				✓	
PL500NX	Lubricant 500 g tube			✓				✓	
PL1-KT	Lubricant 1000 g tube			✓				✓	

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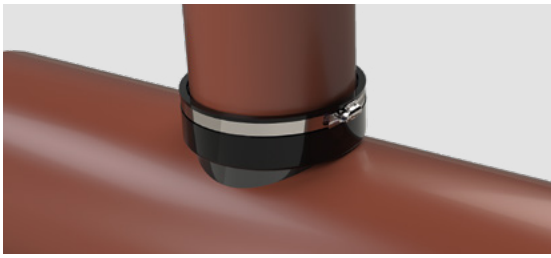

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