



# The cost alternative to T-pieces and beyond

FRIALEN spigot saddles



# FRIALEN spigot saddles – field oriented and efficient solutions

Installing branch lines on HDPE pipes can be a full load of work. FRIALEN spigot saddles simplify greatly the installation of branch lines – and therefore at a fraction of the costs.

Usually this work involves a T-piece and three couplers. Handling is difficult and the space requirements high. Also, retrofits require in addition extensive excavations and road closing work. FRIALEN spigot saddles are simply positioned in the location prepared on the pipe. Preinstalled with the clamping tool – Start fusion, leave to cool, and cut the branch using the tapping equipment.

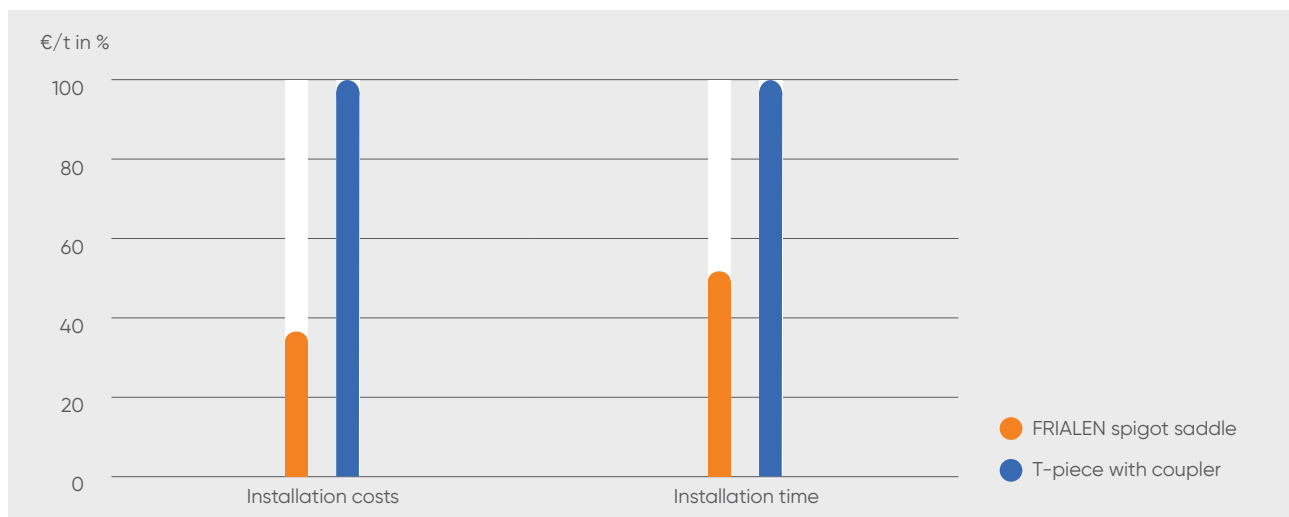
Can be integrated according to your requirements, under operating pressure or without. Retrofits require only a head hole.

## Your time and cost savings thanks to FRIALEN spigot saddles

### High cost effectiveness

- FRIALEN spigot saddles can also be processed under pressure
- FRIALEN spigot saddles cut costs and times by about 60% thanks to lower material costs, shorter preparation times (smaller installation trenches, so less excavation), shorter fusion times, and less subsequent filling work.

\*Savings potential dependent on product, installation depth, and local conditions



# Attaching branches simply and reliably

## The FRIALEN spigot saddle SA for tapping main pipes up to d 225

In the unpressurised state, spigot saddles can be used as T-pieces with reduced outlet. Fitted with the FRIALEN spigot saddle, the distributor can be joined to the domestic service line by means of tried and tested electrofusion – for a tight bond of high axial strength.

Fitted e.g. with a FRIALOC shut-off valve, the unpressurised or pressurised pipe can be tapped swarf free with conventional equipment.



## The solution for integrating hydrants and valves - the spigot saddle SAFL

The SAFL presents a prefusion collar and flange in the one component. Together they form a homogeneous unit. Short installation lengths both horizontally and vertically and maximised stability thanks to large wall thicknesses.

The saddle with the SAFL flange outlet is placed on and fused to the main pipe.

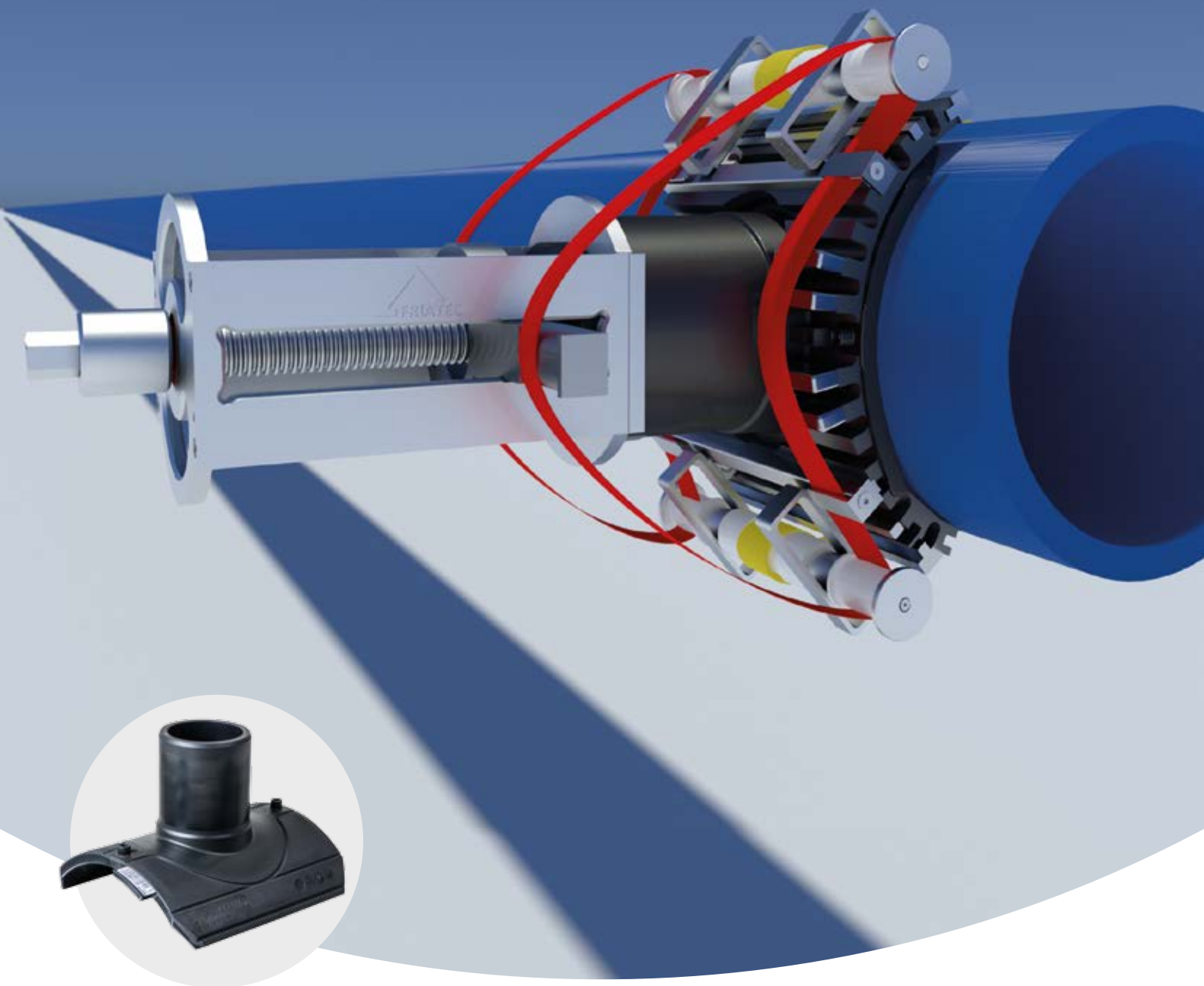
After a gate valve has been fitted on the flange side, the main pipe can be tapped in either the pressurised or unpressurised state.

The flange's connecting measurements comply with DIN EN 1092-1.

This requires additional washers. All conventional shaped and flat gaskets can be used. We recommend shaped G-ST type gaskets.







## Thanks to the spigot saddle SA UNI considerable time and cost savings are possible

There's no need to fit a T-piece. Minimised labour intensive, deep excavation work.

The fittings range, available in the sizes d 250 – d 900, each with the four outlet sizes d 90, d 110, d 125, and d 160, covers practically all field requirements.

The SA UNI spigot saddles can be mounted simply and reliably with the specially developed UNITOP

clamping technology. The correct handling of the clamping equipment is intuitive, for the virtual elimination of installation errors. Before the main pipe is tapped, the specially developed pressure test adapter FWDPA SA presents a simple solution to test the saddle fusion and the component for leaks.

Installation movie:



Assembly instruction:



Or [www.aliaxis.de](http://www.aliaxis.de)  
Spigot saddles SA UNI

# Service connection quick and easy

## Example application Spigot saddle SA UNI

### The project

The Oldenburg-East Frisian water board OOWV is based in the Weser-Ems area. It ranks among the top ten water resource management bodies in Germany. And it is even the largest blanket supplier of drinking water. Private households, companies, and communities – they all place their trust in OOWV for their drinking water supply and sewage disposal. At the OOWV location in Wildeshausen, a new office building was constructed. This project was to be connected quickly, easily, and without downtimes via a d 63 PE pipe to the d 630 PE main pipe from the available drinking water mains.

### The solution

The responsible planners decided to stay on the safe side and commissioned the installation of the d 630 SA UNI spigot saddle with d 63 outlet. First, the clamp was fitted with the UNITOP device and afterwards fused. After the SA UNI had cooled, the tapping system was attached, consisting of the SA



UNI, shut-off element, and drilling equipment. By means of a conventional hand pump, the whole was tested for leaks for 15 minutes under 10 bar. Positive results, all tight! Now they knew they were on the safe side and could tap the main pipe without reservations. Everything worked perfectly. The

tapped pipe section and the accruing chips were retained safely in the tapping head. Afterwards, the domestic service line was routed into the building. Said. Done. Connected!

**Project:** Domestic service line to OOWV branch  
**Building site:** Wildeshausen  
**Developer:** OOWV  
**Construction company:** Ernst Petershagen GmbH Co., 27753 Delmenhorst  
**FRIATEC products:** SA UNI, UB d 63, EFL d 63 / DN 50

To data sheet:



# The perfect branch for your XL main pipes – without interruptions to supply

## The FRIALEN spigot saddle SA XL for high volume branch lines

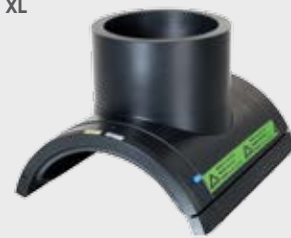
Instead of the costly integration of a T-piece, a branch line or vent can now be attached with the greatest of ease thanks to the FRIALEN XL spigot saddle SA XL. Simple assembly, easy handling, and fast installation of large saddle components characterise this clamping technology optimised for construction site use. This requires merely access to the covered saddle surface.

### Vacuum clamping:

Vacuum is used to clamp the saddle in place and generate the force needed for fusion and joining. The clamping technology can compensate for pipe ovalities and other geometrical deviations.

The tapping diameter is practically identical to that of the tap off spigot, which keeps pressure losses to a minimum even under full operating pressure.

SA XL





# Connecting and tapping SA XL on a pressurised water pipe in continued operation

## Example application Spigot saddle SA XL

The solution and economical alternative to a T-piece for integrating a branch line under operating pressure was provided by the spigot saddle SA XL characterised by: simple installation – easy handling – short processing times

The spigot saddle SA XL can also install large capacity branches on main pipes with little effort, minimum excavation work, and above all without disruption to the supply. The spigot saddle features a special seal that is precision clamped under vacuum on the pipe. This installation type does not come with a bottom saddle, so it needs only an access window to the pipe.

Before the branch can be connected under operating pressure without disruption to the drinking water supply, a shut-off fitting must first be installed as a tapping lock. After a cooling time of 60 min (30 min in vacuum), the pressure test could be conducted through the shut-off device and, following positive

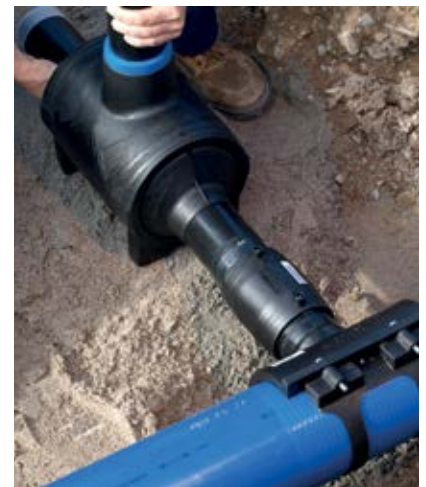


findings, the pipe tapped swarf-free through the large d 250 (d 194) outlet diameter.

### TO SUM UP:

The planners, developer, and installers rated the whole process very highly and were impressed by the smooth series of steps involved in the fast, simple installation of a branch under full operating pressure on a drinking water pipe.

A project of this significance for drinking water supply may not cause any disruption to pipe operations – so FRIATEC is first choice.



### Branch d 250

The German water board Wasserversorgungsverband Tecklenburger Land (WTL) had to install a branch on a d 500 drinking water pipe.

<b>Project:</b>	Renovation of a drinking water pipe
<b>Building site:</b>	Ibbenbüren, Tecklenburger Land
<b>Developer:</b>	Wasserversorgungsverband Tecklenburger Land (WTL)
<b>Installed by:</b>	Köster GmbH, Osnabrück
<b>FRIATEC products:</b>	SA XL d 500/250, UB d 250, FRIAMAT prime, Vacuset

To data sheet:



# The perfect branches for all sizes of main pipes

## The FRIALEN spigot saddle SA TL fits to size

The FRIALEN top-loading SA TL saddle fitting can be fitted on all sizes of large d 250 – d 560 HDPE lines to unpressurised main pipes. This versatility helps to save considerable storage costs for large spigot saddles with d 32 and d 63 outlets. Whether in the form of the SA TL for processing on unpressurised lines or the AKHP TL prepared for pressurised pipe tapping.

The saddle fitting is fitted by means of the clamping unit FRIATOP. A special device can be used to fuse and tap pipes under operating pressure.



SA TL



## Example AKHP TL application, Dubai

Since as early as 2008, the Palm Jumeirah has been supplied with gas from a d 315 SRD11 PE100 pipe operating without problems under an internal pressure of 4 bar. Consumers are not only the famous Atlantis Hotel, but also the homes on each of the fronds.

Before the 104 residential units on the last frond could be connected, the previously installed supply line had to be joined to the pressurised d 315 main pipe.

This involved the FRIATOP clamping unit fusing the FRIALEN d 250–560/90 tapping ball valve AKHP TL to the main pipe. After the cooling time and successful pressure test, the main pipe was tapped by means of the corresponding equipment, and the supply line connected and put into operation. This measure was concluded successfully within just half a day under extremely constrictive trench conditions.

AKHP TL



**Project:** Integrating a supply line under pressure  
**Building site:** „Palm Jumeirah“ Dubai  
**Developer/installer:** Lootha BC Gas  
**FRIATEC products:** AKHP TL 250-560/90 and miscellaneous standard components



# Theory meets practice: Excellent training for professionals

## Told - done - connected

The knowledge we communicate ranges from the basics of PE electrofusion to specialised knowhow in gas and water supply, XL large pipe installations, and sewage disposal. In the process, our consultants prioritise the application of this knowledge in practice. Practical applications therefore form the focal themes of our seminars.

Also possible as an option are instruction courses under building site conditions. We are ready at all times to assist you ... any place ... worldwide!

You can be sure – for us, nowhere is too far! And if you're in a particular hurry for help, you can call our hotline.

„I hear and I forget.

I see and I remember.

I do and I understand.“ Confucius



## For every situation, the right branch for your XL main pipe

- SA UNI d 250 – d 900
- SA TL d 250 – d 560 as component for all sizes
- SA XL d 400 – d 1200 SDR 11 with outlets d 225, 250, 280, 315, 355, 400 and SA XL d 1000 – d 1200 SDR 17 with outlet d 160

d <sub>main pipe</sub> sizes	Branch Ø	SA UNI/SA XL/SA TL											
		d 32	d 63	d 90	d 110	d 125	d 160	d 225	d 250	d 280	d 315	d 355	d 400
Tapping diameter (unpressurised tapping) <sup>1)</sup>													
SA UNI d 250 – d 280				66	82	94	123						
SA UNI d 315 – d 400				66	82	94	123						
SA UNI d 450 – d 900				66	82	94	123						
SA XL d 400 – d 450 SDR 11								172	187				
SA XL d 500 SDR 11								172	187	225	254		
SA XL d 560 SDR 11								172	187	225	254		
SA XL d 630 – d 1200 SDR 11								172	187	225	254	286	322
SA XL d 1000 – d 1200 SDR 17							123						
SA TL d 250 – d 560 <sup>2)</sup>		20	46										
FRIALOC d 250 <sup>3)</sup>				65	84	84	123	123					
AKHP TL d 250 – d 450(560) <sup>2)</sup>				60									

1) For pressurised applications, please contact our application engineering department: Phone: +49 621 486 1486  
 2) FRIATOP clamping unit required for TL variants  
 3) Tapping under pressure





## For every situation, the right branch for your distributor or domestic service line up to d 225

- SA d 63 – d 225 with outlets d 32, 50, 63, 90, 110, 125 and d 160
- SAFL d 110 – d 225 with outlets DN 80 and DN 100

d <sub>1</sub> main pipe sizes	Branch Ø	SA/SAFL								
		d 32	d 50	d 63	d 90	d 110	d 125	d 160	DN 80	DN 100
<b>Tapping diameter (unpressurised tapping)<sup>1</sup></b>										
SA d 63		20	36							
SA d 75			36							
SA d 90		20		46						
SA d 110		20	36	46	66					
SA d 125		20		46	66	82				
SA d 160		20		46	66	82	94			
SA d 180				46	66	82	94			
SA d 200				46						
SA d 225				46	66	82	94	123		
SAFL d 110 – d 225									66	
SAFL d 160 – d 225										82
FRIALOC d 90 – d 225 <sup>2)</sup>					65	84	84	123		
AKHP d 110 + d 160				42						
AKHP d 110 / 125 / 160 / 180 / 225					60					

- 1) For pressurised applications, please contact our application engineering department: Phone: +49 621 486 1486  
 2) Tapping under pressure





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