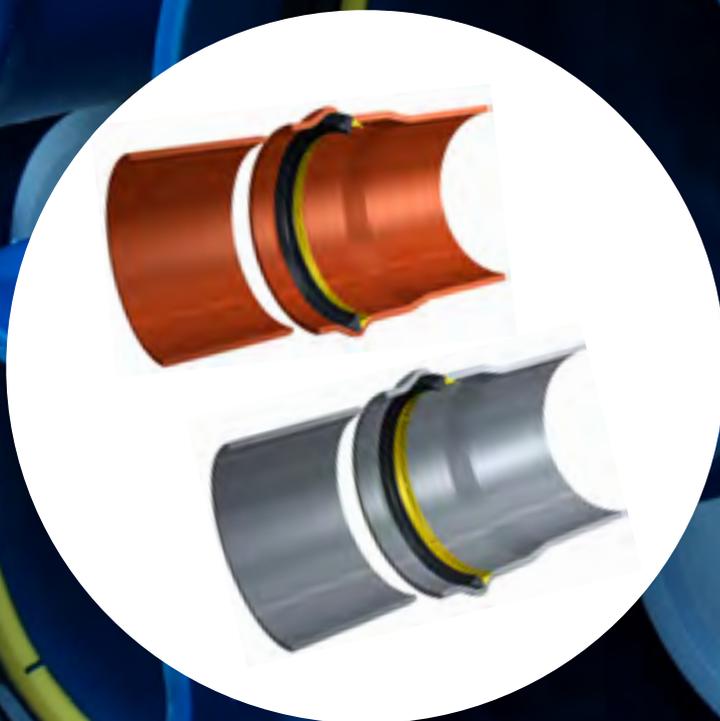




F-601 Power-Lock™ & F-605 Sewer-Lock™

Fully integrated sealing systems for PVC Pipes and Fittings



F-601 Power-Lock™ and F-605 Sewer-Lock™



Introduction Trelleborg

Part of the wider Trelleborg Industrial Solutions Business Area of Trelleborg Group, Trelleborg Pipe Seals is a world leading supplier of new and rehabilitation sealing solutions for concrete and plastic pipes, manholes and connectors used for water, sewerage and drainage.

ing ing Pipe Seals

With a global reach and a track record spanning more than half a century, we deliver continuous innovation to customers across the globe, with a logistics and sales network spanning Asia Pacific, Europe, Middle East, Africa, North America and South America. Comprising the most advanced polymer technology, the high performance level of our seals ensures fulfilment of the highest possible reliability standards.

We will see you through from the beginning of your project right to the very end with the most advanced polymer technology and engineering expertise. Whether you need an entirely new system or improvements to your existing one, you can choose from a range of market-leading seals that offer:

High quality

Quick and easy installation

Improved productivity

Zero leakage

Trelleborg Pipe Seals offers the highest reliability and performance standards, providing watertight solutions that protect not only your pipe cycle, but your reputation too.

Designed to offer new standards of joint security

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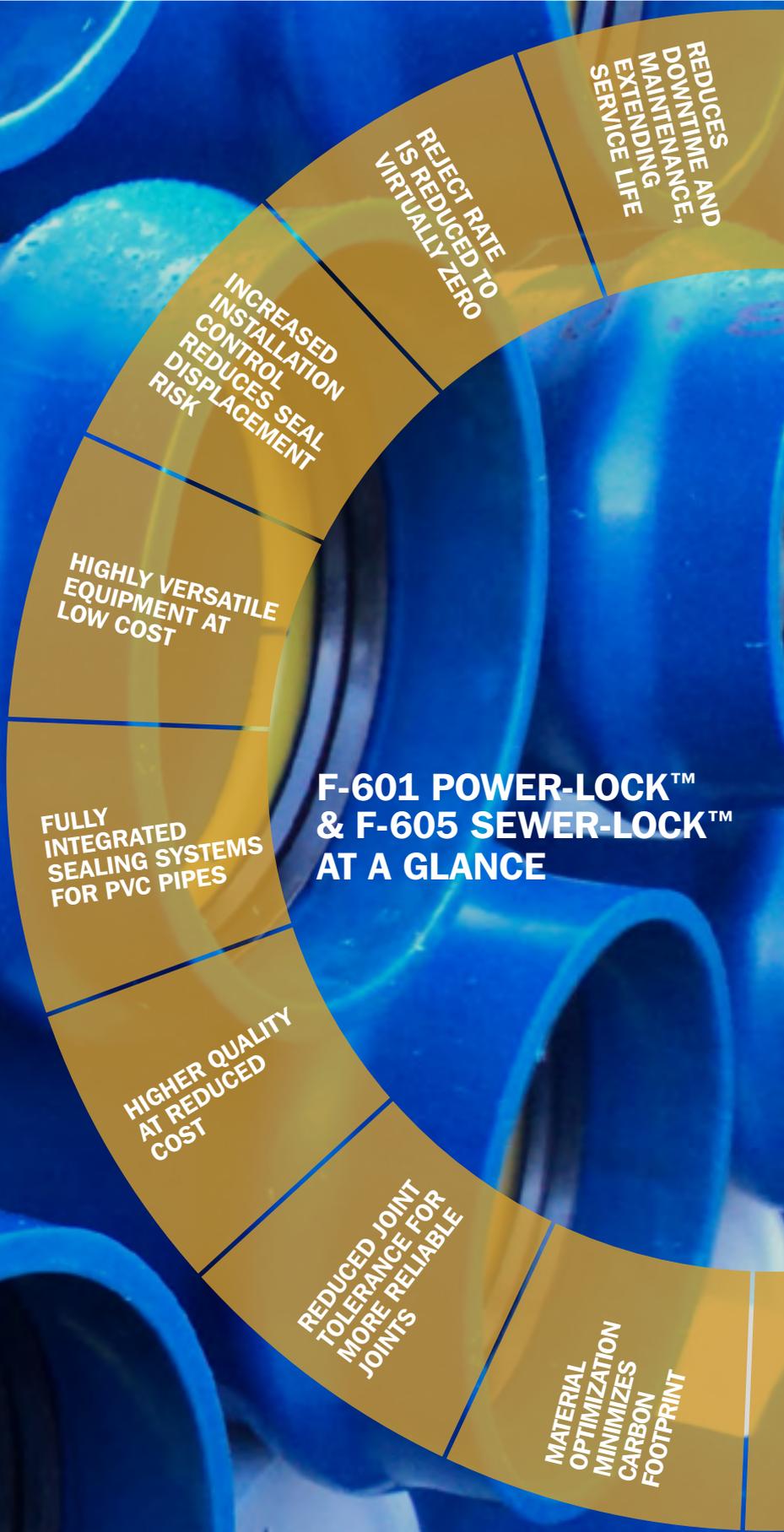


F-601 Power-Lock™ for Pressure Applications & F-605 Sewer-Lock™ for Sewer Applications.

The system uses an inexpensive single component mandrel. As a result the adjustment, cleaning and repair costs, associated with collapsible segment mandrels, are dramatically reduced. Pipe diameter changes are also simpler and quicker.

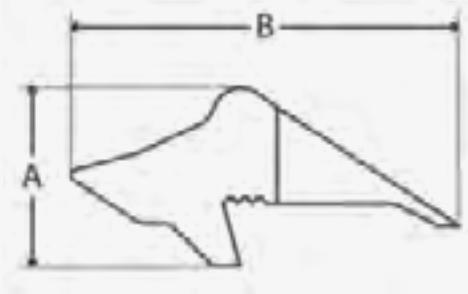
With the Power-lock™ and Sewer-lock™ bellings system, seal insertion is fully automatic. This means that the time consuming measurement of pipe sockets and separate installation procedures is no longer necessary. The number of extrusion lines which can be supervised by each operator is, therefore, greater. This brings an improved return on investment and increases productivity – typically by more than 10% over conventional solutions.

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Full range of pipe seal dimensions

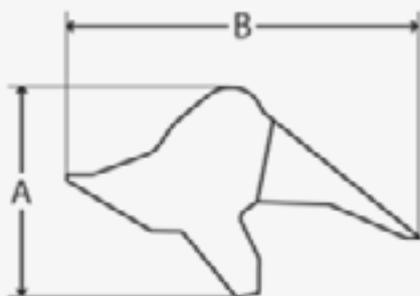
F-601 Power-Lock™



POWER-LOCK™ DIMENSIONS, MM		
PIPE SIZE, MM	A	B
50	8.0	17.2
63	8.0	17.3
75	9.0	20.0
90	11.0	24.3
100-S2*	14.0	32.3
110	12.0	26.6
125	14.0	32.3
140	14.0	32.0
150	17.2	23.5
150-S2*	16.0	35.9
160	15.0	33.5
200	16.0	35.9
200-S2*	17.0	37.1
200	20.2	32.0
225	17.0	37.1
250	19.0	42.9
250-S2*	20.0	43.6
280	20.0	43.6
315	21.0	45.8
355	23.0	50.2
400	25.0	54.5
450	23.5	58.2
500	30.0	65.4
630	37.0	83.9
710	41.0	92.3

*Seal for Australian Standard AS-4441

F-605 Sewer-Lock™



SEWER-LOCK™ DIMENSIONS, MM		
PIPE SIZE, MM	A	B
100	10.7	19.6
110	11.5	17.7
125	13.9	19.9
160	15.0	21.8
200	15.3	26.6
250	17.5	29.6
315	21.4	38.0
355	17.0	31.5
400	25.3	43.6
500	22.0	41.9
630	26.9	48.9
710	29.6	53.7
800	43.8	75.0

F-601 Power-Lock EPDM Rubber

Performance demands for pipe seals have been increasing steadily in recent years. Trelleborg has developed a specially formulated EPDM (Ethylene Propylene Diene Monomer) compound for the F601 seal. It's the ideal material for such applications, offering increased reliability and exceeding the requirements of current industry standards.

The chemical composition of our EPDM provides exceptionally high resistance to the effects of UV light, weathering, oxidization and ozone. EPDM is also resistant to attack from a large number of acidic and alkaline solutions. The material's excellent restoring force characteristics mean that it can be expected to offer superb performance in excess of 120 years.

F-605 Sewer-Lock TPE-V Rubber

Since their introduction, Thermoplastic Elastomers (TPE) have provided a new dimension to a multitude of engineered applications.

Trelleborg have pioneered the use of TPE in pipe sealing applications where it's unique processing and material performance advantages can be utilized to the full. The specially developed low friction compound used for the F605 seal optimizes jointing performance and gives excellent service life.

TPE also offers environmental advantages as the thermal bonds are reversible offering improved recycling opportunities.

F-601 POWER-LOCK PULSATION TEST PROVES ZERO-LEAKAGE

When pressure within a pipeline changes from positive to negative, and sand or other dirt is present, there is a risk of leakage. To ascertain the resistance of its sealing systems to the penetration of sand as a result of these pressure changes, Trelleborg Pipe Seals has developed a special 'pulsation test'.

A bladder of rubber containing water and sand is located over the joint. Air is connected to the bladder to mix the sand and water. The start pressure of the water is 20 kPa. The axial play in the joint is 10 mm. Testing is over 2000 cycles with a pressure varying between -50 KPa and 1.3 Mpa. Cycle time is one minute. On completion, joint tightness is tested according to the following procedure:

PRESSURE	TIME
-80 kPa	30 min
2.5 MPa before pulsation	30 min
2.5 MPa after pulsation	30 min
2.5 MPa after pulsation & deflection to plastic contact	30 min

The Forsheda 601 Power-Lock™ seals have been fully approved using this test method.

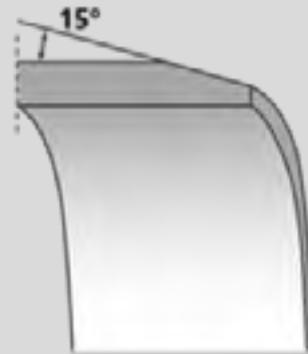
STANDARDS AND APPROVALS

The Forsheda 601 Power-Lock™ and Forsheda 605 Sewer-Lock™ seals are approved in accordance with EN 681-1 and EN 681-2 respectively:

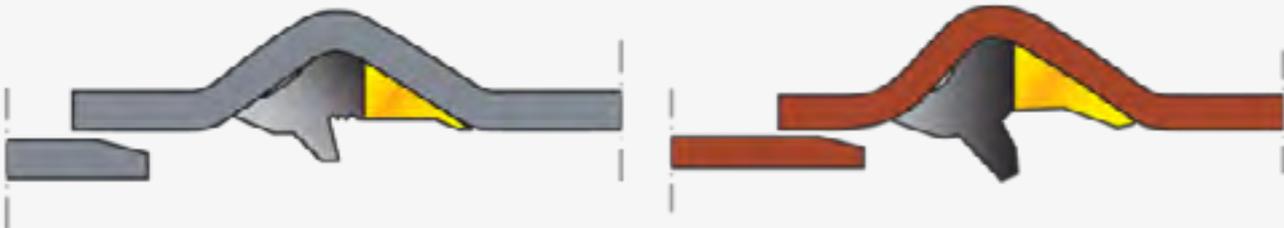
FORSHEDA 601 POWER-LOCK™	FORSHEDA 605 SEWER-LOCK™
EN 681-1 WC, WA	EN 681-2 WT, WH
AS 1646	EN 681-1 WC (certain sizes made from EPDM)
BS 6920 (WRAS)	BRL 2020
AFNOR XP P 41-250 (ACS)	AS 1646
AS/NZS 4020	

JOINTING INSTRUCTIONS

The spigot and socket of the pipe should be checked for damage prior to jointing. The pipe spigot should be chamfered with an angle of 15° , taking care to remove all burrs. Both spigot and socket including the sealing ring should be free from dirt and other foreign matter. The lubricant should be applied evenly to the spigot end of the pipe:



Immediately after lubrication, the spigot should be brought into contact with the socket:



Both spigot and socket should be correctly aligned. Then slide the spigot into the socket, thus compressing the seal until the joint is fully made:



Sealing solutions for the plastic pipe industry



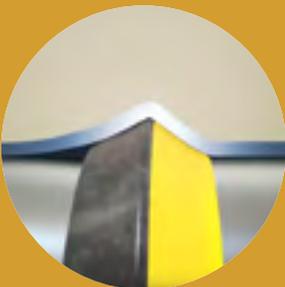
The pipe is heated to allow forming of the socket



The seal is automatically loaded on the socketing mandrel against the support flange



The mandrel is inserted into the softened pipe which flows over the seal thus forming the socket



The support flange is retracted and internal vacuum and external pressure forms the pipe around the contours of the seal



The pipe socket is cooled either by air or water and the mandrel withdrawn from the socket



Watch the full movie online!

SEALING SOLUTIONS FOR THE PLASTIC PIPE INDUSTRY

Trelleborg Pipe Seals are also proud to offer the following products for the PVC applications.

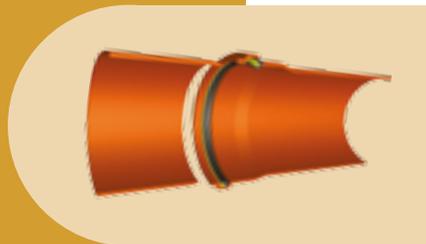
Forsheda 575

Non-integrated sealing system for plastic pressure pipes and wastewater conduit in ground. Low jointing force – minimal risk of seal displacement. High performance – low cost solution.



Din-Lock™

Extreme sealing performance with a unique triple-lip design for DIN groove pipes and fittings. Locked in, very tight fit that doesn't come out during transport. Ideal for fittings, increased performance, and professional appearance.



Anger-Lock™

Proven solution for pressure pipes with Anger Groove, installed after pipe production. Manual or automated. Locked in very tight fit, so it doesn't come out during transport. No deformation of seals and support ring thanks to flexible plastic.





Trelleborg is a world leader in engineered polymer solutions that seal, damp and protect critical applications in demanding environments. Our innovative engineered solutions accelerate performance for customers in a sustainable way. The Trelleborg Group has local presence in over 40 countries around the world.

Trelleborg Pipe Seals is a world leading supplier of new and rehabilitation sealing solutions for concrete and plastic pipes and manholes used for water, sewerage and drainage. We deliver continuous innovation to customers across the globe, with a logistics and sales network. Comprising the most advanced polymer technology, our high performance seals ensure fulfillment of the highest possible reliability standards.

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Trelleborg Pipe Seals

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