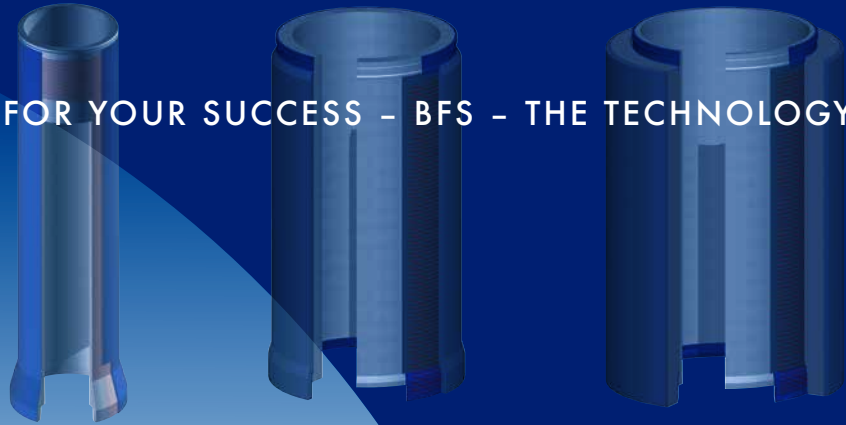


PRESSURE PIPES

PRODUCTION PLANTS FOR YOUR SUCCESS - BFS - THE TECHNOLOGY LEADER



BFS

Part of the Afinitas family

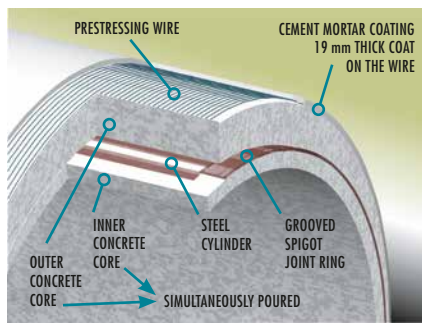
Concrete Pressure Pipes

BFS has been designing and producing Quality High Pressure Concrete Pipe equipment for more than 50 years. **BFS** has had an important impact on the development of the production equipment used nowadays all over the world. We are carrying out development and supply of complete turnkey plants from the feasibility study up to the commissioning of the plants.

The **BFS** Equipment is complying with the most rigorous standards such as for example the AWWA standards.

There are different ways of producing concrete pressure pipes. Pre-stressed Concrete Cylinder Pipes called PCCP Pipes and Pre-stressed Concrete Spun Pipes called PCSP Pipes:

Pre-stressed Concrete Cylinder Pipes (PCCP)



The PCCP Quality pipes, are fundamentally manufactured in two different methods. PCCPs with embedded steel cylinders (ECP), and PCCPs with outer steel cylinders, (LCP). **BFS** offers a complete program of machines and ancillary

pressures of up to 20 bar and more. After steam curing process, the core is normally radial pre-stressed by a wire winding applying a high pressure.

PCCP pipes can be produced from 500mm up to 4000mm with a length of up to 8m. Depending on the working pressure, an appropriate joint design will be applied.



equipment for both manufacturing methods. In case of the vertical casting process, a steel cylinder is placed between the two concrete walls which ensures complete water tightness. The steel cylinder guarantees resistance to leakage at operating

Pre-stressed Concrete Spun Pipes (PCSP)

Using **BFS** Vibro-Press Spinning Technology, the Pre-stressed concrete spun pipes are well considered all over the world because of the advantages of the high compaction and density of the concrete obtained as well as the reliability of the pipelines using concrete joints.

The main features of the spun pipes are:

- Each pipe is tested with a test pressure of about 1.5 times the working pressure.
- Concrete strength and concrete density achieved in the spun concrete (**BFS** technology foresees an initial vibration before spinning).

- The range of pressure pipes to be produced with the same machines is variable from 400 mm up to 3120 mm I.D. and length up to 7 m.
- The range of drainage flumes which can be produced is from DN 350 to 2000 mm with a length of 5 to 7 meters.
- Possible working pressures of up to 20 bars
- High performances of the spinning machine (30 meters per second peripheral speed)
- circumferential pre-stressing machine



Let us know your needs...and we will design, supply and commission your plant!

Systems for pre-stressed Steel Cylinder Pipes (PCCP)



Mould Filling and Steam Curing Area



Automatic Steel Cylinder Welding Machine



Steel Cylinders already tested against leakage and ready to be used

Systems for pre-stressed Steel Cylinder Pipes (PCCP)



View on the PCCP Production Process Platform



Finished Pre-stressed Concrete Cylinder Pipe



Radial Pre-stressing Machine



Radial Pre-stressed Concrete Cylinder Pipe

Systems for pre-stressed Steel Cylinder Pipes (PCCP)



Mortar Coating Machine; in order to protect the steel wires against corrosion



Finished Product and Steel Cylinder Storage Area

Systems for pre-stressed spun pipes (PCSP)



Demolding Process of a cured Pre-stressed Concrete Spun Pipe



PCSP Mould reinforced by a cage and pre-stressed longitudinal wires



Newly manufacture Spun Mould ready for dispatch

Systems for pre-stressed spun pipes (PCSP)



Layout of a pre-stressed Concrete Spun Pipe Plant

Pre-stressed Concrete Spun Pipe Section

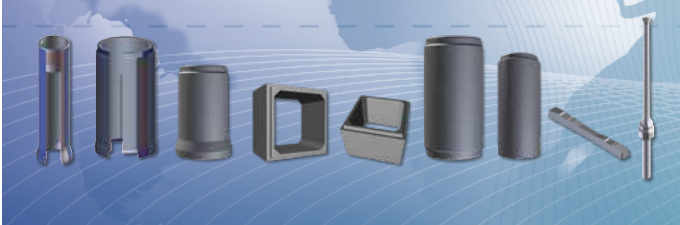


Radial Pre-stressing Machine



Concrete Pipe Spinning Machine

The **BFS**-Multiplex-System



Multiplex stands for multiplicity, versatility, multitude. And this is how we live up to our aim. **BFS** production systems lay the foundations for your key advantage on the market: individual diversity of products.

We create technically sophisticated production systems for your concrete products. From semi-automated individual machines to completely turnkey fully automated plants. With the latest technology and expertise, **BFS** has managed to establish itself on national and international markets as a driver of innovation and pioneer in technology in the fields of concrete pipe production, the manufacture of chamber bases and other pre-fabricated concrete components for the creation of professional underground engineering infrastructures.



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