## **Festec®** Flush-Connector

type II inside view



Festec® Flush Connector flushing, drying, ventilating, the Festec® Flush-Connector fits for all!

type II fixed on 10" flange



## Festec<sup>®</sup> Flush-Connector

When pipelines, towers, drums etc. have to be flushed, steamed, dried or ventilated one realises the large variety of flange-diameters involved. Numerous connections have to be fitted in order to be able to connect the required equipment to all the flanges of the system.

#### One solution, available in 3 sizes

**Festec**<sup>®</sup> now introduces the second generation flush-connectors. This universal and patented device is available in 3 sizes and ranges for all flanges from ANSI 2" up to 20" and DIN 50 up to 500.

#### Simple, but efficient equipment

The improved **Festec**<sup>®</sup> flush-connector offers the following advantages:

- ✓ multiple connection to a large range of flange-sizes
- multifunctional properties
- ✓ multiple re-usage
- ✓ extended life-time due to improved quality

#### The concept of the Festec<sup>®</sup> flush-connector:

Each **Festec**<sup>®</sup> flush-connector is supplied with a connecting-set, which consists of 8 washers and a set of 4 stud-bolts, counter-nuts and special hook-nuts. Due to its smart construction, there is always a combination of the connecting-set possible, enabling to fix the flushing-head to a flange within its suitable range.



The **Festec**<sup>®</sup> flush-connector is delivered including a neoprene vulcanised steel ring in order to optimise the sealing of the equipment to the flange of the system to be cleaned, dried or ventilated.

Depending on its size, the **Festec**<sup>®</sup> flush-connector is equipped with 1, 3 or 8 pieces of  $2^{-1}/_2$ " BSP water-inlets. A  $1/_2$ " NPT side-inlet is fitted outside each water-inlet together with a brass adjustable venturi-ring to the inside.

In all water-inlets a 90°,  $2^{-1/2''}$  Storz-elbow with coupling and cap is mounted.

#### How the Festec<sup>®</sup> flush-connector works:

The built-in venturi in each water-inlet results in a better mixing of the injected air, steam, detergent or a combination of those with the flushing medium, and an improved whirl of this mixture. Thus witnessed inspections showed that the flush runs through the full bore of the pipeline like a wave, cleaning it over its full length.

Field-tests, on a 20" pipeline with a length of 1.500 m, including 2 road-crossings and a 5 m high jump-over, proved that the required cleaning specifications were met perfectly after flushing with the **Festec**<sup>®</sup> flush-connector.

#### The Festec<sup>®</sup> flush-connector

- ✓ is easy to use,
- requires no large investments,
- ✓ is safe to handle,
- ✓ fits to all flange-sizes in the range from 2"- 20" / DN 50 500, and
- ✓ can be used for
  - flushing with cold water
  - flushing with warm water due to steam injection
  - flushing with detergent in cold of warm water
  - flushing with air => drying / ventilating with air



#### Using the Festec<sup>®</sup> Flush-Connector

#### in daily practice for

#### • flushing with water and air

The specially designed water-inlets with side-inlet and built-in venturi finally enable to flush with the unique combination of water and air. The  $2^{-1}/_2$ " BSP water-inlets are to be connected to the fire-water-hydrants giving approx. 5 bar water-pressure, and the  $1/_2$ " NPT side-inlets to an air-compressor giving approx. 6 bar.

#### Advantages:

- ✓ more powerful cleaning
- ✓ increased flushing volume / minute
- ✓ less water usage
- ✓ less down-time

#### • flushing with air

Once the pipeline has been flushed, it might have to be dried. Thus the water-supply has to be disconnected from the water-inlets and the Storz-caps left off. Due to the vacuum-function, the venturies in the equipment increase the volume of air replacement by the compressor by 15 times.

#### flushing with detergents

Another option is adding detergents or solvents to the flushing medium. Once a container with the additives is connected to the side-inlet of the water-inlet, the venturi vacuum-function mixes the additive(s) evenly with the flushing medium.

#### from a safety point of view for

#### flushing with warm water

Finally, flushing with warm water can be done safely. No more dangerous situations caused by poor fittings, leaking or expanding warm water hoses. Once steam is injected though the side-inlets, its heats up the flushing water in a completely safe way.

#### ventilating

Last but not least, the **Festec**<sup>®</sup> flush-connector can be used as an air-mover when working in poorly ventilated areas. Connecting a compressed air supply to the side-inlet and a vacuum-hose to the main-inlet, the venturi once more increases the volume of air-replacement by 15 times. Just make sure that the fresh air through the vacuum hose comes from a clean area!

\* In case of insufficient water-supply up to 4 water-inlets might be kept closed by means of the Storz-caps.



## Festec<sup>®</sup> Flush-Connector

1	1	1			
I	11	111	1.54	-268	1 - 390
17	48	120	R=116 Balo	R=180 R=1	R=283 000 Rec
1	3	8			
1	3	8	Ψ	Ψ	
6 4	4	4	Туре І	Type II	Type III
flange-range			A = 2" or 50 mm B = 6" or 150 mm 150# - 1.500# PN 10 - PN 250	A = 8" or 200 mm B = 12" or 300 mm 150# - 1.500# PN 10 - PN 250	A = 14" or 350 mm B = 20" or 500 mm 150# - 1.500# PN 10 - PN 250
c f		D	A = 170 mm C = 58 mm D = M16	A = 275 mm C = 60 mm D = M20	A = 350 mm C = 85 mm D = M24
			A = Ø 17 mm B = Ø 40 mm C = 12 mm D = 12 mm	A = Ø 24 mm B = Ø 60 mm C = 10 mm D = 20 mm	A = Ø 26 mm B = Ø 60 mm C = 15 mm D = 30 mm
		17 48   1 3   1 3   4 4	17   48   120     1   3   8     1   3   8     4   4   4	1   1	Image: Intermediate in the second

Due to constant developments and improvements, the actual model might differ from the models as shown in this brochure.

#### **Quality tool**

The safety improving **Festec**<sup>®</sup> Flush-Connector is developed in co-operation with maintenance engineers the field.

#### **References:**

The **Festec**<sup>®</sup> Flush-Connector is used successfully by a wide range of customers such as refineries, (petro-)chemical industries, off-shore industries, pipeline-operators etc. as well as their contractors.

For more information please contact

#### or your local distributor

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