

FEATURES

- **Fixed between-flange installation**
- **Flow rate up to 2000 lpm**
- **High back pressure**
- **High suction height**
- **Suited ARC foams**

Description

The BFZ (Between Flange) inductor series represents an extension of the existing line of Z-inductors for fixed use. The BFZ 3" can be used at flow rates up to 2000 lpm. The BFZ inductor allows very accurate proportioning.

Application

The BFZ inductor can be installed in all fixed systems, especially in areas where sprinklers are used such as storage facilities and aircraft hangars.

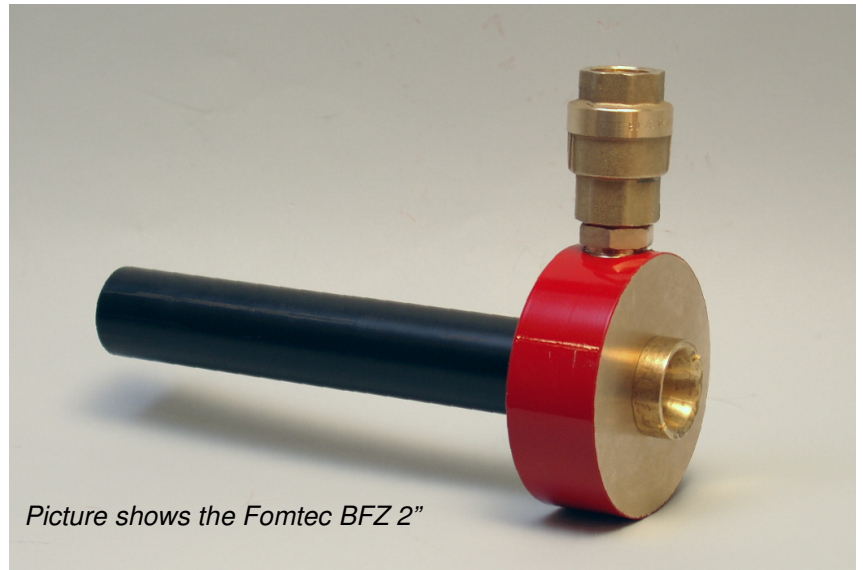
Operation

The BFZ is installed inside the pipe work between two DN flanges. The BFZ works using the injector principle, i.e. foam concentrate is sucked into the inductor without using a foam pump. Both low and high viscosity concentrates can be used in conjunction with the BFZ.

Depending on the requested flow, pressure, foam concentrate type and proportioning ratio the inductor will be equipped with the exact orifice at the entry of the foam pipe. Induction performance and suction height can be adjusted up to a physical limit of approximately 8 meters.

Optional

The Fomtec BFZ inductor can be customized to handle a variety of flow rates as well as high viscous alcohol resistant concentrates.



Picture shows the Fomtec BFZ 2"

Technical data

Model	BFZ 3"
Size	DN 80
Foam inlet	1"
Flow Rate (max)	2000 lpm
Flow rate (min)	360 lpm
Proportioning rate	1, 3 or 6%
Pipe length upstream	5 x Ø
Pipe length downstream	5 x Ø
Suction height (max)	3 m
Inlet pressure (max)	16 bar
Inlet pressure (min)	4 bar
Pressure drop	35%
K Factor	180-500
Flange type	DN 80 / PN 16
Between flange proportions	52 mm
Weight	6 kg
Length	405 mm
Material	Bronze

Inductors without balancing valve

To get 34% pressure drop over the inductor and get the inductors proper function, the system after the inductor shall have a k-factor that is 27% larger than the k-factor of the inductor when using 3% foam and 30,5 % higher when using 6% foam. If the k-factor on the system after the inductor is less than 22% larger than the k-factor of the inductor the suction ceases completely. If the k-factor on the system after the inductor is more than 27% (3% foam) or 30,5% (6% foam) larger than the k-factor of the inductor the pressure drop over the inductor increases but the flow is constant when you have the same inlet pressure on the inductor.

Calculations:

$$\frac{(Q_v + Q_s) \sqrt{H}}{Q_v \sqrt{0,66 H}} = 1,27$$

Qs = 3%

Qv = Water Flow

Qs = Foam Concentrate Flow

H = Water pressure before the inductor

$$\frac{(Q_v + Q_s) \sqrt{H}}{Q_v \sqrt{0,66 H}} = 1,305$$

Qs = 6%

Qv = Water Flow

Qs = Foam Concentrate Flow

H = Water pressure before the inductor

Working range BFZ 3''

Inlet pressure (bar)

