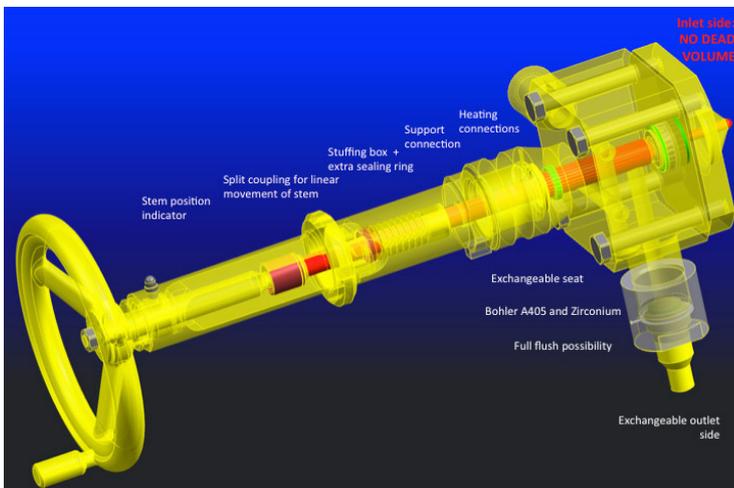


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The BHDT “ZERO DEAD VOLUME” High Pressure Sampling Valve Now suitable for all Urea Technologies

BHDT, Best High Pressure and Drilling Technology, in Austria proudly presents its latest Innovation:
The BHDT “Zero Dead Volume” High Pressure Sampling Valve.

The BHDT “Zero Dead Volume” High Pressure Sampling Valve makes taking samples from the High Pressure Synthesis section in a Urea Plant much **more Safe, more Reliable and lot Easier**. And is now **available for all urea technologies**.



The solution will flash whereby ammonia gas releases.
During sampling no gasses are allowed to escape in order to obtain a reliable and representative sample.
The sample needs to be caught in a balloon in which it is dissolved in a pre-weighted amount of water.
The sample flow needs to be controlled accurately in order that the sample has time to dissolve in the water and to avoid that the balloon will burst.
The sampling valve and inlet line need to be pre-heated and flushed through to remove the old solution.
Proper personal protection equipment is needed to avoid any risks.
It is time to solve these safety hazards...



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The BHDT "ZERO DEAD VOLUME" High Pressure Sampling Valve has the following features:

1. Zero Dead Volume at the inlet

The design of the spindle is such that in closed valve position there is not any dead volume. This means that crystallization cannot occur, so there is no need to pre-heat the sample line before taking the sample. Also there is no need to flush the sample line first as there is no old solution at the inlet of the valve. Thus one takes always and immediately the right sample. Safe and Easy to use.

2. High controllability of flow

The design of the spindle also realizes a high controllability of the sample flow. The first six rotations only slowly increase the flow rate until a safe and comfortable sampling flow rate. Thereafter in six more rotations one reaches a full flush position in order to flush out the valve whenever required. The valve of course has a stem position indicator. Safe and Easy to use.

3. Possible to have full flush position in order to minimize chance of clogging

This valve can have a full flush position, so the spindle is able to extract completely so that all fouling (if any) can be flushed away. Easy to use.

4. Proprietary design to avoid shooting out of spindle

The shape of the spindle avoids any risk that the spindle can shoot out of the body of the valve. Safe to use.

5. Proprietary design to protect stuffing box

The stuffing box is protected from the process solution by means of an additional and special seal ring between the spindle and the body. Long life time.

6. Exchangeable seat

Like all BHDT valves also this valve has an exchangeable seat. Easy to maintain.

7. Steam heating connections

This valve has steam heating connections to avoid any crystallization problems. Easy to use.

8. Exchangeable outlet side

The design of this valve allows to choose your own preferred outlet line size and type. The outlet line can be rotated 360° to allow you to choose the optimum position to take a sample. As the outlet line can be easily disconnected and cleaned no problems of crystallization in the outlet line can occur. Safe & easy to use

9. Standardized design

This valve can be used for the high pressure reactor outlet and high pressure stripper outlet but also for the carbamate and the urea melt streams. Economical

10. Suitable for all urea process technology

BHDT did choose the design parameters like material of construction (Bohler A405 body with Zirconium stem), design pressure (250 bars) and temperature (250 °C) in such a way that the BHDT – Zero Dead Volume – HP Sample Valve can be used in all urea process technology plants. Economical

11. Support connection

This valve can be fixed with an extra support to assure a safe and reliable construction. Safe to use

For more information, please contact:

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