

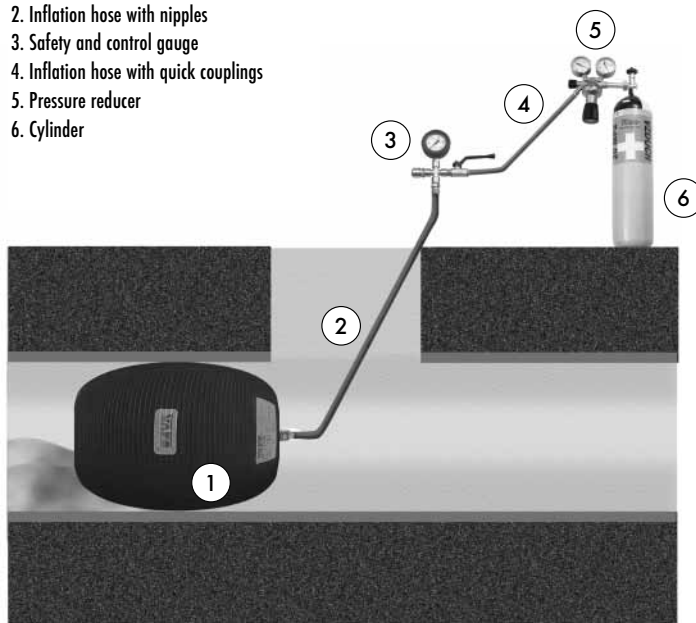
PIPE STOPPERS

safety instruction manual



Pipe stoppers are made of quality rubber reinforced with nylon or kevlar fabric. The metal parts are made of stainless materials. Each pipe stopper is provided with quick coupling for inflation and eyebolt for removing and blocking. They withstand weather, temperature from $-30\text{ }^{\circ}\text{C}$ to $80\text{ }^{\circ}\text{C}$, use and waste water and they are middle resistant of chemicals. They are mainly used during repair and maintenance works, accidents and for the leak tests with water or air.

1. Pipe stopper
2. Inflation hose with nipples
3. Safety and control gauge
4. Inflation hose with quick couplings
5. Pressure reducer
6. Cylinder



WARNING !!!

Read these instructions carefully before using pipe stoppers. Nonobservance of instructions and warnings for safe operation of pipe stoppers can damage product, or can cause serious bodily injury or death.

The instructions apply to all types and sizes of VAPO pipe stoppers:

Pipe stoppers – U, PU and PU-F

Short pipe stoppers – UK and PUK

Bypass pipe stoppers – PU-G

High-pressure pipe stoppers – UU


Egg-shaped pipe stoppers – UV, UVP and PUV, PUV-F, PUVF

Pillow pipe stoppers – UP and PUP

Test stoppers for gullies – US

Rules for safe operation of pipe stoppers

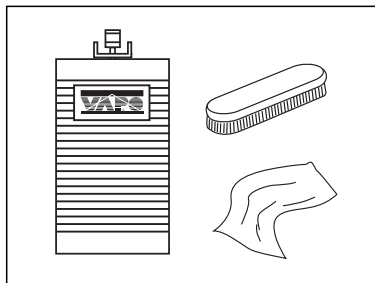
1. Before and after each use clean and inspect the pipe stopper and all accessories
2. Always choose the correct size of pipe stopper regarding to pipeline
3. Always use accurate safety and control gauge and inflation hoses
4. Always use protective clothing and equipment
5. Clean the pipe before inserting the pipe stopper
6. Always make sure that the pipe stopper is correctly inserted in the pipe
7. Never exceed the maximum operating pressure of the pipe stopper
8. Always keep out of the danger zone while the pipe stopper is inflated in the pipe
9. Release the back pressure before removing the pipe stopper from the pipeline

 Before using any of the VAPO pipe stopper you must read these instructions carefully. If you have any questions or there are any circumstances not described in this manual, contact your supervisor or producer.

Procedures before using a pipe stopper

1. Before and after each use clean and inspect the pipe stopper and all accessories

- Check the pipe stopper for possible damages such as cuts, punctures, blisters between rubber layers, worn out parts, etc. Connections must be in function.
- Safety and control gauge, inflation hoses including quick couplings and nipples must be in function.
- After each use, clean the pipe stopper with a solution of water and detergent. Never use solvents, hydrocarbons and other aggressive cleaning agents.



2. Always choose the correct size of pipe stopper regarding to pipeline

- Each pipe stopper is designed for a specific diameter range. This diameter range is clearly marked on the pipe stopper itself. Never use the pipe stopper which is smaller or larger in diameter than the one specified on the pipe stopper.

3. Always use accurate safety and control gauge and inflation hoses

- Always carefully check safety and control gauge, inflation hoses including quick couplings and nipples. These must be clean, because assure correct function of pipe stopper.
- Never adjust the safety valve of control gauge.
- If you suspect that the pipe stopper or accessories are damaged consult this with producer or return the product to producer for inspection or replacement for new one.

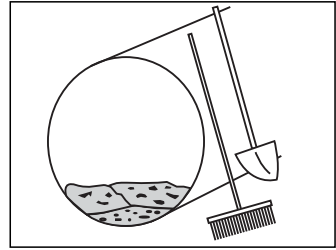
4. Always use protective clothing and equipment

- When working with VAPO pipe stoppers, always wear protective clothing, a helmet and safety glasses.



5. Clean the pipe before inserting the pipe stopper

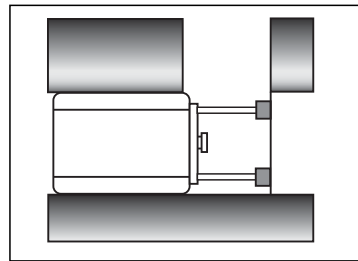
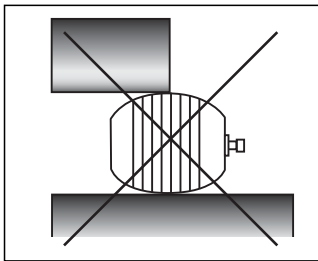
- Before insertion of the pipe stopper into the pipe always clean the pipe from sand, dirt, stones and any other sharp objects, which can make damage the pipe stopper.



Procedures during use a pipe stopper

6. Always make sure that the pipe stopper is correctly inserted in the pipe

- Insert the pipe stopper inside the pipe in whole length, never must not be his part out of the pipe.
- Block the pipe stopper because back pressure may push a pipe stopper out of the pipe.
- Never inflate the pipe stopper to more than 0,2 bar, when it is outside the pipe.
- Never inflate the pipe stopper in the pipe which has not been properly cleaned.



7. Never exceed the maximum operating pressure of the pipe stopper

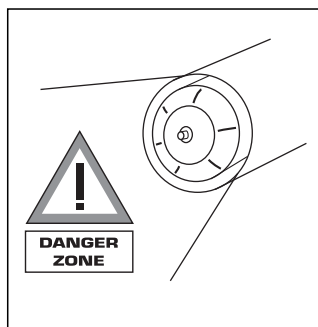
- Always inflate the pipe stopper to the maximum operating pressure indicated on the label of the each pipe stopper. During extended use, we recommend to check the pressure at least once every hour.
- Right function of the safety and control gauge must be check regularly before each use. Safety valve must deflate at 2,6–2,7 bar – V 2,5, at 1,6–1,7 bar – V 1,5 and at 1,1–1,2 bar – V 1.
- Exceeding the maximum operating pressure can result in a damage of the pipe stopper.

8. Always keep out of the danger zone while the pipe stopper is inflated in the pipe

- Danger zone is the area before the pipe, manhole or any other opening, into which the pipe stopper is inserted.

DANGER !!!

Always keep out of the danger zone while the pipe stopper is in us. Failure can cause serious bodily injury or even death.



Procedures for removing a pipe stopper

9. Release the back pressure before removing the pipe stopper from the pipeline

- Releasing the air back pressure or water head behind the pipe stopper is important, because the back pressure can push it out of the pipe with a force that can cause damage or destruction of the pipe stopper.
- Remove the blocking of the pipe stopper.
- Deflate the pipe stopper before removing. Never remove it by inflation hose, always use a rope attached to an eyebolt.

