

## 2-OPERATION OF THE PLUG



(Figure 14)

[2.1] Always read the information tag on the plug ( **Figure 14**). If any value does not suit the site conditions, **DO NOT USE OR OPERATE** the plug !

[2.2] Stop the pipeline flow before installing any type of plug.

[2.3] Use a Control Device with Safety Relief Valve to maintain the correct pressure and prevent over-inflation that could rupture the plug.

[2.4] **ALWAYS** inflate the pipe plug up to the max. allowable inflation pressure (working pressure) marked at the technical datasheet and on the pipe plug ( **Figure 14**) During pipe plug inflation, monitor the pressure closely on the control device.

[2.5] **DO NOT** inflate the plug less than Max. working pressure.

[2.6] Do not exceed the recommended maximum allowable inflation pressure (working pressure) as outlined in the PlugCo Catalog and on the technical information tag on the pipe plug ( **Figure 14**).

[2.7] Do not exceed the maximum allowable back pressure as outlined in the PlugCo Catalog and on the technical information tag on the pipe plug ( **Figure 14**).

[2.8] PlugCo recommends that water should be used for inflating the plug for model PP5001000 and larger sizes. As a minimum , the deflated size of the plug should be filled with water.

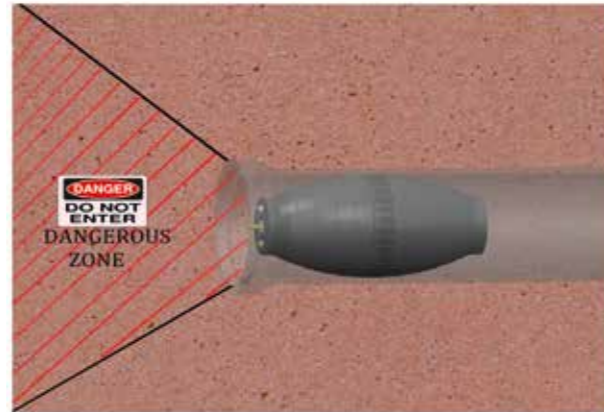
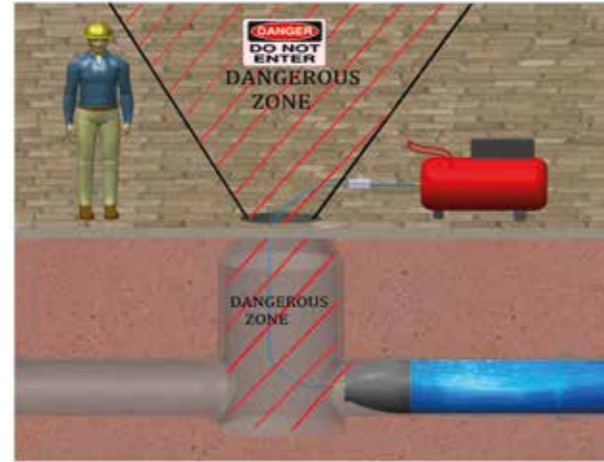
[2.9] Always provide support or bracing to prevent sliding or other movement of the plug whenever back pressure is present.

( **Figure 15** )

( **Figure 15** )



[2.10] Stay away of the plug when it is under pressure. Do not enter the Danger Zone area when the plug is in use ( **Figure 16**).



( **Figure 16** )



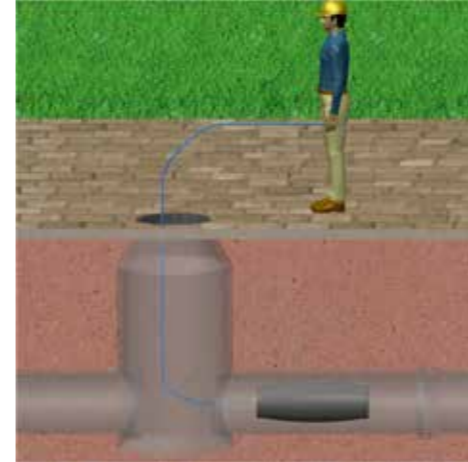
**CAUTION! Never enter the Danger Zone. Serious injuries or death may result in.**

[2.11] Do not stand in front of, to the side of or above a plug when in use.

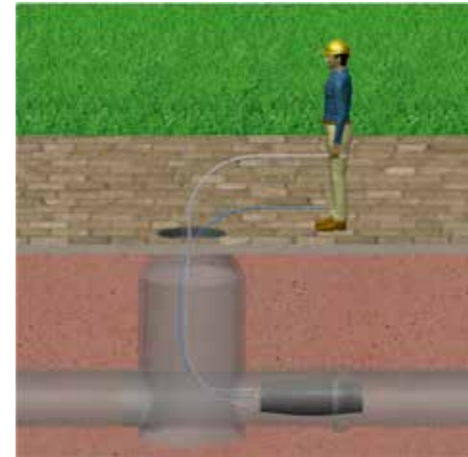
[2.12] Never remove the inflation hose until all back pressure is released and the plug is deflated.

[2.13] Release the back pressure from the pipe before deflating the plug.

[2.14] Do not lift or pull the plug by the air or water hose ( **Figure 17**). Attach a rope or chain to the lifting brace for moving or hoisting the plug ( **Figure 18**).



**INCORRECT**  
( **Figure 17** )



**CORRECT**  
( **Figure 18** )



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## SAFETY MANUAL PLUGCO INFLATABLE PIPE PLUGS PIPE TEST PLUG (PTP)



**Stay Away While the Plug Under Pressure !**

## PIPE PLUG (PP)



**Plugs Must Be Braced While in Use !**

**The End User must read and understand this PlugCo Safety Manual before using the plug. The failure of a plug for any reason including improper maintenance, installation or use can result in bodily injury, death and/or property damage!**



# 1-BEFORE USING THE PLUG

**SAFETY FIRST**  
READ AND FOLLOW ALL SAFETY INSTRUCTIONS



**CAUTION !!! Pipe plugs should be used by a trained and experienced team. If your team has not been trained in the proper use, care and application of pipe plugs, DO NOT USE PlugCo Plugs. Usage by an untrained team may cause death or serious injuries. PlugCo can provide training and supervision for your team.**

[1.2] Applying and following proper safety measures are the responsibilities of the end user.

[1.3] Follow and use proper confined space safety rules and equipment during installation and operation of the plug.

[1.4] Follow all applicable safety rules of international and local authorities.

**BE SAFE**  
DON'T FORGET TO WEAR YOUR PERSONAL PROTECTIVE EQUIPMENT

[1.5] Use all required safety equipment including safety glasses, hard hat, hearing protection, protective footwear and all other necessary protective clothing and equipment. Safety equipment and clothing required will depend upon the environment in which the product is used.

[1.6] Carefully inspect the plug and all related equipment for damage and indications of wear or deterioration before and after each use (Figure 1). The plug may be inflated slightly to aid in the inspection process. After inflation, apply a solution of water and detergent to the equipment or submerge the product completely under water to locate leaks. Bubbles will appear if any air leakage.

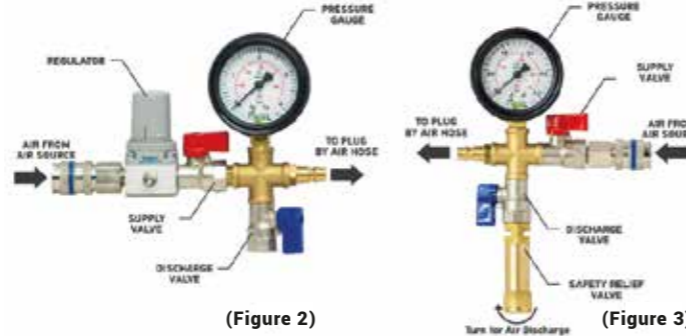


(Figure 1)

[1.7] Check the pressure gauge and control device for damage and leakage. Be sure that there is no air leakage at joints and connections. Always use a calibrated pressure gauge (Figures 2-3).

[1.8] Connect an extension hose to the plug, so it can be inflated and deflated from outside the danger zone.

[1.9] Do not use an air source (compressor) that does not have a pressure gauge.



(Figure 2)

(Figure 3)

[1.10] Inspect the air hose and water hose (for PTP model) for leakage. Check the connection points of both hoses for leakage (Figures 4-5).



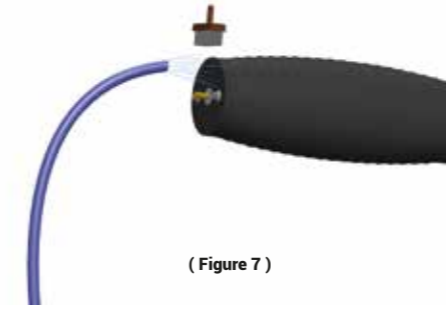
(Figure 4)

(Figure 5)

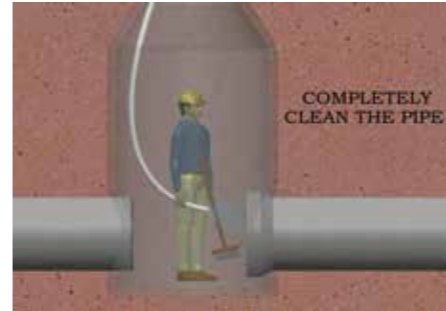
[1.11] Measure the internal pipe diameter and choose the pipe plug size as per the internal pipe diameter (Figure 6). Never use a plug different in diameter than the recommended one by PlugCo.



(Figure 6)

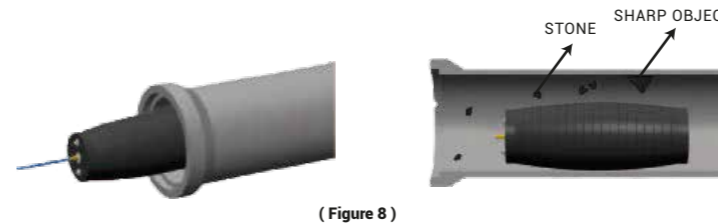


(Figure 7)



(Figure 7)

[1.12] Clean the external surface of the plug and internal surface of the pipe to remove stones, protrusions, and any other material from the location where the plug will be positioned. (Figures 7-8).



(Figure 8)



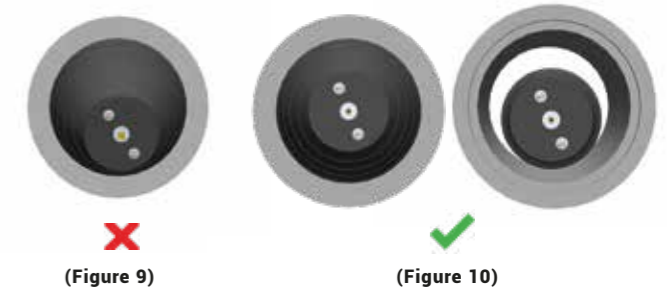
**WARNING! NEVER Clean the plug with solvents, hydrocarbons or other aggressive agents; the plug can be damaged.**



**CAUTION ! Failure to remove dirt, stones or sharp objects in the pipeline can cause poor sealing and damage to the pipe plug.**

[1.13] Position the plug in the pipeline. Use a Kevlar or other protective sleeve to protect the plug if there is debris which cannot be removed from the pipeline.

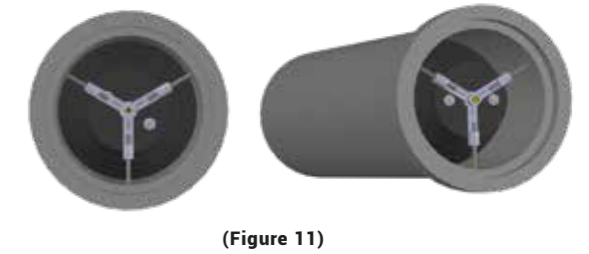
[1.14] Center the plug in the pipe. The centerline of the plug should be parallel to the centerline of the pipe (Figures 9 - 10).



(Figure 9)

(Figure 10)

[1.15] Use Centralizer for pipe diameters above 900 mm (Figure 11).



(Figure 11)

[1.15] Insert the plug seal surface completely so that it is fully supported by the pipeline.

[1.16] Do not inflate the plug outside of the pipe (Figures 12 - 13) !



(Figure 12)

(Figure 13)