

# DOUBLE BLOCK AND BLEED

## Isolation and Test Plug

### Technical Brief- EST Group

#### DESCRIPTION

The Double Block and Bleed (DBB) plug enables you to positively isolate and monitor potentially explosive vapors during “hot work”, then effectively hydrotest the new weld connection with one easy to use tool. The aluminum/steel construction makes the tool highly portable, and easy to position. The volume of water required for a test is so small that testing can be accomplished using a hand pump.

#### FEATURES AND BENEFITS

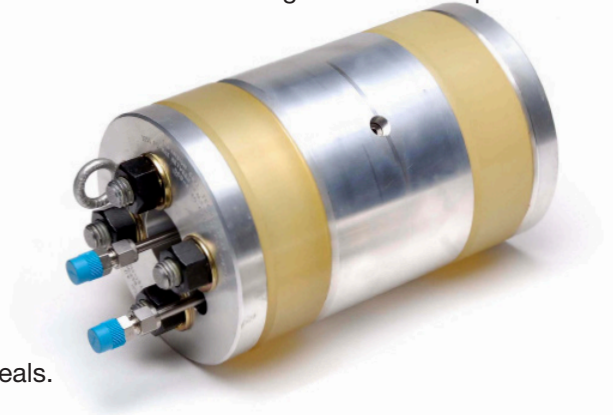
- Lightweight, aluminum and steel construction
- Test pressures to 2250 PsiG (155 BarG) between the seals
- Available for NPS ranging from 3/4” to 24” (DN20 - DN600)
- Pressure tests performed with less than a gallon of water

#### SPECS/MATERIALS

Standard materials include aluminum body with steel hardware and urethane seals.

#### BASIC OPERATIONS

- After determining pipe and schedule size, install DBB upstream of “hot work” area
- Expand seals by tightening compression nuts
- Inject inert gas or water between seals (isolation zone) and pressurize
- Monitor isolation zone pressure during “hot work”
- After weld cools, release pressure and seal, reposition the plug’s isolation zone over weld area
- Pressurize isolation zone



#### FAQs

**Q What is the temperature rating of the Urethane Seals and will the close proximity to heat transfer area compromise the seals during the welding process?**

A The temperature rating for the Urethane seals is 180°F (82°C). When the plug is installed 12” (305 mm) from the weld, the distance between the weld and the Double Block and Bleed Isolation Plug allows the heat to dissipate and decrease to a temperature that is within the rating of the seals.

**Q Will the Double Block and Bleed Isolation Plug accommodate slight weld intrusion?**

A The Double Block and Bleed Isolation Plug is designed with increased clearance (up to 3/8” on larger size plugs) to allow the plug to be positioned over the weld for testing even when slight weld intrusion is present on the Inner Diameter of the pipe.

**Q What is the average amount of time required to install a Double Block and Bleed Isolation Plug and achieve a pressure test?**

A After the weld area has cooled to an appropriate temperature, the Double Block and Bleed Isolation Plug can be used to complete pressure tests in as little as 10 minutes from insertion to removal.

**Q What upkeep and storage conditions are required to preserve the quality and performance of the Double Block and Bleed Isolation Plug?**

A The Double Block and Bleed Isolation Plug requires periodic inspection of the O-Rings and Seals prior to testing. The compression shafts should be inspected and anti-seize should be applied as needed. After a test has been completed, the compression nuts should be retracted so the seals can fully relax; allowing the Urethane Seals to return to their original size, preventing any permanent swelling and/or deformation.