

Tor-plug/ball valve for PC-Bolt M27



Description:

The Tor plug is slipped onto the end of the bolt with the flange first. The plug is then pressed firmly into position when the nut is tightened on the bolt. The flange will adapt to the borehole as the outer section is deformed against the rock. If sprayed concrete was applied before grouting, use multiple plugs so that the first plug/flange reaches all the way to solid rock.

The Tor plug does not seal adequately when located in the shotcrete layer. With low water penetration the plug can be used alone and the end of the bolt plugged after grouting. With moderate water penetration an additional ball valve can be used on the PC-Bolt end, to maintain pressure in the grout.

Low water penetration: <1 dl/minute

Moderate water penetration: 1-2 dl/minute

Procedure:

After the bolt has been equipped with the Tor plug, the borehole is filled with grout at 2-3 Bar pressure. The pressure is then increased to 10-12 Bar. Water and air are evacuated via the drainage valve in the plug flange. When the grout reaches the valve it will pack it. When a ball valve is used, the valve is closed under pressure and the pressure maintained in the borehole until the grout starts to harden. With large amounts of water penetration, other solutions should be employed.

Material:

Connections in CK45 and ball valve in brass. Plug in HDPE.

Specifications:

Connections electroplated.

Exterior thread fits grouting tools, internal thread fits Pc-Bolt M27.

Manufacture of ball valve according to drawing PTC-141-9 and Tor plug according to PTC-177

Accessories:

Pc-Bolt M27 and grouting tool M27.