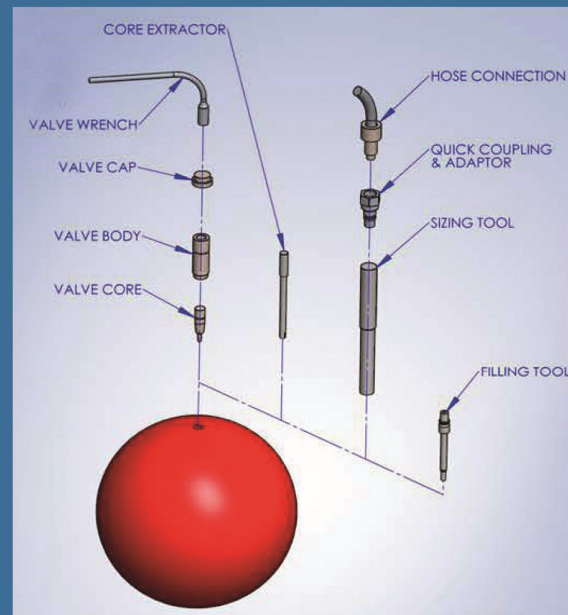


Inflatable Spheres

Benefits of PolyEurope's Spheres

- Will pass through short radius bends, Sphere tees and full-opening conduit valves
- Adjust to Pipeline ovality
- Wear evenly
- Exceptional physical and chemical properties
- Seamless single cast constructions
- Available in different grades of hardness and FDA Food Grade approved polyurethane



Spheres materials are the result of over 25 years of pigging experience and specifications vary in accordance with the intended application. **PolyEurope bv** has developed various materials and compounds to accommodate every application. Spheres are specially compounded for maximum resilience to wear resistance, durability and a long operation life. Special combinations of materials and manufacturing techniques for example can be utilized to tailor make engineering

1.0 Filling

- 1.1 Ensure that the area around the valve is free from dirt by washing out if necessary.
- 1.2 Remove the hexagonal sealing plug.
- 1.3 Using the Schrader valve removal tool extract the valve.
- 1.4 With a funnel, or spout, pour in the filling medium, evacuating air until the sphere is full.
- 1.5 using the Schrader valve removal tool re-fit.

2.0 Sphere Inflation

- 2.1 Screw in the fill tube, hand tightening only.
- 2.2 Join the female coupling from pump to the male coupling on the fill tube.
- 2.3 Inflate with a pressure pump to approximately 1% over un-inflated diameter.
- 2.4 Remove the fill tube. Gently vent the Schrader valve to allow the escape of any trapped air.
When only medium remains re-fit the fill tube and pressure pump and pressurise the sphere.
- 2.5 With the aid of a sizing ring or diameter tape inflate to the required diameter. We recommend that the sphere is not inflated greater than 2% larger than the inside diameter of the pipe. For meter prover sphere applications not greater than 5%.
- 2.6 Disconnect the female coupling on the pressure pump from the male coupling on the fill tube.
- 2.7 Remove the fill tube.
- 2.8 Dry the area around the valve aperture and examine for leakage of medium. Providing no leakage occurs, re-fit the sealing plug using the sealing plug removal socket taking care not over-tighten.

3.0 Storage

- 3.1 After use spheres should be deflated, emptied of filling medium and cleaned externally.
- 3.2 The Schrader valve and hexagonal sealing plug should be cleaned, examined and replaced if not in good condition.
- 3.3 Spheres should be stored at an ambient temperature of not less than minus 5 degrees Celsius and away from direct sunlight.
- 3.4 It is preferable to store spheres in a sphere storage net or self-shaping packing material such as sand or polystyrene. (Special storage packing available at request).
- 3.5 Spheres should be turned regularly to avoid flat areas.

4.0 Notes

- 4.1 Inflation medium must not be allowed to freeze.
- 4.2 Inflation medium should not contain methanol or other solvents which attack polyurethane.
- 4.3 Polyurethane Spheres must not be operated at temperatures greater than 70 degrees Celsius.
- 4.4 For special applications **PolyEurope** is able to supply spheres which are suitable for operation up to 85 degrees Celsius.
- 4.5 Required temperature range including pipe details must be specified at time of ordering.