

- Duck foot bend for automatic coupling of pump to discharge pipe.
- Guide bar system for lowering/lifting of pump.
- Fixing components.
- The pumps shall be suitable for reversing by backflow in the pipe after pump stop.
- Cable shrouds should preferably be of steel wire mesh instead of synthetic material.

Materials

The materials given below are the minimum requirements. The Contractor must state in the appropriate sections the materials proposed by him.

- volute casing : min. GG-25 Cast iron
- impeller : min. GG-25 Cast iron or stainless steel 1.4301 (AISI 304) or higher
- pump shaft : min. C45 carbon steel or stainless steel 1.4301 (AISI 304) or higher
- type of seal : mechanical seal suitable for liquids with a high concentration of abrasive solids
- fastening components, material stainless steel according to 7.3.4.

Drive

The motor shall have the following features:

- dry-running three-phase asynchronous motor in watertight casing according to IEC standard
- protection type IP 68
- insulation class H
- operating mode S3 or S8 (frequency converter)
- internal cooling for pumps ≥ 7.5 kW
- Pump will be equipped with cooling jacket for wet running application
- moisture/water sensor device to prevent damage to motor windings and bearings
- tandem mechanical shaft seal
- thermo element in coil for motor protection
- sensor for bearing temperature
- pump completely cabled
- motor efficiency class IE3

7.8.19.4 Centrifugal pumps for dry installation

The centrifugal pump shall be suitable for dry installation and handling of liquids with long stringy solids as well as liquids of high solid concentration. The pump shall have the following features:

- Design according to DIN 19569, where applicable.
- Performance in excess of actual demand by at least 10 %.