

- B. Unless stated otherwise, stator frames shall be of cast iron, foot and flange mounted as required by the Contract. Aluminium frames are permitted for 2.2 kW motors and smaller only. Stainless steel frames shall be used, when specified in the particular specification, for aggressive sewage conditions, and shall be of grade 316L minimum.
- C. Lifting facilities shall be provided on all motors
- D. Submersible motors shall be protected by a tandem mechanical seal arrangement. Lip seals are not permitted. The Contractor shall provide complete data on the seal materials, seats, faces etc., and ensure suitability for the medium being sealed i.e. oil chamber, oil and supernatant.
- E. On pumps greater than 2.2 kW the mechanical seal performance shall be by monitoring equipment to detect the following:-
 - a. Moisture within the oil chamber.
 - b. Moisture/water or oil within the motor casing.
 - c. Temperature rise of the hydraulic driven end bearing.
 - d. Loss of oil from the oil chamber.

1.3.9.2 Motor Cooling

- A. Non-submersible motors shall be air cooled to IC 41 of BS EN 60034-6.
- B. Cooling of submersible motors shall be provided by one of the following methods with the contractor supplying and installing all of the necessary equipment:-
 - a. On units of less than 7 kW cooling may be provided by the casing provided that the application meets the manufacturer's requirements for heat dissipation.
 - b. Water jacket utilising pumped water as the cooling medium/ closed lube of suitable coolant shall be used. A filtering gap shall be provided to prevent large solids blocking the cooling passages.
- C. For immersible motors may be fan cooled.

1.3.9.3 Motor Windings

- A. Motor windings shall be copper and treated to render them impervious to moisture, saline atmospheres, acid/alkaline fumes, oil and grease. They shall be adequately braced to prevent movement of coils during all conditions of service