## 7 Mechanical Works

## 7.1 General Requirements

In the following are outlined the general and particular minimum requirements for mechanical installations at the Giresun Wastewater Treatment Plant.

It shall be the responsibility of the Contractor to provide all detailed design of the installations, to ensure full coherence of all the equipment installed and to comply with the present minimum quality requirements. If equipment, not mentioned in this section, is offered, the Contractor shall with his Bid demonstrate through submission of documentation and specification that the proposed equipment is of equal or better quality than the requirements to quality specified in this section.

New offered equipment or vehicles should have a higher energy efficiency and quality than the original offer.

## 7.1.1 Suitability of design and equipment

During the selection and/or design of equipment and installations, particular attention shall be paid to the following:

- Safety of operation and easy maintenance
- Well-proven and reliable components
- Ability to withstand the service conditions
- Inaccessibility for vermin, dust and humidity
- Precautions to minimize corrosion
- Spare parts available in Turkey
- Service available in Turkey
- Minimization of noise

Alterations of design and make of the offered equipment after the contract has been signed can only take place with the consent of the Engineer.

## 7.1.2 Environment

All equipment shall be rated for the ambient temperatures relative humidity and altitude at the Site. Necessary frost protection by means of insulation and, if so required, also electric heat tracing shall be considered in the design.

The Contractor shall in his design and selection of equipment take into consideration under which conditions each item shall be in operation. Equipment placed in the open shall be designed for solar radiation induced temperatures or in some way protected from direct sunlight.

Equipment placed in or near wastewater shall be efficiently protected against the intrusion of humidity and water.

Equipment placed where the risk of condensation prevails shall be provided with drainage holes placed in the lower part of the equipment.