

6. Material Test Standards, Approval and registration.

6.1. Acceptable Test Standards and criteria

6.1.1. All the Valves, Pumps, Piping, Hose, Nozzles, Devices, Sprinklers, Motors, Materials, Systems, Assemblies, equipment, Products and Accessories, referred to in this chapter with respect to Life Safety, Fire Safety and Emergency Services shall be Listed, Approved and Registered by the Civil Defence Material Approval Department.

6.1.2. There is no year of edition mentioned against any test standards. It is the intent of Civil Defence to invite the customers seeking laboratory tests and the test laboratories to follow the “LATEST EDITION OF THE TEST STANDARD, AS AND WHEN THEY ARE UPGRADED/REVISED/AMENDED, TO THE DATE”

6.1.3. Fire Pump., Tested successfully at 150% of the rated flow.

- i. UL 448, Standard for Centrifugal Stationary Pumps for Fire-Protection Service.
- ii. UL 448B, Standard for residential Fire Pumps intended for one and two family dwellings and manufactured homes.
- iii. UL 448C, Standard for Stationary, Rotary type, positive displacement pumps for Fire Protection Service.
- iv. FM 1319, Approval Standard for Centrifugal Fire Pumps (Horizontal, End Suction Type)
- v. FM 1370, Approval Standard for Centrifugal Fire Pumps (Vertical Shaft, Turbine Type, Barrel).
- vi. FM 1313, Approval Standard for Positive Displacement Fire Pumps (Rotary Gear Type)
- vii. FM 1312, Approval Standard for Centrifugal Fire Pumps (Vertical Shaft, Turbine Type).
- viii. UL 162A, Fixed water motor coupled pumps for foam concentrate proportioning.
- ix. LPS 1131, Requirements and testing methods for pumps for automatic sprinkler installation pump sets.
- x. EN 12259-12, Fixed fire fighting systems — Components for sprinkler and water spray systems — Part 12: Pumps
- xi. LPS 1240, Requirements for LPCB approved fire sprinkler pump sets used in automatic sprinkler installations

6.1.4. Fire Pump Motor

- i. UL 1004-5, Standard for Fire Pump Motor.

6.1.5. Diesel Engine

- i. UL 1247, Standard for Diesel Engines for Driving Stationary Fire Pumps.
- ii. FM 1333, Diesel Engine Fire Pump Drivers
- iii. LPS 1239, Requirements and testing procedures for the LPCB approval and listing of diesel engines for sprinkler pump sets