

- 3.10 The alternative method of supply is by a direct boosting system from the Ground Storage Tank directly to the Premises by the use of a transfer pump and pressure vessel system. However, this system is recommended only for commercial and public buildings and must be approved by the Distribution Company and all calculations regarding riser pipe and branches must ensure that demand is supplied based on the appropriate consumption rate.

Pressure-maintaining pumps

- 3.11 For multi-storey buildings and high-rise buildings supplied by roof tanks, the top floors shall be fed by one or more pressure-maintaining pumps, along with a pressure vessel by drawing water from the roof tanks. The purpose of this is to maintain constant pressure and overcome the low pressure and loss of supply problems that may occur if the distance between the roof tank and top floor levels is approximately 10 metres or less.
- 3.12 For villas and Low-rise Building supplied by roof tanks pressure-maintaining pumps may also be installed to supply the top floors, if required, with a mechanism to regulate the discharge pressure e.g. pressure reducing valve. Any outdoor water requirements shall be satisfied separately by gravity and not by the pressure-maintaining pump serving the top floors.
- 3.13 The pressure-maintaining pump shall be sized to meet the plumbing system requirements and the residual pressure shall in no case be less than 1.25 bar and not more than 2.0 bar, or as specified by the Distribution Company.
- 3.14 A by-pass from the roof tanks to the pressure-maintaining pump shall be provided in case of pump failures.

Suction pumps

- 3.15 As noted above, it is prohibited to use suction pumps to draw water from the Distribution Company mains or system unless prior approval is obtained from the Distribution Company.
- 3.16 Design drawings including such a pump shall not be approved. Furthermore, permanent water connection shall be withheld until such pumps are removed.

Circulation pumps

- 3.17 Circulation pumps shall be provided for tanks of an irregular shape or with narrow passages or closed parts. The flow rate of such pumps shall ensure that the whole tank capacity is circulated within six hours.

Water Treatment apparatus

- 3.18 No domestic water treatment apparatus, water softener, ion exchange unit, desalination unit, activated carbon or any other filtration system shall be connected directly to the service connection.