

3. Water pumps and treatment apparatus

General requirements

- 3.1 It is strictly prohibited to install any type of suction pump, whether externally or internally located, for the purpose of directly or indirectly drawing water from the Distribution Company's water supply system (Diagram no. 5). Only under special circumstances will the Distribution Company consider approving such installations.
- 3.2 It must be noted that all electrical wiring arrangements and electrical connections to the pump-sets and associated equipment must comply with the Bureau's Electricity Wiring Regulations.
- 3.3 All pump-sets must be covered and installed in a clean and dry location, and be protected from dirt and fumes. Pump-sets must be located to allow safe access for maintenance activities, including the removal or replacement of parts.
- 3.4 All pump-set accessories and associated electrical and mechanical equipment shall be installed, tested and commissioned in accordance with manufacturer recommendations.
- 3.5 The installation of pressure-reducing valves or pressure regulators shall be considered in the internal distribution system where pressure is likely to exceed 2.5 bar, or as specified by the Distribution Company.
- 3.6 Diagrams illustrating common connection arrangements to pumps are included in Annex D. These are for illustration only; detailed drawings shall be submitted in accordance with Annex A.

Transfer/booster pumps

- 3.7 Where required, transfer pump(s) shall be installed for the purpose of pumping water from the Ground Storage Tank to the Roof Tank or cistern. The flow rate of the pump shall be selected in such a way that the roof tank is filled within one to two hours after receiving a low-level signal. A high-level signal should be at least 50mm below the overflow pipe of the roof tank. Level control or float switches in contact with water shall be made of material that is safe and does not affect the water quality in any circumstances.
- 3.8 The required capacity of the pumping system shall also be determined with consideration to the building's overall rate of consumption and with consideration to friction losses. Water velocity must not exceed 2.0 m/s in the riser pipe unless approved by the Distribution Company.
- 3.9 It is recommended that two pumps are installed as a minimum (one duty and one standby) for security of supply purposes, particularly in multi-tenanted buildings.