

CONTROL & O&&RATION

BOOSTER PUMP

The water booster pump system is to boost up the pressure in the domestic water / newater system.

Three pumps c/w Hydrovar are provided as two duties and one stand-by. Electrode sensors installed in the storage tank will provide signals for water level (low, reset and high).

I Storage Tank

The electrode sensors mounted in the storage tanks are to monitor the water level in the storage tank. It will automatically cut off the running pumps when the low-level electrode is reached. This will signal by alarm and the low level indicating light will turn on. It will only auto-reset when the water level reaches the reset level electrode.

Electrode Level

Monitoring

Level 1	Common	
Level 2	Low level	Alarm sound and, cut off the pump, Low level indicating light will turn on. (The pump will not work in manual or auto mode)
Level 3	Reset Level	Auto-reset
Level 4	High Level	Alarm sound

II Each pump has an AUTO/OFF/MANUAL mode selector switch at the control panel to provide the control functions required.

a. Manual Mode

Set the selector switch to manual mode.

Each pump will be capable of operating independently through START/STOP push buttons. The pumps will stop automatically when the suction tank is at its low water level.

b. Automatic Mode

Set the selector switch to Auto mode.

1. The required pressure will be set in the Hydrovar and + or - 5% of it will be the window for pump operation. Duty pump will cut in when the pressure drops 5% of required pressure. (eg. Required pressure = 10 bar, 5% drop=0.95bar) and it will build up the pressure in the pipes and pressure tank till it reaches the required pressure or not more than 105% of required pressure.
2. Changeover automatically after each start-stop cycle, the duty pump shall become a standby pump and the original standby pump shall be a duty pump in the next cycle.

3. Duty pump is running in its almost full speed, but still cannot maintain the required pressure due to more water demand, the stand-by pumps will then cut in to maintain the required pressure.
4. When duty pump trips during operation, the stand-by pump will cut in.
5. When the water level in suction tank is at low level, the pump will not work (auto or manual) and the alarm sound and indicating light will turn on.