

## Bioreactor 4 pump tower

### Product Summary

- Independent Microcontroller based pump drives
- Stepper motor drive for uniform rpm
- Pump speed doesn't vary with power fluctuations
- Eight roller, ultra low pulsation
- Independent tube pressure control
- 0-100 rpm in steps of 10 (or custom flow)
- Demountable cassette head design
- Molybdenum disulphide Nylon rollers
- Serial RS232 Interface

### Salient features

- Independent four pump tower.
- Deployable cassette head.
- RS232 interface or optional LCD & keyboard.
- High power bipolar chopper stepper drive.
- 12 @ 5 Amps SMPS power supply.
- Wide selection of tube formulations & bore dia.



High precision variable speed four individual pump tower for bioreactors & fermentors

The four pump tower was developed for our first generation Bioreactors. These system is powered by four independent high power bipolar stepper motor drives based.

Each driver card is driven by a dedicated micro-controller. All the cards have unique ID and are connected to the RS232 interface through DAISY chain. The pump speed can be custom configured for specific flow requirements also.

We can also configure the four pump tower with Watson Marlow heads for high flow applications.