

Pumping Applications

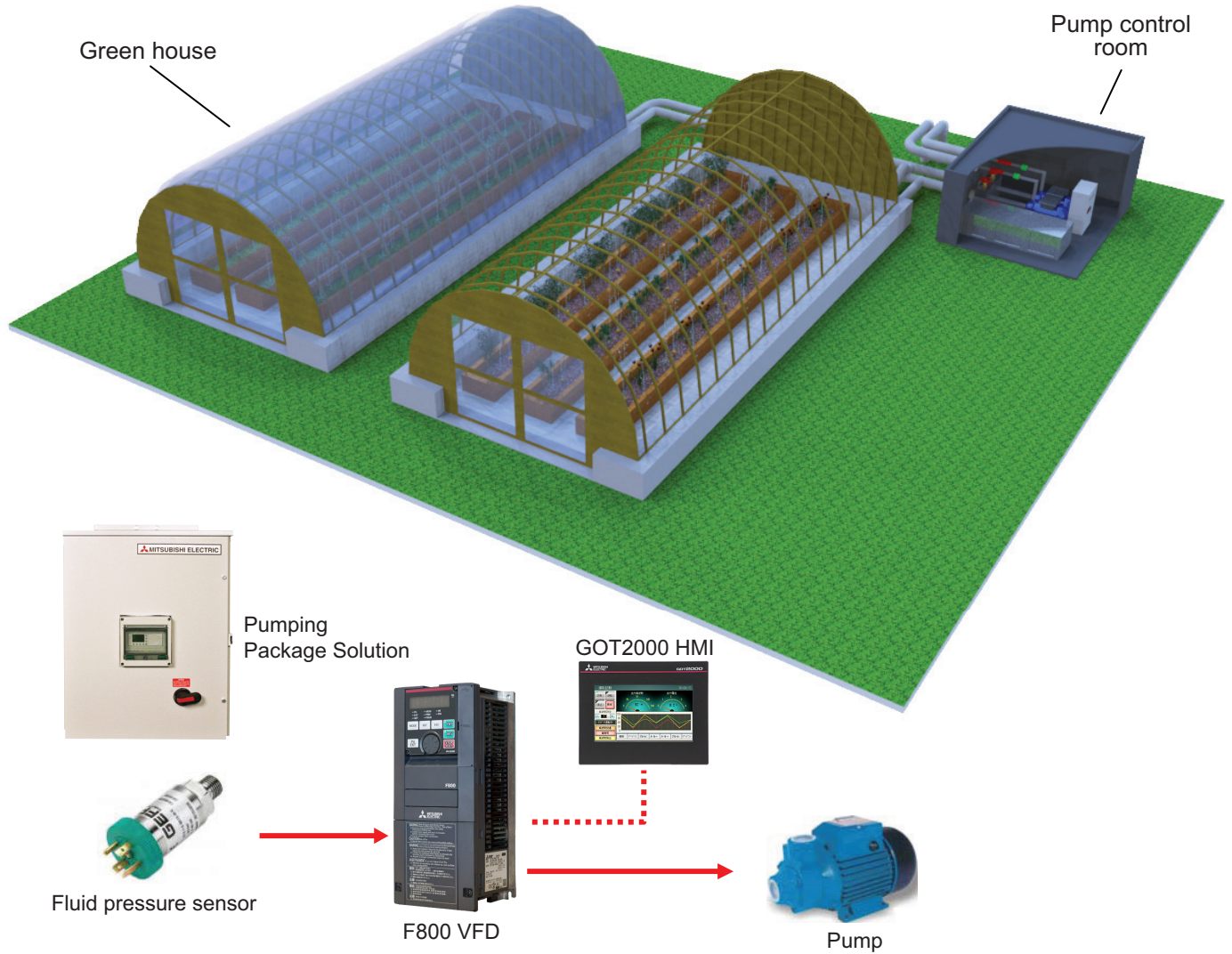
Mitsubishi Solution

Inverter: F800

Sensor: 3rd party pressure transducer

HMI: GOT2000 (optional)

Motor: 3rd party motor



Example Applications

Pumping applications sit within a variety of different industries. Examples are listed below:

- ◆ Waste water treatment
- ◆ Building water management
- ◆ Irrigation
- ◆ Household water management

Overview

Pumping can be defined as the ability to compress or drive a fluid. Within applications pumping can mean passing a fluid into or out of a system where either fluid pressure or flow rate is controlled. Typically an inverter operates at the center of the application determining the control characteristics of the pump.

Features

Advantages and Benefits

Built-in PLC for independent inverter control

- Additional PLC cost no longer necessary
- 20% Reduced cabinet space for control system
- Improved system functionality such as user created error checks. i.e. transducer failure.

Open networking

- Remote maintenance of the application
- Enhanced connectivity to third party devices within the application
- Improved data management

Precise speed and torque control: Ultra-precise speeds across the control range +/-0.01%

- Precise control for pressure sensitive applications
- Fast pressure equalization

Simplified parameter setup with Auto-tuning

- Up to 60%+ energy saving.
- Optimized parameter setup.
- Compensates for changes caused by temperature fluctuation.

Straightforward design: Removable terminal block

- Up to 80% reduced setup time when replacing inverter.

Self-diagnostics:

- Monitoring of internal components prevents unnecessary downtime
- System protection and overload functions

- Enables accurate planning for maintenance checks of the pumping application.
- Avoids prolonged downtime of application.

Unmatched product reliability: F800 Service life of up to 20 years

- 50% reduction in machine service costs over life time.

Direct connection to HMI

- Simplified machine operation for operator.
- Straightforward machine maintenance.
- Pre-configured diagnostic screens.

FR-Configurator software

- Up to 80% time reduction pumping application setup time.

GT2000 direct connection:

- Dedicated FREQROL driver
- Low cost HMI

- Intuitive screens for pumping control, monitoring, and parameter setting and alarm logging.
- Up to 60%+ reduced programming time.
- View F800 manuals on HMI.

Note: The values listed above are based on a real world application.

Customer Testimonials

- *"The F800 has reduced our day-to-day running costs and helped to simplify the setup of our pumping system"*



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