

Constant Pressure Control

Application Overview

Pumps are applied in the Turf and Irrigation industry as a means of transporting water from reservoirs such as ponds and wells to agricultural and grass areas such as golf courses. Control Techniques' variable frequency AC drive (VFD) control of the pump motors provides optimum pump system performance.

Application Requirements



Control & Connectivity

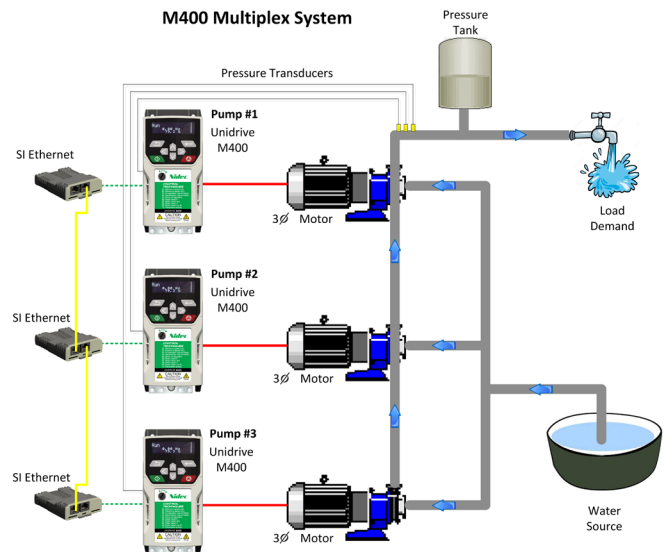
- Coordinated multiple pump control
- Fieldbus and Ethernet communications

Protection

- Motor, pump and system

Minimize operating costs

- Energy optimization
- Maintenance reduction



Control Techniques' Solutions

VFDs and Packaged drives

- Onboard PLC reduces total system cost
- Provides control and system protection
- Simplex and multiplex pump solutions
- Communication via EtherNet/IP, Modbus TCP, DeviceNet, PROFINET and more
- Advanced energy savings features such as sleep/wake mode
- Rapid set up and easy diagnostics with optional plain text keypad and PC tools
- Wide range of voltage, power, motor and enclosure options

Drive Solutions for Turf & Irrigation



Control Techniques' Performance Advantages

- Dynamic V/Hz Energy Savings mode
- Built-in energy metering
- Wide power range — 0.5 HP to 200 HP
- Power range: 115 V to 690 V
- Smooth S-ramp speed variation
- Ethernet communications

Start/Stop and control modes:

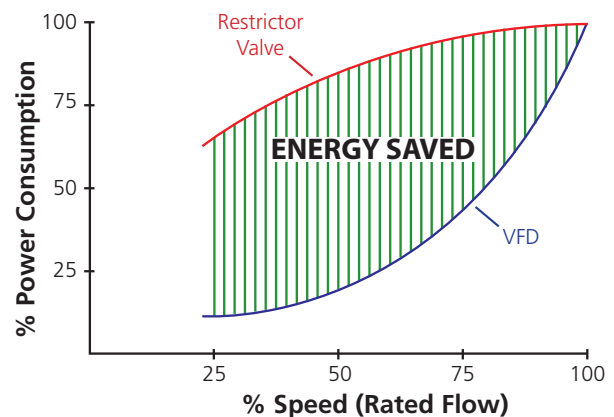
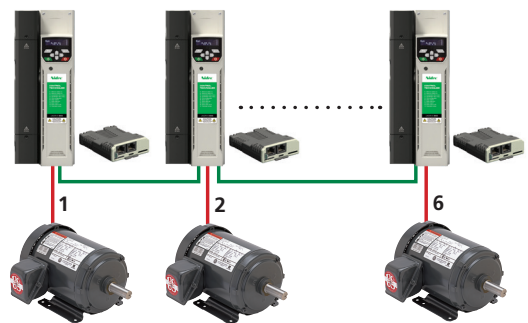
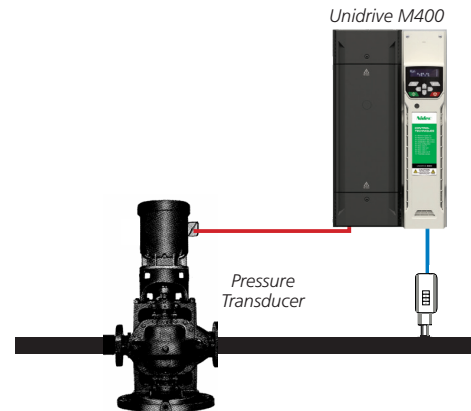
- Hand/Auto mode
- Simplex/Duplex/Triplex pump control

Software operating features:

- Pressure PID mode
- Sleep / wake mode
- Start / stop delay
- Pipe fill operation
- Automatic fault reset
- Load transfer between pumps
- Lead / Lag / Alternate pump control

System protection functions:

- Low suction detection / dry well detection
- Transducer loss detection
- High / low pressure detect
- No-flow detection
- Motor overload



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