

## APPLICATION NOTE

# Constant-Flow Pumping Systems



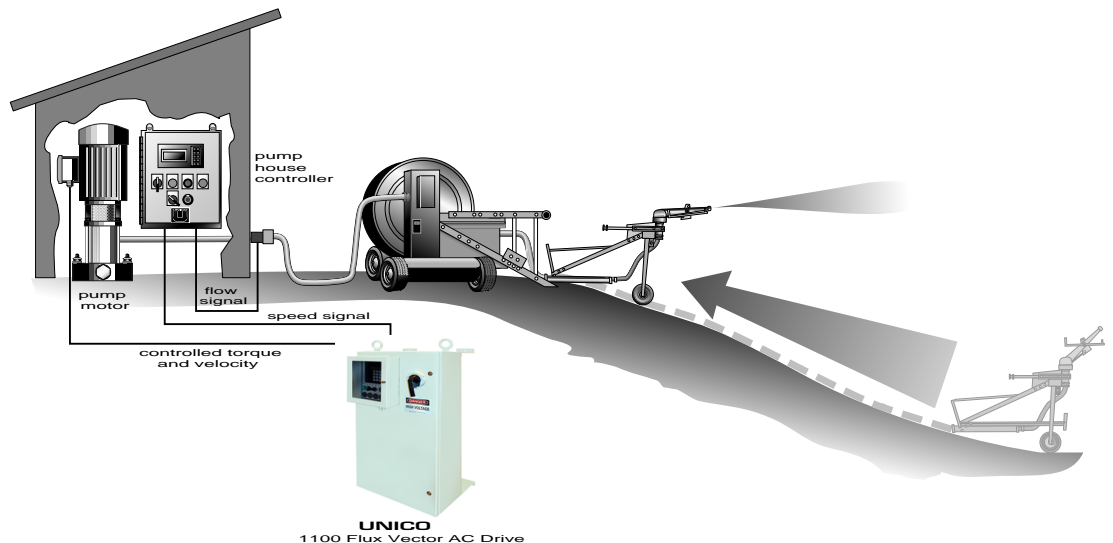
**Overview** The 1100 provides energy-efficient control of constant-flow pumping used in golf course and agricultural irrigation systems.

### Where Used

- With any electric-motor-driven submersible pump, centrifugal pump, turbine pump, vertical hollow-shaft pump, or inline booster pump

### What is Needed

- 1100 Flux Vector AC Drive
- Flow transducer
- Pump House Controller or logic in VSD



### Features & Benefits

- Total speed control of an electric-motor-driven pump
- Maintains constant flow in the system regardless of the discharge nozzle elevation (system head)
- Large energy savings when maximum pump pressure is not required
- 95% efficient
- Slow charging of the water lines eliminates water hammer
- Ramp-to-stop reduces stress on the system and check valves
- Easy to install, set up, and operate
- Allows use of three-phase motors up to 100 hp from a single-phase line where three-phase is not available
- User-friendly, quiet, and nonpolluting
- Eliminates need for refueling, oil changes, and weekly service

1100

Flux Vector  
AC Drive

## Applications

Whenever there is a need to control the speed of an electric motor in your farm or rural application, the UNICO 1100 Flux Vector AC Drive should be your first choice.

### Pumps and Pump Systems

- Submersible pumps
- Centrifugal pumps
- Turbine pumps
- Vertical hollow-shaft pumps
- Municipal water booster stations
- Municipal sewage lift stations
- Farm irrigation systems
- Golf course irrigation systems
- Greenhouse irrigation systems
- City park irrigation systems
- Horticultural irrigation systems
- Tailwater recovery systems
- Agricultural manure pumps
- Dairy vacuum pumps

### Material Handling

- Grain elevator legs
- Grain augers
- Grain and gravel conveyors
- Grain vacuum and pneumatic grain conveyors
- Silo unloaders

### Fans

- Grain dryer fans
- Grain bin ventilation fans
- Confinement building ventilation fans
- HVAC fans

### Compressors

- Natural gas compressors
- Air compressors
- Air conditioning compressors

### Other

- Pond and lake aerators
- Workshop lathes, grinding wheels, and drill presses
- Electric-motor-driven hydraulic systems
- Animal feed extruders

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