

# **PACKAGED CIRCULATING SYSTEMS: SERIES PCS**

## **CONSTANT SPEED**

### **SUGGESTED SPECIFICATIONS**

Furnish and install a packaged constant speed circulating system series PCS as manufactured by FabPro Systems. The packaged and tested system shall provide the capacity as scheduled on the drawings.

- A.** The pumps shall be cast iron bronze fitted end suction centrifugal type with a minimum of 175 psig case working pressure, equipped with a replaceable bronze shaft sleeve and a mechanical shaft seal. The pumps shall be back pullout design and capable of being serviced with the system in operation.
- B.** Each pump shall include a suction diffuser with 304 stainless steel strainers, cast iron lug style butterfly valve, triple duty valve with bronze flow metering valves, and a common pressure gauge.
- C.** Provide a NEMA 1 Disconnect starter panel mounted and wired to contain:
  - Main power disconnect switches with cover interlock
  - Individual motor fuse blocks with fuses or circuit breakers
  - Across the line magnetic starters with overload protection and resets
  - Auxiliary pump running contacts
  - Control circuit transformer 120 volt
  - Pump to operate selector switch
  - Pump running pilot lights
  - HOA selector switches
  - Numbered terminal strip
  - Wiring diagrams
- D.** The packaged circulating system shall be factory assembled and tested with schedule 40 steel welded piping and headers. Each header shall include a stainless steel braided flexible connector and a spare plugged 0.75" npt auxiliary piping connection. The entire system shall be cleaned and painted with a high grade enamel prior to shipment.
- E.** The system manufacturer shall provide single source responsibility for all the components provided on the packaged system. The service of a factory trained representative shall be made available on the project site for startup and instructing operating personnel.

# PACKAGED CIRCULATING SYSTEMS: SERIES PCS

## VARIABLE SPEED

### SUGGESTED SPECIFICATIONS

Furnish and install a packaged variable speed circulating system series PCS as manufactured by FabPro Systems. The packaged and tested system shall provide the capacity as scheduled on the drawings.

- A.** The pumps shall be cast iron bronze fitted end suction centrifugal type with a minimum of 175 psig case working pressure, equipped with a replaceable bronze shaft sleeve and a mechanical shaft seal. The pumps shall be back pullout design and capable of being serviced with the system in operation.
- B.** Each pump shall include a suction diffuser with 304 stainless steel strainers, cast iron lug style butterfly valve, triple duty valve with bronze flow metering valves, and a common pressure gauge.
- C.** Provide NEMA 1 Variable Frequency Drive(s) mounted and wired to contain:
  - Main circuit breaker disconnect
  - LCD Keypad Display
  - 32 Bit Microprocessor Logic
  - Programmable multifunction input terminals
  - Remote speed command
  - Programmable Analog Outputs
  - Communication Interface
  - Wiring diagrams
- D.** The packaged circulating system shall be factory assembled and tested with schedule 40 steel welded piping and headers. Each header shall include a stainless steel braided flexible connector and a spare plugged 0.75" npt auxiliary piping connection. The entire system shall be cleaned and painted with a high grade enamel prior to shipment.
- E.** The system manufacturer shall provide single source responsibility for all the components provided on the packaged system. The service of a factory trained representative shall be made available on the project site for startup and instructing operating personnel.