

# COMPACT FIRE PUMP SYSTEM SPECIFICATIONS

## SYSTEM DESCRIPTION

The Contractor shall provide and install an Aurora Model #####CFPS fire pump system designed in accordance with the latest NFPA 20 requirements. The system shall be rated for a flow of ( flow ) GPM @ ( pressure ) PSIG. The system shall be mounted on a common base and include all necessary components such that the customer only needs to run piping to and from the system and connect incoming power to each controller. Packaged system manufacture location shall be the same as the pump manufacture and be subject to ETL third party inspection. The packaged fire pump system shall include the following equipment:

### FIRE PUMP

The pump shall be an Aurora Model 383 vertical in-line centrifugal pump. The pump shall be rated for ( flow ) GPM @ ( pressure ) PSI. The pump shall be listed by Underwriters Laboratories (UL) and approved by Factory Mutual (FM). The pump shall have a bronze impeller, bronze case wear ring, packing gland and shaft sleeve. The pump shall deliver no less than 65% of rated pressure at 150% of rated flow. The shut-off pressure shall not exceed 140% of rated pressure.

### ELECTRIC DRIVER

The motor shall be listed for fire pump service by Underwriters Laboratories and have a maximum of ( horsepower ) HP, 3-phase, ( cycles ) Hz, ( voltage ) volts. It shall be open drip proof with a 1.15 service factor and shall comply with the provisions of NFPA 70, National Electric Code and NEMA MG-1, as described by NFPA 20.

### FIRE PUMP CONTROLLER

The fire pump controller shall be a ( manufacturer ) Model ( model number ), listed by Underwriters Laboratories and approved by Factory Mutual for electric motor-driven fire pump service and shall comply with the provisions of NFPA 70, National Electric Code, Article 695 as described by NFPA 20. It shall be compatible with the motor horsepower and voltage. It shall be of the ( starting method ) type with a minimum withstand rating of ( ### ) AIC RMS symmetrical. The controller enclosure shall be of NEMA type (##). The controller shall be completely assembled, wired and tested prior to shipment.

### JOCKEY PUMP

The jockey pump shall be an Aurora Model PVMX-( ). The pump shall be rated for ( flow ) GPM @ ( pressure ) PSI. The jockey pump will be close-coupled to a TEFC premium efficient motor. The motor will operate at ( horsepower ) HP, ( speed ) RPM, ( cycles ) Hz, and ( voltage ) volts.

### JOCKEY PUMP CONTROLLER

A ( manufacturer ) Model ( model number ) UL508A-listed jockey pump controller shall be supplied. The jockey pump controller shall come complete with a disconnect, pre-piped pressure switch, hand-off auto selector switch and overload relay. The controller enclosure shall be of NEMA type (XX) .

### ACCESSORIES

System shall include:

- Suction & discharge gauges with isolating cocks
- Automatic air release valve (for city bypass)
- #" grooved suction piping including OS&Y gate valve with tamper switch
- #" grooved discharge piping including check valve, isolation valve with tamper switch, and pressure sensing line per NFPA 20 to the controller
- #" grooved hose header line with isolation (with tamper switch) & ball drip valves, with the Class# 125 header, hose valves with caps and chains shipped loose for installation on site
- (Optional) #" grooved city bypass in complete with isolation valve (with tamper switch) and check valve
- (Optional) #" grooved permanently mounted venture flow meter complet with isolation valves (with tamper switches) and automatic air release valve.

- 1.25" grooved jockey pump line piping including isolating gate valves on the suction and discharge, check valve, relief valve, and pressure sensing line per NFPA 20 to the controller on the discharge

## **FACTORY PREFABRICATION AND TESTING**

All of the above equipment, except the test header and hose valves, shall be mounted on a common open channel base. All pipes, piping components, and the pressure sensing lines shall be firmly anchored to the steel base by means of structural steel supports. All electrical wiring between controllers and motors shall be completed and tested at the factory. The entire packaged system will be hydrostatically tested at the factory prior to shipment. Additionally, all equipment will be tested in accordance with the requirements of NFPA 20, UL, and FM. ETL third party certification label shall be applied.