

# Fire Pump Systems

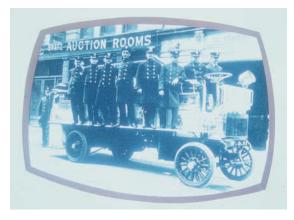
For the protection of life and property, A-C Fire Pump offers package systems that meet every fire protection need.



## A-C Fire Pump Systems and Professional Fire Protection...

## A Shared Tradition of Excellence

One of the first fire trucks built in the late 1800's was equipped with an A-C Fire Pump. For over 100 years, A-C Fire Pump Systems has been on the forefront in developing, designing and custom-building a wide range of fire pump systems including prefabricated packages and house units that meet every fire protection need. A-C Fire Pump is not only rich in history, but on the cutting edge of new technology as demonstrated with our contribution to the fire protection systems for launch pads 39A and 39B for NASA at the Kennedy Space Center. A-C Fire Pump Systems furnished a package of four 12x8x22 9100 series horizontal splitcase pumps driven by huge 1065 horsepower diesel engines including state-of-the-art control systems. Each pump is rated at 3,500 gallons per minute at 250 psi pressure. We will continue to be the leader in the fire protection industry providing both excellent service and superior products for years to come. You can always count on A-C Fire Pump Systems to solve your pumping problems.



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To protect the space shuttle launch facilities, NASA installed a fail-safe fire suppression system utilizing A-C Fire pumps.



#### **In-Line Pumps**

Capacity to 1500 GPM (5,678 L/min) Pressures to 165 PSI (116 m) Working Pressures to 150 PSI

- Space saving design
- No foundation or pads required.
- Suction and discharge flanges are on a common centerline, 180° apart for inline mounting in piping
- Top pullout design allows for fast and easy servicing. The rotating element is easily removed without disturbing suction and discharge piping.
- Self-venting design eliminates the need for an automatic air release valve.
- Bronze impeller is dynamically balanced and keyed direct to themotor shaft.



### **End Suction Pumps**

Capacity to 500 GPM (1,892 L/min) Pressures to 150 PSI (106 m) Working Pressures to 250 PSI

- Top centerline discharge with foot supported casing.
- Ease of installation.
- Simplifies piping layout.
- Reduces problems associated with piping strain.
- Self-venting design eliminates the need for automatic air release valve.
- Rear pullout design supplied as standard with spacer coupling.
  - Ease of maintenance, eliminates disturbing driver or piping when removing rotating element.
- Hydraulically balanced impeller extends bearing life and assures smoother operation.
- Available in electric motor or diesel engine driven configuration.



#### **Vertical Turbine Pumps**

Capacity to 5000 GPM (18,925 L/min) Pressures to 350 PSI (247 m) Working Pressures

- up to 200 PSI with 125 lb. A.S.A. flanges
- up to 550 PSI with 250 lb. A.S.A. flanges
- Required by NFPA when operating under a static suction lift condition.
- Dynamically balanced impellers secured to the shaft with steel locking collets to assure prope problem free operation.
- Open lineshaft design provides for product lubrication of the bearings.
- Available in electric motor or diesel engine driven configuration.
- Provided with a bronze suction strainer as standard.
- Provided with an oversized air release valve as standard.
- Available in special materials of construction for salt water applications.

## Split Case Pumps - Single Stage



#### 8100 Series

Capacity to 3000 GPM (11,355 L/min) Pressures to 255 PSI (179 m) Working Pressures

- up to 250 PSI (176 m) with 125 lb. A.S.A. flanges
- up to 375 PSI (264 m) with 250 lb. A.S.A. flanges
- Space saving design.
- Available in horizontal or vertical configuration.
- Suction and discharge flanges are on a common centerline.
- Bearing span is kept to a minimum.
- Available in electric motor driven or engine driven configuration.
- Available in clockwise or counterclockwise rotation to simplify pump room layout



#### 8150 Series

Capacity to 5000 GPM (18,925 L/min) Pressures to 233 PSI (157 m) Working Pressures

- up to 250 PSI (123 m) with 125 lb. A.S.A. flanges
- up to 325 PSI (180 m) with 250 lb. A.S.A. flanges
- Space saving design.
- Suction and discharge flanges are on a common centerline.
- Dual volute casing balances radial forces on the shaft and bearings.
- Available in electric motor driven or engine driven configuration.
- Available in clockwise or counterclockwise rotation to simplify pump room layout



#### 9100 Series

Capacity to 5000 GPM (18,925 L/min) Pressures to 208 PSI (146 m) Working Pressures

- up to 175 PSI (123 m) with 125 lb. A.S.A. flanges
- up to 255 PSI (180 m) with 250 lb. A.S.A. flanges
- Space saving design.
- Suction and discharge flanges are on a common centerline.
- Dual volute casing balances radial forces on the shaft and bearings.
- Available in electric motor driven or engine driven configuration.
- Available in clockwise or counter-clockwise rotation to simplify pump room layout.

## Split Case Pumps - Two Stage



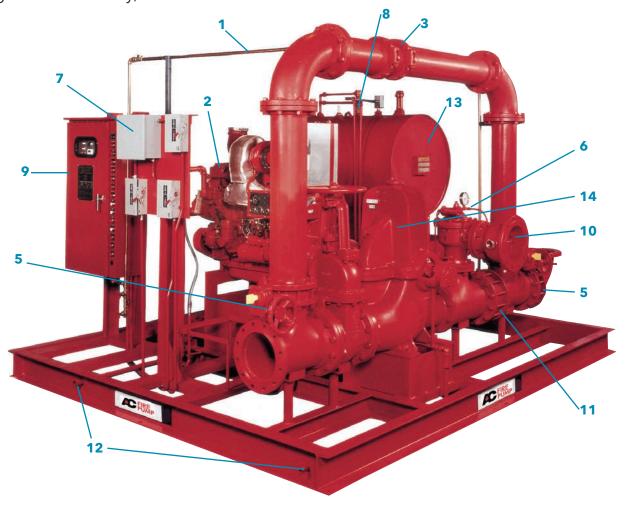
#### 8200 Series

Capacity to 1000 GPM (3,785 L/min) Pressures to 640 PSI (450 m) Working Pressures

- up to 500 PSI (352 m) with 250 lb. A.S.A. flanges
- up to 800 PSI (563 m) with 800 lb. A.S.A. flanges
- Space saving design.
- Suction and discharge flanges are on a common centerline.
- Bearing span is kept to a minimum.
- Compact pump design.
- Dual volute casing balances radial forces on the shaft and bearings.
- Available in electric motor driven or engine driven configuration.
- Two stage pump with two impellers threaded together.
- Dynamic balanced impellers.
- Available in clockwise or counter-clockwise rotation to simplify pump room layout.

## **Skid Packages**

With A-C Fire Pump Systems you can rest assured of start-up and future product support being available locally, worldwide.



### Select A-C Fire Pumps with confidence

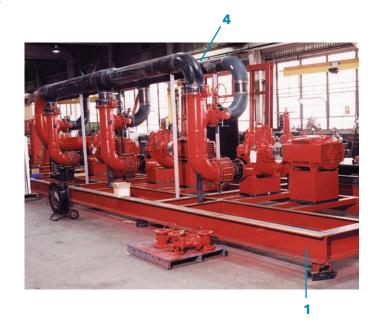
- 1 Pressure sensing lines installed per code requirements
- 2 UL Listed/FM Approved diesel engine
- 3 Flowmeter loop
- 4 Listed OS and Y valve
- 5 Listed butterfly valve
- 6 Listed main relief valve
- 7 Single point electrical connection (all electrical components pre-wired at the factory)
- 8 Pre-piped fuel system
- 9 UL Listed FMapproved fire pump controller
- 10 Closed waste cone
- 11 Listed check valve
- 12 Stuffing box and engine raw water drain
- 13 UL Listed fuel tank sized per NFPA #20
- 14 UL Listed FMapproved fire pump

- Components of A-C Fire Pump Systems are labeled by one or more of the following testing laboratories: Underwriters Laboratories (UL), Underwriters Laboratories Canada (ULC), Factory Mutual (FM)
- The equipment is completely manufactured at our ISO 9001 facility.
- Packaged systems are performance and hydrostatically tested at our manufacturing facility prior to shipment.
- Certified welding is available per ASME section IX.
- Our fire pump packages have been seismic qualification tested.
- Computer and CAD Design capabilities assist you in the design of a system custom built to your specification. Complete drawings are furnished for your approval prior to manufacture.
- International distribution and start up capabilities.

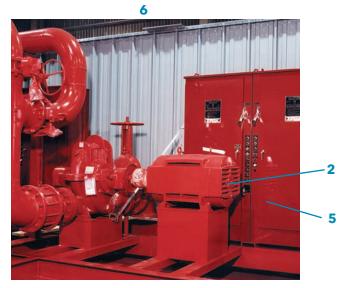
## House Packages

# "Big House" The largest pre-packaged complete house unit ever built.

- 1 Rigid I-beam base with optional lifting provisions.
- 2 UL Listed motor for fire protection.
- **3** Pre-fabricated house designed for specific geographic location.
- **4** Custom engineered piping system designed for project requirements.
- 5 Listed control equipment pre-wired to job driver and power distribution panel...one electrical connection.
- 6 Listed control valves.







This system includes three electric motor driven fire pumps, 16' x 53' and weighs 57,000 lbs.

# Versatility - a key word at A-C Fire Pump Systems.

We realize that each customer has different fire protection needs, specific to each fire hazard. We can design a system around your needs - special buildings, pump materials and custom floor arrangements. You need it - we'll provide it.









## Package Systems

## Complete House Units pre-wired and pre-piped –instant fire suppression

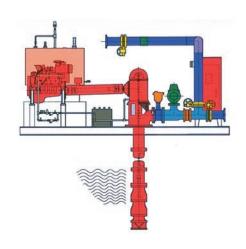


- Engine combustion air intake vent
- Battery operated emergency lights
- A115V thermostat control ventilating fan
- Single point power connection
- Exterior photocell sodium vapor light
- Pre-piped sprinkler systems for pump house interior
- GFCI utility electrical outlets provided
- Base is provided with optional lifting provisions
- Building heater

### Vertical Turbine Package

NFPA #20 requires the use of a vertical turbine on systems operating under a static suction lift condition requirement. A-C Fire Pump Systems offers the complete pre-packaged system, pump, driver, controller, low measuring device, control valves, check valves, sensing lines and power distribution panel. This system requires one electrical connection and a water supply. It's ready to provide immediate, reliable fire protection.

All A-C Fire Pumps are performance and hydrostatically tested in accordance with the requirements of NFPA #20 and are supplied as standard with a packed stuff box, grease lubricated bearings and cast iron/bronze fitted materials of construction.





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