



**NAFFCO**  
PASSION TO PROTECT

# FIRE PUMPS



# A Message from **THE CEO**

Eng. Khalid Al Khatib  
**CEO**

---

Passion to protect is more than a slogan; it's a way of life at NAFFCO. With a global presence in over 100 countries, we are the recognized leader in fire safety. We are proud to be a five-time winner of the prestigious "Mohammed Bin Rashid Al Maktoum Business Award" for Excellence in Manufacturing and Exports, as well as being honored by the Dubai Quality Appreciation Program in 2008. Our skilled engineering team continues to innovate fire safety solutions to tackle complex challenges.



# OUR MISSION

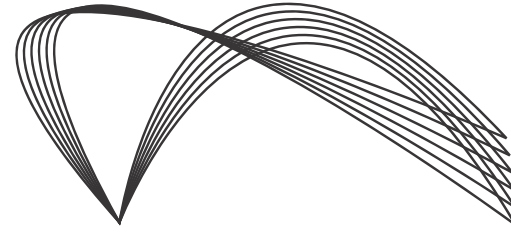


To empower customer to secure life, environment, property and business by delivering high quality & innovative protection solutions and knowledge using world class manufacturing.

# OUR VISION

To be the world's no. 1 provider of innovative solutions in protecting life, environment and property.





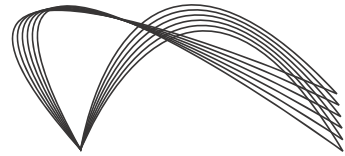
جائزة محمد بن راشد آل مكتوم للأعمال

MOHAMMED BIN RASHID AL MAKTOUM BUSINESS AWARD

AN INITIATIVE BY DUBAI CHAMBER OF COMMERCE & INDUSTRY

**2017 WINNER**

MANUFACTURING ACROSS GCC



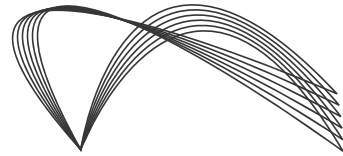
جائزة محمد بن راشد آل مكتوم للأعمال

MOHAMMED BIN RASHID AL MAKTOUM BUSINESS AWARD

AN INITIATIVE BY DUBAI CHAMBER OF COMMERCE & INDUSTRY

**2005 WINNER**

EXPORTS



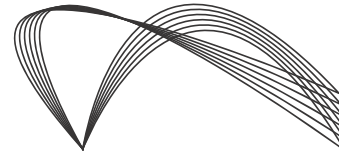
جائزة محمد بن راشد آل مكتوم للأعمال

MOHAMMED BIN RASHID AL MAKTOUM BUSINESS AWARD

AN INITIATIVE BY DUBAI CHAMBER OF COMMERCE & INDUSTRY

**2006 WINNER**

MANUFACTURING



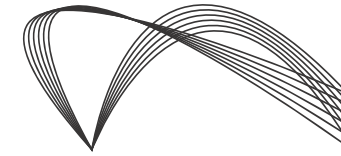
جائزة محمد بن راشد آل مكتوم للأعمال

MOHAMMED BIN RASHID AL MAKTOUM BUSINESS AWARD

AN INITIATIVE BY DUBAI CHAMBER OF COMMERCE & INDUSTRY

**2010 WINNER**

MANUFACTURING



جائزة محمد بن راشد آل مكتوم للأعمال

MOHAMMED BIN RASHID AL MAKTOUM BUSINESS AWARD

AN INITIATIVE BY DUBAI CHAMBER OF COMMERCE & INDUSTRY

**2013 WINNER**

MANUFACTURING

# OUR AWARDS

NAFFCO is a five-time recipient of the prestigious Mohammed bin Rashid Al Maktoum (MRM) business award for excellence in Manufacturing and Export areas.





# AN INTRODUCTION TO NAFFCO

NAFFCO was founded in **1991** Dubai, UAE to become the world's leading manufacturer and supplier of life safety solutions. By recognizing the importance and convenience of having easy access to multiple safety services, we became specialized by offering complete solutions under one roof

for all types of high Quality Firefighting equipment, fire protection systems, fire alarms, addressable emergency systems, security systems, custom-made vehicles such as fire trucks, ambulances, mobile hospitals and Airport Rescue Fire Fighting Vehicles (ARFF). With the most talented and dedicated employees from around the world,

NAFFCO has over 20,000 team members and 3,000 passionate engineers and over 11 million square feet of manufacturing facilities. We are currently exporting to over 100+ countries worldwide.

**NAFFCO FOUNDED IN**  
**1991**

  
OVER  
**20,000**  
TEAM MEMBERS

  
OVER  
**3,000**  
ENGINEERS

  
OVER  
**1,000+**  
INTERNATIONALLY  
CERTIFIED  
PRODUCTS

  
OVER  
**11 MILLION ft<sup>2</sup>**  
MANUFACTURING FACILITIES



# **FIRE PUMPS**

Types & Its Ranges

# END SUCTION

Centrifugal pump that has a single inlet and a single outlet, with the fluid entering the pump axially and exiting radially.

## Ratings

**2500 GPM**

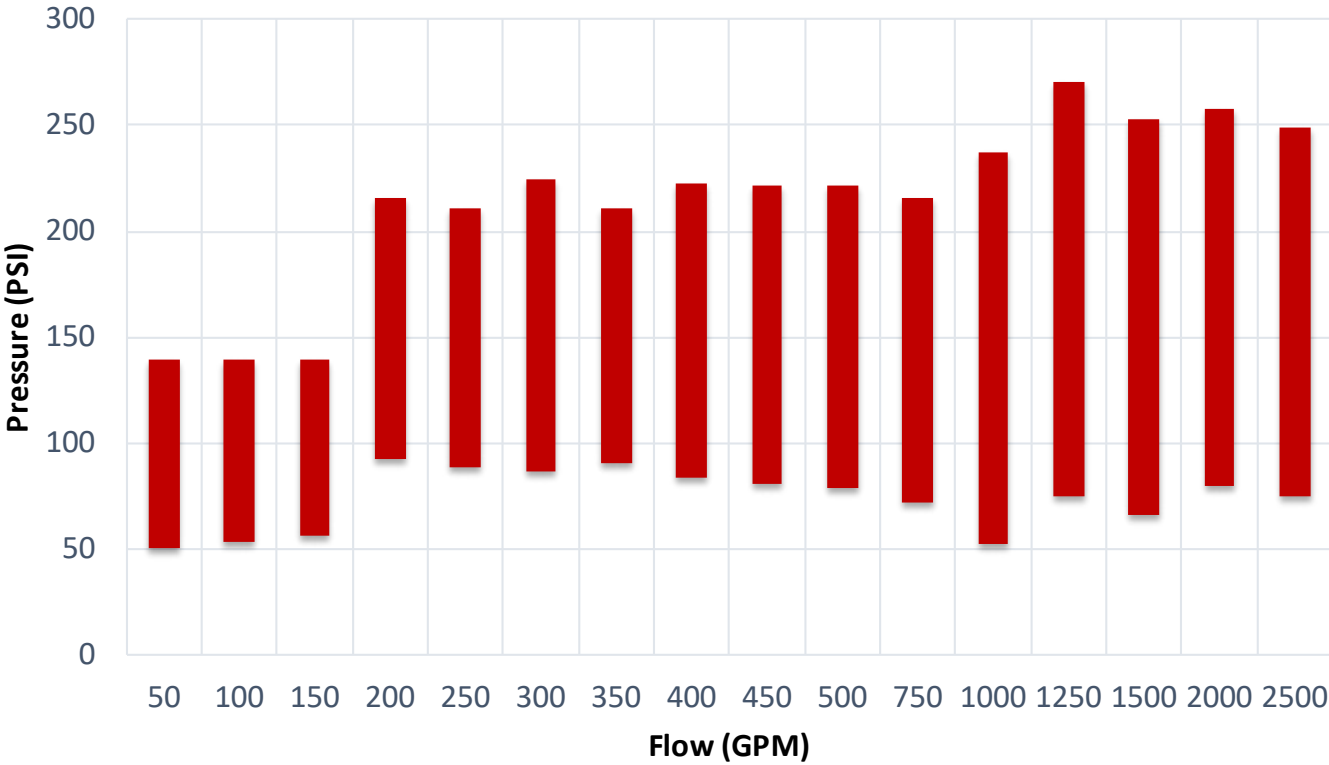
*Flow Rating Upto*

**15.4 BAR**

*Pressure Rating Upto*



# Performance Range



A growing array of performance from 50 GPM to 2500 GPM

## END SUCTION

Centrifugal pump that has a single inlet and a single outlet, with the fluid entering the pump axially and exiting radially.



# HORIZONTAL SPLIT CASE

Centrifugal pump with a horizontally split casing, allowing easy access to the internal components for maintenance and repairs.

## Ratings

**8000 GPM**

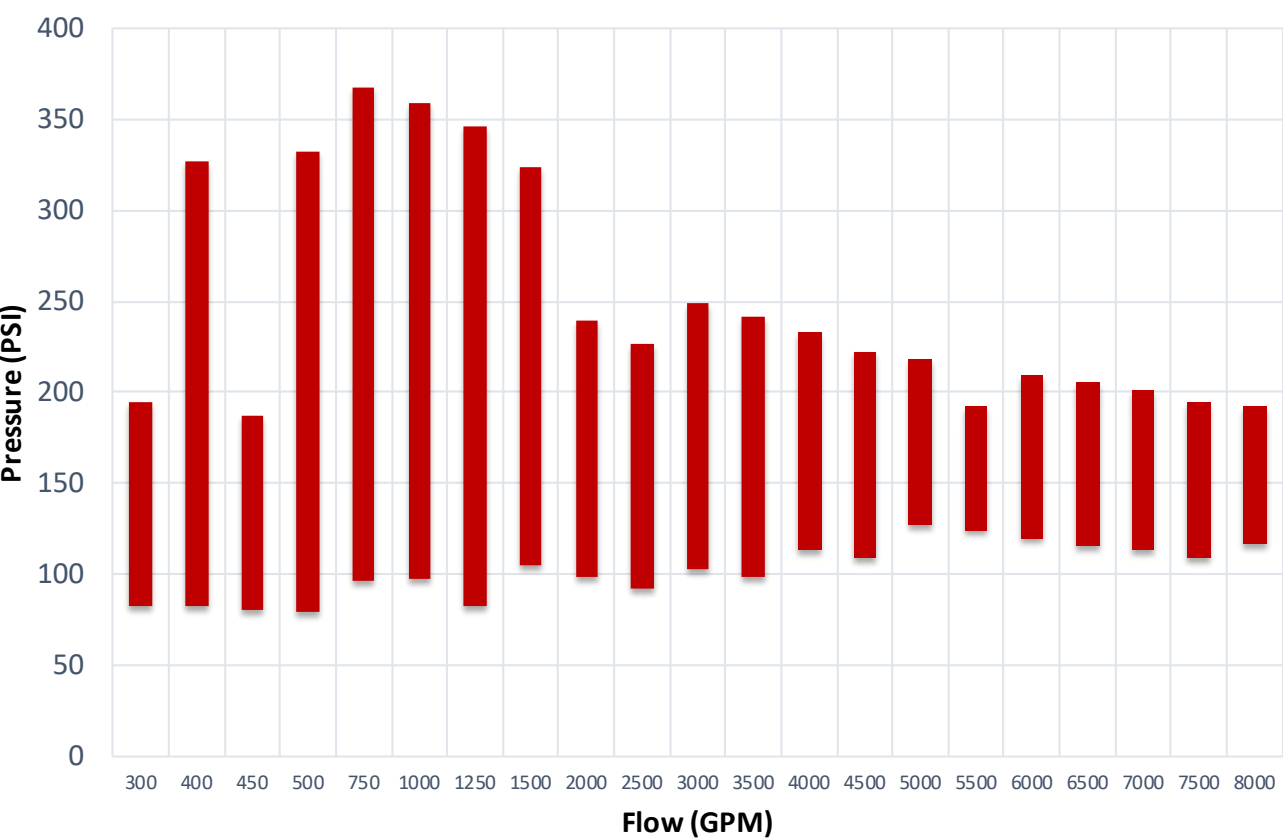
*Flow Rating Upto*

**33.3 BAR**

*Pressure Rating Upto*



# Performance Range



A growing array of performance from 300 GPM to 8000 GPM

## HORIZONTAL SPLIT CASE

Centrifugal pump with a horizontally split casing, allowing easy access to the internal components for maintenance and repairs.



# VERTICAL TURBINE

Centrifugal pump where the motor is located above ground and the impellers are submerged in the water, typically used in deep well or water supply applications.

## Ratings

**6000 GPM**

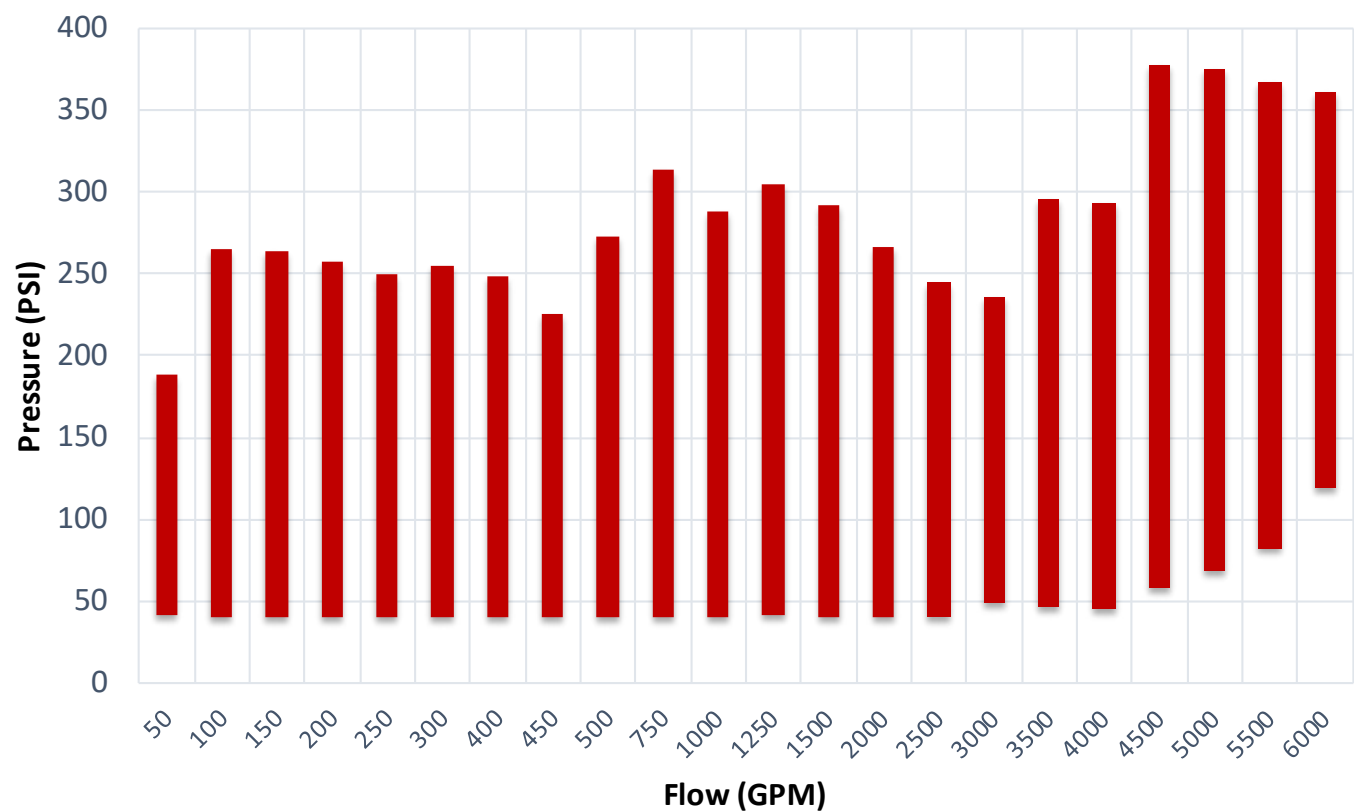
*Flow Rating Upto*

**26 BAR**

*Pressure Rating Upto*



# Performance Range



A growing array of performance from 50 GPM to 6000 GPM

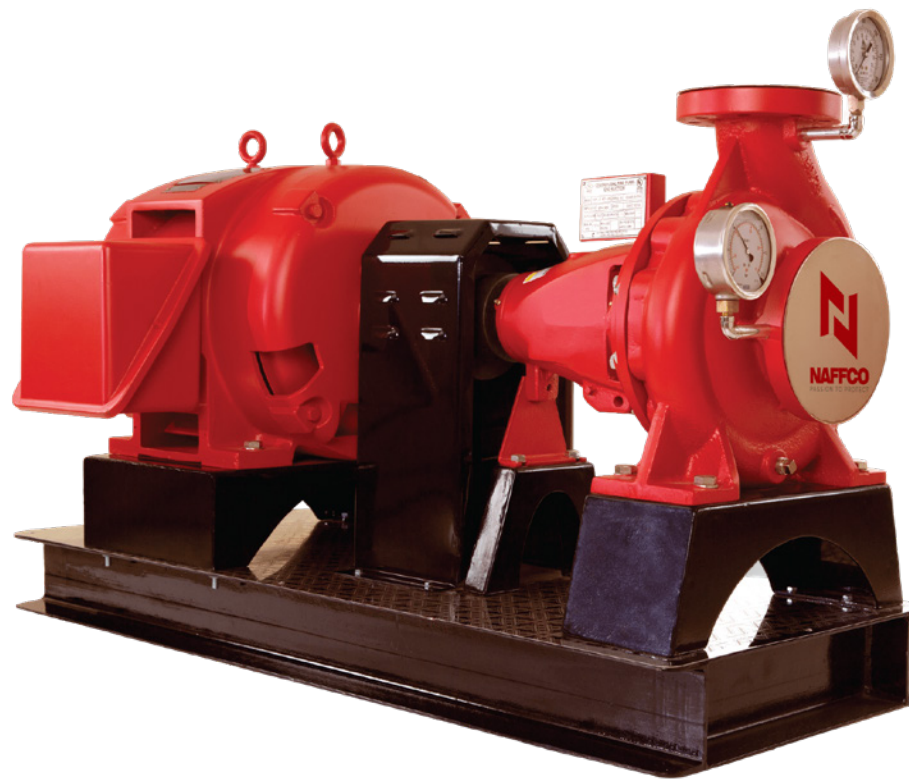
## VERTICAL TURBINE

Centrifugal pump where the motor is located above ground and the impellers are submerged in the water, typically used in deep well or water supply applications.



# END SUCTION PUMP

Application – Generally used when capacities are low, in above ground tank conditions: Villas, Sheds, Workshops, Filling Stations etc.  
Features: More economical, overhung impeller design with back pull-out type rotor assembly.



Capacity Range – 50 to 500 US GPM  
Pressure Range - 50 TO 216 PSI



Villas



Showrooms



Workshops



Filling Stations

# HORIZONTAL SPLIT CASE PUMP

Application – Generally used when capacities are high, in above ground tank conditions: Residential Buildings, Substations, Big Hotels, Substations etc.  
Features: Easier to maintenance, impeller between bearings with horizontally split casing.



Capacity Range – 750 to 1500 US GPM  
Pressure Range - 101 TO 280 PSI



**Residential Buildings**



**Airports**



**Factories**



**Shopping Malls**

# VERTICAL TURBINE PUMP

Application – Used for all capacities, in underground water tank conditions: Factories, Towers, Warehouses, Schools etc.

Features: Reliable performance in below ground tank conditions, impellers inside the multiple bowl assemblies submerged in water with above ground top discharge head.



Capacity Range – 50 TO 1500 US GPM  
Pressure Range - 42 TO 288 PSI



**Towers**



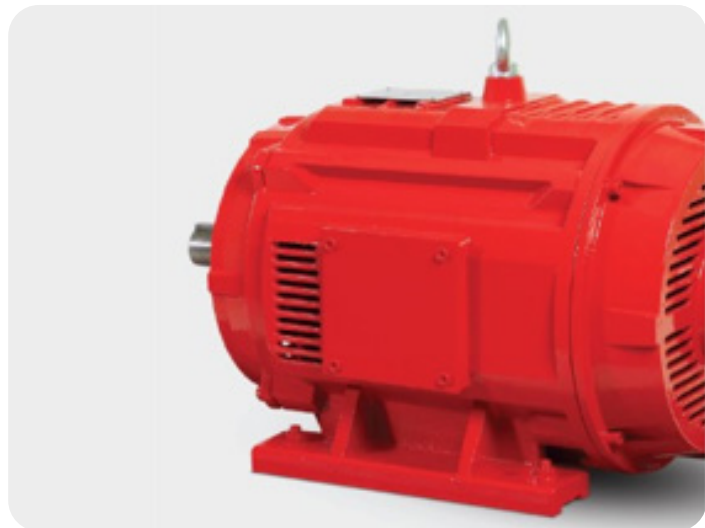
**Schools**



**Hotels**

# **FIRE PUMP DRIVERS**

Types & Features



### OPEN DRIP PROOF

- **15 TO 500** HP Rating
- NEMA Energy Efficient
- **IP23** Degree of Protection
- 2 pole, **2861 – 2958 / 3429 – 3585** RPM
- 4 pole, **1440 – 1485 / 1728 – 1785** RPM



### TOTALLY ENCLOSED FAN COOLED

- **15 TO 500** HP Rating
- NEMA Energy Efficient
- **IP55** Degree of Protection
- 2 pole, **2923 – 2980 / 3506 – 3575** RPM
- 4 pole, **1460 – 1480 / 1750 – 1780** RPM

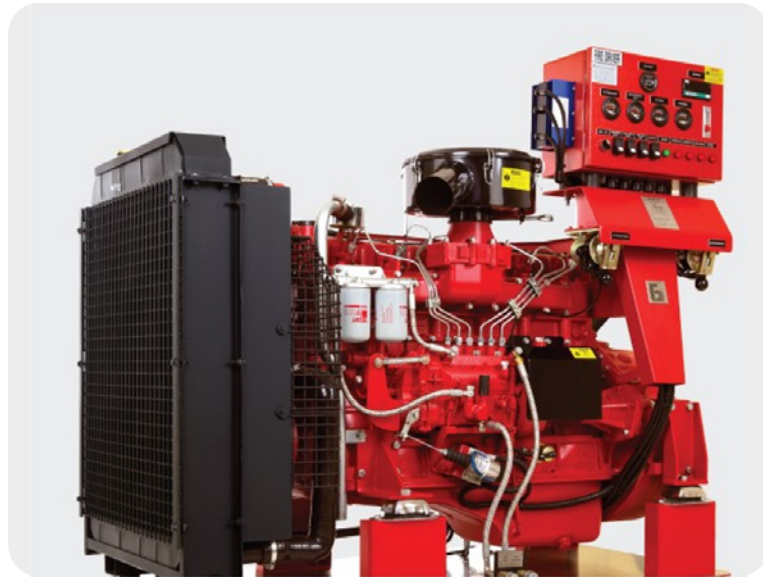


### VERTICAL HOLLOWSHAFT

- **15 TO 400** HP Rating
- NEMA MG1 Design Standard
- WP1 Enclosure
- 2 & 4 Pole, **1465 – 2941 / 1758 – 3529** RPM Speed

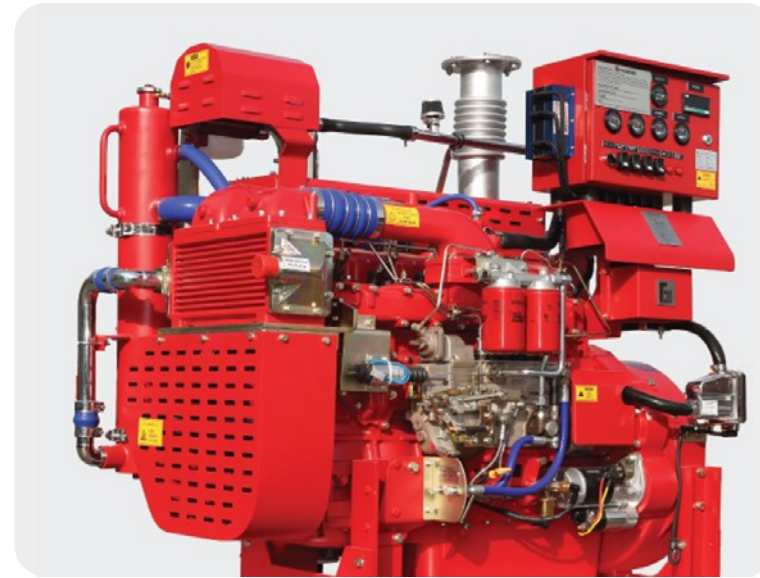
# ELECTRIC MOTOR





### RADIATOR COOLED TYPE

- **50 & 87** HP Rating
- Reliable Performance
- Heavy Duty Construction
- Cooling System : **Radiator Cooled**
- **2920** RPM Speed



### HEAT EXCHANGER TYPE

- **18 to 1207** HP Rating
- Reliable Performance
- Heavy Duty Construction
- Cooling System : **Heat Exchanger**
- **1470 - 3000** RPM Speed



# DIESEL ENGINE



# **FIRE PUMP CONTROLLERS**

Types & Features



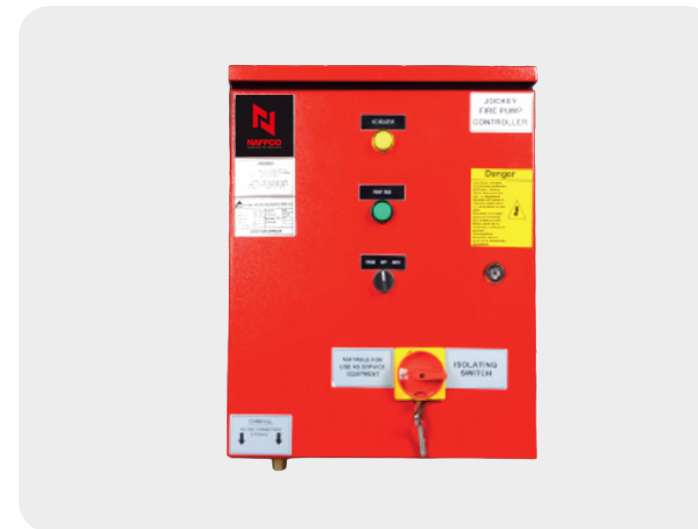
### ELECTRIC CONTROLLERS

- **15 TO 400** HP Power Rating
- **380 / 415 v** (UL/FM), **480 v** (UL)
- Enclosure Types : **NEMA 2, NEMA 4, NEMA 12 & NEMA 4X**
- Starter Types : **Direct On Line, Star Delta & Soft Starter**



### DIESEL CONTROLLERS

- **110 / 220** volts AC input voltage
- **12 / 24** volts DC operating voltage
- Enclosure Types : **NEMA 2, NEMA 4, NEMA 12 & NEMA 4X**

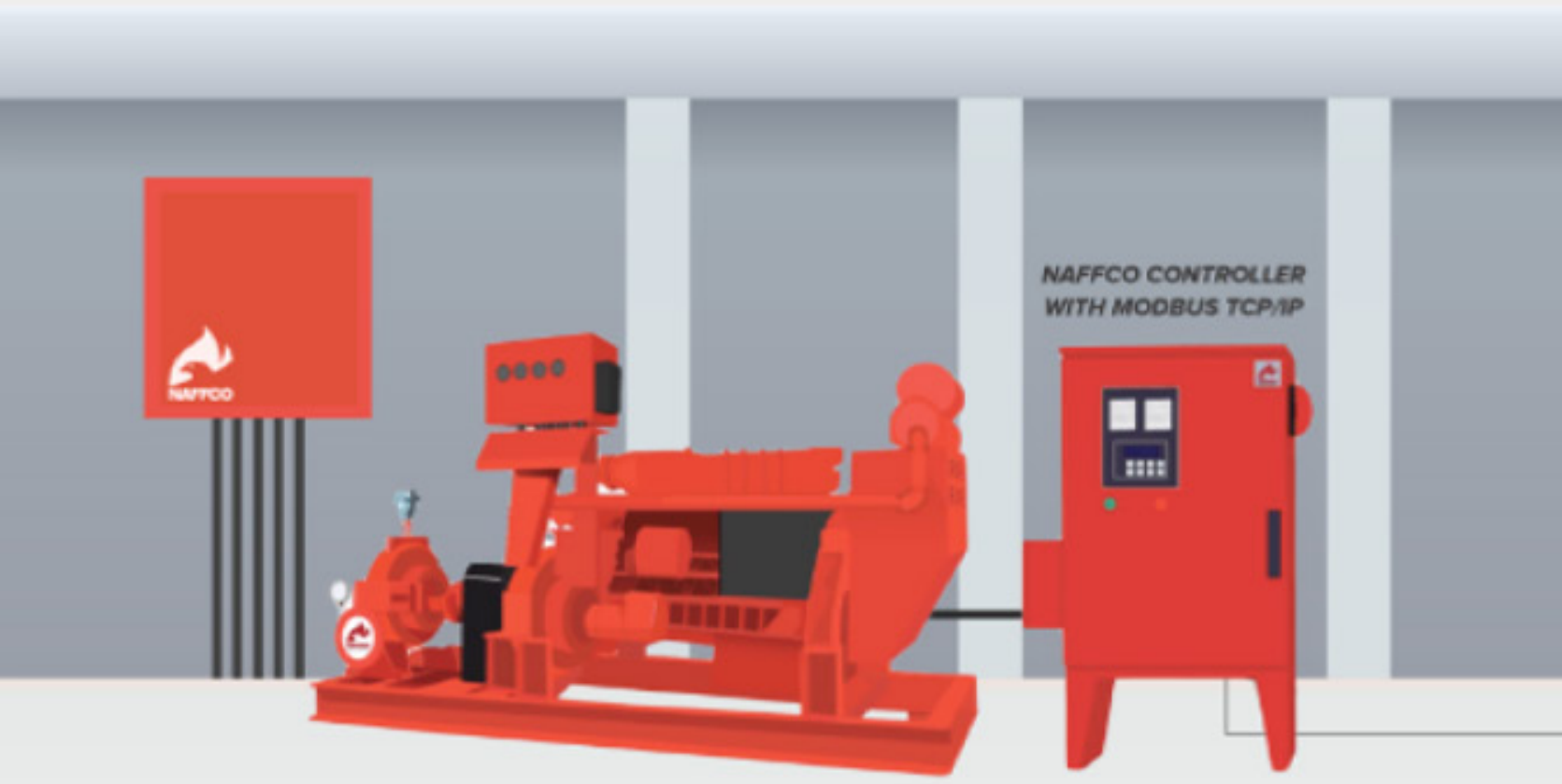


### JOCKEY CONTROLLERS

- **1.5 TO 7.5** HP DOL Starter
- **10 TO 40** HP Star Delta Starter
- **380 / 415 / 480 v** Rating
- Enclosure Types : **NEMA 2, NEMA 4, NEMA 12 & NEMA 4X**
- Frequency : **50 / 60 Hz**

# FIRE PUMP CONTROLLERS





# MODBUS CONTROLLERS

Naffco Fire Pump Controllers comes with optional Modbus TCP/IP (also Modbus-TCP) communication protocol to retrieve Electric, Diesel and Jockey Fire Pump Controller Signals.

Using this function, it is possible to read the device status and to control the units through third party supervision software (such as SCADA).



# AUTOMATIC TRANSFER SWITCH - ATS

- Self-acting equipment for transferring the fire pump electric motor load from main power source to generator power source.
- All features as per NFPA 20 / UL 218 / FM 1321 / 1323.
- Wide range of various enclosure types – NEMA 2, NEMA 3, NEMA 4 & NEMA 12
- Completely wired, assembled, programmed and tested at the factory.
- Available in combination with:
  - NFY-DOM1 - DIRECT ON LINE
  - NFY-SDM1 - STAR DELTA
  - NFY-SSM1 - SOFT STARTER



POWER RATING  
FROM 15 TO 400 HP

# VARIABLE FREQUENCY DRIVE

A Variable Speed (VFD) Fire Pump Controller is a fire pump controller that is able to vary the speed of the motor depending on the demand of the fire pump, resulting in the ability to hold a constant discharge pressure.

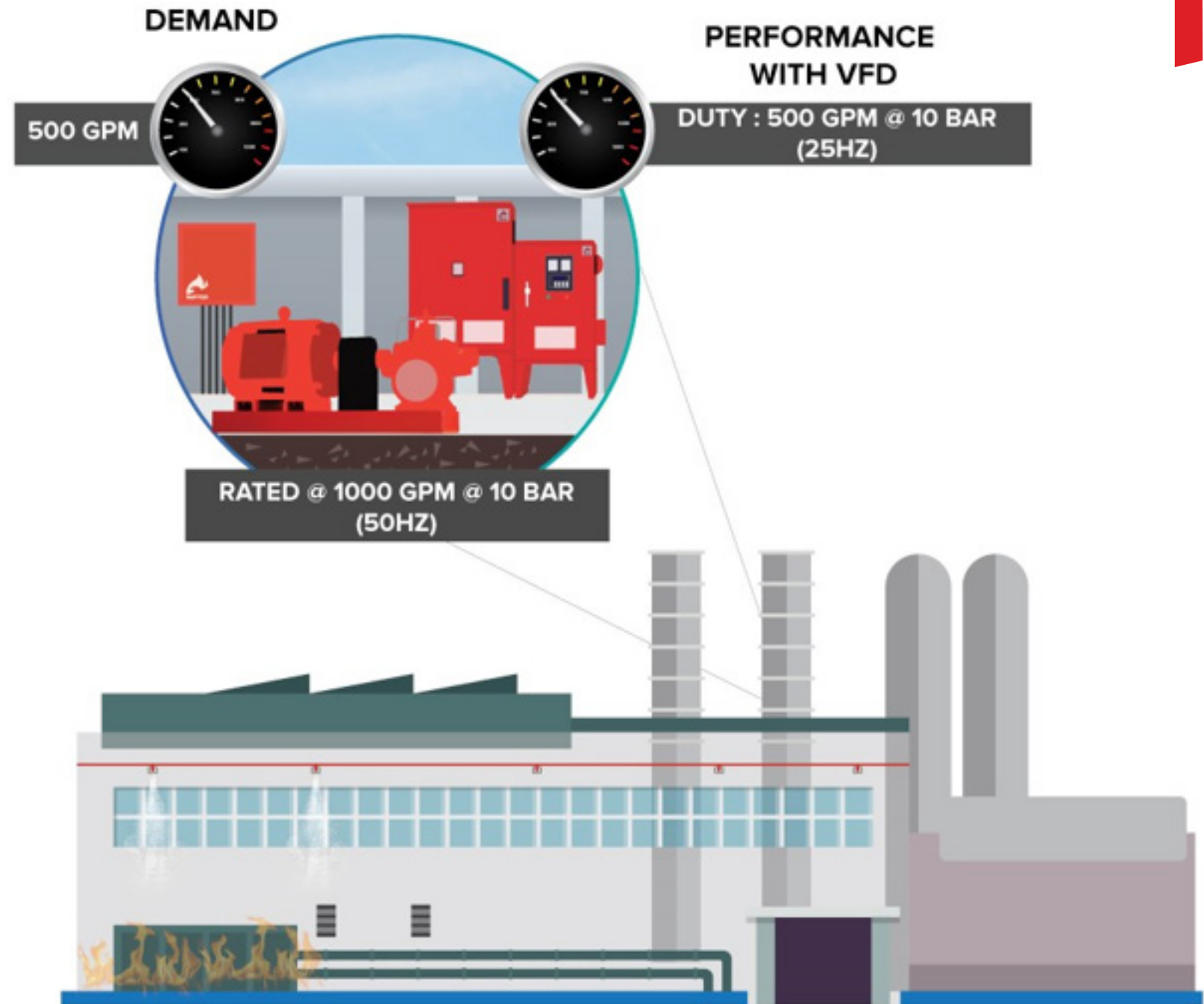
## FUNCTIONALITY

VFD drive will keep reading and controlling the pressure by the built-in PID controller.

If VFD could not maintain pressure set point within 15 seconds or goes into alarm status for any reason, bypass circuit will be activated, and the motor will run at full speed.

## ADVANTAGE

- Assists in reducing water hammer
- Provides smooth Starting
- Save energy
- The Inrush current is greatly reduced



NAFFCO Specialty  
Product Line

# AUTOMATIC FUEL FILTRATION SYSTEM

NAFFCO YH-UFFS-01 programmable automated fuel filtration system is self-contained, stand-alone system that removes and prevents the build-up of water, sludge and contaminants in tanks.

## FEATURES

- Fuel Filter and water separator for particles and water removal.
- Fuel gear self priming pump (2.6 GPM) coupled with UL recognized electric motor.
- Programmable automatic weekly timer.
- Automatic and manual water draining system.



# NAFFCO Specialty Product Line

## IOT SMART MONITORING SYSTEM

NAFFCO IIOT System send the monitored signals to through digital cellular communicator which transmits data to NAFFCO Desktop Managing system over GPRS.

The system continuously exchanges data regarding the pump condition. In the event of alarm or pump run condition, a notification is sent to the user and NAFFCO command center automatically.

### FEATURES

#### **Real Time Insights:**

Real Time insights on connected assets and receive alerts through SMS / Mail.

#### **Predictive Maintenance:**

Predictive alerts on Asset's critical parameters & Recommend actions plan for the Asset maintenance.

#### **Connected Products:**

Platform Supports the Integration of Asset layers with Single System.



# **CUSTOM DESIGNED**

Fire Pump Units

NAFFCO Packaged  
Product Line

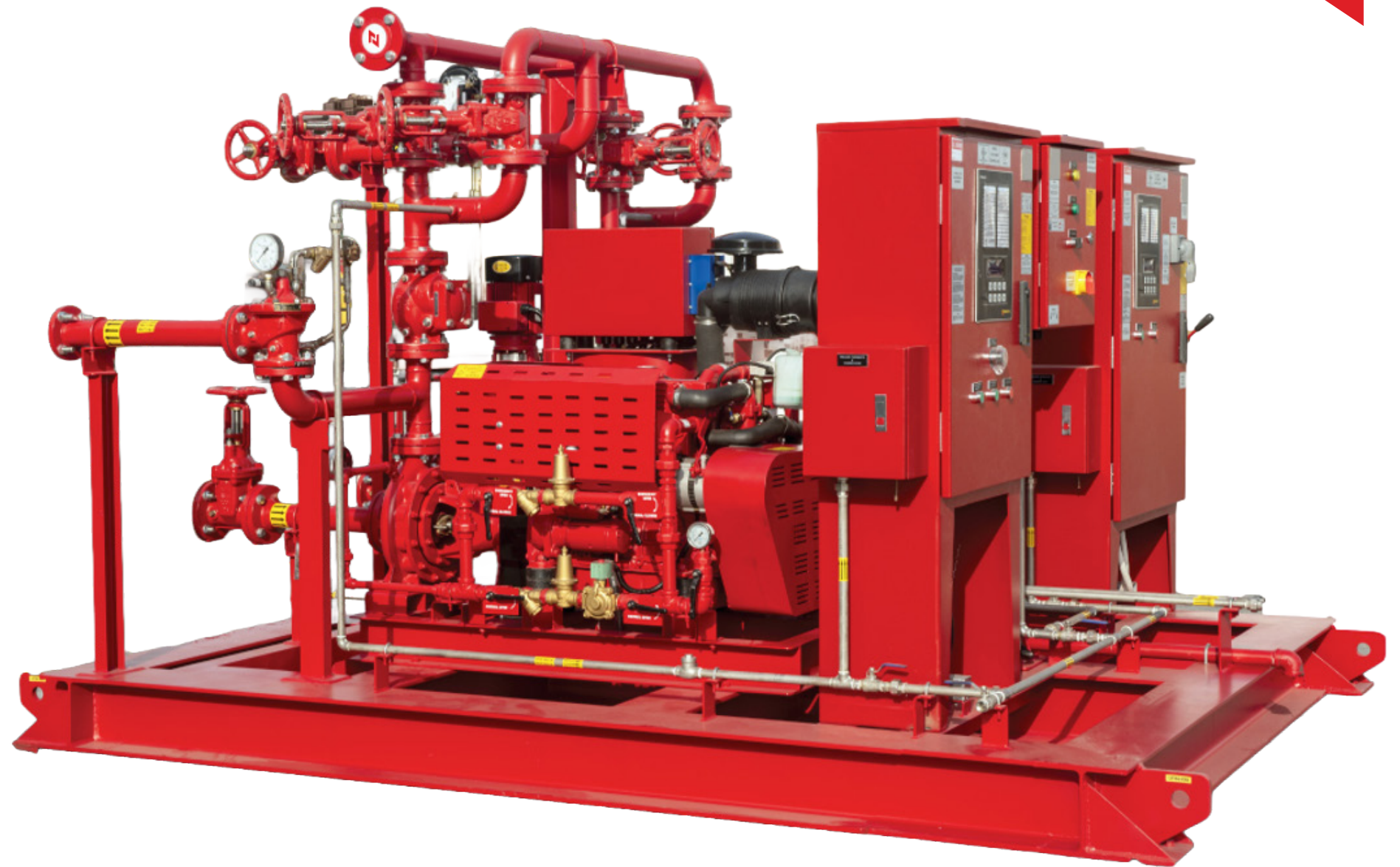
# ENGINEERING PACKAGED FIRE PUMP SYSTEM

NAFFCO package fire pump system consists of pumps, driver, controllers and accessories mounted on a common base frame. High quality UL / FM certified components are used in these systems. This engineering packaged pump meets various requirements for such pumps as detailed in Packaged Fire Pump Assemblies section of NFPA 20.

All necessary wiring are done at factory prior to shipment.

## ADVANTAGES

- Easy to install fire pump set at the site.
- Easy to commission.
- Reduced installation time.
- Pre-wired electrical connections.
- Less space requirement.
- All (pumps, drivers & controllers) on single base



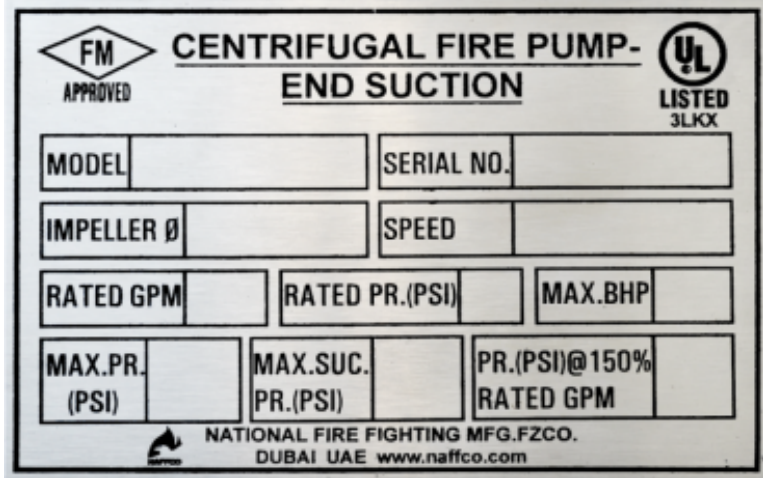
# NAFFCO Packaged Product Line **PUMP HOUSE**

NAFFCO Fire Pump House Units are designed as per customers' specification and NFPA 20 requirements. Complete fire pump set assembly is fixed inside an intermodal container with all fire pump related standard accessories, valves and fittings and pump testing instruments. Preinstalled lighting and necessary fire protection equipment for the pump house such as a standalone heat detector and fire extinguishers. All internal wiring and piping is done at the factory and external connectors are provided

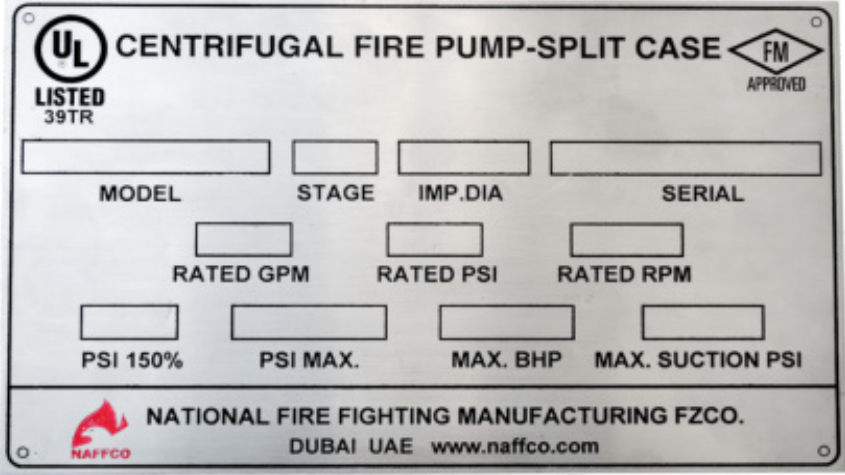
## ADVANTAGES

- Easy field installation
- Shortened installation time
- Reduced on-site labor cost
- Trouble free commissioning
- Single unit responsibility
- Single manufacturing source





| Item                                      | UL File No. |
|-------------------------------------------|-------------|
| End Suction Fire Pumps                    | EX15188     |
| Split Case Fire Pumps                     | EX15024     |
| Vertical Turbine Fire Pumps               | EX16182     |
| Diesel Engines                            | EX15238     |
| Fire Pump Controllers (Electric & Diesel) | EX15064     |
| Jockey Pump Controller                    | E309408     |
| Fuel Tank                                 | MH49928     |
| Electric Motor                            | EX26863     |



| Item                                      | FM Approval Identification No. |
|-------------------------------------------|--------------------------------|
| End Suction Fire Pumps                    | 3036063                        |
| Split Case Fire Pumps                     | 3040315 & 3038491              |
| Fire Pump Controllers (Electric & Diesel) | 3047341 & 3032702              |



# UL LISTING AND FM APPROVAL



**End Suction Pump**



**Horizontal Split Case Pump**



**Vertical Turbine Pump**



**Electric Motor**



**Diesel Engine**



**Pump House Unit**



**Engineering Packaged Pump**



**Fuel Tank**

**ALL FIRE PUMP PRODUCTS FROM NAFFCO**



**Electric Controller  
(Across the line & Wye-Delta)**



**Diesel Engine Controller**



**Jockey Controller**



**Electric Controller  
(Soft Starter)**



**Fuel Filtration System**



**ATS**



**VFD Controller**



**Cloud System**

# **ALL FIRE PUMP PRODUCTS FROM NAFFCO**

# **FIRE PUMP ANCILLARIES**



# FIRE PUMP ANCILLARIES

- TANK SIZE : 50 – 9000 GALLONS
- Sized as specified by NFPA 20 for fire pump applications.
- Higher Capacities available upon request.
- Meets NFPA 30 requirements.
- Tested for tightness against leakage.



**FUEL TANK**



# **NAFFCO ADVANTAGES**

---

Brief Explanation



Why you should prefer fire pumpset with major components from single manufacturer?

AVAILABILITY OF SPARE PARTS FOR 10 YEARS  
OUR SERVICES ARE NEXT DOOR TO YOU.  
WE PROVIDE 3 YEARS WARRANTY (NO ONE ELSE IS PROVIDING THAT)



# SINGLE SOURCES CONTACT

Complete package of services from engineering assistance to field start-up and single sources contact for all spare parts and post project completion support for total fire pump package.



### FIRE PUMPS

- Hydrostatic test
- Mechanical run test
- Performance test



### CONTROLLERS

- Software functionality test
- Alarm and indications test
- PCB hardware functionality test



### DIESEL ENGINE

- Endurance test
- Operational test
- Rotational speed test

# TESTING FACILITIES FOR FIRE PUMPS



# APPROVED TEST FACILITY

Approved test facility to test that complete unit as one Fire Pump Set from UL & FM

- State of the ART computerised test bed
- Tested using actual job drivers
- Facilities to test pump, engine & controller independently and accurately



# NAFFCO FIRE PUMPS TEST FACILITY

- Maximum Capacity upto 8000 USGPM
- Maximum Power upto 1000 HP
- Maximum Pressure upto 42 Bar
- Fully Automatic System



Serving Over 100 Countries Worldwide

+971 4 815 1111 | +971 4 815 1222  
Jebel Ali Free Zone, Dubai - P.O. Box: 262169, U.A.E.

info@naffco.com  
www.naffco.com

follow us on  
f t i l y /naffco

**800-NAFFCO**  
8 0 0 6 2 3 3 2 6  
customerservice@naffco.com