

FIRE PUMP SYSTEMS



Att

MEGA FORCE[®] Starlone

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ABOUT FIRE PUMP SINGAPORE (FPS)

FPS, with it's 20 years of experience has always been a progressive organization that has remained in the forefront of the Fire Fighting Industry with innovative, unconventional, environmental friendly, re-engineered and unique products.

FPS in its state-of-the-art manufacturing plants in **China** works in close connections with renowned governmental and certification bodies to provide key answers to the challenges faced by the society.

FPS brings together over 2-Decades of expertise and experience in form of **Design**, **Consultancy**, **Manufacturing**, **Supply**, **Installation**, **Testing**, **Commissioning**, **Maintenance & Refurbishment** of fire protection and fire fighting systems.



FPS CERTIFIED FACILITY FOR FIRE PUMP SYSTEMS

TESTING FACILITY AND ASSEMBLY LINE

FPS has established a fully equipped AS2941 Pump Testing facility with advance testing and calibration devices that enable to accurately inspect and test the operation of each Centrifugal Stationery Fire Pump to the required level of compliance standard as per AS2941.

The Fire Pumps then undergo various processes in our modern well organized manufacturing and assembly line.

Before delivering to our customers, each pump undergoes necessary inspection, tests and production control, during the Assembly process, for which all records are maintained.

PERFORMANCE TESTS

Performance curves are plotted within the FPS AS2941 **Approved Pump Testing** Facility showing the Efficiency, Break-Horsepower(kw), and Total Head developed at shutoff, at rated capacity, at 150% of rated capacity, and at selected intermediate capacities between shutoff and maximum capacities exceeding 150% of rated capacity.





FPS CERTIFIED FACILITY FOR FIRE PUMP SYSTEMS

HYDROSTATIC TEST

Each pump is to be tested hydro-statically for not less than 5 minutes. The test pressure is to be up to 2 times the maximum working pressure of the pump, but in no case less than 250psi (1724 kPa) to ensure no rupture or leakage through the castings at the test pressure.

IMPELLER BALANCING

The impellers of each pump shall be dynamically balanced to the G6.3 balance quality grade in accordance with the requirements for pump impellers in the Standard for Mechanical Vibration -Balance Quality.





CENTRIFUGAL FIRE PUMPS END SUCTION

Top Centerline Discharge; Foot Supported Casing; Back Pullout Design; Self-venting Design; Efficiently Designed Shaft; Frame-mounted Design; Small Footprint Ideal For Retrofit; Dynamically Balanced Impeller; Heavy Duty With Heavy Wall Thickness; Hydrostatic & Certified Performance Tests; Back Pump Out Vanes.

CAPACITY	:	50GPM to 1500 GPM
PRESSURES	:	68 to 210 PSI (4.69 to 14.48 bar)
MAX. WORKING PRESSURES	:	225 to 250 PSI
SPEED	•	2900 RPM

AS2941 CERTIFIED & APPROVED PUMPS Compliance to AS2941 Design Requirements Match FM Approval standards

Wide Range of Flows and Pressures

Available in **Electric Motor** and **Diesel Engine** Driven Configuration Suitable for Commercial, Industrials and Buildings

CENTRIFUGAL FIRE PUMPS END SUCTION

Notes:

- 1. All pumps are Hydro-statically Tested to minimum of 150% of it's Maximum Working Pressure and can withstand Double the Max. Working Pressure as per AS2941.
- 2. All pumps have Clock-Wise Rotation when viewed from the Driver Side.
- 3. All pumps are Single Stage Pumps.
- 4. As per AS2941 "The rated speed marked on the pump can vary within +/- 4% of the rated speed hence 3000 RPM pump can be driven with 2900 RPM Drivers."

	Flow (LPM)	Approx Speed (RPM)	Size		Max.	
Model			Suction Flange Ø(mm)	Discharge Flange Ø(mm)	Working Pressure (Bar)	Power Range (HP)
ST50 - 16	720 000	2900	65	50	16	5 - 10
ST50 - 20	720 - 900					15 - 30
ST65 - 16	1250 1450	2900	80	65	16	5 - 15
ST65 - 20	1350 - 1650					30 - 50
ST65 - 32	1800					100
ST80 - 20	2400 2000	2900	100	80	16	40 - 80
ST80 - 32	2400 - 3000					80 - 130
ST80 - 40	3420				21	200
ST100 - 20	3600	2900	125	100	16	60
ST100 - 26	4500					120
ST125 - 26	5700	2900	150	125	21	250
STM100/3	2700 5700	2900 -	125	100	32	125 - 420
	2700 - 5700		250	200		





MOTOR DRIVEN SKIDS

Starlone Motor Driven Centrifugal Fire Pump Skids are available in combinations of both Listed & Approved End Suction Pumps and Horizontal Split Case Pumps coupled with Listed Fire Pumps Motors

FPS/Starlone is an established well reputed manufacturer of Premium Custom Motor Driven Centrifugal Fire Pump Skids. We specialized in designing and developing packages in compliance to AS2941 requirements with Listed & Approved Drivers.

FPS/Starlone offers Centrifugal Fire Pump Skids that meet every fire protection need.

FPS/Starlone as standard uses AH High Efficiency Fire Pump Motors with our own Listed & Approved Centrifugal Fire Pumps to package Heavy Duty and High Quality Compact Skids.

Our Listed & Approved Fire Pumps can also be coupled with any other Listed Fire Pump Motors of any specific brand as per client requirement.

- Driven by Listed & Approved Fire Pumps & Electric Motors.
- Well aligned and Coupled for Direct Operation.
- Skid Packages are Pre-Tested and Inspected thoroughly before release to client.
- · One piece base plate with Anchor Bolt holes.
- Engineered coated hot rolled mild steel to resist corrosion and abrasion.
- Heavy Fabricated Steel Base Plate rigidly constructed to provide proper alignment of Pump & Motor.
- · Compact skid Design with Small Foot-Print for Retrofit.
- High standard of Quality in material Construction finish and Workmanship.





DIESEL DRIVEN SKIDS

Starlone Motor Driven Centrifugal Fire Pump Skids are available in combinations of both Listed & Approved End Suction Pumps and Horizontal Split Case Pumps coupled with Listed Diesel Engine Drivers

FPS/Starlone is an established well reputed manufacturer of Premium Custom Engine Driven Centrifugal Fire Pump Skids. We specialized in designing and developing packages in compliance to AS2941 requirements with Listed & Approved Drivers.

FPS/Starlone offers Centrifugal Fire Pump Skids that meet every fire protection need.

FPS/Starlone as standard uses Stallion or Clarke Diesel Engines with our own Listed & Approved Centrifugal Fire Pumps to package Heavy Duty and High Quality Compact Skids.

Our Listed & Approved Fire Pumps can also be coupled with any other Listed Diesel Engine of any specific brand as per client requirement.

- Driven by Listed & Approved Fire Pumps & Diesel Engines.
- Well aligned and Coupled for Direct Operation.
- Skid Packages are Pre-Tested and Inspected thoroughly before release to client.
- · One piece base plate with Anchor Bolt holes.
- Engineered coated hot rolled mild steel to resist corrosion and abrasion.
- Heavy Fabricated C-channel Structure constructed to provide proper alignment of Pump & Motor.
- · Compact skid Design with Small Foot-Print for Retrofit.
- High standard of Quality in material Construction finish and Workmanship.





STARLONE JOCKEY PUMPS

Starlone Jockey pumps are small, motor driven pumps used in conjunction with main fire pumps to compensate for minor leaks in the fire protection system and automatically maintain stand-by pressure. This reduces wear on the main pump and controller caused by unnecessary, frequent operation. Starlone Jockey Pump controllers are available for across the-line starting.

Occasionally in a Fire Pump system, water leakage will occur at flanged or threaded pip connections, valve stems, stuffing boxes, etc. This normal loss of water will lower the system pressure gradually until the main Fire Pump is required to start. To minimize wear on the Fire Pump resulting from unnecessary operation, a Jockey Pump is recommended for the system. In a Jockey Pump system a small pump, motor. and controller/pressure switch unit is installed in the piping system.

When the water pressure drops below the pre-set level, the pressure switch energizes a starter which activates the Jockey Pump. Correct water pressure is therefore maintained at all times. An optional minimum run timer will prevent the Jockey Pump frombeing started too frequently. This timer will ensure operation for a minimum of 3 minutes. If a fire should start, the pressure will continue to drop and the main Fire Pump will start. Automatic controllers also include a "Hand-Off Automatic" Selector switch for manual operation.





UL/FM LISTED

FIRE PUMP CONTROLLERS ELECTRIC PUMP CONTROL DIESEL PUMP CONTROL JOCKEY PUMP CONTROL AND ALARM PANEL

All Fire Pump Controllers are factory-assembled, wired, tested as a unit and confirmed to all requirements of the latest edition of UL/FM.

Electric Fire Pump Controllers in general are classified by starting method, as full voltage or reduced voltage starting. The distinguishing factor in these starting methods is the amount of current (amperage) that is drawn by the motor during it's initial starting process (inrush).

Fire controllers are generally provided in single unit but we provide indidual controller to all individual units.



ACCESSORIES AND ARRANGEMENTS





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