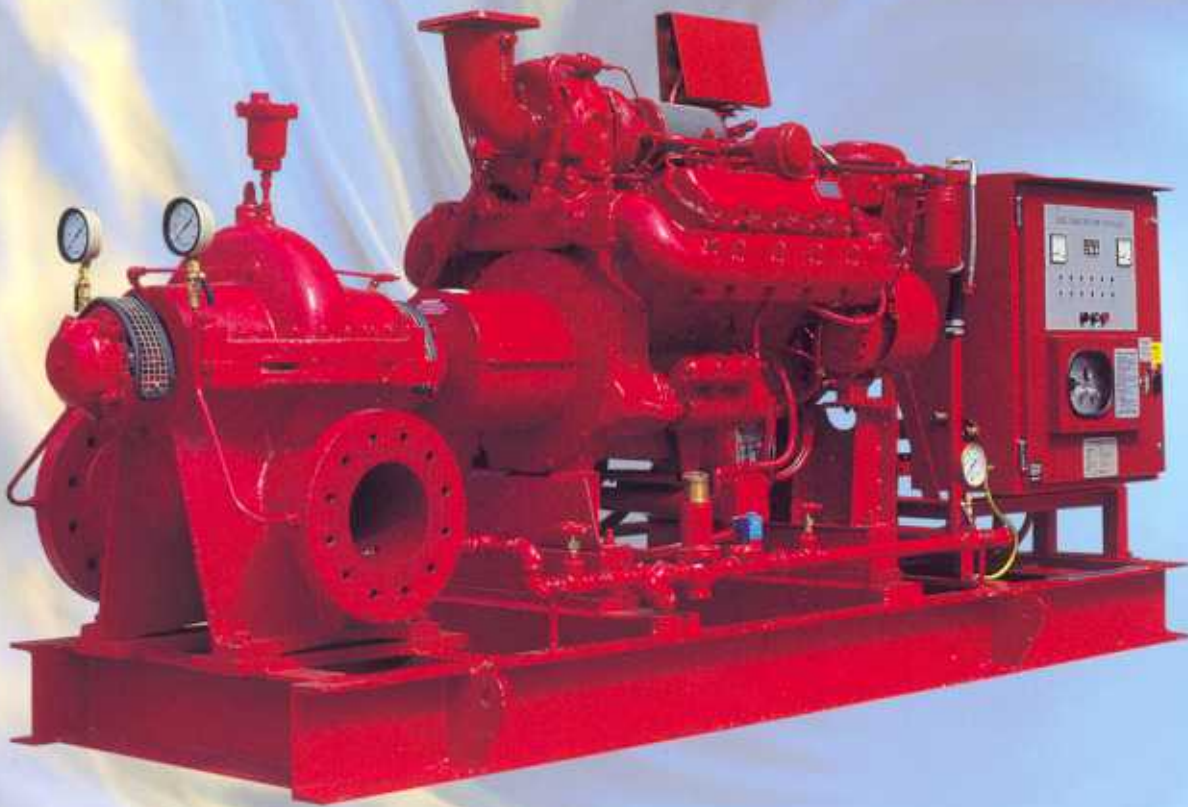




TOTAL CAPABILITY IN FIRE PUMP PACKAGES



STERLING FLUID SYSTEMS GROUP

Total Capability in
FIRE PUMP PACKAGES



WORLD LEADERS IN F

The Sterling Fluid Systems Group is the world's leading specialist manufacturer of quality fire protection pumping packages.

Having been in business since 1875, today Sterling SPP fire pumps are protecting installations in more than 90 countries - and demand is growing.

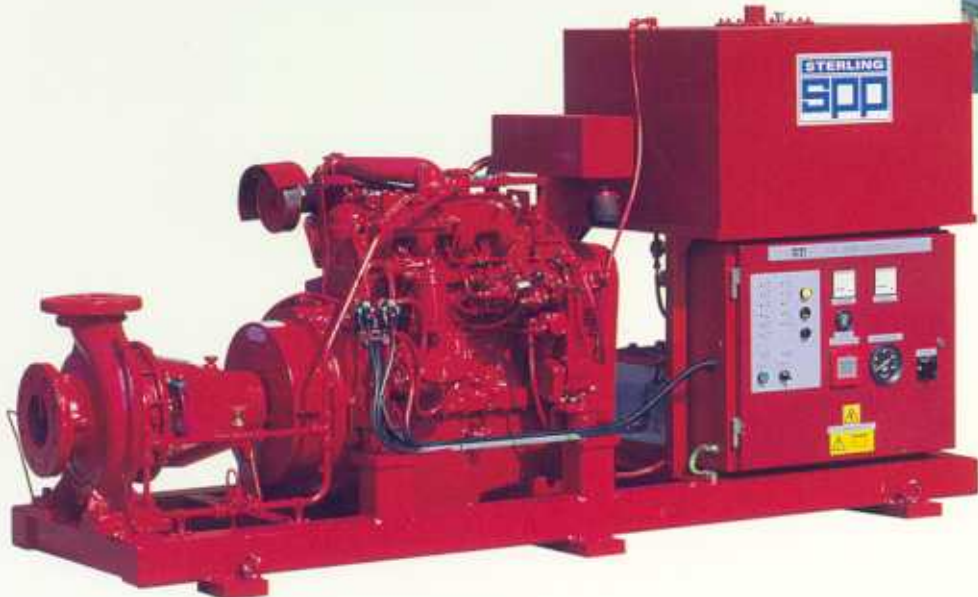
Unrivalled experience in design and manufacture together with advanced computerised testing ensures utmost equipment reliability.

By manufacturing the pump and control equipment, a totally integrated Sterling SPP package fully engineered to meet customer requirements is provided.

All this is backed up by unrivalled after-sales service and planned maintenance programmes.

Sterling Fluid Systems offers the ultimate service across the complete range of fire protection pumping and control equipment, whatever or wherever the installation.

WE SET STANDARDS OTHERS TRY TO FOLLOW.



FIRE PUMP PACKAGES



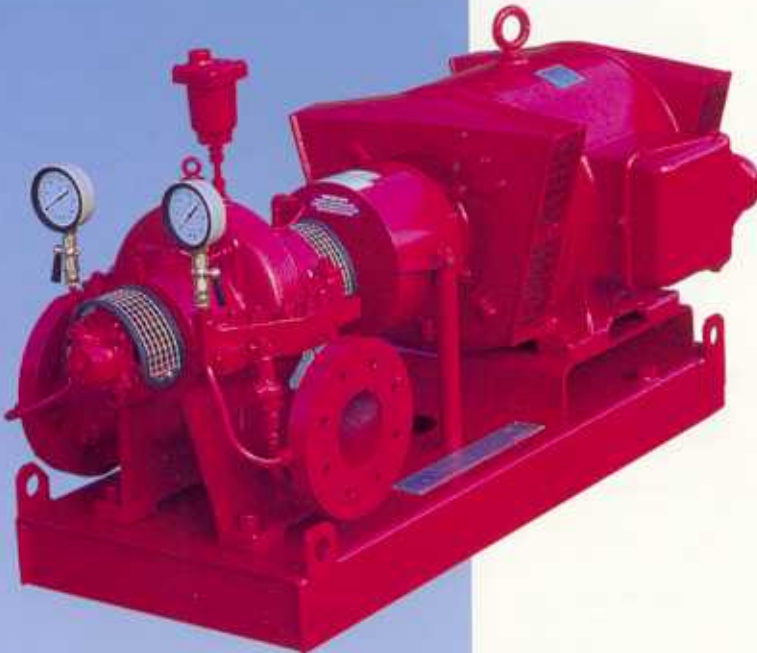
Product Approval
Certificate No. 111b
to LPS 1131





FIRE PROTECTION INSTALLATIONS

THRU-STREAM electric pump set.



Sterling Fluid Systems works closely with contractors, consultants and customers to achieve the most cost effective pump installation for the fire protection system requirements.

The wide range of experience of the specialist team is based on providing fire pumps for all types of installations including:- manufacturing units, warehouses, commercial premises, high-rise buildings, hotels, airports, power stations, chemical and petrochemical processing plants and offshore oil and gas platforms.

CONTROLLERS

To ensure total compatibility of equipment, controllers are manufactured or sourced by Sterling Fluid Systems.

These can be Direct-On-Line, Star-Delta, Auto-Transformer, Soft Start, etc.

Diesel controllers can be supplied for 12V or 24V DC electric, air or hydraulic cranking.

Controllers can be supplied free standing or mounted on the baseplate, completely wired and connected into the pump set package.

Vertical In-Line electric pump set.



NFPA 20 FIRE PUMP SETS

In North America and many other countries the basis for fire protection design are the standards issued by the National Fire Protection Association - USA.

Equipment specifications for fire pumps, drivers and controllers are detailed in NFPA 20 - Centrifugal Fire Pumps.

PERFORMANCE

The standard ranges of Sterling SPP electric motor and diesel driven fire pumps designed to meet these rules include:

horizontal end suction, horizontal and vertical split case, vertical in-line and vertical turbine:

- flows up to 19800 USgpm (1250 l/s)
- pressures up to 638 psi (44.0 bar)

UNISTREAM diesel engine driven pumpset.



FM/UL APPROVED AND LISTED FIRE PUMPS

Although equipment may be designed to meet NFPA 20, many insurance companies, consultants and clients insist that fire pumps and controllers are

also Approved and Listed by Factory Mutual (FM) or Underwriters Laboratories (UL).

These approval authorities verify full compliance with their stringent "Approval Standards" and then carry out exhaustive performance tests on the equipment. Only on successful completion of these tests and a manufacturing QA audit will the prestigious FM or UL approval be awarded.

PERFORMANCE - FM/UL APPROVED AND LISTED FIRE PUMPS

UNISTREAM horizontal end suction:

- flows up to 1500 USgpm (95 l/s)
- pressures up to 159 psi (10.9 bar)

VERTICAL IN-LINE (UL):

- flows up to 500 USgpm (31 l/s)
- pressures up to 176 psi (12.1 bar)

THRU-STREAM and HYDROSTREAM horizontal split case:

- flows up to 5000 USgpm (316 l/s)
- pressures up to 646 psi (44.5 bar)

MEETING MARKET NEEDS

As the first pump manufacturer in Europe to achieve FM approval, Sterling SPP today has one of the widest ranges of approved and listed equipment in the world.



Controller for electric motor driven fire pump.



Remote alarm panel.



Pressure maintenance (jockey) pump and starter.



THRU-STREAM diesel engine driven pump set incorporating type 92 diesel engine controller.



TURBOSTREAM vertical lineshaft diesel engine driven pump set.



Electro-submersible fire pump with dedicated diesel gen-set.



VERTICAL TURBINE PUMPS

Where the fire protection water source is located below ground level, the best technical pumping solution is the vertical suspended multi stage (turbine) pump.

DESIGN

With this type of unit the impellers are fully immersed in the water maintaining prime at all times.

The pumps are driven by vertical electric motors or by diesel engines through a right angle gearbox.

PERFORMANCE

Standard Sterling SPP TURBOSTREAM vertical turbine pumps are available to meet both LPC and NFPA requirements.

- flows up to 90000 l/m (1500 l/s : 23000 USgpm)
- pressures up to 35.1 bar (510 psi)

PERFORMANCE FM/UL APPROVED AND LISTED FIRE PUMPS

TURBOSTREAM vertical turbine pumps

- flows up to 5000 USgpm (316 l/s)
- pressures up to 510 psi (35.1 bar)

ELECTRO-SUBMERSIBLE DESIGN

Another version of this pump, which is used on offshore oil and gas platforms, is the electro-submersible pump/motor arrangement. Here the pump/motor is located below sea level whilst the dedicated diesel generator to provide the electrical power is mounted on the platform in a safe, convenient area.

HIGH-RISE BUILDINGS

The Sterling SPP MULTISTREAM horizontal multi stage multi outlet pump gives considerable cost and space benefits for fire protection systems in high-rise buildings.

It is designed with a number of outlets along its length which can deliver water to the various levels at the lower and higher pressures required.

PERFORMANCE

Electric motor or diesel engine driven MULTISTREAM multi stage - multi outlet pumps can be supplied to meet the technical bulletins for automatic sprinkler protection of high-rise and multiple storey buildings issued by the LPC.

MULTISTREAM multi stage - multi outlet

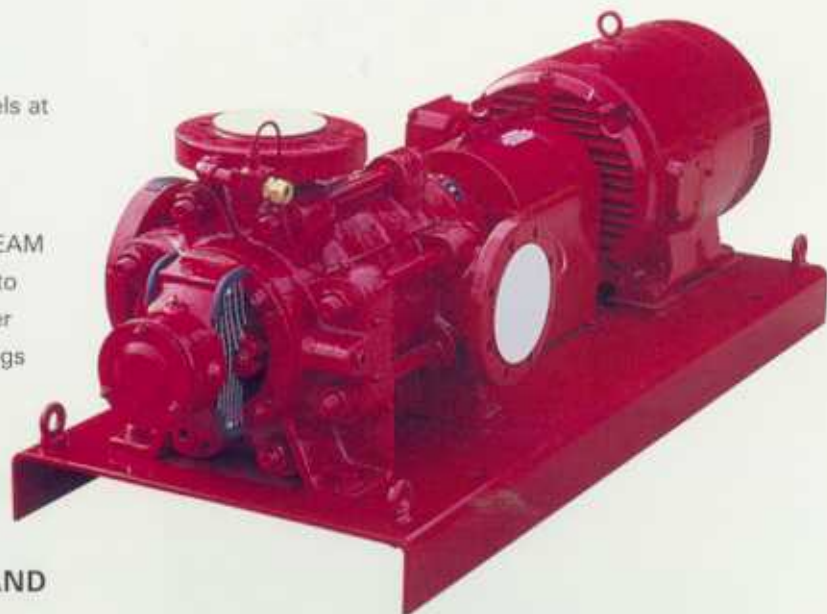
- flows up to 6500 l/m (110 l/s)
- pressures up to 50.0 bar

PERFORMANCE - LPCB APPROVED AND LISTED FIRE PUMPS

MULTISTREAM multi stage, multi outlet pumps:

- flows up to 2800 l/m (47 l/s)
- pressures up to 35.0 bar

MULTISTREAM electric driven pump set.



HOSESTREAM package with break-tank.



Standard HOSESTREAM package.

HOSE REEL INSTALLATIONS

In many buildings the first line of defence against fire is a manually operated hose reel system.

DESIGN

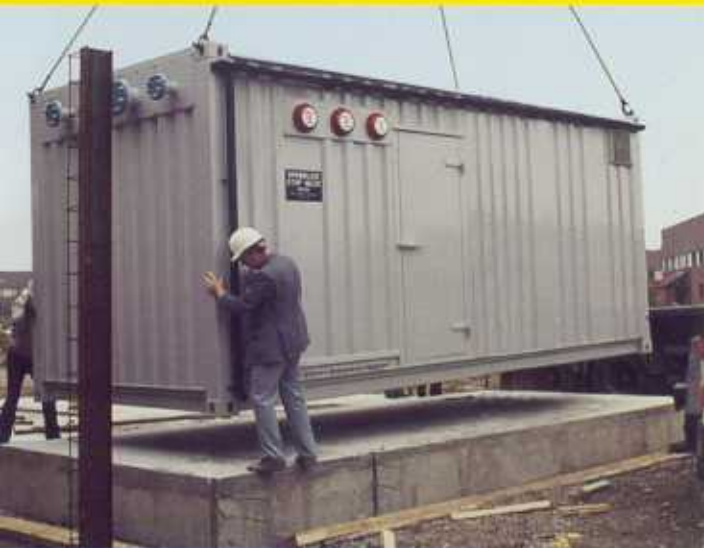
The Sterling SPP HOSESTREAM is a compact automatic pump package specially designed to provide the necessary water pressure to the hose reels. Manufactured and tested as a complete unit, it includes duty and standby electrically driven pump sets, control panel, interconnecting pipework, (including necessary valves and fittings), all mounted on a fabricated steel baseplate. At site, it requires only the electrical supply and system pipework to be connected to be fully operational.

PERFORMANCE

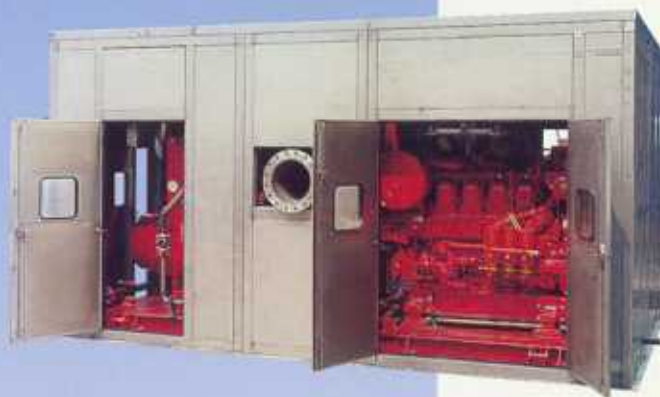
The standard HOSESTREAM is designed for installations complying with BS 5306 Part 1.

- flow 2.3 l/s
- pressures up to 14.0 bar

LARGER CAPACITY UNITS ARE AVAILABLE



Lowering a packaged pump house on site.



Containerised diesel set package.



HYDROSTREAM diesel engine fire pump package.

SPECIAL APPLICATIONS

Thousands of Sterling SPP fire pumps have been provided worldwide for special applications - from small end suction air-cooled diesel-driven trailer sets to 1500 kW vertical turbine pumps over 45m long to protect offshore oil and gas platforms.

PACKAGED PUMP HOUSES

The ultimate in tailor made fire protection pump packages is the Sterling SPP containerised pump room, housing pumps, control systems and pipework. After simply connecting the water and power supplies on site, the unit is immediately operational.

MEETING CUSTOMER REQUIREMENTS

Sterling Fluid Systems is at the forefront of technological development in fire pump packages. Using computer aided design facilities, experienced engineers are ready to meet your precise project needs - no matter how complex.

ALTERNATIVE CONSTRUCTION

Pumps can be supplied in special materials including Austenitic cast iron, zinc free bronze, duplex stainless steel or monel.

SPECIAL CONTROLLERS

Fire pump controllers can be designed to satisfy the most sophisticated operational requirements and can be manufactured to withstand extremely hostile site conditions. Units incorporating programmable logic control (PLC) can also provide remote data collection via a modem link.

Purged stainless steel diesel controller for Zone 2 hazardous area location.





Fire pump test house.

Testing console.

TESTED AND PROVEN

Once built, Sterling SPP fire pump packages are tested on one of the most advanced computerised pump test facilities in Europe.

Comprehensive tests on pump performance, mechanical and electrical integrity and overall package operation reinforce the reputation for reliability that the Sterling SPP name now enjoys around the world.



Steam turbine driven pump set.

CUSTOMER CARE

Sterling Fluid Systems provides complete service support for all equipment supplied worldwide.

In the UK there are strategically placed multi-disciplined service engineers equipped to carry out installation, commissioning and service work.

Overseas, a network of Sterling Fluid Systems offices, agents and distributors provide the most comprehensive product support in the pump industry with a level of customer care second to none.

- Genuine guaranteed spare parts.
- "Blue arrow" emergency breakdown service.
- Dedicated service repair centre.
- Planned maintenance contracts.

Regular planned maintenance of your plant and use of genuine Sterling SPP spare parts will ensure the long life of your pumping equipment and help avoid costly breakdowns and overhauls.

Let our customer care benefit you.

AN ASSURANCE OF QUALITY

ISO 9001 (BS5750).

Lloyd's registered quality company.

Every pump manufactured is hydrostatically and performance tested to ensure complete operational reliability.



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