



UL LISTED & FM APPROVED FIRE PUMPS AND SYSTEMS

FOR WHERE IT REALLY MATTERS







Scan the QR code and learn about the SyncroFlo Inc. App









MULTI-STAGE MULTI-OUTLET PUMPS

SyncroFlo Inc. is the first company to offer FM Approved multi-stage multi-outlet (MSMO) pumps. Using multiple impellers to generate more head than a single impeller, MSMO pumps are used in fire protection systems in most tall buildings including offices, hospitals and hotels.

MSMO pumps offer many benefits: buildings need fewer pumps; pipework and valves are reduced; the need for water storage tanks on intermediate floors is eliminated; and the loading on the building is reduced. The cost and space saving implications are significant: power requirements are lower, pump rooms can be smaller and, in line with new EU legislation, there is no need to use pressure reducing valves to prevent over-pressurisation of sprinkler heads.

Driven by electric motors or diesel engines, SyncroFlo MSMO pumps are available to satisfy any LPCB specification for automatic sprinkler protection in high rise and multiple storey buildings.

TYPICAL INSTALLATIONS:

- Offices
- Hotels
- Residential Buildings
- Tunnels
- Mixed Use Buildings

- Sprinkler systems
- Hydrant systems
- Deluge systems
- Monitor systems
- Water curtains





END SUCTION PUMPS

The protection of life is not a matter for compromise. This is particularly true for fire protection systems where they are only as strong as their 'weakest link' and compromise may result in avoidable loss of life or property.

That is why SyncroFlo fire pumps are designed specifically for the very particular needs of fire protection and are approved by most of the major fire protection bodies around the world. By selecting an approved SyncroFlo fire pump as part of an approved system and maintained in accordance with standards such as NFPA 20, you can sleep easy knowing that you have chosen the best you can get.

SyncroFlo Pumps have been manufacturing fire pumps for over 135 years and with one of the widest range of approvals of any manufacturer in the world. Experience gained from extreme environments such as offshore oil & gas installations has led to the creation of the SyncroFlo FM/UL Unistream and Eurostream range of pumps approved for fire protection by FM Approvals and Underwriter Laboratories and fully compliant to NFPA 20.

SyncroFlo End-Suction fire pumps are available for duties ranging from 200 USgpm to 1500 USgpm and are suitable for electric or diesel drives.

TYPICAL INSTALLATIONS:

- Supermarkets
- Hospitals
- Schools and Colleges
- Hotels
- Office Buildings

- Sprinkler systems
- Hydrant systems
- Monitor systems
- Water curtains

SPLIT CASE PUMPS

FM/UL Thrustream Split Case Fire Pumps have been manufacturing fire pumps for over 135 years with one of the widest range of approvals of any manufacturer in the world.

Experience gained from extreme environments such as offshore oil & gas installations has led to the creation of the SyncroFlo FM/UL Thrustream range of fire pumps approved for fire protection by FM Approvals and Underwriter Laboratories.

SyncroFlo Thrustream FM/UL Approved Fire Pumps are available for duties ranging from 200 USgpm to 5000 USgpm and are suitable for electric or diesel drives. SyncroFlo also supplies Vertical, End-Suction and In-line pumps. SyncroFlo Thrustream FM/UL Approved Fire Pumps are available with either inch or metric fittings.

TYPICAL INSTALLATIONS:

- Office buildings
- Hospitals
- Airports
- Manufacturing facilities
- Power stations
- Pharmaceutical facilities
- Schools/College

- Sprinkler systems
- Hydrant systems
- Deluge systems
- Monitor systems
- Water curtain





VERTICAL TURBINES

Experience gained from extreme environments such as off-shore oil & gas installations has led to the creation of the SyncroFlo FM/UL Vertical Turbine range of fire pumps approved for fire protection by FM Approvals and Underwriter Laboratories and fully compliant to NFPA 20.

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

SyncroFlo Vertical Turbine pumps can also be custom engineered for the oil and gas industry and can handle fresh water or sea water for cooling purposes, fire protection duties, general water supply, washdown or drill water. They can also be used for handling crude oil or controlling spillages. For platform or jetty locations they can be provided with a below-deck discharge if required.

TYPICAL INSTALLATIONS:

- Office Buildings
- Hospitals
- Airports
- Manufacturing Facilities
- Power Stations
- Pharmaceutical Facilities

- Sprinkler Systems
- Hydrant Systems
- Deluge Systems
- Monitor Systems
- Water Curtain

VERTICAL IN-LINE PUMPS

The SyncroFlo line of vertical In-Line fire pumps are lightweight and compact for smaller pump rooms. They eliminate the need for coupling alignment and there are fewer lost or misplaced parts.

SyncroFlo Vertical In-Line Pumps are available for duties up to 1500 USgpm and are suitable for electric drives only. SyncroFlo Vertical In-Line pumps can also be offered as pre-wired packages that include a limited or full service controller. Every package is mounted on a steel fabricated base with the motor wired to the controller. The automatic air relief valve, casing relief valve, suction gauge and discharge gauge are mounted on their respective spool pieces. Additional piping, valves and sensing lines are available with the In-Line packages. The SyncroFlo In-Line package system also includes a jockey pump and jockey pump controller.

TYPICAL INSTALLATIONS:

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- Pharmaceutical facilities

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- Hydrant systems
- Deluge systems
- Monitor systems
- Water curtain







PACKAGED FIRE PUMPS

SyncroFlo packaged fire pumping systems save time, labor and change orders on site. Cost-effective, completely selfcontained skidded or housed units precisely fit specified areas, and require only system piping connections and a single point electrical hook-up.

Housings are built to accommodate required environments with lighting, heating, ventilation, insulation, weather protection, alarms and easy access opening.

Before shipment, each pump station must pass SyncroFlo's unique system testing and quality control standards. After installation, users are supported by a network of factory trained service representatives qualified to provide on-site system service and user training. All SyncroFlo packages meet OSHA and Federal Regulation 29 CFR 1910.399 and NFPA Pamphlet 70 National Election Code (NEC) for third party certification. Excellent design, quality construction and knowledgeable personnel provide the reliability required for a SyncroFlo Fire Protection System. SyncroFlo is ISO 9001 certified and our test rig is UL Listed and FM approved

SyncroFlo can design your fire pump solution with electric or diesel drivers. We offer inline, end suction, horizontal split case, or vertical turbine pumps to meet site or flow requirements.

DETAILED SPECIFICATIONS:

- Built in accordance with NFPA Pamphlet 20
- Fully Prefabricated
- · Internally piped and wired
- Factory Installed Tamper Switches
- Factory Tested
- Single Source Responsibility
- · Automatic or Manual Operation





2905 Pacific Drive Norcross, GA 30071 Tel: (770) 447-4443 www.syncroflo.com

TOTAL COMMITMENT

Since 1962, our commitment to excellence has enabled SyncroFlo to become the world's leading manufacturer of pumping stations. The SyncroFlo name has become synonymous with quality-built, cost-effective pumping systems. We pioneered pre-assembled pumping systems decades ago. Today, our installed base includes some of the largest pumping systems ever built.





SyncroFlo – Fire pumps & Packages



SyncroFlo, Inc. | 2905 Pacific Dr., Norcross, GA 30071 | (770) 447-4443 www.syncroflo.com

Fire Pumps 101: Introduction to Fire Pumps And NFPA 20 Everything you need to know about fire pumps....



UL Listed, FM Approved Fire Pump Sets

PRE-PACKAGED PUMPING SYSTEMS

Horizontal Split Case Pumps

- Flows from 200-5000 US GPM

➢ Vertical Turbine

- Flows to 5000 US GPM

≻In-Line Pumps

Flows to 1500 US GPM



Fire Pump Sizing Guideline – NFPA 20

- A centrifugal fire protection pump should be selected so that the greatest single demand for any fire protection system connected to the pump is less than or equal to 150% of the rated capacity (flow) of the pump.
- Centrifugal fire pumps shall have one of the rated capacities in US GPM (L/min) identified in NFPA 20 (2016 edition), Table 4.9.2 and shall be rated at net pressure of 40 psi (2.7 bar) or more.
- Centrifugal fire pumps with capacity ratings over 5,000 US GPM (18,925 L/min) shall be subject to individual review by either the authority having jurisdiction of a listing laboratory.





Understanding Fire Pump Curves



	Pur	np Perfor	mance Da	tasheet			
Customer	Pheonix Pumps	Quote Nun	nber	:	1606303JW01		
Customer Enquiry	: Sitara Project		Pump Size	Pump Size : BS10		BS10E	
Item Number	001		Stages		:	1	
Usage - Tertiary			Based on Curve		:	BS10E-FMT-C1900 Rev 1S-C1	
Quantity	6						
Oper	ating Conditions					Liquid	
Flow, rated	: 3,000.0	: 3,000.0 USgpm		e / Applicatio	n	; Water	
Differenctial Head (Requested) : 205.0 p	: 205.0 psi		Liquid Descri	ption	: Sea Water	
Suction Pressure, rated /max : 1.00 / 1.00 psi.g			Temperatu	ire, Max		: 120.0 deg F	
NPSH Available, rated : Ample			Fluid Densi	ity, rated		: 1.001 / 1.001 SG	
Frequency	: 60 Hz	: 60 Hz				: 0.85 mPa.s	
Flow	Head	Pump	Efficiency	Power F	Requir	ed NPSH required	
(USgpm)	(psi)	(%)		(hp)		(ft)	
0	228	0		283			
1137.9	221	41	1.01	358		7.83	
2275.8	213	62	87	450		13.8	
3413.7	200	71	1.97	553		14.29	
4551.6	183	78	3.75	61	7	16.11	
5689.5	160	79	9.74	66	2	19.6	

SPP Pumps Inc - 2905 Pacific Drive Norcross Georgia 30071 Phone: +1 (770) 409-32980 website: http://www.spppumpsusa.com



Fire Pump Selections based on NFPA 20

Pump Performance Datasheet									
Customer :	Pheonix Pumps	Quote Number :	1606303JW01						
Customer Enquiry : S	Sitara Project	Pump Size :	BS10E						
Item Number : 0	001	Stages :	1						
Usage - Tertiary :		Based on Curve :	BS10E-FMT-C1900 Rev 1S-C1						
Quantity :	6								
Opera	ating Conditions	Liquid							
Flow, rated	: 3,000.0 USgpm	Liquid Type / Application	: Water						
Differenctial Head (Requested)	: 205.0 psi	Additional Liquid Description	: Sea Water						
Suction Pressure, rated /max	: 1.00 / 1.00 psi.g	Temperature, Max	: 120.0 deg F						
NPSH Available, rated	: Ample	Fluid Density, rated	: 1.001 / 1.001 SG						
Frequency	: 60 Hz	Viscosity, rated	: 0.85 mPa.s						
Ν	IFPA Limits	Performance							
Flow, rated	: 3,000.0 USgpm	Speed, rated	: 1900 rpm						
Head, rated	: 205.2 psi	Impeller diameter, rated (app	orox) : 21.26 in						
Power, rated	: 520 hp	Impeller diameter, maximum	: 22.05 in						
NPSHr, rated	: 13.92 ft	Impeller diameter, minimum	: 16.14 in						
Efficiency, rated	: 68.95%	Efficiency	: 68.95%						
Flow at 150%	: 4,500.0 USgpm	NPSH required/ margin requi	red : 13.92 / 1.64 ft						
Head at 150%	: 183.9 psi	Head, maximum rated diame	ter : 228.0 psi						
Efficiency at 150%	: 78.51%	(approx)	:						
NPSHr at 150%	: 16.00 ft	Diameter ratio (rated / max)	: 96.43%						
Power required at 150% flow	: 615 hp	Driver & Power data							
Peak Power	: 720 hp	Power, hydraulic	: 359 hp						
Closed valve pressure	: 229.0 psi.g	Power, rated	: 520 hp						
140% Head at shutoff	: 287.0 psi	Power, maximum, rated dia	: 662 hp						
65% head at 150% flow	: 133.3 psi	Material							
Add 2% cooling	: Yes	Material selected	: CI/Br/CS (standard)						
Pr	essure Data	Selection Status							
Maximum Working Pressure	: 229. psi.g	FM/UL/cUL approved	: FM/UL/cUL						
Maximum allowable working pr	ressure : 326.3 psi.g								
Maximum allowable suction pre	essure : 326.3 psi.g								
Hydrostatic test pressure	: 343.5 psi.g								



Fire Pump Selections based on NFPA 20





NFPA 20 Recommended Pipe Sizes

- Standard NFPA 20 Flow Rates (GPM)
 - 250 GPM
 - 500 GPM
 - 750 GPM
 - 1000 GPM
 - 1250 GPM
 - 1500 GPM
 - 2000 GPM
 - 2500 GPM
 - 3000 GPM
 - 3500 GPM
 - 4000 GPM
 - 4500 GPM
 - 5000 GPM

(250 GPM per Riser)



NFPA 20	NFPA 20 2013, Table 4.26(a) Summary of Centrifugal Fire Pump Data (U.S. Customary)									
Minimum Pipe Sizes (Nominal)										
Pump Rating (gpm)	Suction _{a,b,c} (in.)	Discharge (in.)	Relief Valve (in.)	Relief Valve Discharge (in.)	Meter Device (in.)	Number and Size of Hose Valves (in.)	Hose Header Supply (in.)			
25	1	1	3⁄4	1	1 ¼	1 – 1 ½	1			
50	1 1⁄2	1 ¼	1 ¼	1 ½	2	1 – 1 ½	1 ½			
100	2	2	1 ½	2	2 1⁄2	1 – 1 ½	2 1/2			
150	2 1/2	2 1/2	2	2 ½	3	1 – 1 ½	2 1/2			
200	3	3	2	2 1⁄2	3	1 – 1 ½	2 1/2			
250	3 1/2	3	2	2 ½	3 1/2	1 – 2 ½	3			
300	4	4	2 1/2	3 1⁄2	3 1⁄2	1 – 2 ½	3			
400	4	4	3	5	4	2 – 2 1/2	4			
450	5	5	3	5	4	2 – 2 1/2	4			
500	5	5	3	5	5	2 – 2 1/2	4			
750	6	6	4	6	5	3 – 2 ½	6			
1,000	8	6	4	8	6	4 – 2 ½	6			
1,250	8	8	6	8	6	6 – 2 ½	8			
1,500	8	8	6	8	8	6 – 2 ½	8			
2,000	10	10	6	10	8	6 – 2 ½	8			
2,500	10	10	6	10	8	8 – 2 ½	10			
3,000	12	12	8	12	8	12 – 2 ½	10			
3,500	12	12	8	12	10	12 – 2 ½	12			
4,000	14	12	8	14	10	16 – 2 ½	12			
4,500	16	14	8	14	10	16 – 2 ½	12			
5,000	16	14	8	14	10	20 – 2 ½	12			

Split Case Fire Pump Models

- Ease of Installation and Maintenance
- Longevity and Durability
- Serviceability
- Reliability





Typical applications

- ✓ Warehouse
- ✓ Hospital
- ✓ Manufacturing plant
- ✓ University or large school
- ✓ Office High Rise



Split Case Fire Pumps

 This is what makes the horizontal split case fire pump a "split case" pump





Vertical In-Line

- Requires less space than split case pump of the same capacity
- Typically Less expensive
- Motor can be serviced without disconnecting suction & discharge flanges from piping

Typical applications

- ✓ Small schools
- ✓ Churches
- ✓ Parking garages





Design Features

- No priming
- Adaptability to water level
- Adaptability to various driver combinations
- Compact "footprint"
- No alignment necessary
- Minimal maintenance
- Application: Where city water is not available
- Ponds and lakes to utilize water supply
- Only pump approved for suction lift conditions





Why Electric?

- Electric sets are typically used where there is a reliable source of power
- What questions to ask when sizing an electric fire pump..
 - What Flow and Head are you looking for?
 - What is the site voltage?
 - 208? 230? 460?
 - Will you need a Transfer Switch?
 - Transfer switch is used when the source of power may not be reliable and/or precaution.

- Transfer switch for 2nd utility
- What Starting method is required based on electrical design?
 - Full voltage?
 - Across the line
 - Reduced Voltage Required?
 - Part winding
 - Primary reactor
 - Wye Delta Open or Closed
 - Soft Start
 - Auto Transformer



Electric Fire Pump System Components

- Pump, base, coupling & guard
- Electric motor
- Controller motor
- Suction and discharge gauges
- Automatic air release valve
- Casing relief valve





Brands of Electric Control Panels

- Firetrol
- Master
- Metron
- Cutler Hammer
- Joslyn Clarke
- Tornatech





Electric Motors

- Electric motors are used to drive
 - Horizontal split case
 - End suction
 - Vertical inline
 - Vertical turbine
- Motors are selected based on
 - Voltage
 - HP required by the pump
 - Frame size
 - Configuration of pump (i.e. vertical or horizontal)





Who makes a UL Listed Fire Pump Motor?

- WEG Motors
- NIDEC-US Electric Motors
- Marathon
- GE
- Baldor





Why Diesel?

- Diesel units are used primarily where there is not a reliable source of power or by preference
- UL Listed and FM Approved Fire Pump Engines
 - Clarke
 - Cummins
 - Caterpillar
- Diesel units may drive
 - Horizontal split case
 - Vertical turbine
 - End suction
- Engines are selected based on
 - HP of pump requirement
 - RPM
 - EPA emissions requirements





Diesel Fire Pump System Components

- Pump, base, coupling & guard
- Diesel engine & fuel tank
- Controller engine
- Suction and discharge gauges
- Automatic air release valve
- Batteries, racks & cables
- Cooling loop
- Commercial grade muffler, flexible exhaust connector & fittings





Diesel Controllers

- Diesel engine fire pumps are especially nice because of how reliable they can be and by the inexpensive control panel.
- There are only a few options tend to be required on diesel control panels. The most distinct difference is voltage of the battery used to back up the engine
 - 12 volt DC?
 - 24 volt DC?





Enclosures.....What is NEMA?

- NEMA (National Electrical Manufacturer's Association) enclosures control what can go into or out of a rated cabinet.
- Rating system provides description of the features and characteristics for applications.
- NEMA ratings include:
 - Type 1
 - Type 2
 - Type 3
 - Type 3R
 - Type 3S
 - Type 3X
 - Type 3RX
 - Type 3SX

- Type 4
- Type 4X
- Type 5
- Type 6
- Type 6P
- Type 12
- Type 12K
- Type 13

NEMA rated Type 2 and Type 4 enclosures are typically used cabinets



What is a Jockey Pump?

- A jockey pump is a pressure maintenance pump set so that in the event of slight fluctuations in sprinkler system pressure, the fire pump will not need to turn on. Sized based on 1% of fire pump design flow.
- Typically set 10 psi over the fire pump
- Jockey pumps are replaced frequently





Jockey Pump Controller

 Jockey pump controllers do not need to be UL Listed specifically for fire pump service. They are very small and meant to supply power exclusively to the jockey pump.





Fire Pump Accessories and NFPA 20

- NFPA 20 suggests minimum pipe and accessory sizes based on flow.
- In the following chart, you can see how based on the flow, you can select what size flow meter you might need, what size suction and discharge pipe is needed and what size test header etc...
- Though you do not need to memorize this chart, it is a helpful tool to have for you and your customer....



Accessories for Fire Pump









Main Relief Valve



Hose Valves





Hose Valve Header



Spool Pieces



Flow Meters



Suction Piping







NFPA 20 2013, Figure A.4.14.6 Right & Wrong Pump Suctions



Pump Rotation





Packaged Fire Pump Systems





Packaged Fire Systems (Markets)

- Industrial
- Commercial
- Municipal
- Power





Duplex Fire Pump Package





Fabrications for Woodbridge Energy





Fort Campbell USA – Duplex Diesels - 3 Units





Kemper County Nuclear Plant – Triplex





Kemper County





Engineered Fire Systems

The SPP range of horizontal and vertical pumps are custom built for the oil, gas and petrochemical industry.

Material Types:

- Cast Iron
- Bronze
- Austensic Cast Iron
- Carbon Steel
- Stainless Steel
- Duplex Stainless Steel
- Nickel Alloy





Vertical Lineshaft Pumps

Pump design options:

- Flexible or stiff shaft
- Tilting Pad, anti-friction or driver/gearbox mounted thrust bearings
- Keyed and sleeved shafts
- Impeller fixing by keys or collets
- Special suction impellers (for reduced submergence)
- Cast or fabricated column pipes
- Intermediate couplings screwed, keyed, split muff or hydraulic
- Marine-fouling systems
- Sacrificial anodes (cathodic protection)





Enclosures:

- Where ambient noise levels of concern, SPP can supply acoustic enclosures to reduce the equipment noise levels to acceptable levels.
- These enclosures can be designed to cover all or part of the package dependant upon the requirements of the installation
- Enclosures and complete modules can also be supplied A0 or A60 fire rated or H60 or H120 hydrocarbon fire rated







Special Environmental Conditions

Hazardous Area Operation:

• If the pump packages are required to operate in a n environment where hazardous areas may be present, SPP are able to supply equipment to meet the designated area classification (ATEX, NEC 500/505, IEC/CENELEC)





Offshore Fire Systems for Class 1 Div 2





Offshore Fire Systems for Class 1 Div 2





Offshore Fire Systems for Class 1 Div 2





What can our pump expertise achieve for you?

Any Questions?







SyncroFlo is an Atlanta-based manufacturer with over 50 years in the industry.

SyncroFlo is committed to delivering defect-free quality products ontime to meet or exceed our customers' and stakeholders' requirements.

Quality Policy

We Take Your Project As Seriously As You Do. SyncroFlo gives you the benefit of decades of experience on every job. If we think you've underspecified a project, we'll tell you. If you've over-specified it, we'll tell you that, too. Some manufacturers pride them selves on "overbuilding" the product. We build it exactly right. Our clients get precisely what they need.

Single-Source Responsibility

From the day it's installed, your pump system is backed by our network of top sales and service people. If you have a challenge, we're there for you with answers and expertise. Your SyncroFlo representative has the responsibility, the ability — and more importantly, the power — to make things right. Single-source responsibility is the only way we do business. Satisfied customers and 20,000 packaged pump systems in 50 states and 32 countries are proof that our way works.

Factory Flow Testing and Setup

Your SyncroFlo pumping system is ready for installation when you get it. It's fully assembled, tested, skidded, and delivered to your site. Our package pump systems give you the highest quality and simplest installation. That's the way it's been since we pioneered package pump systems in 1962. Today, top engineers and contractors still think of us as the experts on pre-built, pre-tested systems.



SYNCROFLO, INC. 2905 Pacific Drive Norcross, GA 30071 Phone: +1 (770) 447-4443 Fax: +1 (770) 448-6120 www.syncroflo.com



Our Goal

Our measure of success is how well the pump station runs over its entire life. Did we evaluate the design and confirm its suitability for the conditions? Was our price about the same as equivalent proposals? Did our submittal match our proposal? Did we deliver when we promised? Did the startup technician start the job on the first trip? Did he have to make any warranty repairs? Was technical support friendly and knowledgeable? Is scheduled maintenance generally enough to keep it fully functional? If something broke, was the pump system still operational? Were you able to find replacement parts for the first 20 years of its life? Does it still run automatically years after shipment? If so, then we have done our job.

Products

IRONHEART PR

The "IronHeart," which has been the core of our business since 1985, has been the industry standard for pressure boosting domestic water in commercial buildings. We offer 32 standard models featuring close coupled end suction pumps configured in duplex and triplex models with flow rated to 750 GPM and boost pressures to 190 PSI.





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VMS IRONHEART

All SyncroFlo IronHeart systems are manufactured to the highest standards within the 155,000 square foot facility. SyncroFlo has a superior Quality Management System that is ISO 9001:2015 certified. All systems bear the UL labels and are certified to UL 778 and UL 508A standards.



CUSTOM COMMERCIAL

All SyncroFlo systems are manufactured to the highest standards within the 155,000 square foot facility. SyncroFlo has a superior Quality Management System that is ISO 9001:2015 certified. All systems bear the UL labels and are certified to UL 778 and UL 508A standards. Many custom commercial systems also are certified to NSF/ANSI 61 & 372 standard have the low led certification for potable water to.







HVAC

All SyncroFlo systems are manufactured to the highest standards within the 155,000 square foot facility. SyncroFlo has a superior Quality Management System that is ISO 9001:2015 certified. All systems bear the UL labels and are certified to UL 778 and UL 508A standards. Many of the custom commercial systems also are certified to NSF/ANSI 61 & 372 standard to have the low led certification for potable water.



HEAT TRANSFER SYSTEMS

ll SyncroFlo systems are manufactured to the highest standards within the 155,000 square foot facility. SyncroFlo has a superior Quality Management System that is ISO 9001:2015 certified. All systems bear the UL labels and are certified to UL 778 and UL 508A standards. Many custom commercial systems also are certified to NSF/ANSI 61 & 372 standard to have the low led certification for potable water.







FIRE PRODUCTS

SPLIT CASE

Experience gained from extreme environments such as offshore oil & gas installations has led to the creation of the SyncroFlo FM/UL Thrustream range of fire pumps. The Thrustream range has been approved for fire protection by FM Approvals and Underwriter Laboratories.

SyncroFlo Thrustream FM/UL Approved Fire Pumps are available for duties ranging from 200 USgpm to 5000 USgpm and are suitable for electric or diesel drives. SyncroFlo also supplies Vertical, End-Suction and In-line pumps. SyncroFlo Thrustream FM/UL Approved Fire Pumps are available with either inch or metric fittings.

TYPICAL INSTALLATIONS:

- Office buildings
- Hospitals
- Airports
- Manufacturing facilities
- Power stations
- Pharmaceutical facilities
- Schools/College







THRUSTREAM -SPLIT CASE PUMPS



SyncroFlo has been manufacturing fire pumps for over 50 years with one of the widest range of approvals of any manufacturer in the world.

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FIRE PROTECTION - SPLIT CASE PUMPS



CONFIGURATION

Horizontal, vertical open shaft, vertical direct mounted electric motor or horizontal engine driven

DISCHARGE & PERFORMANCE

- 5 in. to 24 in.
- Outputs to 39,625 gpm
- Heads up to 985 ft.

FEATURES

- Axially split casing rotating element can be removed without disturbing pipework
 Exceptional hydraulic efficiencies
- Exceptional hydraulic enciencies
- Double and single entry back to back impellers reduce end thrust, increase efficiency and bearing life
- Modular design for maximum interchangeability (multiple impeller selections)
- Stainless steel impellers and shaft as standard

- Internal high efficiency coating as standard
- Cartridge mechanical seals as standard
- Double row thrust bearing
- Wide operating range and extended bearing life
- Reduced efficiency degradation
 - Approved to FM and/or UL standards
 - In compliance with NFPA 20
 - Used in pump as turbine applications



VERTICAL IN-LINE

SyncroFlo Vertical In-Line Pumps are available for duties up to 1500 USgpm and are suitable for electric drives only. SyncroFlo Vertical In-Line pumps can also be offered as pre-wired packages that include a limited or full service controller. Every package is mounted on a steel fabricated base with the motor wired to the controller. The automatic air relief valve, casing relief valve, suction gauge and discharge gauge are mounted on their respective spool pieces. Additional piping, valves and sensing lines are available with the In-Line packages. The SyncroFlo In-Line package system also includes a jockey pump and jockey pump controller.

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FIRE PROTECTION VERTICAL IN-LINE PUMPS



The SyncroFlo line of vertical In-Line fire pumps are lightweight and compact for smaller pump rooms. They eliminate the need for coupling alignment and there are fewer lost or misplaced parts.

SyncroFlo Vertical In-Line Pumps are available for duties up to 1500 USgpm and are suitable for electric drives only. SyncroFlo Vertical In-Line pumps can also be offered as prewired packages that include a limited or full service controller. Every package is mounted on a steel fabricated base with the motor wired to the controller. The automatic air relief valve, casing relief valve, suction gauge and discharge gauge are mounted on their respective spool pieces. Additional piping, valves and sensing lines are available with the In-Line packages. The SyncroFlo In-Line package system also includes a jockey pump and jockey pump controller.

TYPICAL INSTALLATIONS:

- Office buildings
- Hospitals
- Airports
- Manufacturing facilities
- Power stations
- Pharmaceutical facilities

- Sprinkler systems
- Hydrant systems
- Deluge systems
- Monitor systems
- Water curtain







2905 Pacific Drive Norcross, GA 30071 Tel: (770) 447-4443 www.syncroflo.com

FIRE PROTECTION - VERTICAL TURBINE



CONFIGURATION

Vertical lineshaft, vertical electro submersible, vertical electric motor or engine driven, dry or wet well

DISCHARGE & PERFORMANCE

- 4 in to 87 in
- Outputs up to 176,115 US.gpm
- Heads up to 656 ft

FEATURES

- Space saving
- Low maintenance costs
- High hydraulic efficiency
- Priming problems eliminated. Pump end submerged in liquid
- 60 models, with bowls, heads and columns optimised for performance and cost
- Wide choice of materials

- Diffuser bowls ensure balanced axial loading
- Soft packing or mechanical seals
 API construction
- Approved to FM and UL standards, all of which are compliant to NFPA 20
 Nuclear certification
- Dry and wet well installations

FIRE - VERTICAL TURBINE



VERTICAL TURINE

Whether the fire protection water source is located below ground or deck level, the best technical pumping solution is the Vertical Suspended Multi Stage Turbine Pump. With this type of unit, the impellers are fully immersed in the water and maintain prime at all times. The pumps are driven by vertical electric motors or by diesel engines through a right angle gearbox.

SyncroFlo Vertical Turbine pumps can be custom engineered for the oil and gas industry and can handle fresh water or sea water for cooling purposes, fire protection duties, general water supply and washdown or drill water. They can also be used for handling crude oil or controlling spillages. For platform or jetty locations, they can be provided with a below-deck discharge.

TYPICAL INSTALLATIONS:

- Office buildings
- Hospitals
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TURBOSTREAM - VERTICAL TURBINE PUMPS

Experience gained from extreme environments such as off-shore oil & gas installations has led to the creation of the SyncroFlo FM/UL Vertical Turbine range of fire pumps. This range has been approved for fire protection by FM Approvals and Underwriter Laboratories, and is fully compliant to NFPA 20.

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FIRE PROTECTION COMMERCIAL, INDUSTRIAL, POWER



PROVEN EXPERIENCE

With over 50 years of experience with manufacturing pumping systems for all markets on a global scale including fire protection, SyncroFlo has a proven track record of protecting life and property. SyncroFlo packaged pump systems provide owners, engineers and operators a complete certified third party labelled system, at an accurate predetermined cost, while avoiding the pitfalls of site built systems. With a SyncroFlo pre-engineered packaged system, all headaches are avoided by total coordination between the engineer, owner and SyncroFlo (the manufacturer).

PACKAGED FIRE PROTECTION PUMPING SYSTEM SOLUTIONS

From the simplest single pump system to the most complex multi-pump system with environmental enclosures, SyncroFlo packaged pumping systems are the solution to your specific application. Everything is designed to your project specifications. Whether you have a small pump skid being installed in a pump room or a large industrial system with multiple pump and driver combinations complete with enclosure, we have the right solution for you. All fire systems are manufactured in accordance with NPFA 20 and NEC. The product arrives on site, ready to be installed and put into operation faster and more cost efficient than traditional site built systems.

COMPLETE SYSTEM SINGLE SOURCE RESPONSIBILITY

When you have SyncroFlo products on your project, you truly have total system single source responsibility. From inspection to commissioning, we provide complete system design. With a global network of factory certified technicians, startup commissioning and acceptance testing is just part of the service we provide. If any issues arise, from a ½" drain valve to a 300 HP diesel engine after installation, SyncroFlo is the only phone call you need to make to solve the problem and get your system back online.

QUALITY CONTROL AND TESTING

Every day, we strive to provide our clients with the highest quality pumping systems. Our systems are built, assembled, and tested safely and efficiently in our 155,00 sq ft. facility in Norcross, GA. Our superior Quality Management System is certified to the latest ISO 9001:2015 standards. All systems undergo quality inspections at each stage of the process. These inspections include an engineering review before the submittal and during the manufacturing process, as well as individual inspections at each stage of the manufacturing and assembly process. All quality inspection data is recorded on a hand-held device and uploaded via a web based app. With major equipment, pumps, and drivers being tested by the respective manufacturer, SyncroFlo hydrostatically tests all piping in accordance with NFPA 20 requirements. Systems with enclosures receive a full test of all ancillary equipment related to the pump system enclosure. We also offer full witnessed factory acceptance testing in an NIST certified test facility.



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FIRE - COMMERCIAL, INDUSTRIAL, POWER



PUMP TYPES

Flex Coupled End Suction, Vertical Inline, Horizontal Split Case & Vertical Turbine

PERFORMANCE

- 3" 24" Discharges
- Flow from 5,000 20,000 GPM
- Heads from 300 4500 PSI

FEATURES

- ETL Listed
- In Accordance with NFPA 20 & NFPA 850
- UL 508A Control Panels
- 2, 3 & 4 Pump Designs
- Split Skid Configurations
- Common Suction & Discharge Headers
 Electric Motor or Diesel Engine Driven
 Pumps
- Carbon Steel Piping
- FBE Coated Carbon Steel Piping for Sea Water Use
- Common Suction & Discharge Headers

- Storage Tank Fill and Heating Systems
- Surge Protection and Pressure Reducing
 Systems
- Environmental Enclosures
- 1 & 2-Hour Rated Fire Walls
- Systems for Classified Areas Available
 Coating Systems for Any Environmental Conditions
- On Skid Back Flow Prevention
- On Skid Domestic and Irrigation Booster Systems
- Foam Systems



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