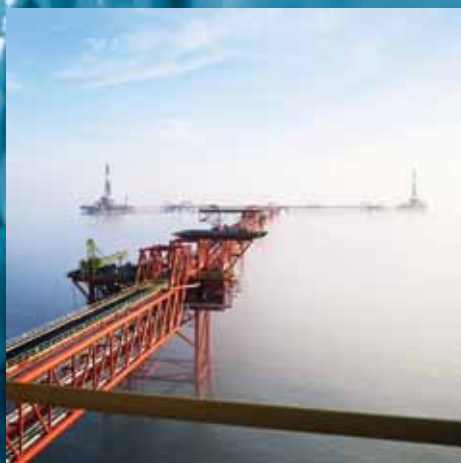




# PUMPING SOLUTIONS

FOR WHERE IT REALLY MATTERS





# FOR WHERE IT REALLY MATTERS

SPP Pumps is a leading manufacturer of centrifugal pumps and systems.

For more than 130 years, the company's robust, trusted engineering has provided critical performance across diverse industry applications including oil and gas, water, power generation, construction, mining and fire protection.

## PROVEN QUALITY

Our customers' pumping applications are invariably demanding – typically operating in hostile, arduous or extreme temperature environments, where quality matters. Using the most advanced computer testing in the world, we design, simulate, evaluate, refine and manufacture all products and packaged systems here in the UK.

Spanning continents and cultures, our superior customer service is unswerving. We have a number of regional hubs around the globe offering the same attention to quality and values that has made SPP Pumps a market leader over 13 decades.

Because SPP customers often operate in demanding or hazardous environments, quality matters, and that requires manufacturing excellence. From our facility in Coleford England, SPP has set the highest standards attainable in the industry for quality and reliability.

We use the most advanced computer simulation in the world to design, evaluate, refine and manufacture the best pump solutions, while 'Lean Manufacturing' principles mean the company is entirely focused on continuous improvement to support a 'right first time' philosophy.

Our sales and manufacturing plant in the USA also offers the SPP Pumps University, a state-of-the-art training lab giving hands-on training with five fire sprinkler systems, four fire pumps and a complete range of fire sprinkler industry components.

SPP Middle East covers the Gulf Region and SPP MENA in Egypt covers the Middle East and North Africa, while a sales and manufacturing office in Gauteng services our



South African customers. As well as all this, we also offer local, on the ground support through offices in France, Asia, Italy, Poland, Czech Republic and Russia.

Put simply, proven quality prevails.

## DEDICATED EXPERTISE

Our fifty-strong engineering team, commonly regarded as the best in the industry, has real-world application experience across multiple industry sectors. The skills of SPP Pumps engineers have secured the company numerous accolades, including the prestigious Pump Industry Awards (PIA) Manufacturer of the Year Award.

Our ability and knowledge to respond rapidly to demanding customer needs, is fuelled by dedicated R&D investment from the parent company Kirloskar Brothers Limited, India's largest provider of hydraulic machines and systems.

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Proven quality. Dedicated expertise. World-class performance. For where it really matters, insist on SPP Pumps.

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THE SKILLS OF SPP PUMPS ENGINEERS HAVE SECURED THE COMPANY NUMEROUS ACCOLADES, INCLUDING THE PRESTIGIOUS PIA MANUFACTURER OF THE YEAR AWARD.





# INDUSTRY-TRUSTED PERFORMANCE. TAILOR-MADE.

With more than 50 engineers within our application engineering and R&D departments, we offer an exceptional range of skills and experience across major industry sectors.

Whatever the challenge you face, you can be sure we will assemble a project team that not only understands your technical parameters, but your industry, too.

## WATER

Often operating 24 hours, 365 days a year, water pumping applications are highly energy intensive. In fact, pump capital purchase typically only represents 5% of the total ownership cost. To minimise both energy costs and CO<sub>2</sub> emissions, in 2004 we launched our Lowest Lifecycle Range. Customers are already enjoying operating cost savings worth up to 5% a year compared to conventional competitive units. South West Water chose SPP's pumps for where energy reduction and operating costs really mattered, resulting in energy cost savings of £70,000 a year.

Running pumps as turbines (PaT) is an efficient method to generate and recover energy. In the current economic climate, where reducing energy costs is a high priority, the use of reverse running pumps as turbines is a promising and growing technology for small scale hydropower.

## FIRE

When lives are at stake, you can't take chances. As the first company to achieve fire pump approval and listing by the internationally recognised Loss Prevention Certification Board, SPP Pumps today has more pumps approved by the LPCB than any other manufacturer.

It's no wonder the sprinkler system protecting Europe's tallest building, The Shard in London, is fed by SPP pumps. Towering at 309.6m, zoned protection for all 95 floors is achieved without using pressure reducing valves to conform to EU regulations.

Manufactured in the UK and USA to the very highest quality, our pumps can meet the requirements of all major international standards, particularly NFPA 20. FM approved and UL listed for use in many markets including Europe, the Far East, Middle East and Africa, you can be assured knowing world-class protection technology is at hand. SPP Pumps has also been selected for the Marmaray Tunnel in Turkey, where our dedicated expertise really mattered.

## OIL & GAS

Lost oil or gas production, even in a small facility, could cost an operation millions of pounds per day. SPP Pumps is a world leader in the design and manufacture of pumping equipment for both onshore and offshore applications. Superior design, precision manufacturing and high quality assurance has made SPP Pumps a trusted uptime champion both upstream in exploration and production, and downstream for petrochemical and chemical processes.

SPP Pumps brought the first UK North Sea oil ashore in the 1970s. Today it's product portfolio includes niche non-hydrocarbon applications such as seawater lift, intake, cooling water, ballast water and fire water systems. In addition, SPP Pumps offers a full API product range for hydrocarbon pumping applications. We have many hundreds of pumps in a huge number of fields around the world for major international oil companies, with an equally impressive history of onshore installations.

# IN THE SPOTLIGHT. SPECIALIST APPLICATION SUPPORT.

## ENERGY

Our energy division can undertake a comprehensive site assessment focused on your complete pump system. Within a succinct report, we will make detailed recommendations for corrective action enabling you to save up to 30% in energy consumption and running costs.

## AUTOPRIME

Autoprime is our range of vacuum-assisted self-priming pumps, developed for rental organisations, contractors, utility companies, open cast mines and municipalities needing a durable solution.

Versatile, portable and lightweight, the range is deployed around the world for diverse, demanding applications including site dewatering, industrial sludge pumping, tank sediment cleaning, flood relief and sewage over-pumping. As part of Prague's flood defences, compact, manoeuvrable SPP Pumps diesel pumping systems help protect the city's residential, commercial and industrial areas.

## STANDARD PRODUCTS

Our standard pump product ranges offer 'fit and forget' replacement solutions for almost any existing application. Easy to maintain, each pump type is available in a wide range of specifications – from all cast iron to internal hydraulic components in bronze or stainless steel. Our extensive fluid handling experience ensures, where needed, pumping solutions can still be tailored to your individual requirements. In Poole, Dorset, shellfish farm Othniel Oysters required an eco-friendly pumping system. The SPP Pumps designed solution has reduced noise, simplified maintenance and delivered a 35% saving in fuel consumption.

A web based pump selection tool, coupled with access to technical training and familiarisation programmes offer further distributor support.

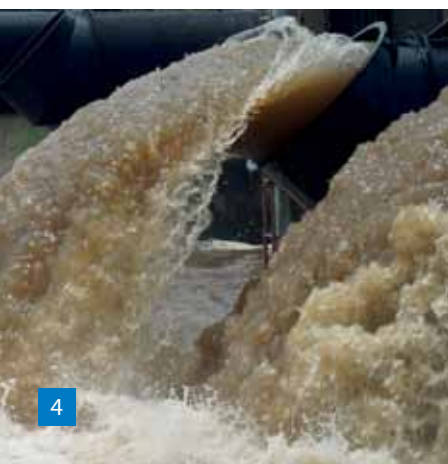
## INDUSTRIAL APPLICATIONS

Spanning the chemical, pharmaceutical, power and general industry sectors, SPP Pumps specialist industry team delivers a variety of pumping equipment for a wide range of businesses. We provide everything from end suction, multi-stage, solids handling, split case and vertical turbine units for a vast array of applications.

## TRANSFORMER OIL

With transformer systems costing upwards of £2m, maintaining efficient, durable cooling is mission-critical. For more than 80 years, SPP Pumps has produced reliable, cost effective solutions for oil circulation, cooling transformers for power generation, power distribution and electric locomotive applications. Many of our installations are still operating successfully after more than four decades in service.

WHATEVER THE CHALLENGE YOU FACE, YOU CAN BE SURE WE WILL ASSEMBLE A PROJECT TEAM THAT NOT ONLY UNDERSTANDS YOUR TECHNICAL PARAMETERS, BUT ALSO YOUR INDUSTRY TOO.







# ENGINEERING INTELLIGENCE. PERFECTION WITH PRECISION.

**REVIEW AND RE-SIZE.  
CUT ENERGY COSTS BY 30%.**

Pumps account for approximately 13% of the UK's total annual electrical consumption\*. They are the single largest user of motive power in both industrial and commercial applications.

In recent years, as energy costs have dramatically risen, companies are closely scrutinising consumption and pump system running costs.

### INDEPENDENT AND OBJECTIVE

SPP Pumps Energy is an expert in energy management.

Independent and objective, we offer a complete energy saving solution for pumping systems that can be applied equally to new projects and existing installations.

Large pump systems that run continuously are especially costly to operate. However, most pumps are typically oversized – operating far from their optimum efficiency points. Coupled with poor pump intake conditions and inefficient running regimes, this mismatch equates to wasted and costly energy use.

### A HOLISTIC APPROACH

To save costs, our energy division undertakes comprehensive site assessments focused on complete pump systems. Within a succinct report, we make detailed recommendations for corrective action identifying cost savings, kW/hr savings, payback time and CO<sub>2</sub> reduction. For South West Water for example, an assessment has rectified cavitation issues at their Hayle final effluent pumping station. Replacement pumps have increased reliability, reduced energy consumption and emissions – resulting in savings of £70,000 per year.

By implementing our recommendations, you can realistically expect reductions in energy consumption and system running costs in excess of 30%. In addition, you'll enjoy reduced inventory, maintenance and administration costs.

**For more information on SPP Energy visit our website: [www.sppenergy.com](http://www.sppenergy.com) or call us on +44 (0) 118 932 3123 or email us at: [energy@spppumps.com](mailto:energy@spppumps.com)**

\*(BPMA Data).



Manufacturing excellence is wired into our DNA. Our products are highly regarded in the industry. We make it our business to only employ the best.

### COLLABORATION. INNOVATION

Engineers at our manufacturing and repair sites have exhaustive experience in all aspects of pump design, hydraulics, rotating machinery, electrical systems and packaging. Every one of our manufacturing sites is ISO 9001:2001 approved and we have the prestigious PD ISO/TS 29001:2007 approval specifically for the oil & gas industries, and our fire pump packages comply with industry regulations.

### LEAN MANUFACTURE

Guided by lean manufacturing principles, we continually refine and improve our products. Our main manufacturing facility is segregated into different product groups. Planned in cell layout, the machine shop within the plant contains CNC systems that are linked to a DNC system. This allows programming to be carried out on the machine or offline.

We work hard to ensure that all of our pumps, parts, engines and motors are manufactured, serviced and repaired to original design specifications and manufacturing tolerances.





# AFTERMARKET SERVICE SUPPORT. RESPONSE YOU CAN RELY ON.

We recognise that lives, properties and livelihoods can depend on a pump's performance. Our belief in service excellence and minimum downtime means we embrace our commitment to 'go the extra mile'.

## TRUSTED EXPERTISE

Our SPP Field Service team is pivotal, providing on-site rapid response for emergency repairs and planned contractual maintenance.

**If you require installation or site assistance our Service division will be happy to assist you, please email us: [service@sppumps.com](mailto:service@sppumps.com) or call us on +44 (0) 118 932 3123**



## ADVANCED DIAGNOSTICS

With five service centres strategically located across the UK, expert support is just a call or email away.

All SPP service centres offer specialist services including Computerised Fluid Dynamics analysis, surge analysis, sump analysis, piping analysis for suction pressure and natural frequency analysis – an accurate, powerful way to investigate, optimise and balance customer systems for optimum performance and reliability. Service network sites are ISO 9001 approved, delivering OEM specification, warranty and test-certificated repairs.

Our 'no compromise' service reputation attracts leading third-party specialist manufacturers. Descote valves, designed for all dangerous, corrosive, inflammable, pyrophoric, noxious media and all category M fluids as per ASME B31.3, trust SPP as their only UK Service Provider. We are also proud to be a chosen partner by SKF Bearings in the UK. This has led to all our service centres being the only UK approved SKF Certified Rebuilder of Pumps. SPP also works with SKF globally and is the first port of call for SKF customers needing pump repairs and services.

Although we provide support for all kinds of rotating equipment, ranging from electric motors through to diesel generators, we also enjoy a strong reputation for valve repair and refurbishment.

## Service Centre phone numbers:

<b>Scottish Service Centre:</b>	<b>+44 (0) 1236 455035</b>
<b>Northern Ireland Service Centre:</b>	<b>+44 (0) 2890 469802</b>
<b>Northern Service Centre:</b>	<b>+44 (0) 161 366 7309</b>
<b>Wales &amp; West Service Centre:</b>	<b>+44 (0) 1594 832701</b>
<b>Southern Service Centre:</b>	<b>+44 (0) 2380 616004</b>

## GENUINE PARTS

Our Parts division is well known in the industry for their understanding of timely performance. When a British Gas platform in the North Sea required spares and pump ends, the team responded in a greatly decreased delivery time, saving them millions of pounds in lost revenue.

## Parts division phone number:

**If you require any spare parts, please email our Parts division at: [spares@sppumps.com](mailto:spares@sppumps.com) or call us on +44 (0) 118 932 3123**



ALL SITES IN OUR SERVICE NETWORK ARE ISO 9001 APPROVED, DELIVERING OEM SPECIFICATION, WARRANTY AND TEST-CERTIFICATED REPAIRS.



# SPP PUMP APPLICATION MATRIX

Pump Category	SPP Model	Fire	Chemical	Pulp and Paper	Mining and Minerals	Power Generation	Oil Refining and Gas Processing	Steel Metals	Water Industry	Wastewater Industry	Food and Beverage	Transformer Oil Cooling	Nature of Liquid or Medium					Pumps as Turbine	Refer to Page
													High Pressure	Corrosive	High Temperature (580°F 268° and greater)	Fertilizer	Solids Handling		
End Suction	Unistream	●				●		●	●	●	●						●	11	
	Eurostream	●				●		●	●	●	●							11	
	Instream	●				●		●	●	●	●							11	
	Aquastream – Mixed Flow	●				●		●	●	●	●							12	
	KPD	●	●			●	●	●	●		●			●	●			12	
	GK	●				●		●	●		●							12	
Split Case	LLC	●				●	●	●	●	●							●	13	
	Hydrostream	●				●	●	●	●	●								13	
	Thrustream	●				●	●	●	●	●								13	
	UP					●		●	●									14	
Vertical	LLC VTP	●				●	●	●	●	●								14	
	Vertical Turbine	●	●			●	●	●	●	●			●	●				14	
	Borehole								●									15	
	KPD-S	●	●			●		●	●				●	●	●			15	
Multi-stage / Multi-outlet	RKB/CD	●	●		●	●		●	●			●						15	
	CF		●			●		●	●			●						16	
Solids Handling and Solids	SHM		●	●					●	●						●	●	16	
	SHL		●	●					●	●						●	●	16	
	SHS		●	●					●	●						●	●	17	
	Freeway								●	●						●	●	17	
	Freestream								●	●						●	●	17	
	Solids Diverter								●	●						●		18	
Fire Packages	Package Sets	●																18	
	Prepackaged Pump Houses	●																18	
API	OH2 – KESS		●			●	●						●	●	●			19	
	BB1 – Hydrostream					●	●											19	
	BB2 – KBSD		●			●	●						●	●	●			19	
	BB2 – KBTS/D		●			●	●						●	●	●			20	
	BB3 – KB3S/D		●			●	●					●	●	●	●			20	
	BB4 – KBSH/KBDH		●			●	●					●	●	●	●			20	
	BB5 – KBDS/KBDD		●			●	●					●	●	●	●			21	
	VS1 & VS6 – KVSL/KVSH		●			●	●						●	●	●			21	
Contractors Pumps	Q-Series			●	●				●	●						●	●	21	
	Medium Head Open Set (Diesel)			●	●				●	●						●	●	22	
	Highflow			●	●				●	●						●	●	22	
	Medium Head Open Set (Electric)			●	●				●	●						●	●	22	
	Hydraulic Submersibles			●	●				●	●						●	●	23	
Transformer Oil	AT Inline Range											●						23	
	AT Elbow Range											●						23	

# END SUCTION



## UNISTREAM

WATER	FIRE	STANDARD
INDUSTRY		

### CONFIGURATION

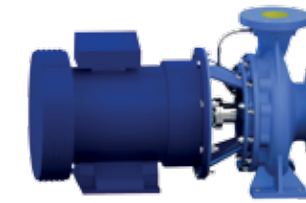
Horizontal electric motor or engine driven

### DISCHARGE & PERFORMANCE

- 32 mm to 150 mm
- Outputs up to 504 m³/h
- Heads up to 105 m

### FEATURES

- Horizontal DIN 24255 Electric Motor
- 41 models
- Wide choice of materials
- Centreline discharge
- Back pull-out rotating element can be removed without disturbing pipe work
- Impellers cut to duty
- High interchangeability – just three shaft modules cover the entire range
- Suitable for baseplate mounting with coupling
- Approved to LPCB, FM and/or UL Standards
- In compliance with NFPA 20
- Used in pump as turbine applications



## EUROSTREAM

WATER	FIRE	STANDARD

### CONFIGURATION

Horizontal close coupled electric motor driven

### DISCHARGE & PERFORMANCE

- 32 mm to 100 mm
- Outputs up to 360 m³/h
- Heads up to 105 m

### FEATURES

- Close coupled pump set. Choice of 190 motor/pump combinations
- Space saving
- Most cost effective solution
- Incorporates mechanical seal to DIN 24960
- Impellers cut to duty
- High interchangeability
- TEFC IE2 motors fitted as standard
- Other motor options available
- Unique SPP Pumps design taper locking system simplifies fitting stub shafts to standard motors
- Uses standard metric TEFV or Drip Proof motors
- Stub shafts fit directly onto standard motor shaft – no drilling or priming required
- Back pull-out
- Rotating element can be removed without disturbing pipe work



## INSTREAM

WATER	FIRE	STANDARD
INDUSTRY		

### CONFIGURATION

Vertical close coupled electric motor driven

### DISCHARGE & PERFORMANCE

- 40 mm to 100 mm
- Outputs up to 216 m³/h
- Heads up to 65 m

### FEATURES

- Close coupled in-line design
- Simple installation and easy service back pull-out design
- Cost-effective solution
- TEFC IE2 motors fitted as standard
- High interchangeability – rotating element will interchange with Eurostream
- Mechanical seal as standard
- Impellers cut to duty

# END SUCTION



## AQUASTREAM – MIXED FLOW

WATER	FIRE	STANDARD
INDUSTRY		

### CONFIGURATION

Horizontal or vertical electric motor or engine driven

### DISCHARGE & PERFORMANCE

- 200 mm to 650 mm
- Outputs up to 6480 m<sup>3</sup>/h
- Heads up to 28 m

### FEATURES

- High efficiency pump range
- Mixed flow impeller will handle clean or dirty water containing small solids
- Heavy duty oil lubricating bearing bracket
- Soft packed
- An excellent range of pump sizes available
- Suitable for baseplate mounting with coupling



## KPD

WATER	FIRE	INDUSTRY
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### CONFIGURATION

Horizontal or vertical electric or engine driven process pump

### DISCHARGE & PERFORMANCE

- Delivery up to 200 mm
- Outputs up to 900 m<sup>3</sup>/h
- Heads up to 225 m

### FEATURES

- Back pull-out arrangement
- Bearing oil cooling arrangement
- Steam jacket arrangement
- Centre line mounting
- Mechanical seal or gland packed
- Temperatures range -50 to 350°C



## GK

WATER	FIRE	INDUSTRY
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### CONFIGURATION

Horizontal, electric motor

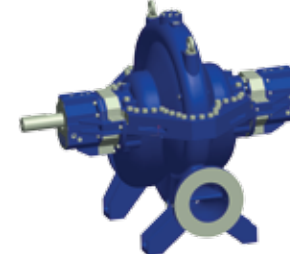
### DISCHARGE & PERFORMANCE

- Delivery up to 100 mm
- Outputs up to 800 m<sup>3</sup>/h
- Heads up to 140 m

### FEATURES

- Back pull-out
- ISO 5199 / 2858 / EN:22858
- Enclosed impeller only
- Gland packed
- Balanced impeller
- Top centre line discharge
- No venting required

# SPLIT CASE



## LLC

WATER	FIRE	INDUSTRY
OIL & GAS		

### CONFIGURATION

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

### DISCHARGE & PERFORMANCE

- 125 mm to 600 mm
- Outputs to 9000 m<sup>3</sup>/h
- Heads up to 300 m

### FEATURES

- Axially split casing – rotating element can be removed without disturbing pipework
- Exceptional hydraulic efficiencies
- 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



## HYDROSTREAM

WATER	FIRE	INDUSTRY
OIL & GAS		

### CONFIGURATION

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

### DISCHARGE & PERFORMANCE

- 25 mm to 600 mm
- Outputs to 9000 m<sup>3</sup>/h
- Heads up to 275 m

### FEATURES

- Axially split casing – rotating element can be removed without disturbing pipework
- High hydraulic efficiencies
- Double and single entry back to back impellers reduce end thrust, increase efficiency and bearing life. Shaft sleeves are standard
- 62 models. Module design for maximum interchangeability. Multiple impeller selections
- Wide choice of materials
- Grease or oil lubrication
- Soft packing or mechanical seals
- API options available for off site applications
- Approved to FM and/or UL standards
- In compliance with NFPA 20



## THRUSTREAM

WATER	FIRE	STANDARD
INDUSTRY	OIL & GAS	

### CONFIGURATION

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

### DISCHARGE & PERFORMANCE

- 65 mm to 350 mm
- Outputs up to 3500 m<sup>3</sup>/h
- Heads up to 300 m

### FEATURES

- Axially split casing – rotating element can be removed without disturbing pipework
- High hydraulic efficiencies
- Double entry impellers reduce end thrust, increase efficiency and bearing life
- Shaft sleeves fitted as standard for soft packed pumps and as an alternative for mechanical seals. Stainless steel shafts fitted as standard for mechanical seals
- 40 models. Module design for maximum interchangeability
- Grease lubrication
- Soft packing or mechanical seals
- Suitable for baseplate mounting with coupling
- Approved to LPCB, FM and/or UL standards
- In compliance with NFPA 20

# SPLIT CASE



## UP

WATER INDUSTRY

### CONFIGURATION

Horizontally axially split casing, single stage, double or single suction, single or double volute with horizontal shaft

### DISCHARGE & PERFORMANCE

- Delivery up to 1200 mm
- Outputs up to 24,120 m<sup>3</sup>/h
- Head up to 180 m

### FEATURES

- Rotating assembly accessible for inspection or maintenance by removing upper half casing without disturbing suction and delivery piping and motor
- Horizontal execution (standard) or vertical execution (optional)
- Vertical pump, direct drive or with universal shaft arrangement
- High hydraulic and overall efficiency due to superior design and manufacturing techniques
- Good suction performance and low NPSH
- Stable characteristics, minimum maintenance required, vibration free performance
- High reliability
- Mechanical seal or gland packed
- 50 or 60 hz operation

# VERTICAL



## LLC VTP

WATER INDUSTRY OIL & GAS

### CONFIGURATION

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

### DISCHARGE & PERFORMANCE

- 200 mm to 600 mm
- Outputs up to 3960 m<sup>3</sup>/h
- Heads up to 170 m
- Pumping length up to 60 m

### FEATURES

- Cartridge mechanical seal
- Spacer couplings minimise seal change downtime
- High grade materials – stainless steel impellers & shafts
- Muff couplings aid assembly / disassembly
- Flanged riser pipework
- Modular design
- Extended thrust bearing life
- Stiff shaft construction
- Dry and wet well installations



## VERTICAL TURBINE. AXIAL FLOW/MIXED FLOW & PROPELLER

WATER FIRE INDUSTRY OIL & GAS

### CONFIGURATION

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

### DISCHARGE & PERFORMANCE

- 100 mm to 2200 mm
- Outputs up to 40,000 m<sup>3</sup>/h
- Heads up to 200 m

### 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



## BOREHOLE

INDUSTRY

### CONFIGURATION

Vertical borehole pump, electric motor

### DISCHARGE & PERFORMANCE

- Borewell size 150 mm
- Outputs 44 m<sup>3</sup>/h
- Head 1m to 447 m

### FEATURES

- Higher head per stage resulting in achieving same head with less number of stages
- Better surface finish hence better efficiency and consistent performance
- Lesser weight and lesser height resulting in ease of installation and transportation
- CED coating cast iron components long life & rust free
- Loading of pipes improves
- For longer life Teflon Carbon Thrust bearing



## KPD-S

FIRE INDUSTRY

### CONFIGURATION

Vertical sump pump

### DISCHARGE & PERFORMANCE

- Delivery size from 20 mm to 150 mm
- Outputs 0.5 to 560 m<sup>3</sup>/h
- Head 2.3 m to 150 m

### FEATURES

- Pit depth up to 5.5 m
- Temp range from -10 to 150 °C
- Self priming
- Available in various materials
- Mechanical seal or gland packed

# MULTI-STAGE / MULTI-OUTLET



## MULTISTREAM CD / RKB

WATER FIRE INDUSTRY

### CONFIGURATION

Consists of a number of ring section diffuser casings bolted suction and delivery casing

### DISCHARGE & PERFORMANCE

- CD Delivery 100mm to 125mm
- CD Outputs up to 500 m<sup>3</sup>/h
- CD Heads up to 60 bar (Fire applications)
- RKB Delivery 32 mm to 250 mm
- RKB Outputs up to 850 m<sup>3</sup>/h
- RKB Heads up to 850 m

### FEATURES

- CD for fire applications
- RKB for industrial applications
- Mechanical seal or gland packed
- Suction flange oriented left or right
- Vertical mounting
- Low NPSH
- Available as a canned or vertical turbine type arrangements
- Approved to LPCB, FM and/or UL standards, all of which are compliant to NFPA 20





**CF**

INDUSTRY

**CONFIGURATION**

Multi-stage pump with modular construction

**DISCHARGE & PERFORMANCE**

- Delivery size up to 50 mm
- Outputs up to 20 m<sup>3</sup>/h
- Head up to 315 m
- Temp up to 120 °C

**FEATURES**

- Channel multi-stage, Modular Construction
- Gland Packed / Mechanical Seal
- Electrical Drive / Engine Drive
- Self priming
- Conforming to DIN 24254



**SHM**

WATER INDUSTRY

**CONFIGURATION**

Horizontal non-clog pumps having single stage, single suction with back pull out type design

**DISCHARGE & PERFORMANCE**

- Delivery up to 200 mm
- Outputs up to 800 m<sup>3</sup>/h
- Head up to 90 m

**FEATURES**

- Back pull-out design
- Solids handling up to 105 mm
- Impeller type non clog
- Oil or grease lubricated bearing housing
- Mechanical seal or gland packed
- Temp up to 140 °C



**SHL**

WATER INDUSTRY

**CONFIGURATION**

Horizontal and vertical single stage solids handling pump

**DISCHARGE & PERFORMANCE**

- Delivery up to 900 mm
- Outputs 13,000 m<sup>3</sup>/h
- Heads up to 82 m

**FEATURES**

- Solids handling up to 300 mm
- Mechanical seal or gland packed
- Impeller enclosed or semi open type
- Grease or oil lubrication
- Available in various materials



**SHS**

INDUSTRY

**CONFIGURATION**

Vertical non-clog pumps for wet pit applications, these pumps can be offered with a column length up to 6.5M

**DISCHARGE & PERFORMANCE**

- Delivery up to 300 mm
- Outputs up to 800 m<sup>3</sup>/h
- Head up to 90 m

**FEATURES**

- Solids handling up to 105 mm
- Mechanical seal or gland packed
- Available in various materials
- Impeller non clog type
- The pump unit is suspended by a column pipe which also protects the transmission shaft.



**FREEWAY**

WATER INDUSTRY

**CONFIGURATION**

Vertical direct mounted or open shaft electric motor driven

**DISCHARGE & PERFORMANCE**

- 75 mm to 600 mm
- Outputs up to 4320 m<sup>3</sup>/h
- Heads up to 100 m

**FEATURES**

- Separate pump and motor
- Pump rotating element incorporation bearing and seal arrangement
- Hydraulic loads taken by pump bearing assembly, not motor bearings
- Double cartridge mechanical seal option
- Hydraulic design – low specific speed designs
- Bespoke wear liner
- Large solids passing capacity
- Hardened metallic impeller option
- Positively locked impeller



**FREESTREAM**

WATER INDUSTRY

**CONFIGURATION**

Horizontal, vertical open shaft, vertical direct mounted

**DISCHARGE & PERFORMANCE**

- Delivery up to 200 mm
- Outputs up to 1080 m<sup>3</sup>/h
- Heads up to 90 m

**FEATURES**

- High efficiency spiral vane impeller designed to handle large solids, thick sludges and fibrous materials
- Impeller cut to specific duty
- Modular construction to maximise interchangeability
- Steep H/Q curves mean that changes in pumping head can be tolerated without significant loss of efficiency
- Soft packing or mechanical seals





**SOLIDS DIVERTER**

WATER INDUSTRY

**CONFIGURATION**

Electric motor drive, tank packages

**DISCHARGE & PERFORMANCE**

- 100 mm to 200 mm
- Outputs up to 75 m<sup>3</sup>/h
- Heads up to 40 m

**FEATURES**

- Automatic totally enclosed sewage pumping station
- Low noise levels
- High efficiency pumping units
- Minimum maintenance – unique system avoids solids passing through pumps so eliminates blockage
- 4 sizes of plant available to suit inflow conditions
- Suitable for basement installation
- Clean and environmentally friendly
- Economical to operate



**PACKAGE SETS**

FIRE OIL & GAS

**CONFIGURATION**

Single or multiple pump package sets, horizontal end suction close and long coupled, split case long coupled, multi-stage multi-outlet and vertical turbine all electric motor or engine driven

**DISCHARGE & PERFORMANCE**

- End Suction (Single Stage) – 32 mm to 150 mm. Outputs up to 500 m<sup>3</sup>/h Heads up to 15.2 bar
- Outputs up to 230 l/s Heads up to 60 bar
- Split Case – 80 mm to 300 mm. Heads up to 44.5 bar (Approved fire set)
- Multi-stage multi-outlet – 100mm to 125mm. Outputs up to 315 l/s. Heads up to 60 bar
- Vertical Turbine – 200 mm to 508 mm Outputs up to 9000 m<sup>3</sup>/h
- Multi-stage / multi-outlet – 50mm to 250 mm. Outputs up to 850 m<sup>3</sup>/h. Heads up to 850m. Up to 140 °C

**FEATURES**

- Meeting the requirements of worldwide insurance and approvals bodies
- End Suction – Centreline discharge back pull-out rotating element can be removed without disturbing pipe work
- End Suction – Close coupled, space and cost saving solution
- Axially split case rotating element can be removed without disturbing pipework
- Rigid, box-section baseplates for end suction and split case long coupled packages
- Stainless steel shaft with tight tolerances designed to transmit the maximum load across full pump curve
- Bearing arrangements of ample proportion
- IE2 motors fitted as standard
- Impellers machined and hand finished to meet customer duty



**PREPACKAGED PUMP HOUSES**

FIRE OIL & GAS

**CONFIGURATION**

Design and supply of enclosure and installation inside of main fire pump sets, jockey pump, controllers, starters, all internal pipe work, test line, flow meter, wiring and lighting to provide a fully packaged unit.

**DISCHARGE & PERFORMANCE**

- End Suction (Single Stage) – 32 mm to 150 mm
- Outputs up to 500 m<sup>3</sup>/h. Heads up to 15.2 bar
- End Suction (multi-stage) – 100 mm to 125 mm
- Outputs up to 830 m<sup>3</sup>/h. Heads up to 60 bar
- Split Case – 80 mm to 300 mm
- Outputs up to 9000 m<sup>3</sup>/h. Heads up to 44.5 bar
- Vertical Turbine – 200 mm to 508 mm
- Outputs up to 315 l/s. Heads up to 31.1 bar

**FEATURES**

- Delivered complete, ready for immediate installation on simple foundations
- Ease of site installation and connection
- Single responsibility for complete pump house
- Fully tested and pre-commissioned using advanced computerised testing facilities
- Individually engineered to customer requirements
- Containerised CAD design
- Wall insulation reduces environmental noise



**OH2 – KESS**

OIL & GAS INDUSTRY

**CONFIGURATION**

Single stage, single suction, overhung, radially split, centreline mounted

**DISCHARGE & PERFORMANCE**

- Outputs up to 2000 m<sup>3</sup>/h (8800 US.gpm)
- Head up to 400 m (1300 ft)

**FEATURES**

- Full package compliance with API 610 & API 682 standards
- Back pull-out casing to aid maintenance
- Parts interchangeability between models
- Low NPSH performance (inducer available for extreme conditions)
- Reduced maintenance due to balanced axial thrust from impeller wear-ring and balance holes
- Bearing lubrication by oil flinger as standard. Oil mist retrofit option available



**BB1 – HYDROSTREAM**

OIL & GAS INDUSTRY

**CONFIGURATION**

Single stage, between bearing, axially split, foot mounted

**DISCHARGE & PERFORMANCE**

- Outputs up to 9000 m<sup>3</sup>/h (40,000 US.gpm)
- Head up to 500 m (1640 ft)

**FEATURES**

- Generally in compliance with API 610 standards
- Single stage double entry enclosed impeller
- High efficiency product
- Parts interchangeability between models
- Low NPSH performance
- Reduced maintenance due to balanced axial thrust from double entry impeller
- Bearing lubrication by oil flinger
- Serviceable without removing suction and discharge pipework
- Ease of access to rotating assembly by axially split casing design
- Removal of bearings and seals without splitting casing



**BB2 – KBSD**

OIL & GAS INDUSTRY

**CONFIGURATION**

Single stage, between bearing, radially split, centreline mounted

**DISCHARGE & PERFORMANCE**

- Outputs up to 6000 m<sup>3</sup>/h (26,420 US.gpm)
- Head up to 550 m (1800 ft)

**FEATURES**

- Full package compliance with API 610 & API 682 standards
- Single stage double entry enclosed impeller
- High efficiency
- Parts interchangeability between models
- Low NPSH performance
- Reduced maintenance due to balanced axial thrust from double suction impeller
- Bearing lubrication by oil flinger. Oil mist retrofit option available
- Serviceable without removing suction and discharge pipework
- East fitment and removal of coupling with tapered pump shaft end





**BB2 – KBTS/D**

OIL & GAS INDUSTRY

**CONFIGURATION**

Two stage, between bearing, radially split, centreline mounted

**DISCHARGE & PERFORMANCE**

- Outputs up to 1500 m<sup>3</sup>/h (6600 US.gpm)
- Head up to 520 m (1700 ft)

**FEATURES**

- Full package compliance with API 610 & API 682 standards
- KBTS: two stage, single entry, enclosed impeller
- KBTD: two stage, first stage double entry, enclosed impeller
- High efficiency
- Parts interchangeability between models
- Low NPSH performance
- Reduced maintenance due to balanced axial thrust from opposing impellers
- Serviceable without removing suction and discharge pipework
- Easy fitment and removal of coupling with tapered pump shaft end
- Bearing lubrication by oil flinger. Oil mist retrofit option available



**BB3 – KB3S/D**

OIL & GAS INDUSTRY

**CONFIGURATION**

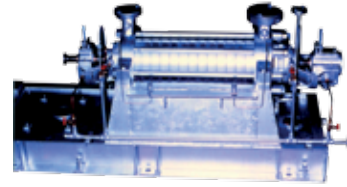
Multi-stage, between bearing, axially split, centreline mounted, single casing

**DISCHARGE & PERFORMANCE**

- Outputs up to 1500 m<sup>3</sup>/h (6600 US.gpm)
- Head up to 1650 m (5500 ft)

**FEATURES**

- Full package compliance with API 610 & API 682 standards
- KB3S: First stage single suction, multi-stage, enclosed impeller
- KB3D: First stage double suction, multi-stage, enclosed impeller
- Parts interchangeability between models
- Low NPSH performance
- Reduced maintenance due to balanced axial thrust from opposing impellers and balance piston arrangement
- Bearing lubrication by oil flinger. Oil mist retrofit option available
- Serviceable without removing suction and discharge pipework
- Ease of access to rotating assembly by axially split casing design
- Removal of bearings and seals without splitting casing
- Easy fitment and removal of coupling with tapered pump shaft end



**BB4 - KBSH/KBDH**

OIL & GAS INDUSTRY

**CONFIGURATION**

Multi-stage, between bearing, radially split, centreline mounted, single casing

**DISCHARGE & PERFORMANCE**

- Outputs up to 650 m<sup>3</sup>/h (2900 US.gpm)
- Head up to 2500m (8200 ft)

**FEATURES**

- Full package compliance with API 610 & API 682 standards
- KBSH: multi-stage, single entry, enclosed impellers
- KBDH: multi-stage, single entry, enclosed impeller (first stage double entry)
- Parts interchangeability between models
- Low NPSH performance
- Reduced maintenance due to balanced axial thrust from opposing impellers and balance piston arrangement
- Bearing lubrication by oil flinger. Oil mist retrofit option available
- Serviceable without removing suction and discharge pipework



**BB5 – KBDS/KBDD**

OIL & GAS INDUSTRY

**CONFIGURATION**

Multi-stage, between bearing, radially split, centreline mounted, double casing

**DISCHARGE & PERFORMANCE**

- Outputs up to 650 m<sup>3</sup>/h (2900 US.gpm)
- Head up to 2500m (8200 ft)

**FEATURES**

- Full package compliance with API 610 & API 682 standards
- KBDS: multi-stage, single entry, enclosed impellers
- KBDD: multi-stage, enclosed impeller (first stage double entry)
- Parts interchangeability between models
- Low NPSH performance
- Reduced maintenance due to balanced axial thrust from opposing impellers and balance piston arrangement
- Bearing lubrication by oil flinger. Oil mist retrofit option available
- Serviceable without removing suction and discharge pipework
- Easy fitment and removal of coupling with tapered pump shaft end



**VS1 & VS6 – KVSL/KVSH**

OIL & GAS INDUSTRY

**CONFIGURATION**

Single or multi-stage, vertically suspended, diffuser type single or canned casing

**DISCHARGE & PERFORMANCE**

- Outputs up to 1750 m<sup>3</sup>/h (7700 US.gpm)
- Head up to 1600 (9850 ft)

**FEATURES**

- Full package compliance with API 610 & API 682 standards
- Single or multi-shaft and column assembly for longer lengths
- Split and keyed inter-shaft coupling used
- Thrust bearing and seal serviceable without removing suction and discharge pipework
- Parts interchangeability between models
- Low NPSH performance (inducer available for extreme conditions)
- Reduced maintenance due to balanced axial thrust from impeller wear-ring and balance holes
- Bearings with non pressure fed lubrication
- Water jacketed thrust bearing
- Serviceable without removing suction and discharge pipework



**Q-SERIES**

AUTOPRIME

**CONFIGURATION**

Acoustic canopy on road tow or site trailer or skid type chassis

**DISCHARGE & PERFORMANCE**

- Discharge pressure up to 80 m
- Discharge flow m<sup>3</sup>/h max 560

**FEATURES**

- Minimal moving parts in priming system
- Durable 65 cfm vacuum pump
- Patented 'SmartPrime' system
- Single point lifter
- Lockable canopy totally enclosing unit
- Lockable control panel
- Impact resistant doors and louvre panel
- Excellent sound attenuation
- Latest emission compliant engines
- Clear air coalescence system
- Heavy-duty shaft and bearings
- Double mechanical seal
- Large double skin fuel tank
- High efficiency pump hydraulics
- Double spiral-vane impeller
- Compact manoeuvrable design
- Sewage, solids handling open impeller 'S' design
- Diesel options – Isuzu, Caterpillar, Perkins





## MEDIUM HEAD OPEN SET (DIESEL)

AUTOPRIME

### CONFIGURATION

Open configuration on four wheeled site type trailer

### DISCHARGE & PERFORMANCE

- Discharge pressure up to 48 m
- Discharge flow m<sup>3</sup>/h max 380

### FEATURES

- Low emission coalescer (PM/PE)
- Fuel savings with SmartPrime electric priming (PE)
- Leak free double mechanical seals
- Dry running capability
- Customer choice of the latest emission compliant engines
- High interchangeability of parts
- Heavy duty shaft and bearings
- High efficiency pump hydraulics
- Heavy duty and durable vacuum pump
- Reduced maintenance
- Integrated central lifter
- Excellent flow and head performance
- Excellent solids handling capability
- Quality design and parts offering durability
- Proven technology



## HIGH FLOW

AUTOPRIME

### CONFIGURATION

Open skid or trailer configuration or acoustic canopy on road tow or site trailer or skid type chassis

### DISCHARGE & PERFORMANCE

- Discharge pressure up to 130 m
- Discharge flow m<sup>3</sup>/h max 2550

### FEATURES

- Low emission coalescer (PM/PE)
- Fuel savings with SmartPrime electric priming (PE)
- Minimal moving parts in the priming system
- Leak free mechanical sealing
- Customer choice of the latest emission compliant engines
- High interchangeability of parts
- Heavy duty shaft and bearings
- High efficiency pump hydraulics
- Heavy duty and durable vacuum pump
- Reduced maintenance
- Excellent flow and head performance
- Excellent solids handling capability
- Quality design and parts offering durability
- Proven technology



## MEDIUM HEAD OPEN SET (ELECTRIC)

AUTOPRIME

### CONFIGURATION

Open skid or trailer electric motor driven

### DISCHARGE & PERFORMANCE

- Discharge pressure up to 160 m
- Discharge flow m<sup>3</sup>/h max 2550

### FEATURES

- Low emission coalescer (PM/PE)
- Energy savings with SmartPrime electric priming (PE)
- Minimal moving parts in the priming system
- Leak free mechanical sealing
- High interchangeability of parts
- Heavy duty shaft and bearings
- High efficiency pump hydraulics
- Heavy duty and durable vacuum pump
- Reduced maintenance
- Excellent flow and head performance
- Excellent solids handling capability
- Quality design and parts offering durability
- Proven technology
- Optional variable speed drive
- Power inlet socket for diesel generator drive or mobile site application
- Hazardous area and ATEX approved motors
- Fixed or variable speed.
- Variable speed via frequency inverter.



## HYDRAULIC SUBMERSIBLES

AUTOPRIME

### CONFIGURATION

Open skid or trailer configuration or acoustic canopy on road tow or site trailer or skid type chassis

### DISCHARGE & PERFORMANCE

- Discharge pressure up to 130 m
- Discharge flow m<sup>3</sup>/h max 2300

### FEATURES

- Comprehensive choice of over 30 pump ends and over 25 power packs to ensure efficient matching
- Efficient, variable speed drive provides excellent fuel-savings
- Proved and reliable designs
- Sound attenuated power packs available
- Use of biodegradable oil as standard
- No electrical hazard as encountered with electric submersibles
- Pump ends can be bolted inline to become booster pumps
- Compact dimensions to allow access through manholes
- Minimal maintenance and low maintenance costs
- Easy set-up can be operational in a very short time
- Can be used in hazardous environments



## AT - INLINE RANGE

TRANSFORMER OIL

### CONFIGURATION

Inline, glandless oil submerged motor on common shaft with impeller

### DISCHARGE & PERFORMANCE

- 50 mm to 250 mm
- Outputs up to 576 m<sup>3</sup>/h
- Heads up to 30 m

### FEATURES

- Aluminium Casings - Robust lightweight design
- Proven long reliability in industry
- Hand built in England with British castings and European Motors
- Entire range 3D CAD modelled
- Every pump is performance and pressure tested on our warm oil test rig (documented results)
- Duty performance to your specific requirements
- Flexible to your needs - flange drillings, paint and material specifications to your needs
- Fully weatherproof
- Oil cooling circulation in:
  - Power distribution transformers
  - Locomotive transformers and converters



## AT - ELBOW RANGE

TRANSFORMER OIL

### CONFIGURATION

Elbow (end suction) glandless oil submerged motor on common shaft with impeller

### DISCHARGE & PERFORMANCE

- 100 mm to 250 mm
- Outputs up to 792 m<sup>3</sup>/h
- Heads up to 25 m

### FEATURES

- High grade cast iron casings and bronze impellers
- Proven long lifetime performance in industry
- Hand built in England with British castings and European Motors
- Every pump is performance and pressure tested on our warm oil test rig (documented results)
- Duty performance to your specific requirements
- Flange and paint to your specifications
- Fully weatherproof
- Oil cooling circulation in:
  - Power distribution transformers
  - Locomotive transformers and converters



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