



PUMPSET SELECTION HANDBOOK



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ABOUT

PIONEER PUMP

Founded in 1998, Pioneer Pump has grown to rapidly become one of the world's leaders in the design and supply of high performance, portable and permanently installed pumps.

Operating globally from four facilities in America, Australia, Europe and South Africa, Pioneer pumps are chosen by its customers for their **high efficiency**, **innovative designs** and **robust construction**.

Using advanced design techniques and focusing primarily on customers' requirement, all Pioneer pumps are built to reduce your costs of pumping through **minimising downtime** and **energy consumption**.

With the largest range of solid handling engine driven pumpsets in the world, as well as clear liquid, vortex and hydraulic submersible ranges, the company is the UK's leading supplier of high performance and **low cost of ownership pumps**.

Call us today and discuss your needs. Whether you want to buy, rent, distribute or simply maintain an existing Pioneer pump, we are sure that we can help you.



OUR MARKETS

Operating in a **wide range of markets worldwide**, Pioneer is the preferred supplier solution provider for temporary and fixed installed pumping applications, whether planned or in an emergency.



MINING & QUARRY

- Quarry dewatering
- Washplants
- Silt removal
- Sludge pumping



MUNICIPAL & WASTEWATER

- Sewer bypass
- Flood control
- Emergency water management
- Dewatering



CONSTRUCTION & RENTAL

- Stormwater bypass
- Site drainage
- Pipeline testing
- Jetting



OIL & GAS

- Tank cleaning
- Drilling muds
- Pipeline Filling and testing



AGRICULTURE

- Slurry pumping
- Irrigation



INDUSTRIAL & ENERGY

- Food processing
- Nuclear
- Fire fighting pumping



PUMP HIRE



With an extensive depot network across the UK, we are recognised as the leading Pump Hire provider of both specialist and general purpose pumpsets to exactly suit your needs. We pride ourselves in **providing efficient solutions** to the most demanding environments and toughest applications.

Operating widely throughout Europe as well as internationally, Pioneer partners with leading pump hire companies all over the world, enabling our customers to get a Pioneer pump anytime, anywhere.

Renting from Pioneer will allow you to focus on your core business and gain access to our **skilled experts 24/7**. Our fully trained staff understand all aspects of product selection and will ensure to select the highest performing pump for your application.

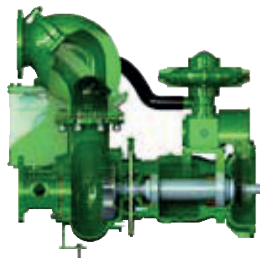
Our fleet of pumps are serviced and maintained to a very high standard. All pumps are fully tested and inspected before delivery to site and are serviced according to our strict internal maintenance procedures.

From minor repair to full overhaul, Pioneer Pump will conduct repairs in house, at one of our UK facilities or even on site. We understand that a **quick response** is crucial and that pumps need regular service to maintain the highest level of performance.



PUMP BENEFITS & FEATURES

Through modular design and advanced hydraulics, Pioneer Pump offers the largest range of dry prime portable pumps in the world as well as end suction, wet prime and hydraulic submersible pumps.



The Pioneer Prime range of pumps offer **fast priming** and **unrivalled suction lift** capability ensuring smooth and fast operation at all times.

KEY FEATURES

- Modular design with integrated priming equipment incorporating 50cfm vacuum pump, stainless steel priming equipment and heavy duty bearing housings ensuring long term and trouble free operation.
- Superior hydraulic performance from in-house designed wet ends, which ensure high flow, high efficiency and low NPSHr performance, leading to reduced downtime and costs of operation.
- Available as engine driven skids, trailers, silent packs, electric sets, and ATEX/Rigsafe packages.

WHY CHOOSE PIONEER PUMP?

HIGH EFFICIENCY PUMP ENDS AND LARGE IMPELLER EYE



BEST FLOW AT LOWEST FUEL BURN

PREMIUM MATERIALS OF CONSTRUCTION



LONGER RELIABLE PERFORMANCE AND LESS MAINTENANCE

ROBUST AND SOPHISTICATED CONTROL SYSTEM



TROUBLE-FREE REMOTE OPERATIONS, MONITORING AND MANAGEMENT

OPTIMUM ENGINE SPEED COMBINED WITH BEST EFFICIENCY POINT PUMPING



LOWEST OPERATING COSTS AND SMALLEST FOOTPRINT





PIONEER PRIME

SOLIDS HANDLING

Pioneer designs and builds the most advanced range of solids handling dry-prime pumps with **maximum flows of 10,000m³/h** and **pressures in excess of 22 bar** for use in applications with **solids up to 150mm in size**.

PUMP FEATURES

- Solid Handling Fully Shrouded, Stainless Steel Impeller
- Indefinite Run-Dry Capability
- Efficient Design for Reduced Operating Costs
- Auto Stop/Start
- Sound Attenuated, Fully Bunded Packages
- Spark Arresting Exhaust Silencers
- Chalwyn Air Intake Shutdown Valve
- Environmentally Safe Priming System with Patented PosiValve™ — No Liquid Carryover

Flows up to
10,000
m³/h

Heads up to
220
metres

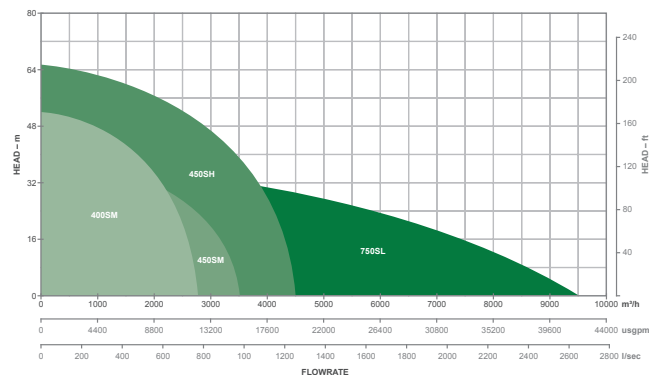
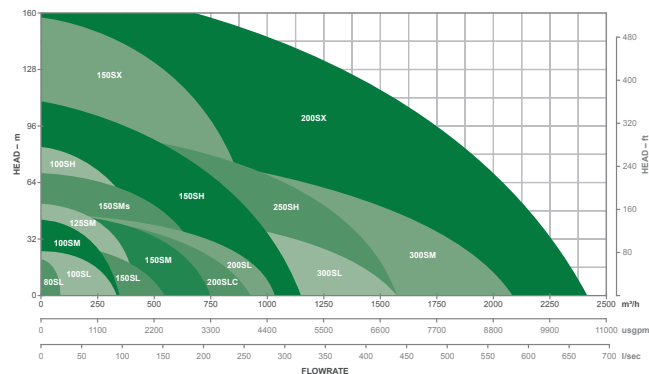
Solids up to
150
mm

SOLIDS HANDLING PUMP RANGE

Pioneer standard solids handling pumpsets operate **flows up to 10,000m³/hr** and **pressures up to 220m**, whilst still being able to **pass solids of 76mm**. The larger 300mm and 450mm pumpsets pass solids between 90mm and 150mm in size whilst the very largest 760mm pumpset passes solids over 150mm in size.

All Pioneer's solids handling pumps utilise an enclosed solids handling impeller offering outstanding NPSHr and suction lift characteristics whilst delivering high efficiency, therefore low fuel burn performance. Built as engine driven pumpsets as standard, our pumps can be configured as canopy trailers, electric sets and open skids, to best suit your requirements.

Pump No.	Model No.	Pump No.	Model No.
100SL	PP44S8	200SL/ 200SLC	PP88S12T
100SM	PP44S10T	200SX	PP128S22
100SH	PP64S17T	250SH	PP108S17T
125SM	PP64S12	300SL	PP1212S17GB
150SL	PP66S10T	300SM	PP1212S17T
150SM	PP66S12T	400SM	PP1414S17
150SMS	PP66S14	450SM	PP1818S22T
150SH	PP86S17	450SH	PP1818S22GB
150SX	PP86S20	750SL	PP3030S34



100SL

Pump Model PP44S8



HIRE
or
BUY

SPECIFICATIONS

Pump Size:	100 × 100 mm
Max Flow:	280 m ³ /h
Max Head:	22 metres
Solids Size:	76 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	11 kW
Fuel Tank Size:	125 litres
Fuel Consumption at BEP:	2.75 l/h
Max Running Hours at BEP:	45 h
Sound Rating:	66 dBA at 7 m
Length × Width × Height:	2020 × 900 × 1450 mm
Dry Weight:	1040 kg
Wet Weight:	1150 kg

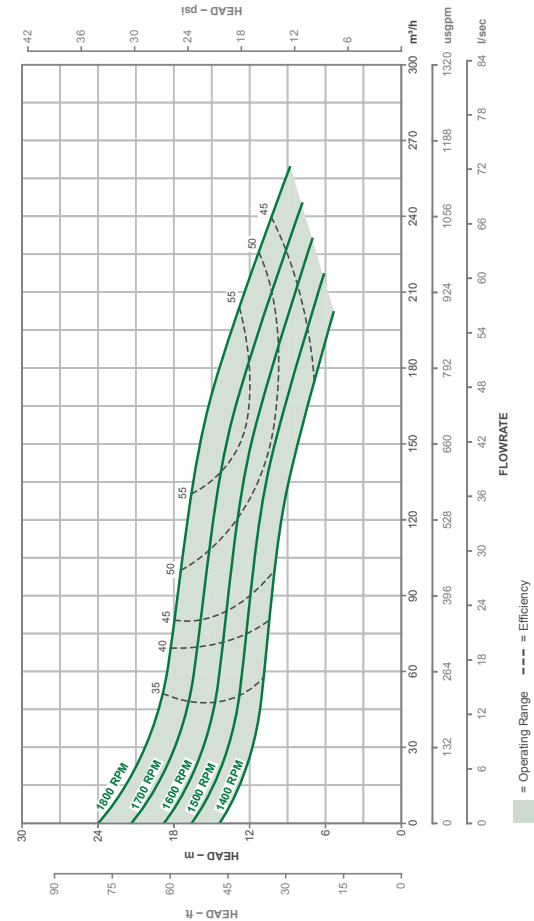
ENGINE SPECIFICATIONS

Engine Type:	Perkins 403D-15
Displacement:	1.5 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



100SL

100SM

Pump Model PP44S10T



HIR
or
BUY

SPECIFICATIONS

Pump Size:	100 × 100 mm
Max Flow:	350 m ³ /h
Max Head:	40 metres
Solids Size:	76 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	22 kW
Fuel Tank Size:	260 litres
Fuel Consumption at BEP:	5.6 l/h
Max Running Hours at BEP:	46 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2300 × 1100 × 1610 mm
Dry Weight:	1492 kg
Wet Weight:	1700 kg

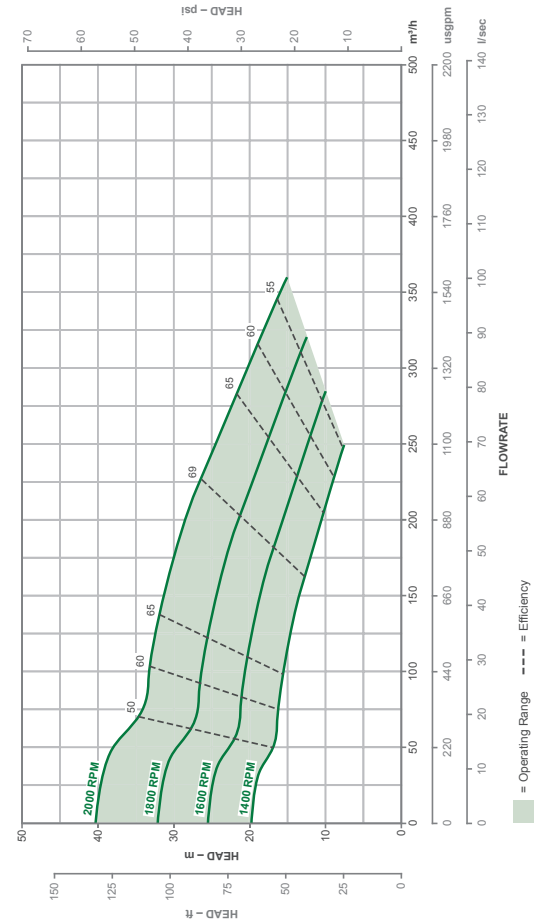
ENGINE SPECIFICATIONS

Engine Type:	Perkins 404D-22T
Displacement:	2.2 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



100SM

100SH

Pump Model PP64S17T



SPECIFICATIONS

Pump Size:	150 × 100 mm
Max Flow:	520 m ³ /h
Max Head:	82 metres
Solids Size:	76 mm
Operating Speed Range:	1400–1700 rpm
Rated Power at BEP:	75 kW
Fuel Tank Size:	695 litres
Fuel Consumption at BEP:	19 l/h
Max Running Hours at BEP:	37 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2950 × 1450 × 2110 mm
Dry Weight:	2940 kg
Wet Weight:	3530 kg

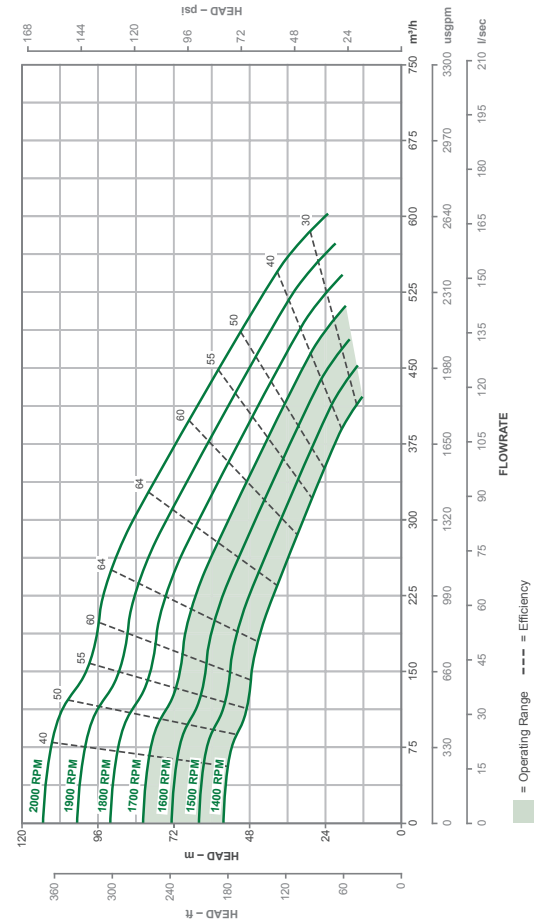
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TCAE 120kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



100SH

125SM

Pump Model PP64S12



SPECIFICATIONS

Pump Size:	150 × 100 mm
Max Flow:	440 m ³ /h
Max Head:	52 metres
Solids Size:	76 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	45 kW
Fuel Tank Size:	430 litres
Fuel Consumption at BEP:	11 l/h
Max Running Hours at BEP:	39 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2600 × 1180 × 1950 mm
Dry Weight:	2156 kg
Wet Weight:	2500 kg

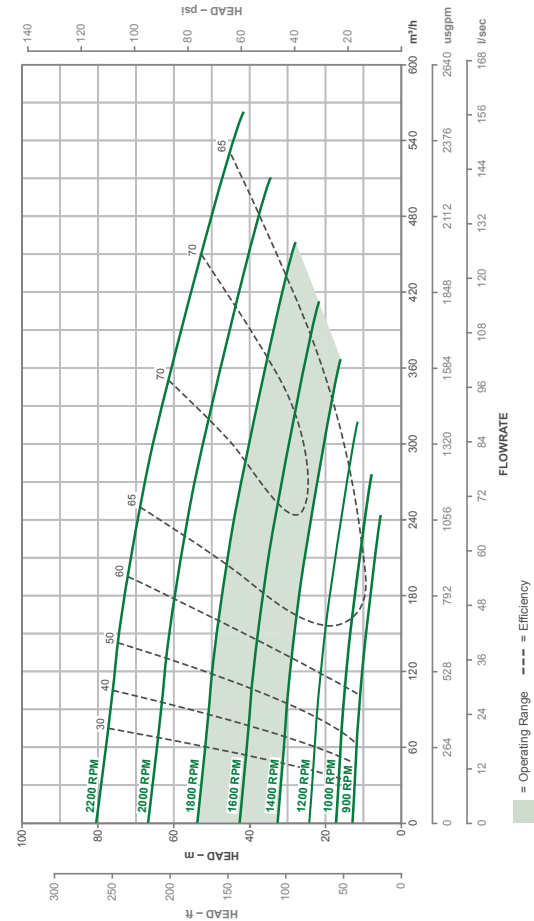
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TC-63 kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



125SM

150SL

Pump Model PP66S10T



SPECIFICATIONS

Pump Size:	150 × 150 mm
Max Flow:	525 m ³ /h
Max Head:	30 metres
Solids Size:	76 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	22 kW
Fuel Tank Size:	260 litres
Fuel Consumption at BEP:	5.6 l/h
Max Running Hours at BEP:	46 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2300 × 1100 × 1610 mm
Dry Weight:	1492 kg
Wet Weight:	1700 kg

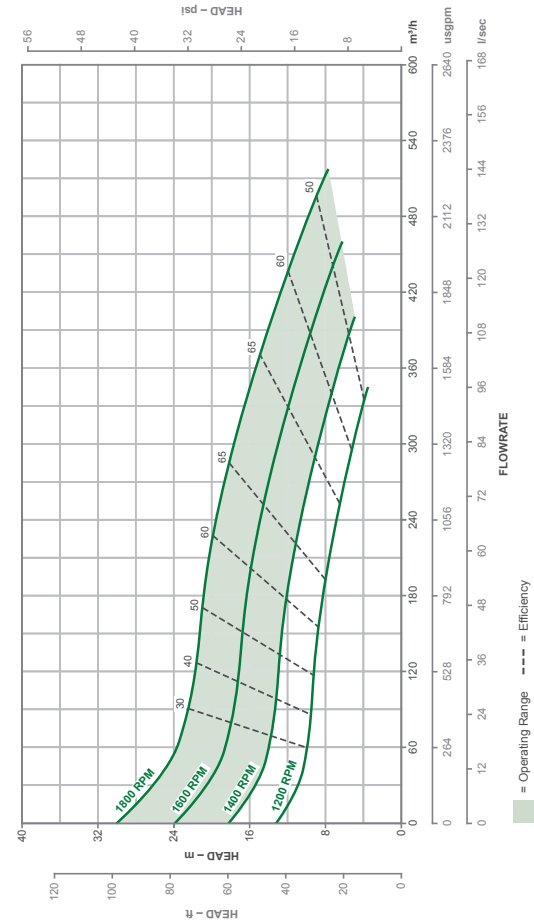
ENGINE SPECIFICATIONS

Engine Type:	Perkins 404D-22T
Displacement:	2.2 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150SM

Pump Model PP66S12T



SPECIFICATIONS

Pump Size:	150 × 150 mm
Max Flow:	750 m ³ /h
Max Head:	45 metres
Solids Size:	76 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	54 kW
Fuel Tank Size:	430 litres
Fuel Consumption at BEP:	13.5 l/h
Max Running Hours at BEP:	32 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2600 × 1180 × 1950 mm
Dry Weight:	2156 kg
Wet Weight:	2500 kg

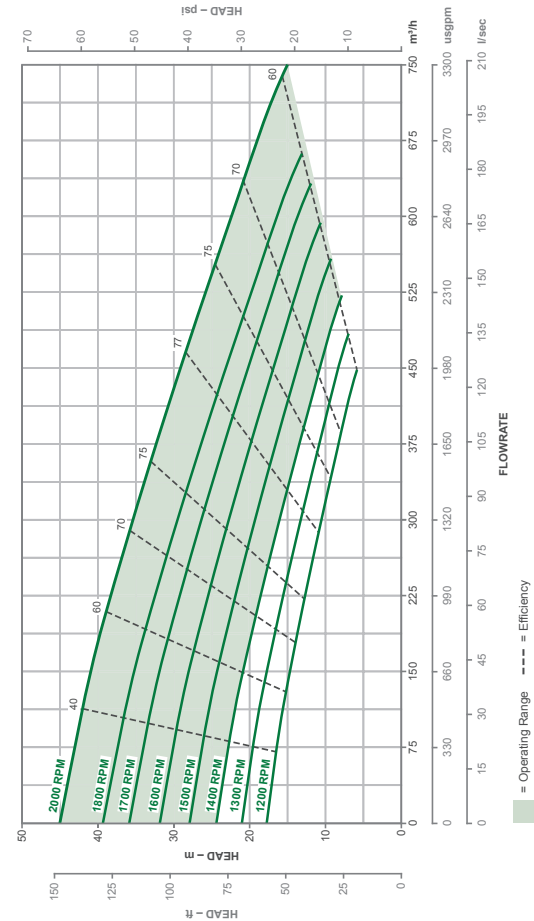
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TC-63 kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150SM

150SMs

Pump Model PP66S14



SPECIFICATIONS

Pump Size:	150 × 150 mm
Max Flow:	720 m ³ /h
Max Head:	68 metres
Solids Size:	76 mm
Operating Speed Range:	1500–1800 rpm
Rated Power at BEP:	75 kW
Fuel Tank Size:	695 litres
Fuel Consumption at BEP:	19 l/h
Max Running Hours at BEP:	37 h
Sound Rating:	65 dBA at 7 m
Length × Width × Height:	2950 × 1450 × 2110 mm
Dry Weight:	3240 kg
Wet Weight:	3800 kg

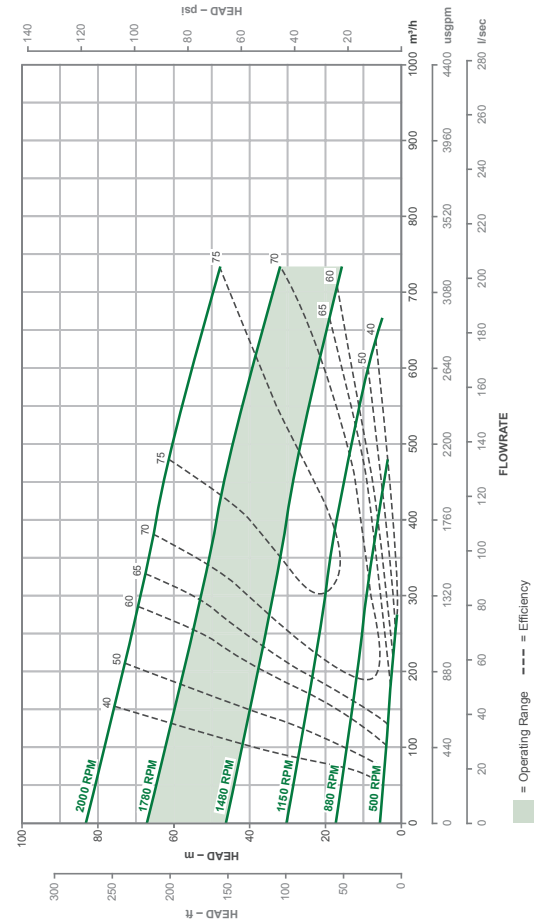
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TCAE 120kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150SH

Pump Model PP86S17



SPECIFICATIONS

Pump Size:	200 × 150 mm
Max Flow:	1150 m ³ /h
Max Head:	110 metres
Solids Size:	76 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	150 kW
Fuel Tank Size:	767 litres
Fuel Consumption at BEP:	37 l/h
Max Running Hours at BEP:	21 h
Sound Rating:	65 dBA at 7 m
Length × Width × Height:	4420 × 1960 × 2570 mm
Dry Weight:	6286 kg
Wet Weight:	6900 kg

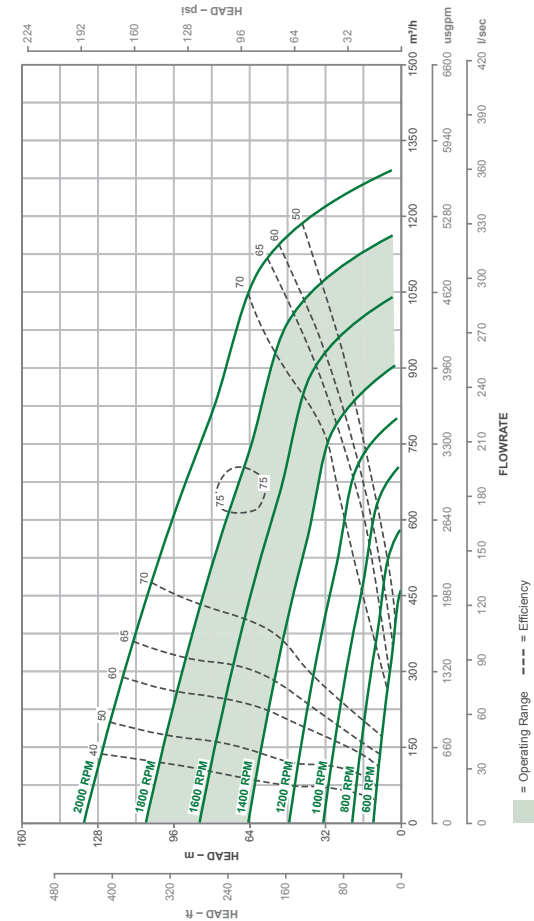
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 952VE
Displacement:	9 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150SH

150SX

Pump Model PP86S20



SPECIFICATIONS

Pump Size:	200 × 150 mm
Max Flow:	950 m ³ /h
Max Head:	158 metres
Solids Size:	76 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	298 kW
Fuel Tank Size:	767 litres
Fuel Consumption at BEP:	75 l/h
Max Running Hours at BEP:	10 h
Sound Rating:	70 dBA at 7 m
Length × Width × Height:	4420 × 1960 × 2570 mm
Dry Weight:	6786 kg
Wet Weight:	7400 kg

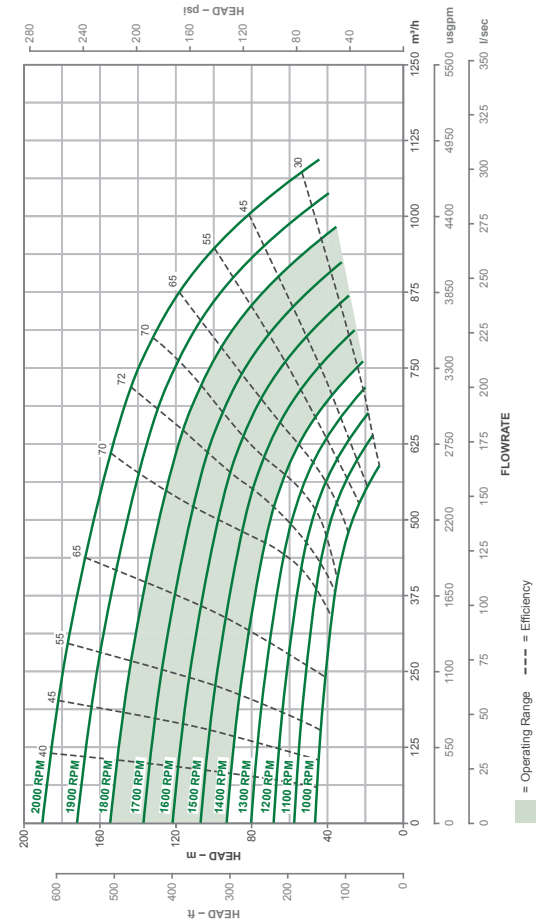
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 1643VE
Displacement:	16 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150SX

200SL

Pump Model PP88S12T



SPECIFICATIONS

Pump Size:	200 × 200 mm
Max Flow:	1025 m ³ /h
Max Head:	45 metres
Solids Size:	76 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	56 kW
Fuel Tank Size:	430 litres
Fuel Consumption at BEP:	14 l/h
Max Running Hours at BEP:	31 h
Sound Rating:	65 dBA at 7 m
Length × Width × Height:	2950 × 1180 × 2000 mm
Dry Weight:	2300 kg
Wet Weight:	2715 kg

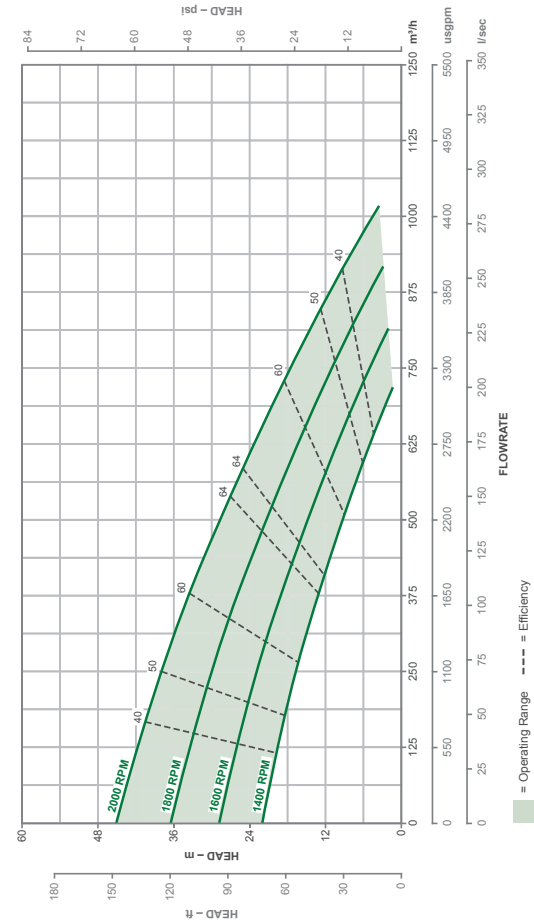
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TCAE 120kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



200SL

200SLC

Pump Model PP88S12T



SPECIFICATIONS

Pump Size:	200 × 200 mm
Max Flow:	890 m ³ /h
Max Head:	41 metres
Solids Size:	76 mm
Operating Speed Range:	1400–1900 rpm
Rated Power at BEP:	48 kW
Fuel Tank Size:	430 litres
Fuel Consumption at BEP:	12 l/h
Max Running Hours at BEP:	35 h
Sound Rating:	65 dBA at 7 m
Length × Width × Height:	2600 × 1180 × 2020 mm
Dry Weight:	2300 kg
Wet Weight:	2640 kg

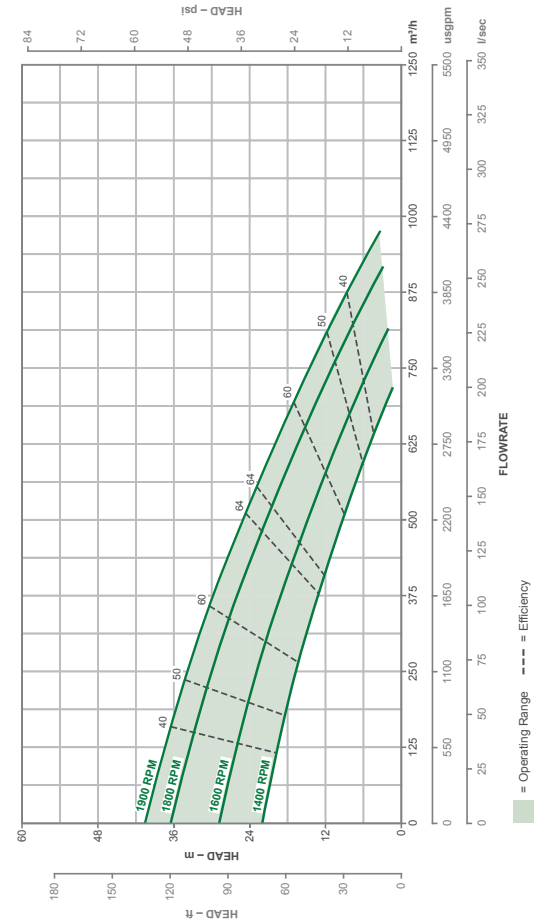
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TCAE 63kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



200SLC

200SX

Pump Model PP128S22



SPECIFICATIONS

Pump Size:	300 × 200 mm
Max Flow:	2400 m ³ /h
Max Head:	180 metres
Solids Size:	76 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	670 kW
Fuel Tank Size:	1000 litres
Fuel Consumption at BEP:	168 l/h
Max Running Hours at BEP:	6 h
Sound Rating:	70 dBA at 7 m
Length × Width × Height:	6060 × 2450 × 2590 mm
Dry Weight:	17200 kg
Wet Weight:	18000 kg

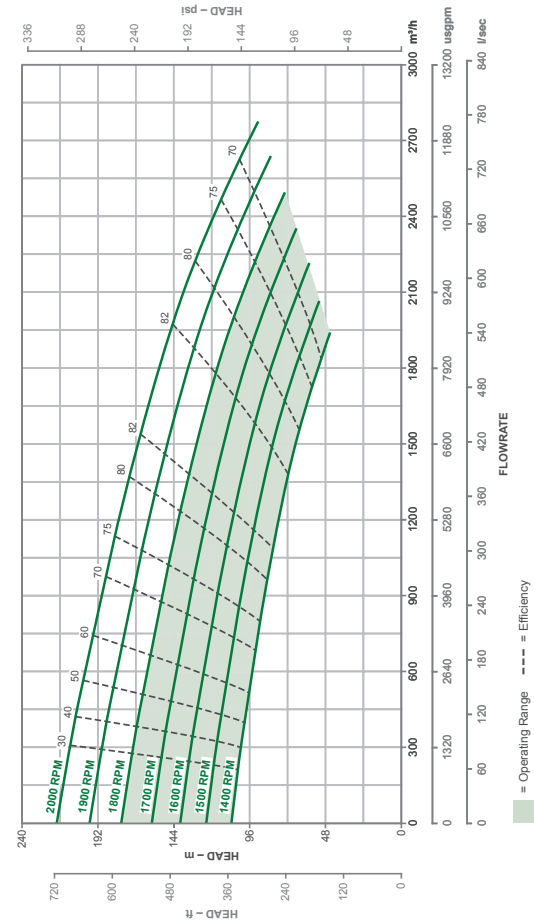
ENGINE SPECIFICATIONS

Engine Type:	CAT C32 ACERT
Displacement:	32 litres

ADDITIONAL INFORMATION

- This pumpset requires an external fuel tank of a minimum 4000 litres in order to operate over a 24 hour period.
- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



250SH

Pump Model PP108S17T



SPECIFICATIONS

Pump Size:	250 × 200 mm
Max Flow:	1600 m ³ /h
Max Head:	95 metres
Solids Size:	88 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	186 kW
Fuel Tank Size:	767 litres
Fuel Consumption at BEP:	47 l/h
Max Running Hours at BEP:	16 h
Sound Rating:	65 dBA at 7 m
Length × Width × Height:	4420 × 1960 × 2570 mm
Dry Weight:	6286 kg
Wet Weight:	6900 kg

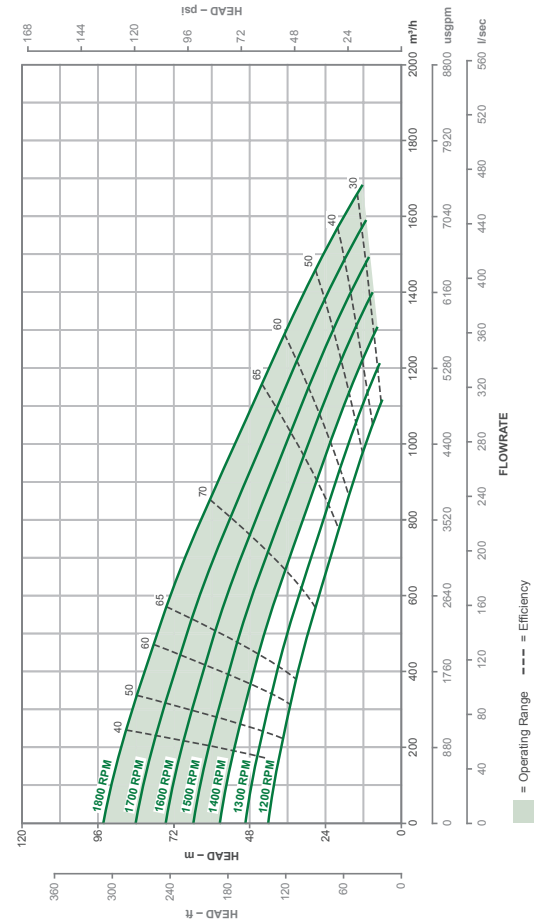
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 952VE
Displacement:	9 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



250SH

300SL

Pump Model PP1212S17GB



SPECIFICATIONS

Pump Size:	300 × 300 mm
Max Flow:	1600 m ³ /h
Max Head:	45 metres
Solids Size:	95 mm
Operating Speed Range:	800–1200 rpm
Rated Power at BEP:	93 kW
Fuel Tank Size:	900 litres
Fuel Consumption at BEP:	23 l/h
Max Running Hours at BEP:	39 h
Sound Rating:	72 dBA at 7 m
Length × Width × Height:	4200 × 1960 × 2520 mm
Dry Weight:	6570 kg
Wet Weight:	7290 kg

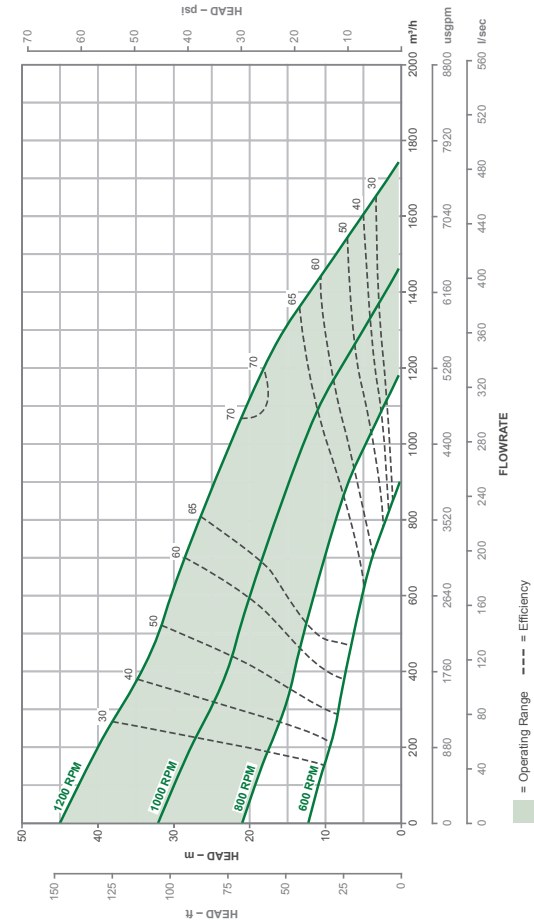
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TCAE 120kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



300SL

300SM

Pump Model PP1212S17T



SPECIFICATIONS

Pump Size:	300 × 300 mm
Max Flow:	2100 m ³ /h
Max Head:	75 metres
Solids Size:	95 mm
Operating Speed Range:	1500–1800 rpm
Rated Power at BEP:	224 kW
Fuel Tank Size:	880 litres
Fuel Consumption at BEP:	56 l/h
Max Running Hours at BEP:	16 h
Sound Rating:	72 dBA at 7 m
Length × Width × Height:	4400 × 2250 × 2620 mm
Dry Weight:	7995 kg
Wet Weight:	8700 kg

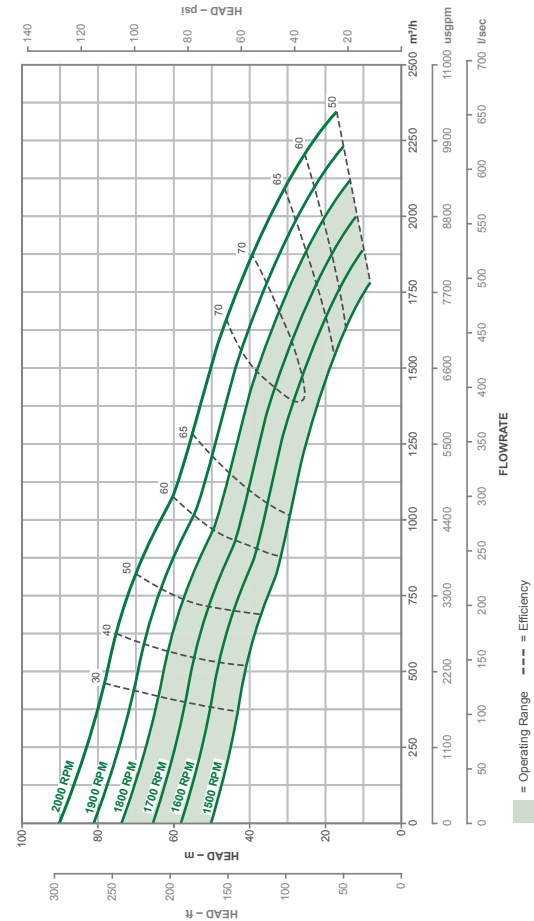
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 952VE
Displacement:	9 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



300SM

400SM

Pump Model PP1414S17



SPECIFICATIONS

Pump Size:	400 × 400 mm
Max Flow:	2800 m ³ /h
Max Head:	52 metres
Solids Size:	102 mm
Operating Speed Range:	900–1300 rpm
Rated Power at BEP:	186 kW
Fuel Tank Size:	1135 litres
Fuel Consumption at BEP:	47 l/h
Max Running Hours at BEP:	24 h
Sound Rating:	70 dBA at 7 m
Length × Width × Height:	5600 × 2300 × 2620 mm
Dry Weight:	14100 kg
Wet Weight:	15000 kg

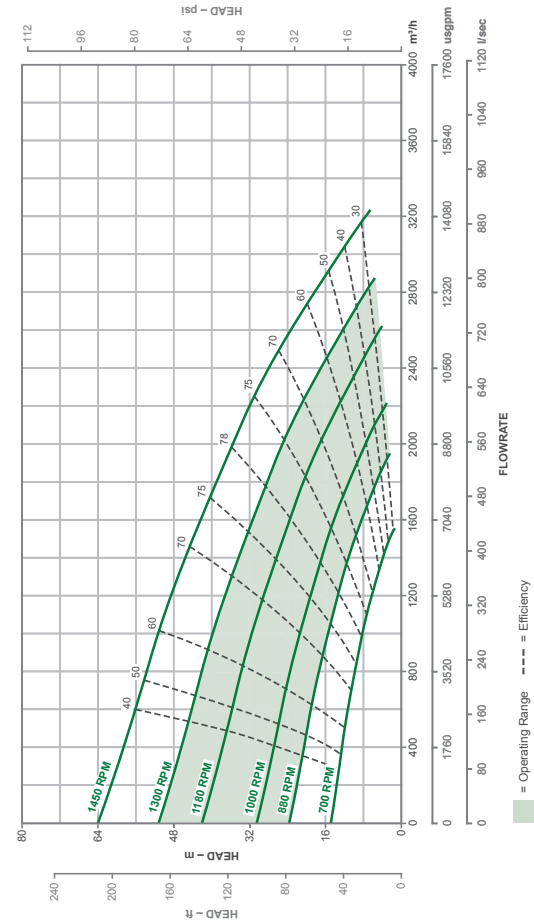
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 952VE
Displacement:	9 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



400SM

450SM

Pump Model PP1818S22T



SPECIFICATIONS

Pump Size:	450 × 450 mm
Max Flow:	3500 m ³ /h
Max Head:	46 metres
Solids Size:	115 mm
Operating Speed Range:	800–1200 rpm
Rated Power at BEP:	149 kW
Fuel Tank Size:	1135 litres
Fuel Consumption at BEP:	37.2 l/h
Max Running Hours at BEP:	31 h
Sound Rating:	68 dBA at 7 m
Length × Width × Height:	5600 × 2300 × 2620 mm
Dry Weight:	14100 kg
Wet Weight:	15000 kg

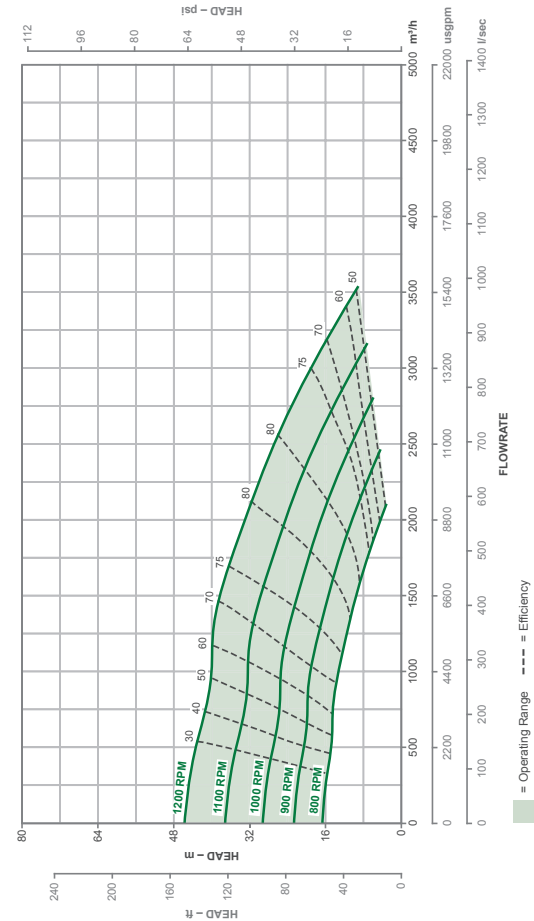
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 952VE
Displacement:	9 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



450SM

450SH

Pump Model PP1818S22GB



SPECIFICATIONS

Pump Size:	450 × 450 mm
Max Flow:	4250 m ³ /h
Max Head:	65 metres
Solids Size:	115 mm
Operating Speed Range:	900–1200 rpm
Rated Power at BEP:	372 kW
Fuel Tank Size:	1135 litres
Fuel Consumption at BEP:	93 l/h
Max Running Hours at BEP:	12 h
Sound Rating:	71 dBA at 7 m
Length × Width × Height:	5600 × 2300 × 2620 mm
Dry Weight:	15600 kg
Wet Weight:	16500 kg

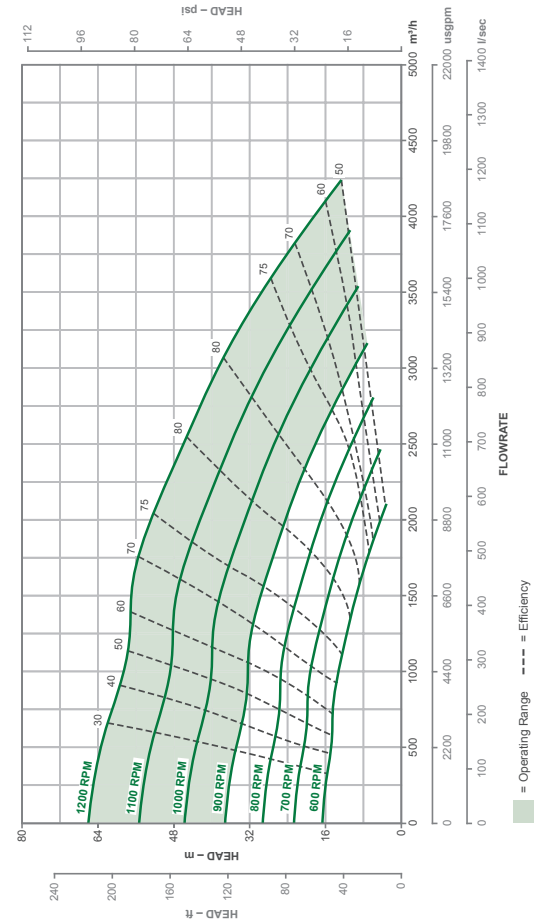
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 1643VE
Displacement:	16 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



450SH

750SL

Pump Model PP3030S34



HIRE
or
BUY

SPECIFICATIONS

Pump Size:	760 × 760 mm
Max Flow:	9500 m ³ /h
Max Head:	36 metres
Solids Size:	150 mm
Operating Speed Range:	450–600 rpm
Rated Power at BEP:	522 kW
Fuel Tank Size:	450 litres
Fuel Consumption at BEP:	130 l/h
Max Running Hours at BEP:	3 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	6000 × 2600 × 2400 mm
Dry Weight:	18600 kg
Wet Weight:	19000 kg

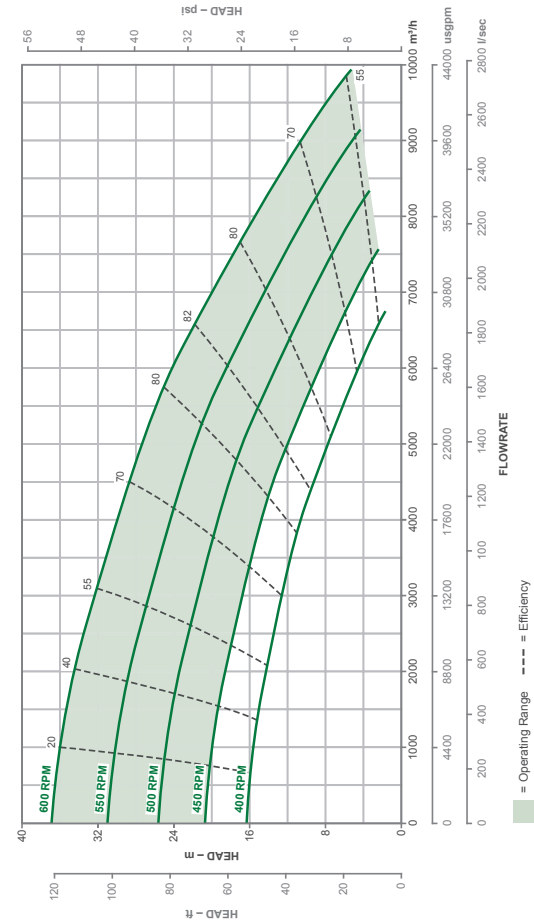
ENGINE SPECIFICATIONS

Engine Type:	CAT C27 ACERT
Displacement:	27 litres

ADDITIONAL INFORMATION

- This pumpset requires an external fuel tank of a minimum 4000 litres in order to operate over a 24 hour period.
- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



750SL



PIONEER PRIME CLEAR LIQUIDS

Designed to operate at **pressures up to 24 bar** and **flows beyond 2000m³/h**, the Pioneer range of high pressure dry-prime pumps are built to operate in the harshest conditions with great reliability and performance. Using the highest grade materials and superior hydraulic performance, the Pioneer Prime pumps are the pump of choice for mines, petrochemical and industrial markets around the world.

PUMP FEATURES

- Clear Liquid Multi-Vane Stainless Steel Impeller
- Indefinite Run-Dry Capability
- Efficient Design for Reduced Operating Costs
- Auto Stop/Start
- Sound Attenuated, Fully Bunded Packages
- Spark Arresting Exhaust Silencers
- Chalwyn air intake Shutdown Valve
- Environmentally Safe Priming System with Patented PosiValve™ — No Liquid carryover

Flows up to
2,400
m³/h

Heads up to
240
metres

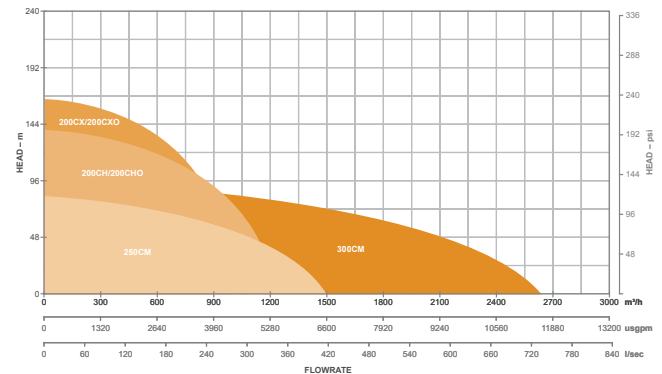
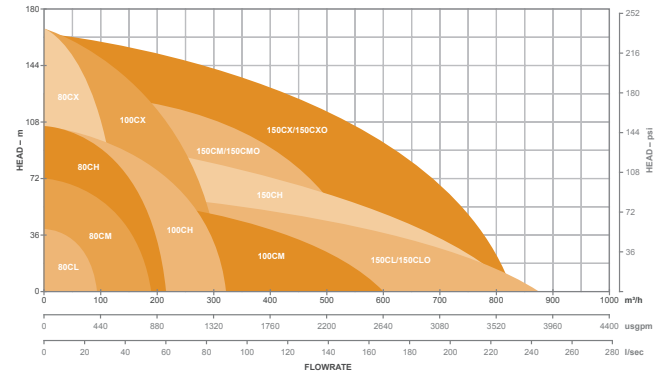
Efficiencies to
84%

CLEAR LIQUIDS PUMP RANGE

All of the clear liquid pumps utilise Pioneer designed enclosed, multi-vane impellers offering outstanding NPSHr and suction lift characteristics. These designs are able to operate at up to 84% or more efficiency therefore offering the **lowest fuel burn performance** of any manufacturer, reducing cost of ownership and downtime.

Our standard pumps operate up to 2,400m³/h and pressures up to 240m whilst still being able to handle small solids, making them ideal for applications in the mining, oil & gas and industrial markets as well as more traditional markets such as irrigation and water supply. Coupled via SAE housing and flexible drive, Pioneer pumps offer a compact designs with outstanding reliability.

Pump No.	Model No.	Pump No.	Model No.
80CL	PP53C14	150CM/150CMO	PP86C17B
80CM	PP53C14	150CH	PP86C17
80CH	PP63C17	150CX/150CXO	PP86C21
80CX	PP43C21	200CH/200CHO	PP108C18
100CM	PP64C14	200CX/200CXO	PP108C24
100CH	PP64C17	250CM	PP1010C14
100CX	PP64C21	300CM	PP1212C17
150CL/150CLO	PP86C14		



CLEAR LIQUIDS

80CL

Pump Model PP53C14



HIR
or
BUY

SPECIFICATIONS

Pump Size:	130 × 80 mm
Max Flow:	160 m ³ /h
Max Head:	65 metres
Solids Size:	19 mm
Operating Speed Range:	1500–1700 rpm
Rated Power at BEP:	56 kW
Fuel Tank Size:	260 litres
Fuel Consumption at BEP:	14 l/h
Max Running Hours at BEP:	19 h
Sound Rating:	65 dBA at 7 m
Length × Width × Height:	2300 × 1100 × 1610 mm
Dry Weight:	1492 kg
Wet Weight:	1700 kg

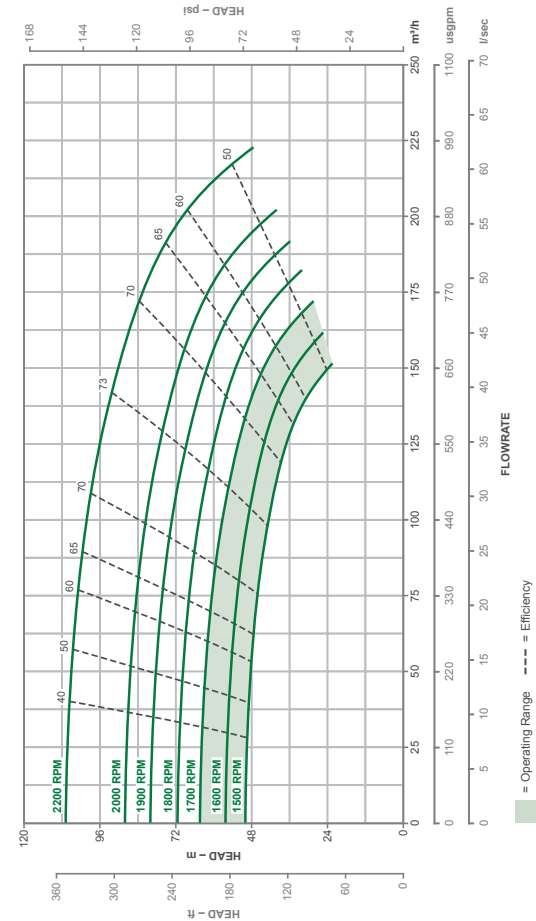
ENGINE SPECIFICATIONS

Engine Type:	Perkins 404D-22T
Displacement:	2.2 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



80CL

80CM

Pump Model PP53C14



HIR
or
BUY

SPECIFICATIONS

Pump Size:	130 × 80 mm
Max Flow:	210 m ³ /h
Max Head:	90 metres
Solids Size:	12 mm
Operating Speed Range:	1500–2000 rpm
Rated Power at BEP:	37 kW
Fuel Tank Size:	430 litres
Fuel Consumption at BEP:	9.3 l/h
Max Running Hours at BEP:	46 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2600 × 1180 × 1950 mm
Dry Weight:	2156 kg
Wet Weight:	2500 kg

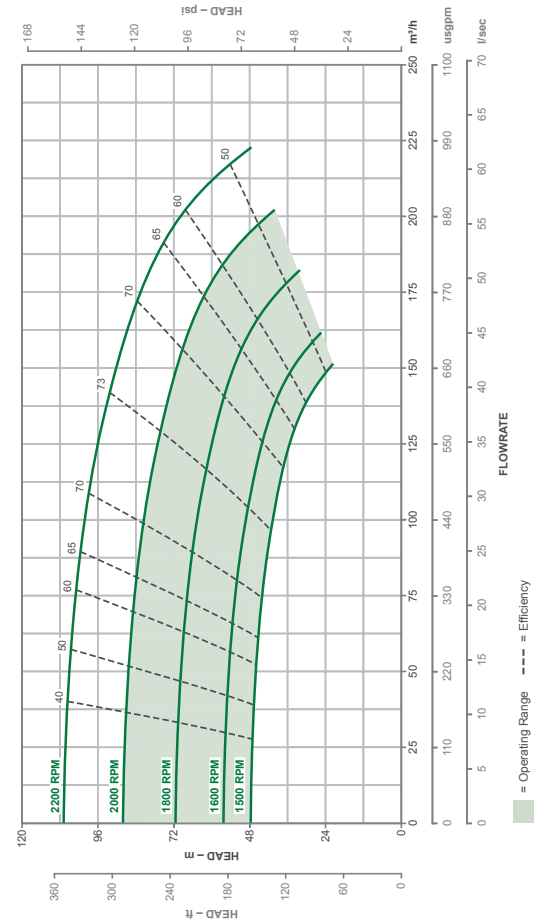
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TC-63 kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



80CM

80CH

Pump Model PP63C17



HIR
or
BUY

SPECIFICATIONS

Pump Size:	150 × 80 mm
Max Flow:	220 m ³ /h
Max Head:	150 metres
Solids Size:	20 mm
Operating Speed Range:	1500–2000 rpm
Rated Power at BEP:	93 kW
Fuel Tank Size:	695 litres
Fuel Consumption at BEP:	23.3 l/h
Max Running Hours at BEP:	30 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2950 × 1450 × 2110 mm
Dry Weight:	2869 kg
Wet Weight:	3425 kg

ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TCAE 120kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



80CH

80CX

Pump Model PP43C21



SPECIFICATIONS

Pump Size:	100 × 80 mm
Max Flow:	136 m³/h
Max Head:	170 metres
Solids Size:	20 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	93 kW
Fuel Tank Size:	695 litres
Fuel Consumption at BEP:	23.3 l/h
Max Running Hours at BEP:	30 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2950 × 1450 × 2110 mm
Dry Weight:	2869 kg
Wet Weight:	3425 kg

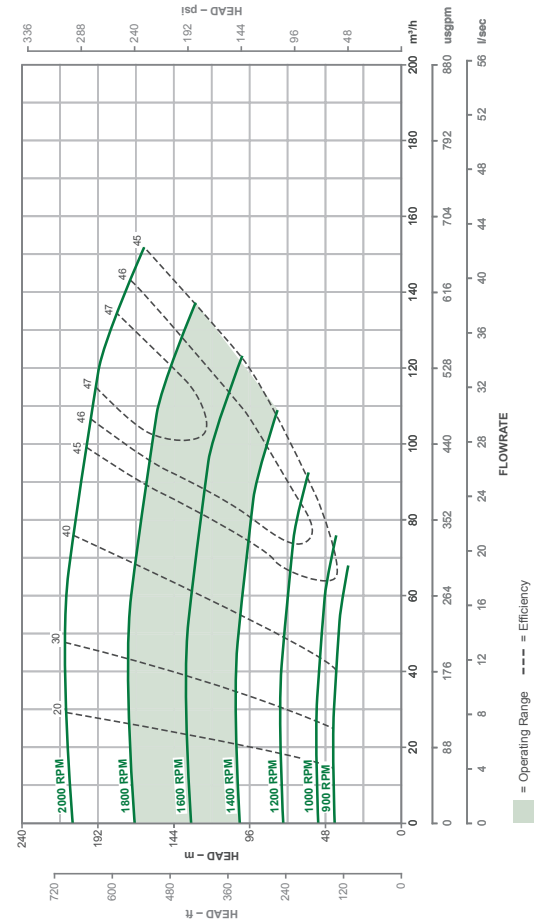
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TCAE 120kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



100CM

Pump Model PP64C14



SPECIFICATIONS

Pump Size:	150 × 100 mm
Max Flow:	380 m ³ /h
Max Head:	90 metres
Solids Size:	35 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	75 kW
Fuel Tank Size:	695 litres
Fuel Consumption at BEP:	18.6 l/h
Max Running Hours at BEP:	37 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2950 × 1450 × 2110 mm
Dry Weight:	2869 kg
Wet Weight:	3425 kg

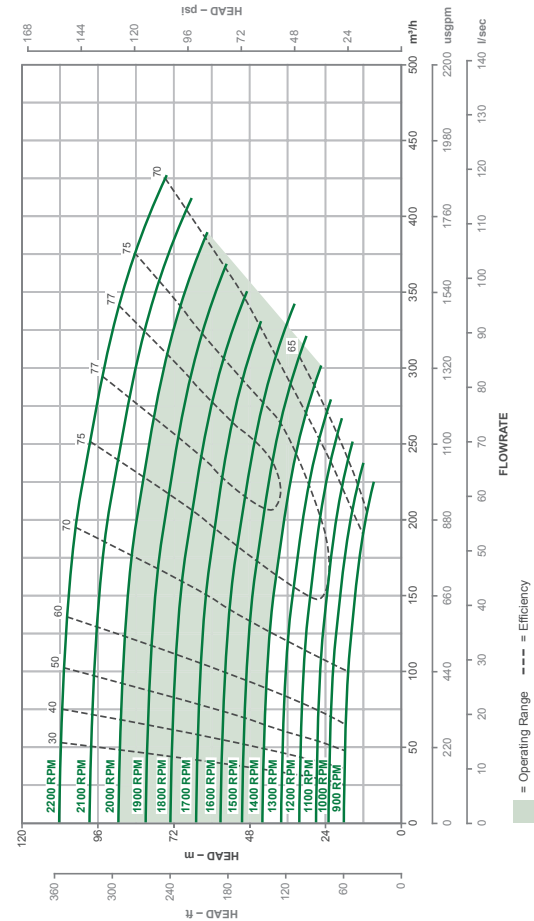
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TCAE 120kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



100CM

100CH

Pump Model PP64C17



SPECIFICATIONS

Pump Size:	150 × 100 mm
Max Flow:	330 m ³ /h
Max Head:	105 metres
Solids Size:	20 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	95 kW
Fuel Tank Size:	695 litres
Fuel Consumption at BEP:	24 l/h
Max Running Hours at BEP:	29 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2950 × 1450 × 2110 mm
Dry Weight:	4445 kg
Wet Weight:	5000 kg

ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TCAE 120kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



100CX

Pump Model PP64C21



SPECIFICATIONS

Pump Size:	150 × 100 mm
Max Flow:	320 m ³ /h
Max Head:	185 metres
Solids Size:	20 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	160 kW
Fuel Tank Size:	767 litres
Fuel Consumption at BEP:	40 l/h
Max Running Hours at BEP:	19 h
Sound Rating:	65 dBA at 7 m
Length × Width × Height:	4420 × 1960 × 2570 mm
Dry Weight:	6050 kg
Wet Weight:	6720 kg

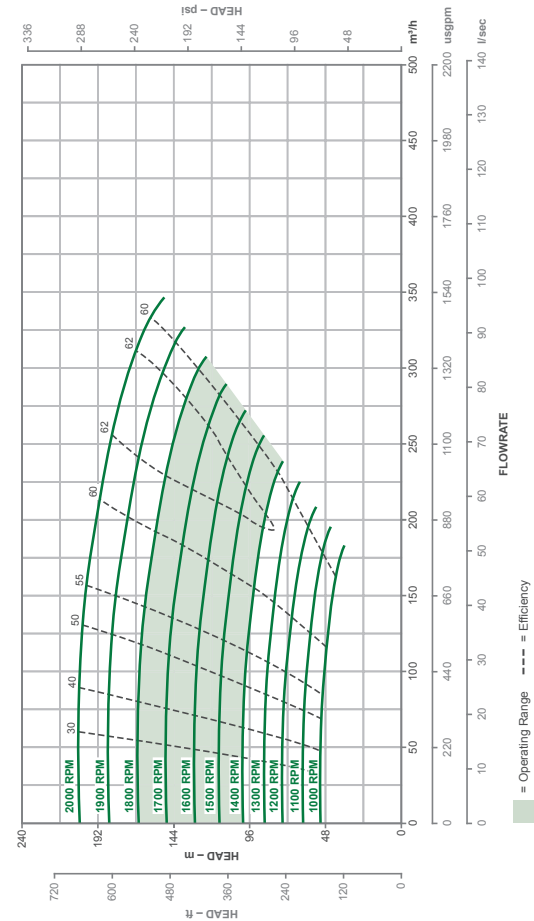
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 952VE
Displacement:	9 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



100CX

150CL

Pump Model PP86C14



SPECIFICATIONS

Pump Size:	200 × 150 mm
Max Flow:	900 m ³ /h
Max Head:	75 metres
Solids Size:	25 mm
Operating Speed Range:	1500–1900 rpm
Rated Power at BEP:	112 kW
Fuel Tank Size:	700 litres
Fuel Consumption at BEP:	28 l/h
Max Running Hours at BEP:	25 h
Sound Rating:	68 dBA at 7 m
Length × Width × Height:	4000 × 1500 × 2000 mm
Dry Weight:	4500 kg
Wet Weight:	5000 kg

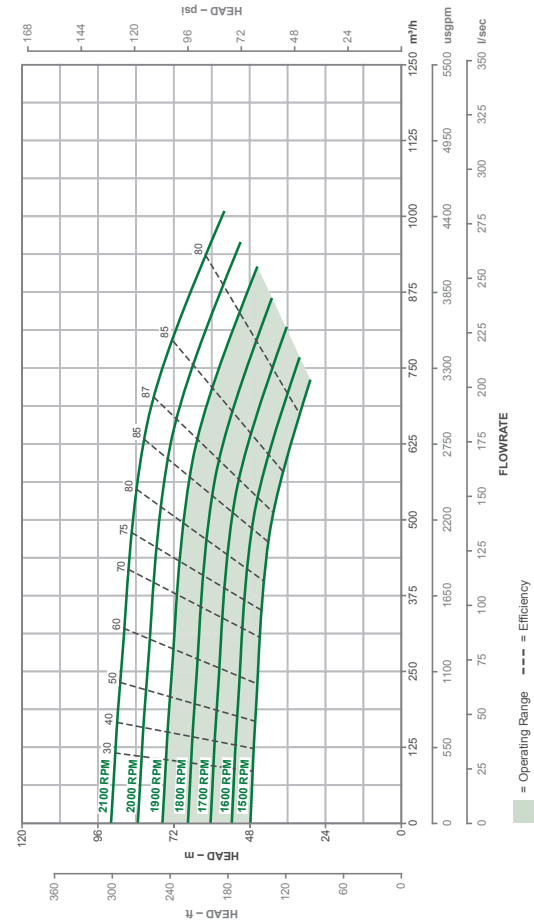
ENGINE SPECIFICATIONS

Engine Type:	Perkins 1106D
Displacement:	6.6 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150CL

150CLO

Pump Model PP86C14



SPECIFICATIONS

Pump Size:	200 × 150 mm
Max Flow:	900 m ³ /h
Max Head:	75 metres
Solids Size:	25 mm
Operating Speed Range:	1500–1900 rpm
Rated Power at BEP:	112 kW
Fuel Tank Size:	700 litres
Fuel Consumption at BEP:	28 l/h
Max Running Hours at BEP:	25 h
Sound Rating:	n/a
Length × Width × Height:	3500 × 1500 × 2000 mm
Dry Weight:	4500 kg
Wet Weight:	5000 kg

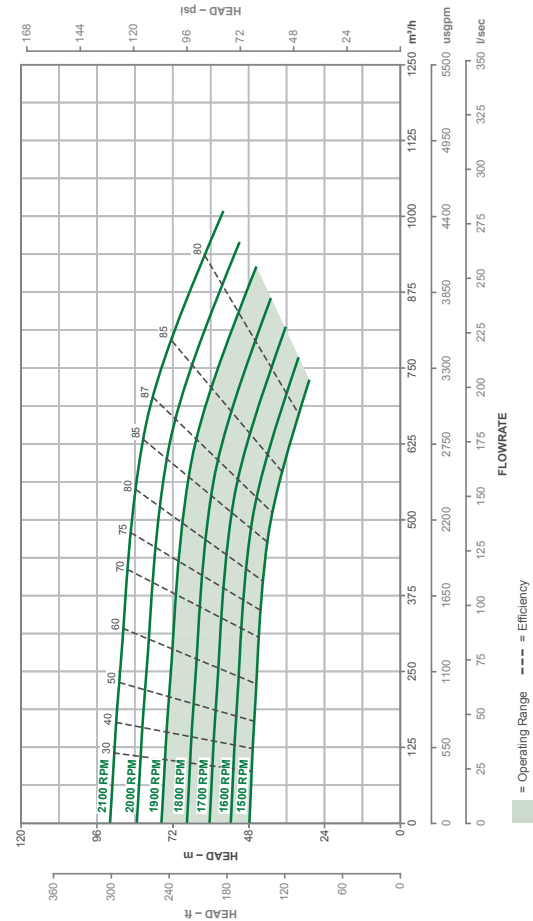
ENGINE SPECIFICATIONS

Engine Type:	CAT C7 ACERT
Displacement:	6.6 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150CLO

150CM

Pump Model PP86C17B



SPECIFICATIONS

Pump Size:	200 × 150 mm
Max Flow:	575 m ³ /h
Max Head:	125 metres
Solids Size:	25 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	186 kW
Fuel Tank Size:	900 litres
Fuel Consumption at BEP:	47 l/h
Max Running Hours at BEP:	19 h
Sound Rating:	65 dBA at 7 m
Length × Width × Height:	2950 × 1450 × 2110 mm
Dry Weight:	5300 kg
Wet Weight:	6000 kg

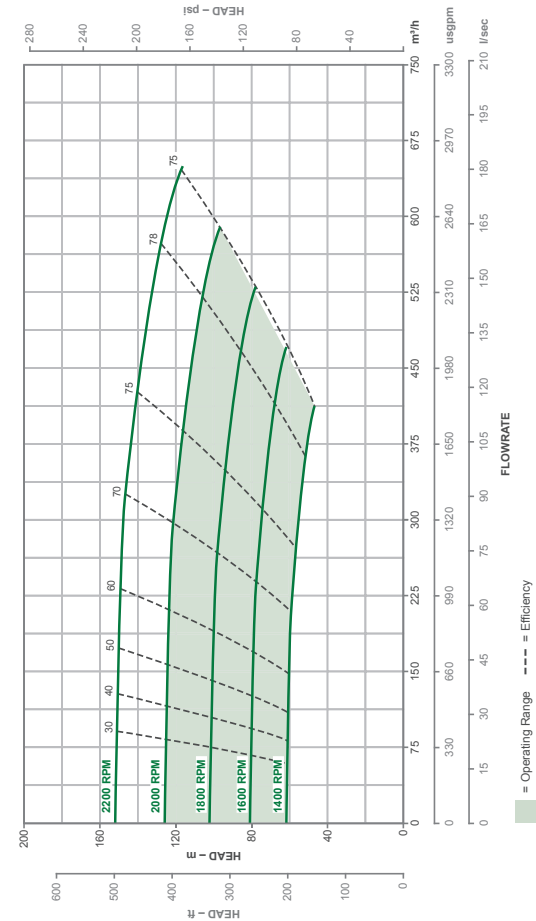
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 952VE
Displacement:	9 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150CM

150CMO

Pump Model PP86C17B



HIR
or
BUY

SPECIFICATIONS

Pump Size:	200 × 150 mm
Max Flow:	575 m ³ /h
Max Head:	125 metres
Solids Size:	25 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	186 kW
Fuel Tank Size:	900 litres
Fuel Consumption at BEP:	47 l/h
Max Running Hours at BEP:	19 h
Sound Rating:	68 dBA at 7 m
Length × Width × Height:	3800 × 1820 × 2650 mm
Dry Weight:	5300 kg
Wet Weight:	6000 kg

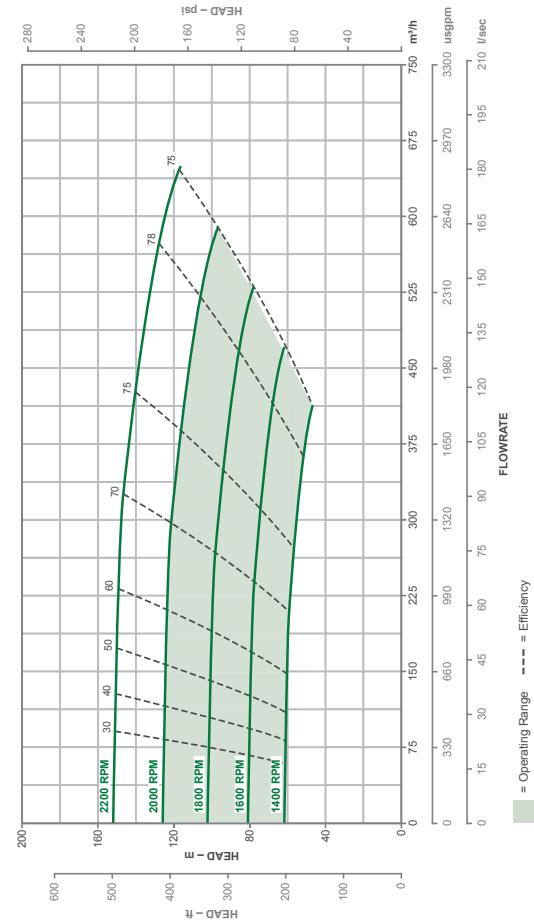
ENGINE SPECIFICATIONS

Engine Type:	CAT C9 ACERT
Displacement:	9 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150CMO

150CH

Pump Model PP86C17



SPECIFICATIONS

Pump Size:	200 × 150 mm
Max Flow:	900 m ³ /h
Max Head:	125 metres
Solids Size:	38 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	224 kW
Fuel Tank Size:	767 litres
Fuel Consumption at BEP:	56 l/h
Max Running Hours at BEP:	14 h
Sound Rating:	70 dBA at 7 m
Length × Width × Height:	4420 × 1960 × 2570 mm
Dry Weight:	6636 kg
Wet Weight:	7250 kg

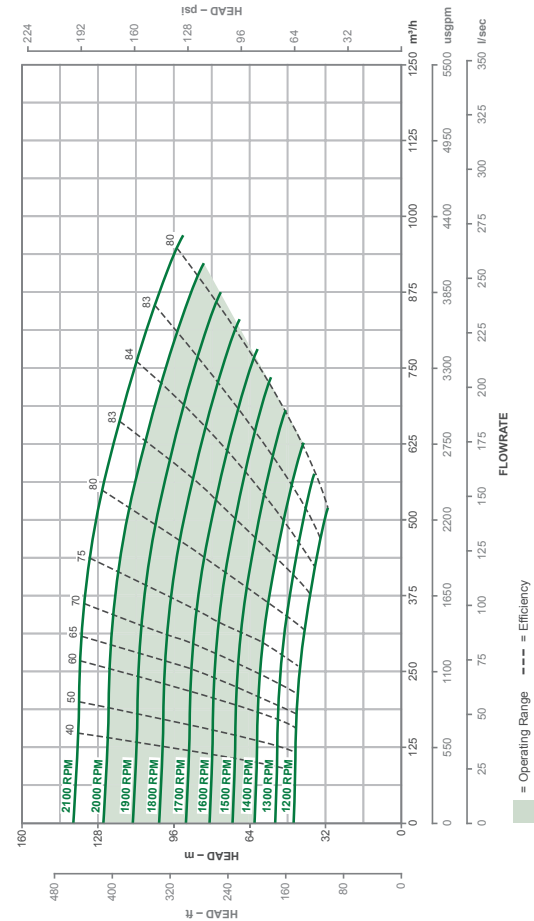
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 952VE
Displacement:	9 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150CH

150CX

Pump Model PP86C21



SPECIFICATIONS

Pump Size:	200 × 150 mm
Max Flow:	900 m ³ /h
Max Head:	165 metres
Solids Size:	38 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	298 kW
Fuel Tank Size:	767 litres
Fuel Consumption at BEP:	74.5 l/h
Max Running Hours at BEP:	10 h
Sound Rating:	70 dBA at 7 m
Length × Width × Height:	4420 × 1960 × 2570 mm
Dry Weight:	6636 kg
Wet Weight:	7250 kg

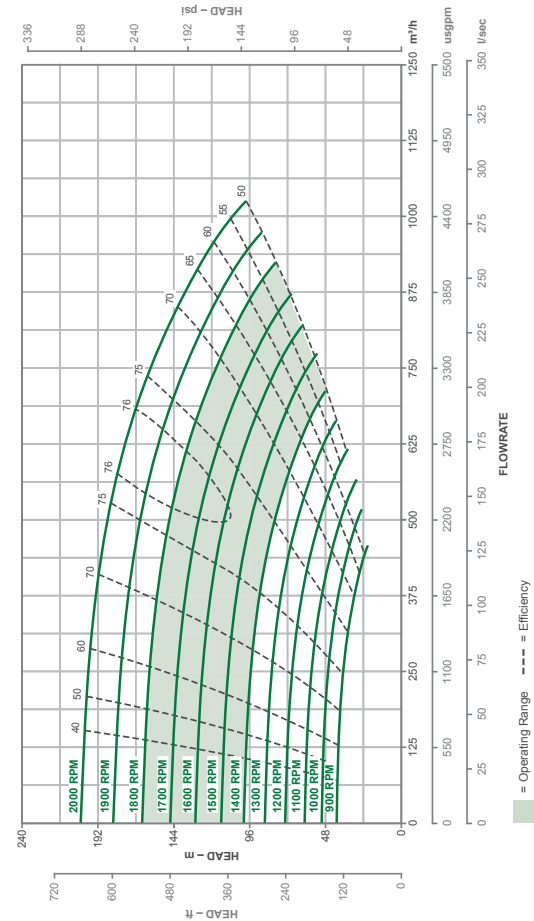
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 1643VE
Displacement:	16 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150CX

150CXO

Pump Model PP86C21



HIR
or
BUY

SPECIFICATIONS

Pump Size:	200 × 150 mm
Max Flow:	900 m ³ /h
Max Head:	165 metres
Solids Size:	38 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	298 kW
Fuel Tank Size:	767 litres
Fuel Consumption at BEP:	74.5 l/h
Max Running Hours at BEP:	10 h
Sound Rating:	n/a
Length × Width × Height:	3800 × 1800 × 2650 mm
Dry Weight:	5530 kg
Wet Weight:	6000 kg

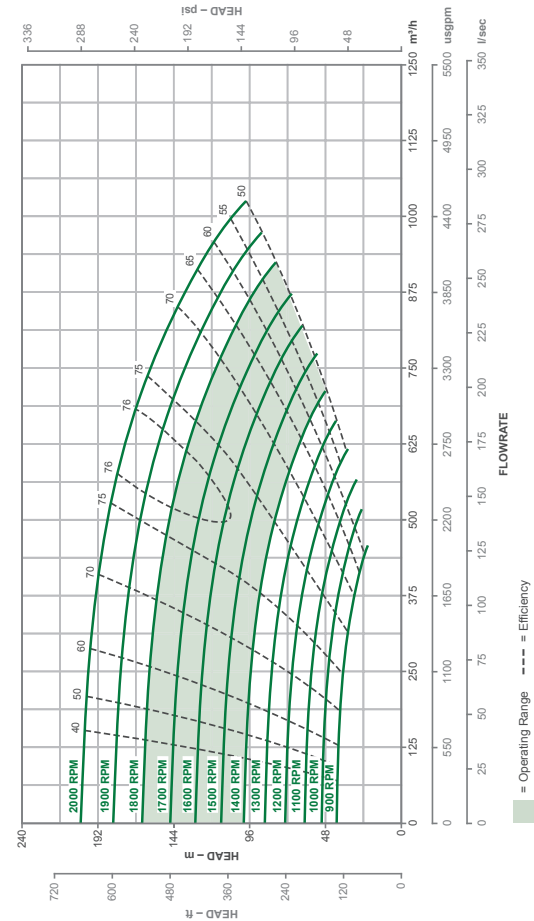
ENGINE SPECIFICATIONS

Engine Type:	CAT C18 ACERT
Displacement:	18 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150CXO

200CH

Pump Model PP108C18



SPECIFICATIONS

Pump Size:	250 × 200 mm
Max Flow:	1230 m ³ /h
Max Head:	140 metres
Solids Size:	30 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	410 kW
Fuel Tank Size:	767 litres
Fuel Consumption at BEP:	102 l/h
Max Running Hours at BEP:	8 h
Sound Rating:	70 dBA at 7 m
Length × Width × Height:	4420 × 1960 × 2570 mm
Dry Weight:	6636 kg
Wet Weight:	7250 kg

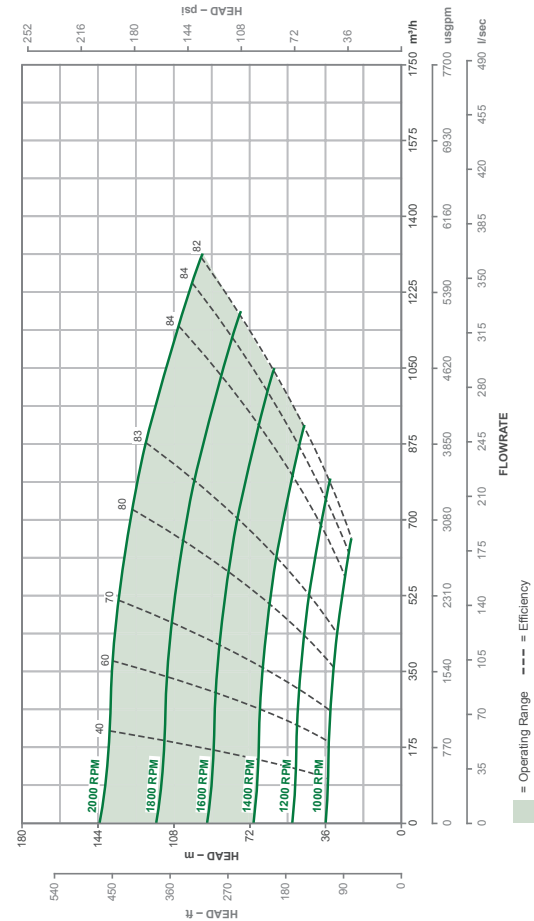
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 1643VE
Displacement:	16 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



200CHO

Pump Model PP108C18



HIR
or
BUY

SPECIFICATIONS

Pump Size:	250 × 200 mm
Max Flow:	1230 m ³ /h
Max Head:	140 metres
Solids Size:	30 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	410 kW
Fuel Tank Size:	750 litres
Fuel Consumption at BEP:	102 l/h
Max Running Hours at BEP:	7 h
Sound Rating:	n/a
Length × Width × Height:	3800 × 1890 × 2650 mm
Dry Weight:	5480 kg
Wet Weight:	6000 kg

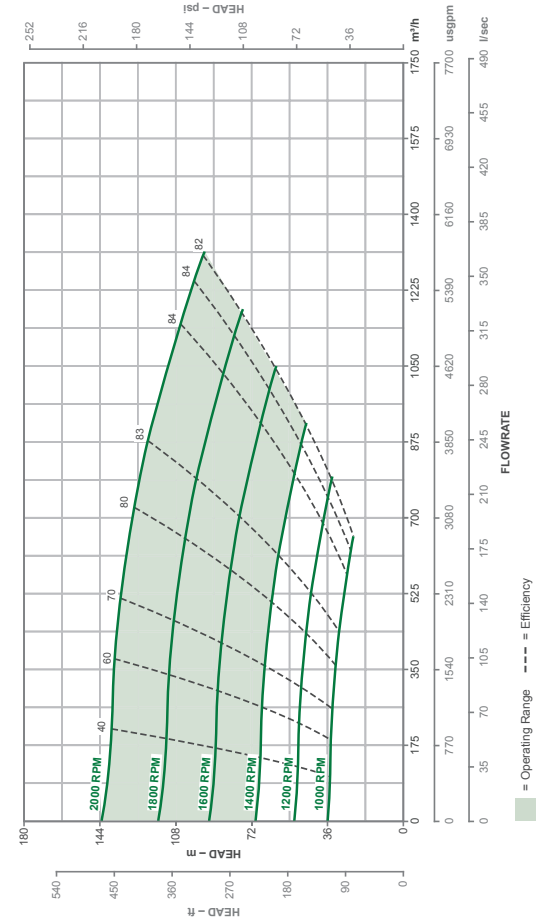
ENGINE SPECIFICATIONS

Engine Type:	CAT C15 ACERT
Displacement:	15.2 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



200CHO

200CX

Pump Model PP108C24



SPECIFICATIONS

Pump Size:	250 × 200 mm
Max Flow:	970 m ³ /h
Max Head:	160 metres
Solids Size:	28 mm
Operating Speed Range:	1400–1600 rpm
Rated Power at BEP:	521 kW
Fuel Tank Size:	767 litres
Fuel Consumption at BEP:	130 l/h
Max Running Hours at BEP:	6 h
Sound Rating:	70 dBA at 7 m
Length × Width × Height:	4420 × 1960 × 2570 mm
Dry Weight:	6636 kg
Wet Weight:	7250 kg

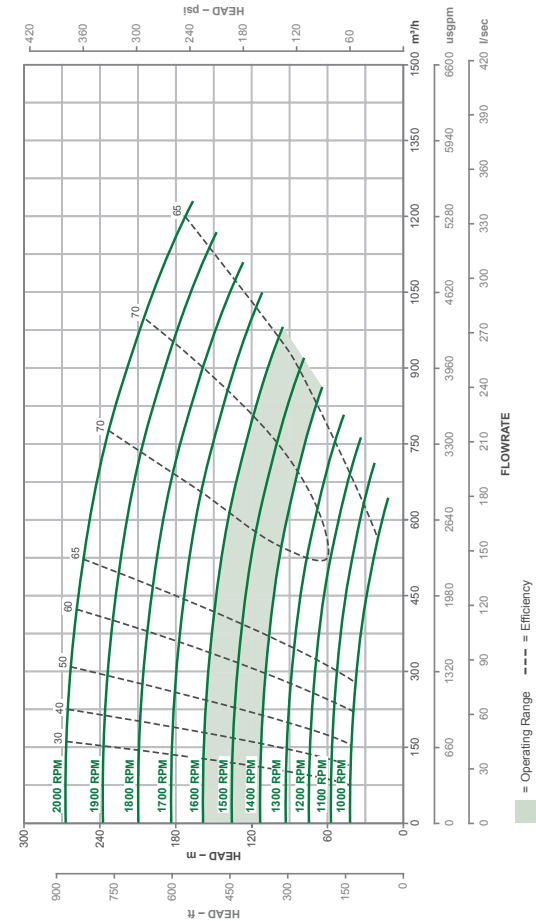
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 1643VE
Displacement:	16 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



200CX

200CXO

Pump Model PP108C24



HIRE
or
BUY

SPECIFICATIONS

Pump Size:	250 × 200 mm
Max Flow:	970 m ³ /h
Max Head:	160 metres
Solids Size:	28 mm
Operating Speed Range:	1400–1600 rpm
Rated Power at BEP:	521 kW
Fuel Tank Size:	750 litres
Fuel Consumption at BEP:	130 l/h
Max Running Hours at BEP:	6 h
Sound Rating:	n/a
Length × Width × Height:	3800 × 1890 × 2650 mm
Dry Weight:	6636 kg
Wet Weight:	7250 kg

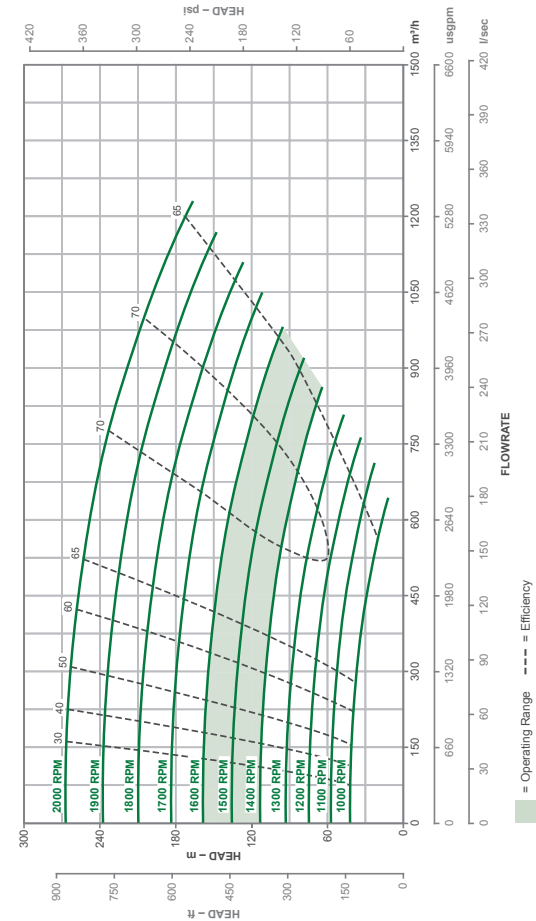
ENGINE SPECIFICATIONS

Engine Type:	CAT C18 ACERT
Displacement:	18 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



200CXO

250CM

Pump Model PP1010C14



SPECIFICATIONS

Pump Size:	250 × 250 mm
Max Flow:	1500 m ³ /h
Max Head:	80 metres
Solids Size:	33 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	190 kW
Fuel Tank Size:	767 litres
Fuel Consumption at BEP:	47 l/h
Max Running Hours at BEP:	16 h
Sound Rating:	65 dBA at 7 m
Length × Width × Height:	4420 × 1960 × 2570 mm
Dry Weight:	6050 kg
Wet Weight:	6720 kg

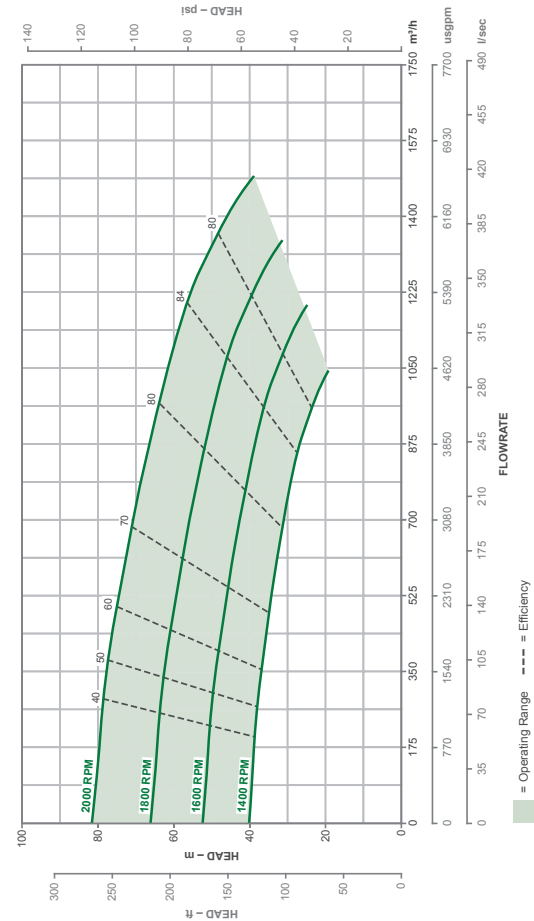
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 952VE
Displacement:	9 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



250CM

300CM

Pump Model PP1212C17



SPECIFICATIONS

Pump Size:	300 × 300 mm
Max Flow:	2650 m ³ /h
Max Head:	96 metres
Solids Size:	58 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	373 kW
Fuel Tank Size:	880 litres
Fuel Consumption at BEP:	93 l/h
Max Running Hours at BEP:	9 h
Sound Rating:	70 dBA at 7 m
Length × Width × Height:	4400 × 2250 × 2620 mm
Dry Weight:	14090 kg
Wet Weight:	15000 kg

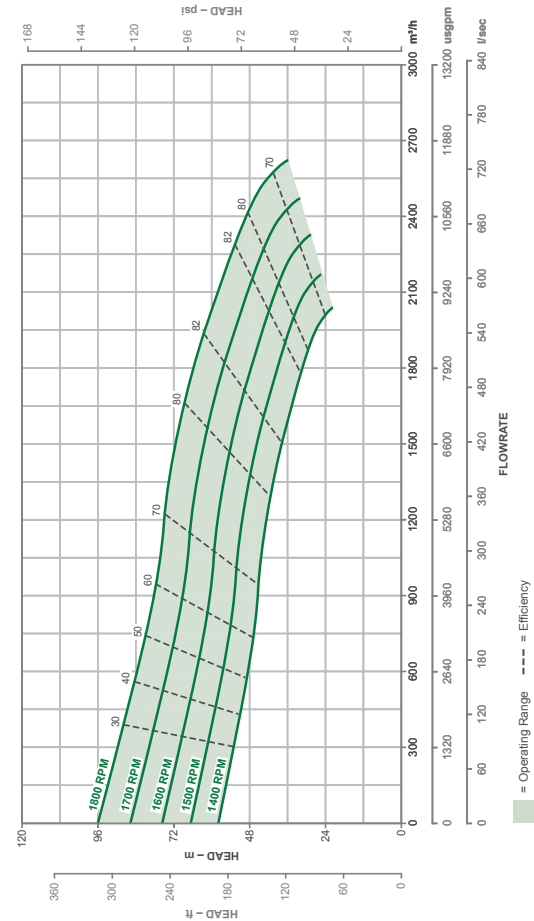
ENGINE SPECIFICATIONS

Engine Type:	Volvo TAD 952VE
Displacement:	9 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



300CM



PIONEER PRIME VORTEX

Pioneer Prime vortex pumps are specifically designed for sewage and wastewater applications which contain large amounts of stringy solids and rag. Combining the very latest **high efficiency vortex impeller designs** with the Pioneer priming technology, has resulted in the highest performing vortex portable pumpset in the world.

PUMP FEATURES

- Vortex flow large solid handling impeller which prevents blocking
- Indefinite Run-Dry Capability
- Efficient Design for Reduced Operating Costs
- Auto Stop/Start
- Sound Attenuated, Fully Bunded Packages
- Spark Arresting Exhaust Silencers
- Chalwyn air intake Shutdown Valve
- Environmentally Safe Priming System with Patented PosiValve™ — No Liquid Carryover

Flows up to
700
m³/h

Heads up to
35
metres

Solids up to
130
mm

VORTEX

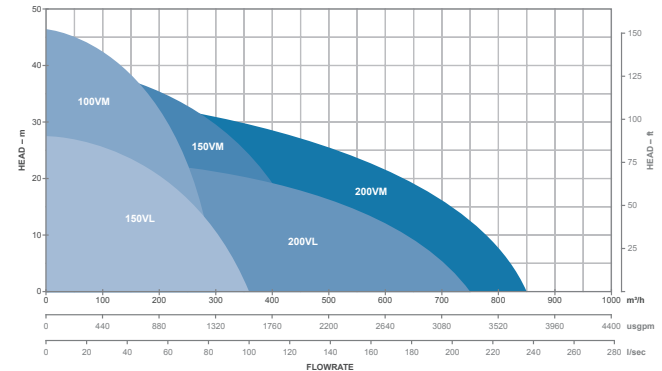
VORTEX PUMP RANGE

Pioneer new vortex impeller pumps add to this global capability by offering a combination of **high efficiency pumping** and **large solids handling capacity**.

Designed to handle fibrous solids and rag often seen in the most arduous sewage and wastewater applications without blocking, Pioneer Vortex series is the latest generation of designs.

Capable of **flows in excess of 700m³/h** and **heads higher than 32m** whilst still being able to **pass solids up to 130mm**. Pioneer Vortex range offers the users the benefits of reduced downtime and low energy consumption, in both fixed and temporary applications.

Discover our new range of engine driven vortex pumps.



Pump No.	Model No.	Max Flow	Max Head	Solids Size
100VM	PP44V10	300 m ³ /h	46 m	85 mm
150VL	PP66V10	350 m ³ /h	28 m	130 mm
150VM	PP66V12	480 m ³ /h	40 m	125 mm
200VL	PP88V12	700 m ³ /h	24 m	110 mm
200VM	PP88V12	850 m ³ /h	35 m	110 mm

100VM

Pump Model PP44V10



SPECIFICATIONS

Pump Size:	100 × 100 mm
Max Flow:	300 m ³ /h
Max Head:	46 metres
Solids Size:	85 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	26 kW
Fuel Tank Size:	260 litres
Fuel Consumption at BEP:	6.5 l/h
Max Running Hours at BEP:	40 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2300 × 1100 × 1610 mm
Dry Weight:	1382 kg
Wet Weight:	1590 kg

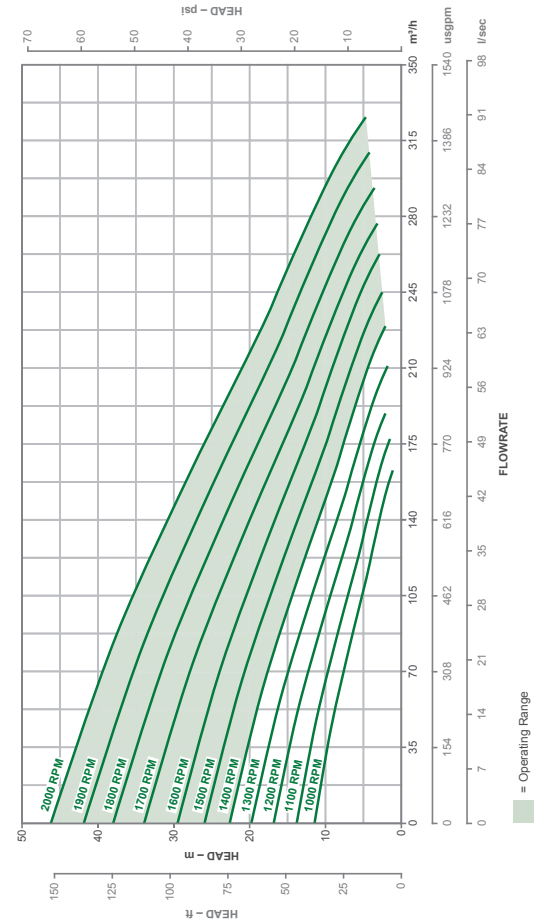
ENGINE SPECIFICATIONS

Engine Type:	Perkins 404D-22T
Displacement:	2.2 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



100VM

150VL

Pump Model PP66V10



SPECIFICATIONS

Pump Size:	150 × 150 mm
Max Flow:	350 m ³ /h
Max Head:	28 metres
Solids Size:	130 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	22.4 kW
Fuel Tank Size:	260 litres
Fuel Consumption at BEP:	5.6 l/h
Max Running Hours at BEP:	46 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2300 × 1100 × 1610 mm
Dry Weight:	1522 kg
Wet Weight:	1730 kg

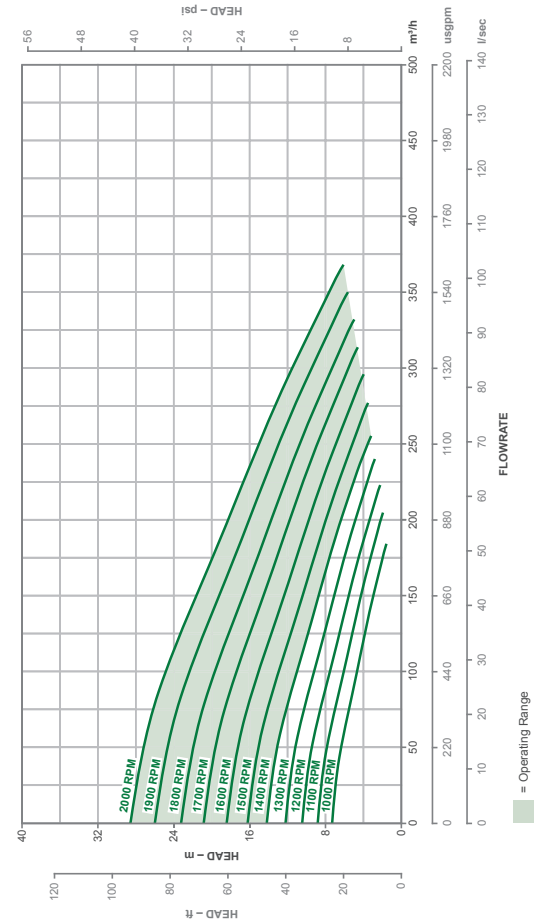
ENGINE SPECIFICATIONS

Engine Type:	Perkins 404D-22T
Displacement:	2.2 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150VL

150VM

Pump Model PP66V12



SPECIFICATIONS

Pump Size:	150 × 150 mm
Max Flow:	480 m ³ /h
Max Head:	40 metres
Solids Size:	125 mm
Operating Speed Range:	1400–2000 rpm
Rated Power at BEP:	40 kW
Fuel Tank Size:	430 litres
Fuel Consumption at BEP:	10 l/h
Max Running Hours at BEP:	46 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2600 × 1180 × 1950 mm
Dry Weight:	2135 kg
Wet Weight:	2375 kg

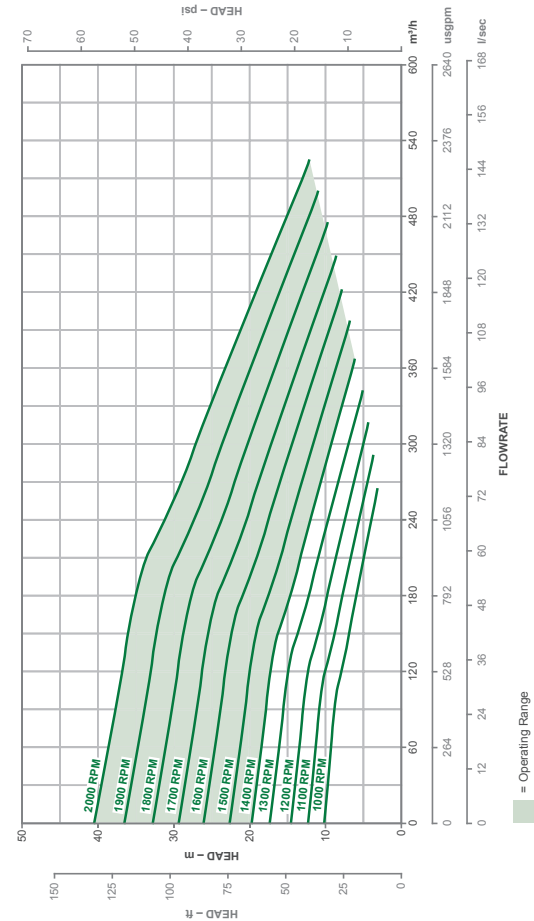
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TC-63 kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



150VM

200VL

Pump Model PP88V12



SPECIFICATIONS

Pump Size:	200 × 200 mm
Max Flow:	700 m ³ /h
Max Head:	24 metres
Solids Size:	110 mm
Operating Speed Range:	1400–1500 rpm
Rated Power at BEP:	30 kW
Fuel Tank Size:	430 litres
Fuel Consumption at BEP:	7.5 l/h
Max Running Hours at BEP:	57 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2600 × 1180 × 1950 mm
Dry Weight:	2275 kg
Wet Weight:	2515 kg

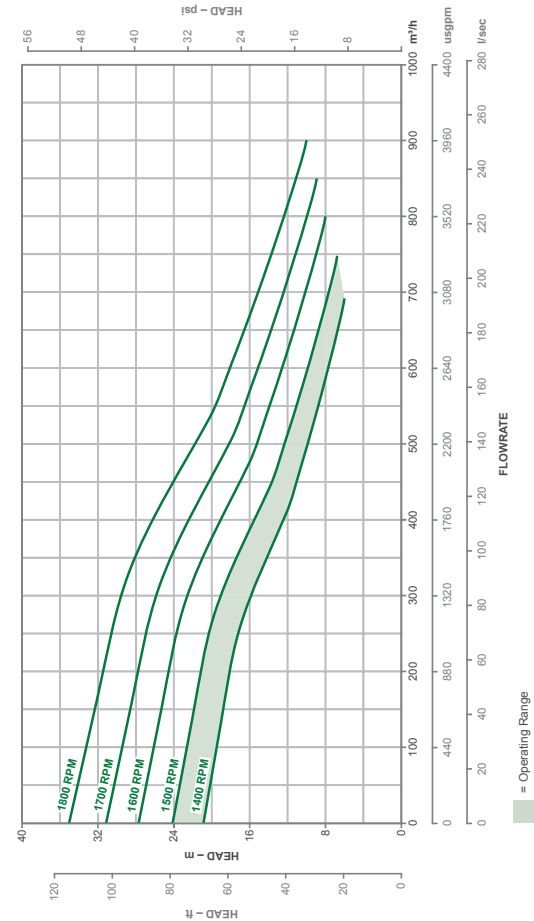
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TC-63 kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



200VL

200VM

Pump Model PP88V12



SPECIFICATIONS

Pump Size:	200 × 200 mm
Max Flow:	850 m ³ /h
Max Head:	35 metres
Solids Size:	110 mm
Operating Speed Range:	1400–1800 rpm
Rated Power at BEP:	60 kW
Fuel Tank Size:	695 litres
Fuel Consumption at BEP:	15 l/h
Max Running Hours at BEP:	46 h
Sound Rating:	64 dBA at 7 m
Length × Width × Height:	2950 × 1450 × 2110 mm
Dry Weight:	3060 kg
Wet Weight:	3616 kg

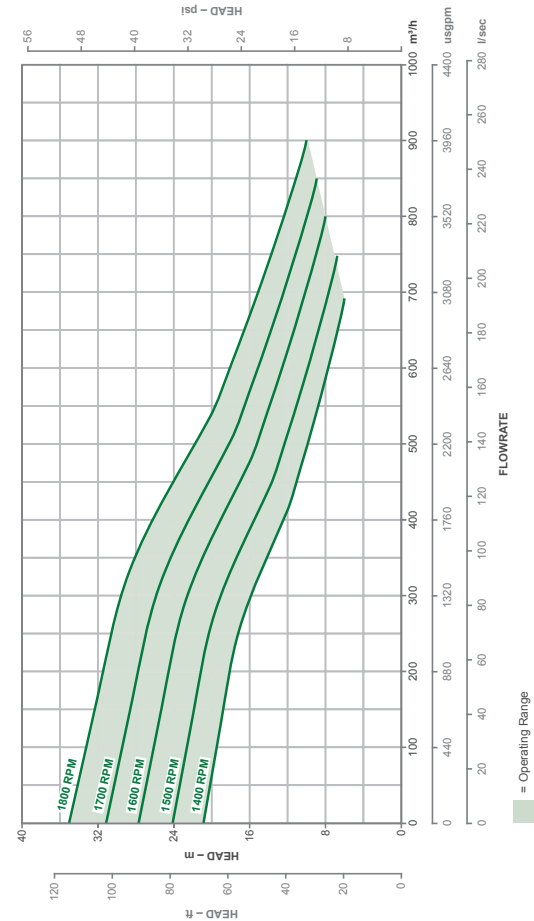
ENGINE SPECIFICATIONS

Engine Type:	JCB 444 TCAE 120kW
Displacement:	4.4 litres

ADDITIONAL INFORMATION

- Auto Start/Stop with floats and telemetry controls available on request.
- Remote auxiliary fuel connections.
- Note: Specification shown for current model. Older versions may vary.

Performance Curve (to be used for guidance only)



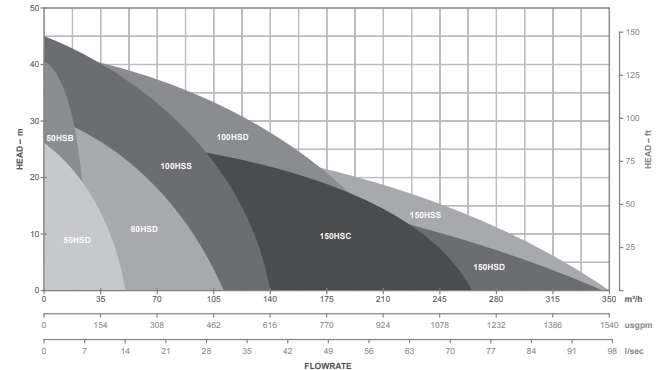
200VM

HYDRAULIC SUBMERSIBLE

Pioneer Pump has designed a new 21st century hydraulic submersible pumpset package incorporating the very latest design of hydraulic powerpack, enabling the unit to drive **up to six different hydraulic pump ends** both in sewage and dewatering applications when the suction lift is greater than 8.5m.

PUMP FEATURES

- Hydraulic Safety Shutdown switches
- Indefinite Run-Dry Capability
- Efficient Design for Reduced Operating Costs
- Auto Stop/Start with Floats
- Sound Attenuated, Fully Bunded Packages
- Spark Arresting Exhaust Silencers Mufflers
- Chalwyn air intake Shutdown Valve
- Environmentally Safe Priming System with Patented PosiValve™ — No Blow By Liquid Carryover



Model No.	Size	Max Flow	Max Head
50HSD	2"	48 m³/h	26 m
50HSB	2"	22 m³/h	41 m
80HSD	3"	112 m³/h	31 m
100HSS	4" screw	140 m³/h	45 m
100HSD	4"	234 m³/h	42 m
150HSS	6" screw	349 m³/h	27.5 m
150HSD	6"	345 m³/h	22 m
150HSC	6"	262 m³/h	27 m
150 HYDREDGE	6"	350 m³/h	27.5 m

HYDRAULIC
SUBMERSIBLE

HYDRAULIC SUBMERSIBLE PUMP RANGE

Pioneer offers a range of six hydraulic submersible pumps complete with high efficiency channel impellers or large solids handling screw impellers, designed for large solid handling and heavy sludge.

Pioneer hydraulic pumps come as standard in fully bundled, sound attenuated canopies complete with 120% containment and lockable doors, allowing the pumps to be used in urban bypass applications at **less than 65dB(A) at 7 metres**.

Available in a variety of sizes and impeller designs, the Pioneer hydraulic range extends the company reputation of high efficiency pumping in any application.



HYPP30 Hydraulic Powerpack



All Pioneer Pump powerpacks come as standard in environmentally friendly sound attenuated canopies, enabling the pumps to be used in the quietest urban applications.

With plenty of new safety features managing the engine and the hydraulics, Pioneer HYPP30 powerpack is the safest and most versatile powerpack on the market.

SPECIFICATIONS

Hydraulic Flow:	60 lt/min
Hydraulic Pressure:	200 bar
Engine Type:	Perkins 404D-22T
Displacement:	2.2 litres
Fuel Tank Size:	260 litres
Sound Rating:	64 dBA at 7 m
Length x Width x Height:	2300 x 1100 x 1700 mm
Dry Weight:	900 kg

ADDITIONAL INFORMATION

- Automatic safety shutdown switches: hydraulic level at half tank capacity and hydraulic temperature 120° C.

HYPP10

Hydraulic Powerpack



HIRE
or
BUY

Configured in an easy to manoeuvre site tow chassis and driven by a Silent Pack Hatz 1D81C, HYPP10 is ideal for those applications where suction lift requirements exceed 9 meters or where access is limited.

Compact and lightweight, Pioneer HYPP10 hydraulic powerpack can be towed, forklifted or craned into position effortlessly for immediate operations.

SPECIFICATIONS

Hydraulic Flow:	20 lt/min
Hydraulic Pressure:	130 bar(g) normal 170 bar(g) relief valve
Engine Type:	Hatz 1D81C
Displacement:	0.6 litres
Fuel Tank Size:	1000 litres
Sound Rating:	75 dBA at 7 m
Length × Width × Height:	1750 × 970 × 1555 mm
Dry Weight:	900 kg

ADDITIONAL INFORMATION

- Automatic safety shutdown switches: hydraulic level at half tank capacity and hydraulic temperature 120° C.

50HSD

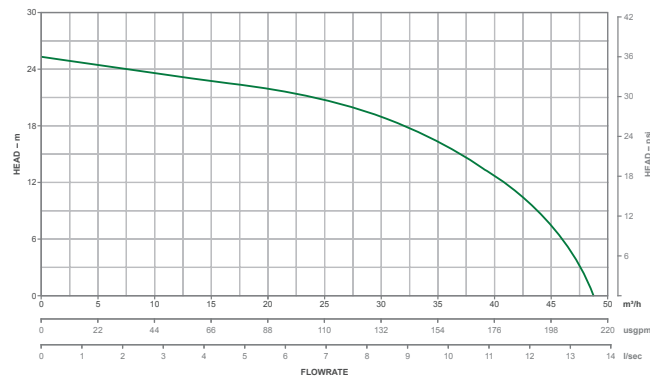
Drainer Impeller



HIRE
or
BUY

SPECIFICATIONS

Pump Size:	50 mm (2")
Max Flow:	48 m ³ /h
Max Head:	26 metres
Solids Size:	10 mm
Length × Width × Height:	225 × 195 × 300 mm
Dry Weight:	20 kg



HYPP10/50HSD

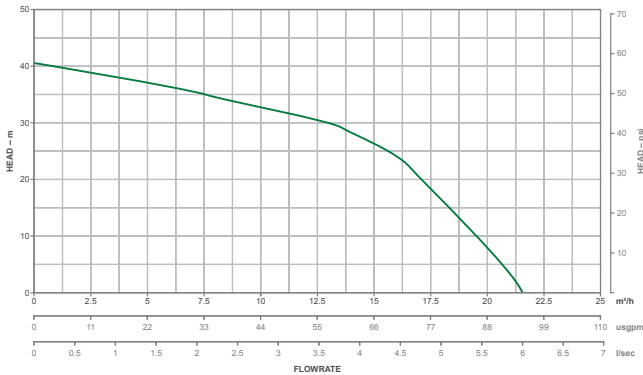
50HSB

Borehole Pump



SPECIFICATIONS

Pump Size:	50 mm
Max Flow:	22 m ³ /h
Max Head:	41 metres
Solids Size:	3 mm
Length × Width × Height:	190 × 190 × 500 mm
Dry Weight:	30 kg



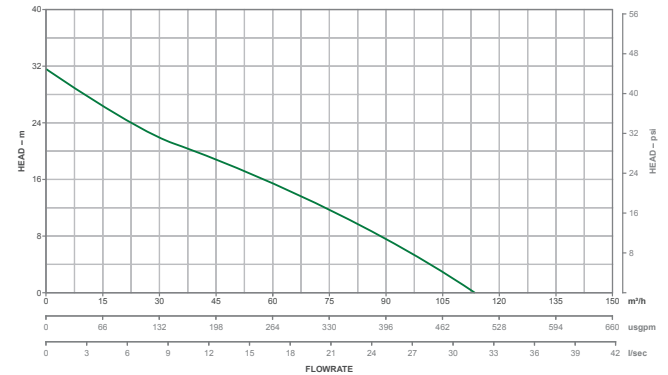
80HSD

Drainer Impeller



SPECIFICATIONS

Pump Size:	80 mm (3")
Max Flow:	112 m ³ /h
Max Head:	31 metres
Solids Size:	22 mm
Length × Width × Height:	360 × 300 × 550 mm
Dry Weight:	41 kg



50HSB/80HSD

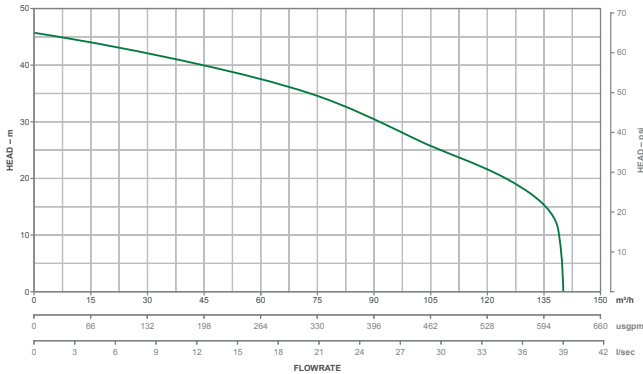
100HSS

Screw Impeller



SPECIFICATIONS

Pump Size:	100 mm (4")
Max Flow:	140 m ³ /h
Max Head:	45 metres
Solids Size:	70 mm
Length × Width × Height:	480 × 360 × 850 mm
Dry Weight:	87 kg



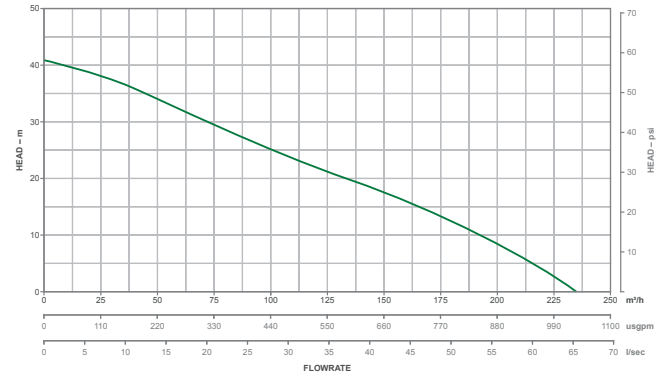
100HSD

Drainer Impeller



SPECIFICATIONS

Pump Size:	100 mm (4")
Max Flow:	234 m ³ /h
Max Head:	42 metres
Solids Size:	45 mm
Length × Width × Height:	480 × 360 × 700 mm
Dry Weight:	65 kg



100HSS/100HSD

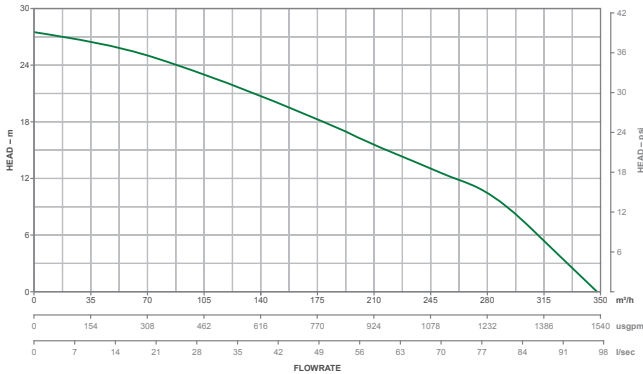
150HSS

Screw Impeller



SPECIFICATIONS

Pump Size:	150 mm (6")
Max Flow:	350 m ³ /h
Max Head:	27 metres
Solids Size:	90 mm
Length × Width × Height:	650 × 515 × 1100 mm
Dry Weight:	150 kg



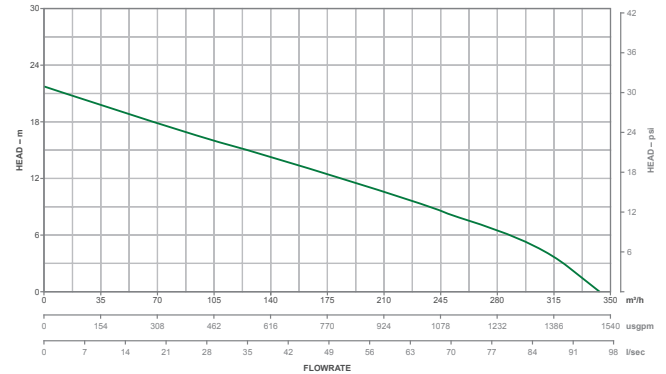
150HSD

Drainer Impeller



SPECIFICATIONS

Pump Size:	150 mm (6")
Max Flow:	345 m ³ /h
Max Head:	22 metres
Solids Size:	50 mm
Length × Width × Height:	650 × 515 × 700 mm
Dry Weight:	120 kg



150HSS/150HSD

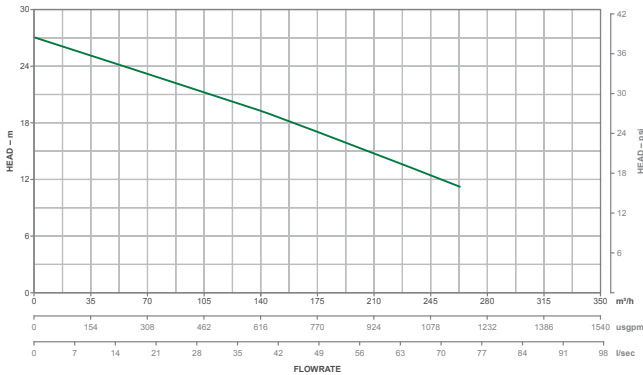
150HSC

Chopper Impeller



SPECIFICATIONS

Pump Size:	150 mm
Max Flow:	262 m ³ /h
Max Head:	27 metres
Solids Size:	90 mm
Length × Width × Height:	650 × 515 × 840 mm
Dry Weight:	150 kg



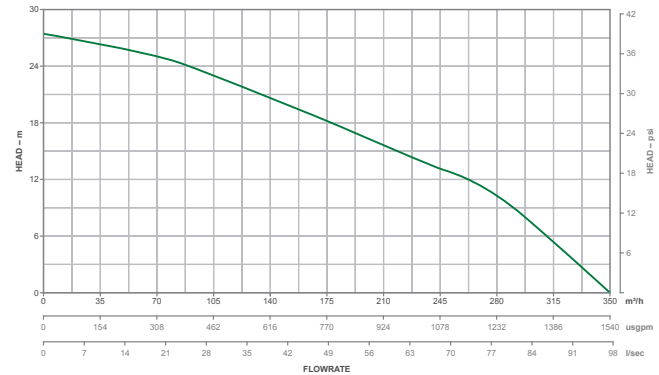
150 HYDREDGE

Compact Dredger



SPECIFICATIONS

Pump Size:	150 mm
Max Flow:	350 m ³ /h
Max Head:	27.5 metres
Solids Size:	90 mm
Length × Width × Height:	1450 × 590 × 1540 mm
Max Hydraulic Hose Length:	80 m, ¾" inch bore



150HSC/150HYD

PUMP ACCESSORIES

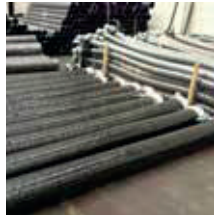
HOSES

Pioneer holds high quality hoses in sizes up to 450mm diameter in both layflat and wire armoured configuration. Most hoses are 16 or 10 bar rated allowing them to be used across the range of pumpsets including our high pressure units. Available with quick release couplings, ANSI or DIN PN flanges.



WIRED ARMOUR

HDPE pipework up to 450mm in diameter and 16 bar in pressure allowing them to be used with all our pumps even the high pressure units. Available in either flanged or quick release couplings, in lengths up to 12m for ease of installation and reduction in installation time and cost.



FITTINGS

Our fittings and accessories allow us to install our pumps into a variety of applications. We hold bends, strainers, reducers, increasers and almost all the fittings we need for installation.



SETTLEMENT TANKS

The company holds a number of settlement tanks capable of a variety of flow rates. Utilised mainly in our construction markets, our settlement tanks are designed to minimise the pollution of any liquids discharged from a site. Available to hire or buy and located in all of our hubs.



ROAD RAMPS

Critical in minimising the impact in local environments, Pioneer has invested heavily in road ramps to be able to bypass without closing roads. Using the largest available, we have ensured the maximum flow through the ramps with the minimum losses to ensure reduced fuel burn when they are used.

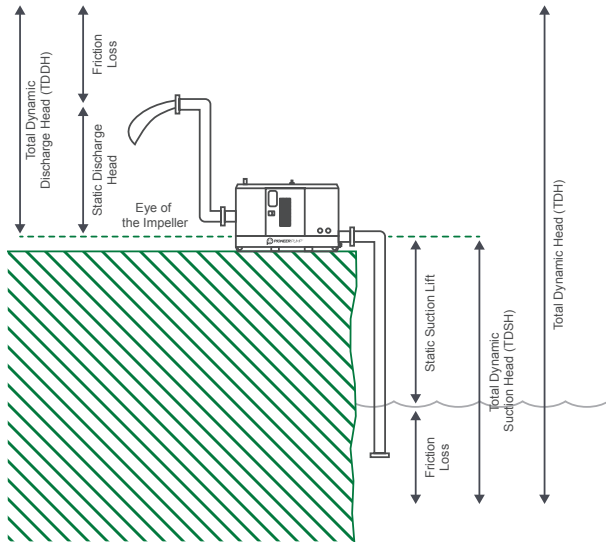


FUEL TANKS

Pioneer have a number of bulk storage fuel tanks for use with their pumpsets up to 4000 litres offering the opportunity to have extended run time on the entire range of pumpsets.



PUMP SYSTEMS



Friction losses are affected by length and size of pipework, bends, gate valves, strainer and velocity of flow. When SG (Specific Gravity) is different than $SG=1.0$ (Clean Water), it will also affect the Total Dynamic Head.

PUMP TERMINOLOGY

Suction Lift: When the liquid is being pumped from a level below the centre line of the pump inlet (eye of the impeller).

Flooded Suction: When the liquid is being pumped from a level above the centre line of the pump inlet (eye of the impeller).

Friction Loss: The resistance to flow caused by friction.

Total Dynamic Suction Head (TDSH): The combination of static suction lift (or suction head) and suction friction loss.

Total Dynamic Discharge Head (TDDH): The combination of static discharge head and discharge friction loss

Total Dynamic Head (TDH): The combination of TDSH and TDDH. TDH is the value required at the selection stage in order to apply the right pump for your application.

NPSH: Net Positive Suction Head available (NPSHa) is the absolute pressure at the suction inlet of the pump; the Net Positive Suction Head required (NPSHr) is the minimum pressure required at the suction inlet of the pump, provided by the manufacturer. To keep the pump from cavitating and ensure optimal operations, NPSHa must be equal or greater than NPSHr.

SUCTION HEAD

AS AFFECTED BY TEMPERATURE

Temperature Pressure		Vapour Pressure	Max. Elevation	
°C	°F	kN/m ²	m	ft
0	32	0.6	10.3	33.8
5	41	0.9	10.2	33.5
10	50	1.2	10.2	33.5
15	59	1.7	10.2	33.5
20	68	2.3	10.1	33.1
25	77	3.2	10.0	32.8
30	86	4.3	9.9	32.5
35	95	5.6	9.8	32.2
40	104	7.7	9.5	31.2
45	113	9.6	9.4	30.8
50	122	12.5	9.1	29.9
55	131	15.7	8.7	28.5
60	140	20	8.3	27.2
65	149	25	7.8	25.6
70	158	32.1	7.1	23.3
75	167	38.6	6.4	21
80	176	47.5	5.5	18
85	185	57.8	4.4	14.4
90	194	70	3.2	10.5
95	203	84.5	1.7	5.6
100	212	101.33	0	0

FRICITION LOSS

IN SMOOTH BORE PIPE

igpm	2"	3"	4"	6"	8"	10"	12"	m ³ /h
50	10	1.4	0.3					10
75	20	3	0.7					15
100	35	5	1	0.1				20
150		12	2.5	0.35				30
200		18	4.5	0.6				50
300		40	10	1.2	0.4			75
400			18	2.2	0.7			100
500			28	3.5	1.1			125
600			38	4.5	1.5			150
700				6.5	2			175
800				8	2.7			200
900				10	3.4	1	0.4	225
1000				13	4	1.4	0.5	250
1200				18	6	2	0.8	300
1400				26	8	3	1	350
1600				32	11	4	1.5	400
1800				36	14	4.5	2	450
2000				38	17	5	2.5	500
2500					25	9	4	650
3000					38	12	5	750
4000						21	8	1000

Losses in m/100 m or ft/100 ft

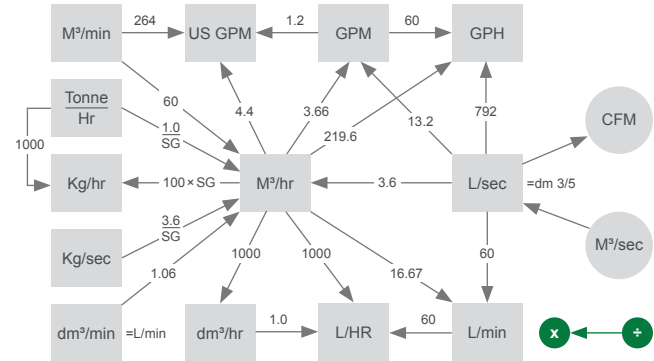
The above table refers to new pipes. Moderate corrosion may increase the resistance by 25% and severe corrosion by 50% or 100%. To calculate the resistance of bends and other fittings, an equivalent length for each fitting should be added to the actual length of straight pipe. The equivalent length in feet can be estimated with sufficient accuracy by multiplying the factors in the following table by the pipe diameter in inches.

- Mitre elbow or toe **5**
- Round elbow **3**
- Slow bend **2**
- Square edged entrance **3**
- Gate valve fully open **2**
- Globe valve fully open **10**
- Non-return valve (flap type) **3**
- Foot-valve and strainer (clean) **5**

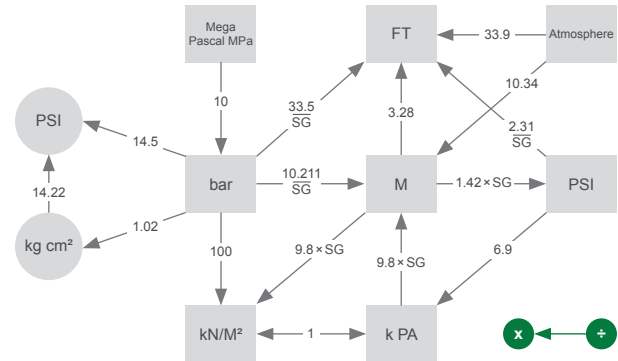
CONVERSION FACTORS

Inches	x 25.4	= mm	x 0.0394	= Inches
Feet	x 0.3048	= m	x 3.281	= Feet
Yards	x 0.9144	= m	x 1.0936	= Yards
Miles	x 1.609	= km	x 0.6214	= Miles
Ft ²	x 0.0929	= m ²	x 10.764	= Ft ²
Miles ²	x 2.59	= km ²	x 0.3861	= Miles ²
In ³	x 16387	= mm ³	x 0.000061	= In ³
Ft ³	x 0.02832	= m ³	x 35.31	= Ft ³
Gals (Imp)	x 4.546	= L	x 0.22	= Gals (US)
	x 0.004546	= m ³	x 220	= (Imp)
Gals (US)	x 3.785	= L	x 0.2642	= Gals (US)
LBS	x 0.4536	= kg	x 2.2046	= LBS
Tons	x 1016	= kg	x 0.000984	= Tons
Gal/min (Imp)	x 0.2727	= m ³ /h	x 3.667	= Gal/min (Imp)
	x 0.0757	= L/sec	x 13.21	=
	x 1.2	= USGPM	x 0.833	=
L/sec	x 3.6	= m ³ /h	x 0.277	= L/sec
PSI	x 0.06895	= Bar	x 14.504	= PSI
	x 0.703 S.G	= M Liquid	x 1.422 x S.G	=
Ft. Liquid	x 0.02989 x S.G	= Bar	x 33.456 S.G	= Ft. Liquid
STD. ATM	x 1.01225	= Bar	x 0.9879	= STD. ATM
HP	x 0.7457	= Kw	x 1.341	= HP

FLOW CONVERSIONS



HEAD/PRESSURE CONVERSIONS



NOTES





PIONEER PUMP
PERFORMANCE THROUGH INNOVATION™

UK REGIONAL LOCATIONS

East and South East

Pioneer House, Woolpit Road,
Rattlesden, IP30 0RZ

+44 (0) 1449 736777
sales@pioneer-hire.co.uk

Wales and South West

Unit 18, Llandough Trading Estate,
Penarth Road, Cardiff, CF11 8RR

+44 (0) 2920 701543
sales@pioneer-hire.co.uk

Midlands and North East

Trent Lane,
Little Tennis Street South,
Nottingham, NG2 4DS

+44 (0) 1159 581338
sales@pioneer-hire.co.uk

North West and Scotland

Unit 12, Tattenham Works,
Leigh Road, Hindley Green,
Wigan, WN2 4SZ

+44 (0) 1942 259621
sales@pioneer-hire.co.uk

Pioneer Pump EMEA Head Office:

Woolpit Road, Rattlesden, Suffolk,
England, IP30 0RZ, United Kingdom

+44 (0) 1449 736777
sales@pioneerpump.co.uk



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