



SP200

TRIPLEX SINGLE ACTING
RECIPROCATING PLUNGER PUMP

INTERCHANGABLE CONFIGURATION | CUSTOMISED SOLUTIONS

The SP200 is the pump of choice in high head slurry applications and is adaptable to a wide range of applications.

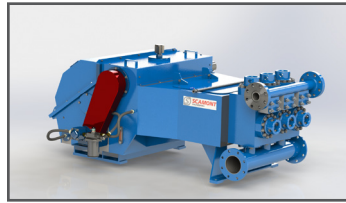
UNIQUE DESIGN FEATURES

- Robust design with fabricated steel frame allowing for refurbishment
- Fluid end configuration interchangeable with Scamont SP-600
- Clear water or slurry service with solids up to 8mm in size
- Low rpm
- Simple maintenance
- From 6.5 l/sec at 2175 m vertical head to 14.7 l/sec at 975m vertical head (SG = 1.0), or similar pressures.
- Different materials of construction available in order to deal with a multitude of corrosive forces
- Electric or diesel motor driven
- Proudly manufactured in South Africa

APPLICATIONS

- High dynamic head applications
- Horizontal or vertical transfer
- Underground and Surface Mining Operations
- Settler Underflow
- High pressure jetting or hosing
- Shaft bottom de-watering
- Stage mounting during shaft sinking
- Backfill pumping
- Grout plants
- Tailings

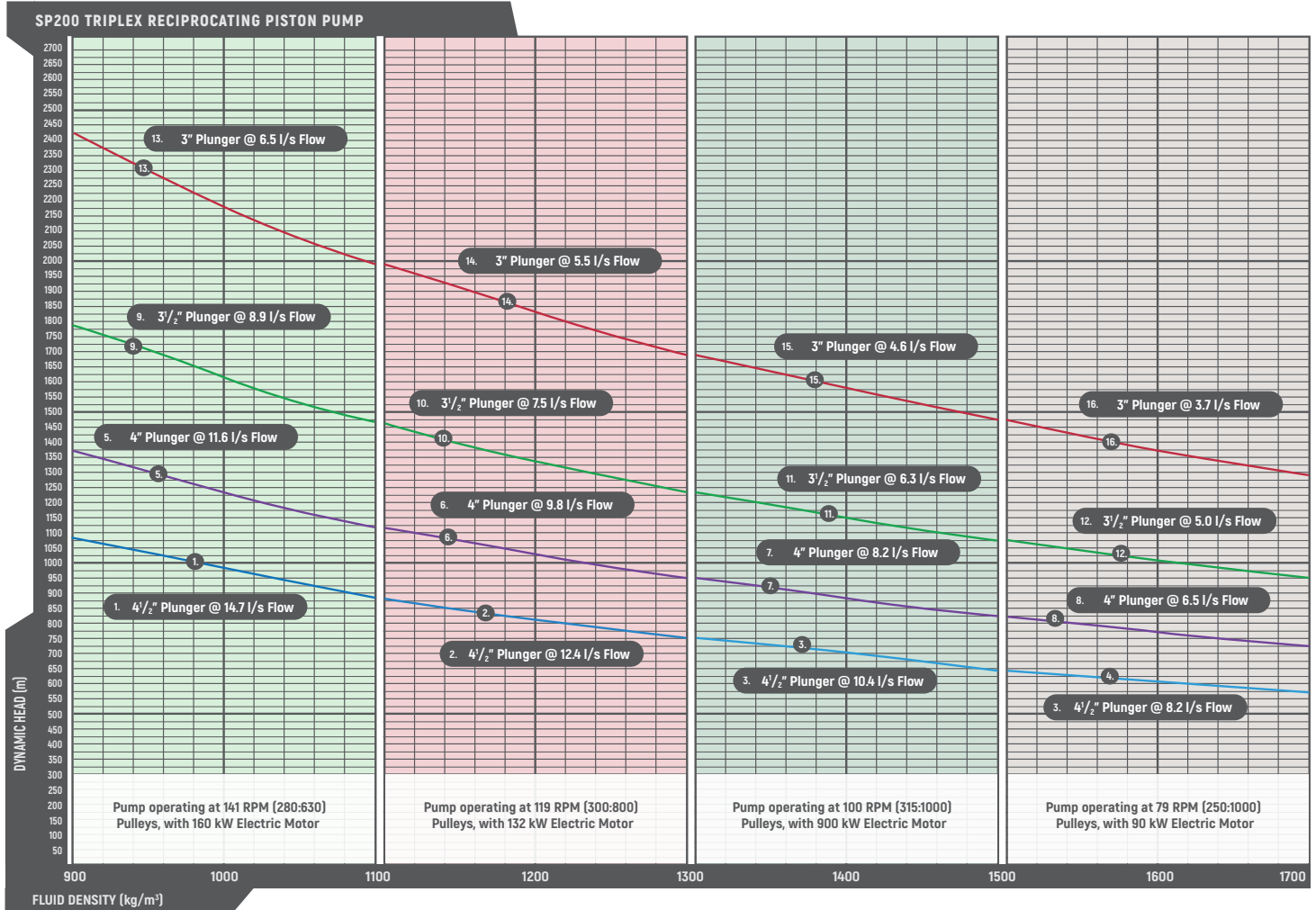
DYNAMIC | POWER | MOTION



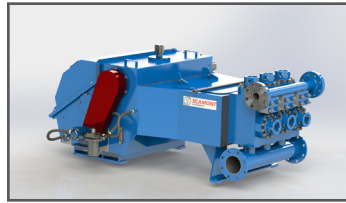
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PERFORMANCE CURVES



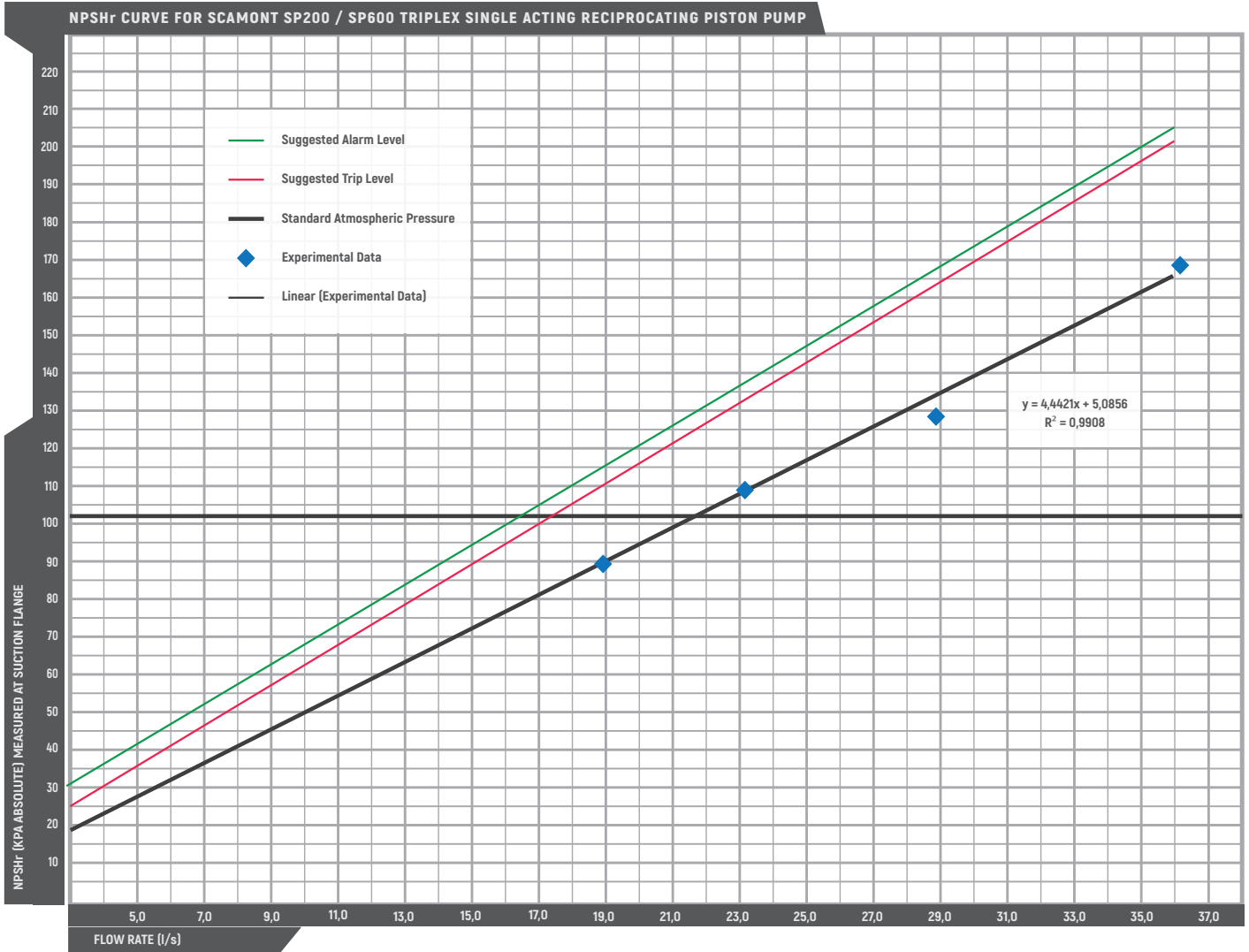
- The curves shown were calculated assuming a 90% mechanical efficiency and a 100% volumetric efficiency.
- Maximum pressure applies to the fluid ends.
- Maximum pressures for any given piston size must not be exceeded even at reduced RPM
- These speeds are recommended for suction lines shorter than 6m and are recommended for favourable suction line conditions however consideration must be given to viscosity and character of fluids.



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NPSHr CURVE



- NPSH curve was obtained using a 3% loss of flow as the departure cavitation point. Experiments were conducted using clean water at 21 degrees celcius.
- Pressure was measured at inlet flange of the pump.
- Suggested Alarm and Trip levels account for nominal Factor of Safety as well as the 17% dip in pressure, in line with typical undampened triplex waveform.



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TECHNICAL SPECIFICATIONS

Motor Size:

- 0.9 > Specific Gravity < 1.1 : 160 kW
- 1.1 > Specific Gravity < 1.3 : 132 kW
- 1.3 > Specific Gravity < 1.5 : 110 kW
- 1.5 > Specific Gravity < 1.7 : 90 kW

Larger motors can be installed however maximum pressure cannot be exceeded

Max Pressure:

- 4 1/2" Plunger : 9.55 MPa
- 4" Plunger : 12.09 MPa
- 3 1/2" Plunger : 15.79 MPa
- 3" Plunger : 21.49 MPa

Based on Piston load of 9990kg

NOTE: 3" only supplied with Forged Front Discharge Fluid End and Class 1500 discharge manifold

Crank Speed:

- 0.9 > Specific Gravity < 1.09 : 141 RPM
- 1.1 > Specific Gravity < 1.29 : 119 RPM
- 1.3 > Specific Gravity < 1.49 : 100 RPM
- 1.5 > Specific Gravity < 1.7 : 79 RPM

Speeds can be altered by changing the pulleys. Greater speeds result in greater flow which absorb more power. Contact a Scamont representative before attempting to change flow rates.

Recommend NPSH: Refer to NPSH curve

This is measured at the suction flange.

For Suction lines longer than 6m, please contact a Scamont representative to assist.

Max Particle Size: 8mm

Use a mesh screen to remove any particle which is larger than 8mm. This mesh must be cleaned regularly to avoid suction problems.

Pump Weight: 6400 kg

This is complete with motor and base frame. Pump without motor and base frame weighs 5100 kg.

Pump Accessories

Scamont offers a full range of accessories for the SP200 pump.

- Non Return Valves (Installed in order to limit slip flow on discharge valve)
- Shear Relief Valves (necessary in every installation to limit max. pressure)
- Plug Valves (used at start-up to obtain operating speed with load)
- Accumulators (used to obtain steady flow in discharge line)
- Valve Seat Pullers (used to remove valve seats)
- Plunger Extracting Tool (used to assist in removing plungers)
- Sockets (specific to stuffing box, jackshaft and eccentric nuts)
- Starter Panel (Designed to used with the SP200 pump, details obtainable from Scamont)

PERFORMANCE TABLE

PLUNGER SIZE		STROKE		DISPLACEMENT PER REVOLUTION (SINGLE ACTION)	MAXIMUM PISTON LOAD	MAXIMUM PRESSURE	DISPLACEMENT AT PUMP RPM				BYPASS VALVE SIZE*	RECOMM. PRESSURE RATING
In.	mm	In.	mm	cc	kg	MPa	l/s				(NPS) DN	(Class) PN
4,5	114,3	8	203,2	2 085	9 990	9,55	14,7	12,4	10,4	8,2	(2") 50mm	(900)160
4	101,6	8	203,2	1 647	9 990	12,09	11,6	9,8	8,2	6,5	(2") 50mm	(900)160
3,5	88,9	8	203,2	1 261	9 990	15,79	8,9	7,5	6,3	5,0	(2") 50mm	(1500)260
3	76,2	8	203,2	927	9 990	21,49	6,5	5,5	4,6	3,7	(2") 50mm	(1500)260
INPUT POWER						kW	160	132	110	90		
PUMP RPM						RPM	141	119	100	79		
SPECIFIC GRAVITY OF FLUID						SG	0.9>SG<1.09	1.1>SG<1.29	1.3>SG<1.49	1.5>SG<1.7		

Bypass Valve Size*

When selecting the bypass valve pressure rating multiply the maximum system pressure by 1.15 to determine maximum valve rating