



# SP600

TRIPLEX SINGLE ACTING  
RECIPROCATING PISTON PUMP

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The Scamont SP600 pump is robust in design and suitable for application in the harshest environments.

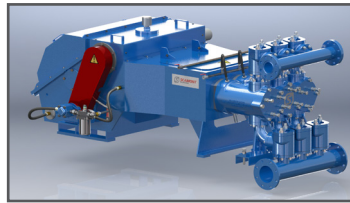
## UNIQUE DESIGN FEATURES

- New release ideally suited for higher volume lower head applications
- Robust design with fabricated steel frame allowing for refurbishment
- Registered Design Protection
- Fluid end configuration interchangeable with Scamont SP-200
- Clear water or slurry service with solids up to 8mm in size
- Low rpm
- Simple Piston change procedure
- Disposable valve bodies
- From 22 l/sec at 550 m vertical head to 34.4 l/sec at 350 m 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

- Higher volumetric requirements
- Horizontal or vertical transfer
- Underground and Surface Mining Operations
- Settler Underflow
- Shaft bottom de-watering
- Stage mounting during shaft sinking
- Backfill pumping
- Grout plants
- Tailings

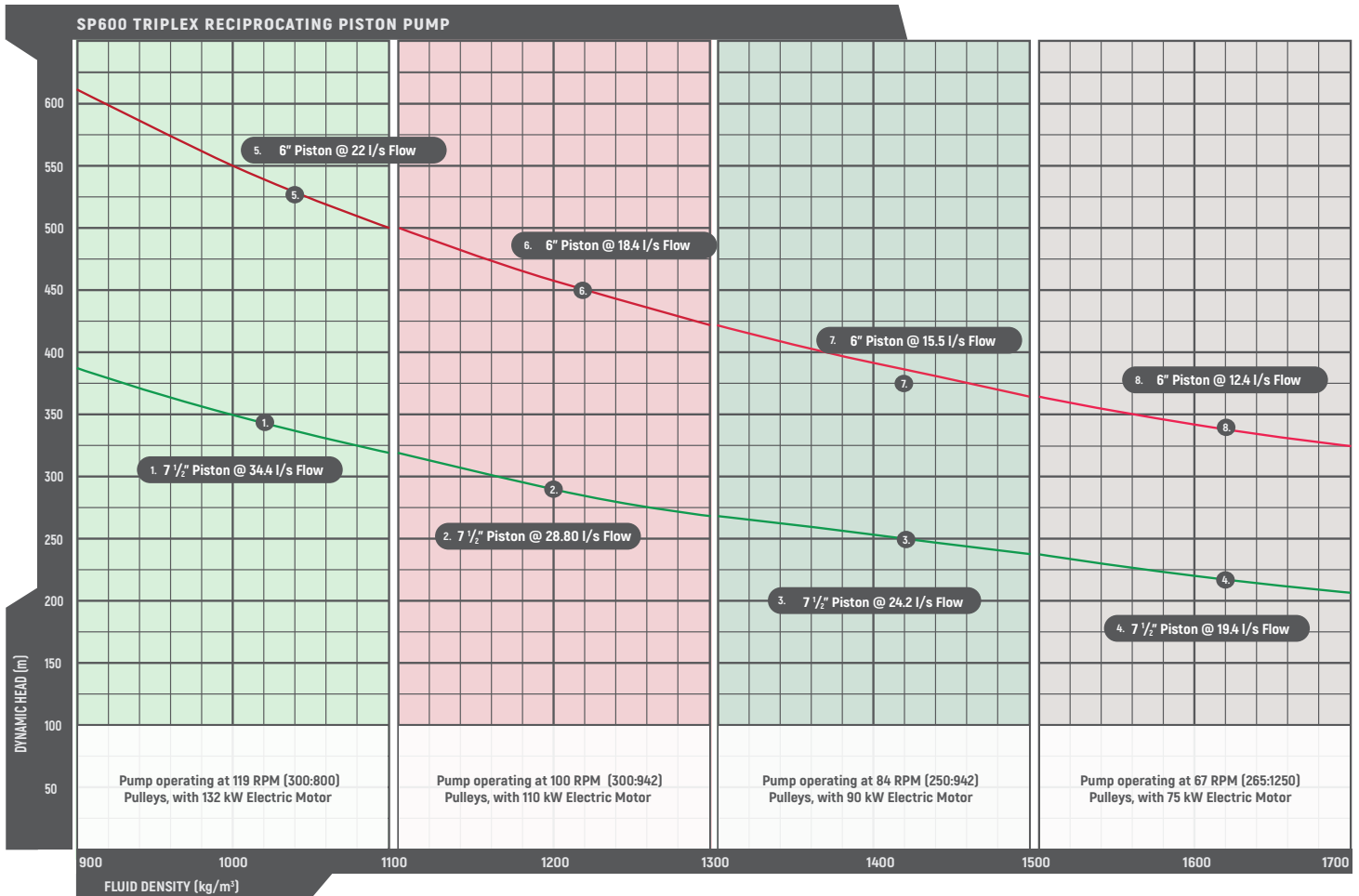
*DYNAMIC | POWER | MOTION*



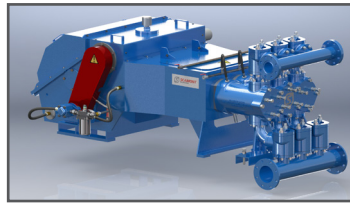
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## PERFORMANCE CURVES



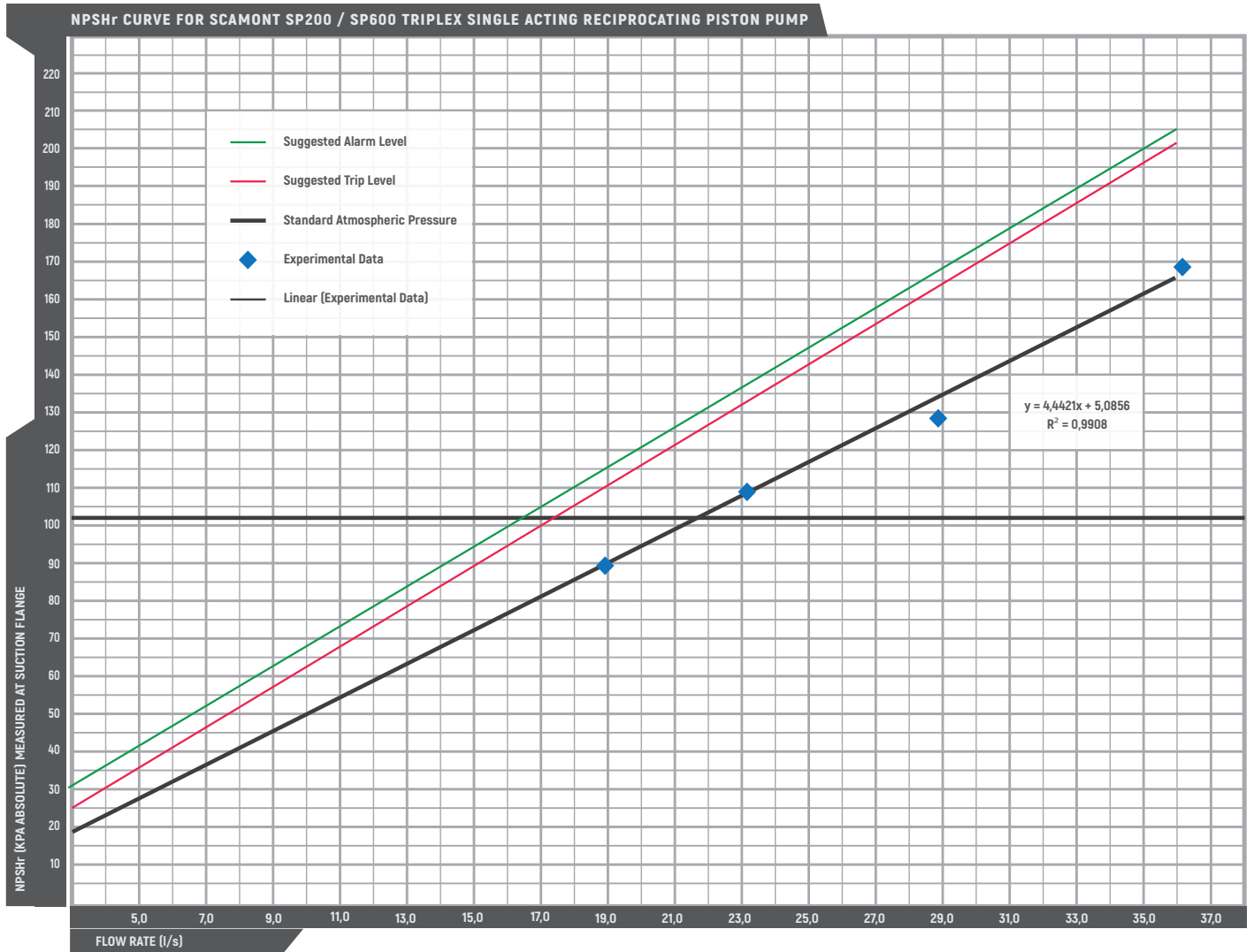
- The curves shown were calculated assuming a 90% mechanical efficiency and a 100% volumetric efficiency.
- Maximum pressure applies to the fluid ends.
- Maximum pressures for any given Piston size must not be exceeded even at reduced RPM.
- Speeds are recommended for suction lines shorter than 6m and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



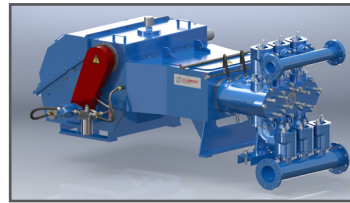
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## NPSHr CURVE



- 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 below the nominal pressure, in line with typical undampened triplex waveform.



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## TECHNICAL SPECIFICATIONS

### Motor Size:

- 0.9 > Specific Gravity < 1.1 : 132 kW
- 1.1 > Specific Gravity < 1.3 : 110 kW
- 1.3 > Specific Gravity < 1.5 : 90 kW
- 1.5 > Specific Gravity < 1.7 : 75 kW

Larger motors can be installed however maximum pressure cannot be exceeded

### Max Pressure:

- 7 1/2" Piston : 3.44 MPa
- 6" Piston : 5.37 MPa

Based on Piston load of 9990kg

### Crank Speed:

- 0.9 > Specific Gravity < 1.09 : 119 RPM
- 1.1 > Specific Gravity < 1.29 : 100 RPM
- 1.3 > Specific Gravity < 1.49 : 84 RPM
- 1.5 > Specific Gravity < 1.7 : 67 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 SP600 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 representative)

### Pump Monitoring Device

Scamont offers a lubrication monitoring system which trips the pump on low oil, filter block or oil temperature limit.

### Material of Construction

Scamont Engineering can alter the materials of construction for any application including mud and acid water.

### Note

- Crank speed can be varied to provide for varying capacities and pressures.
- Data subject to change as required

## 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
7,5	190,5	8	203,2	5 792	9 990	3,44	34,4	29,1	24,3	19,4	(3") 80mm	(300)50
6	152,4	8	203,2	3 707	9 990	5,37	22	18,6	15,5	12,4	(3") 80mm	(600)100
INPUT POWER						kW	132	110	90	75		
PUMP RPM						RPM	119	100	84	67		
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