



# 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 21.99 l/sec at 612 m vertical head to 34.35 l/sec at 392 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

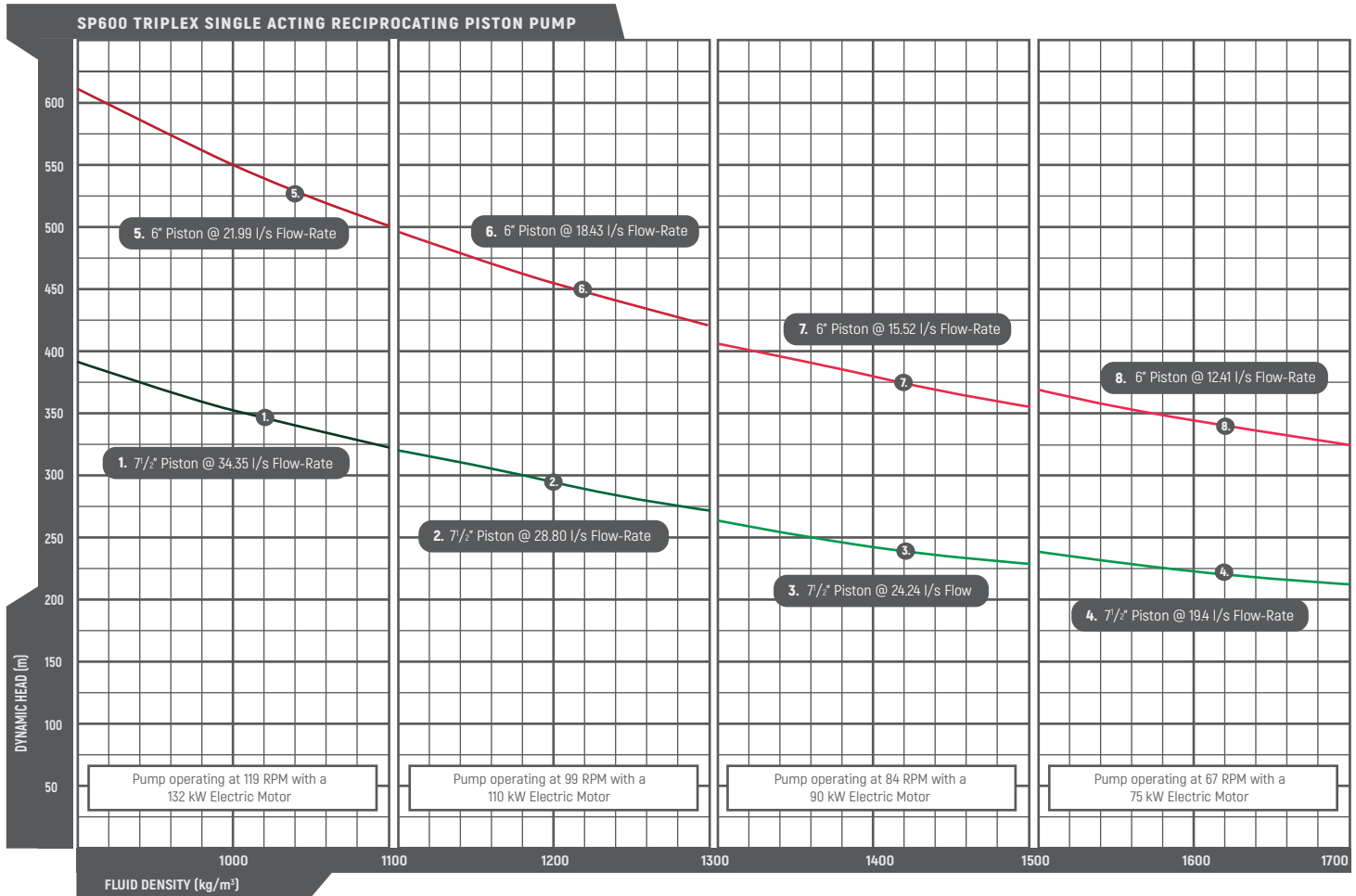
*DYNAMIC | POWER | MOTION*



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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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## 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 : 99 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: 4m

This is measured from the fluid surface level to the centre line of the pump. Suction lines longer than 6m will result in a greater NPSHR. 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.

This includes and is not limited to:

- Non Return Valves (Installed in order to limit slip flow on discharge valve)
- Shear Relief Valves (necessary in every installation to limit maximum pressure)
- Plug Valves (used at start-up to obtain operating speed without 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)
- External lubrication system with 100 % redundancy.

### 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<br>PER REVOLUTION<br>(SINGLE ACTION) | MAXIMUM<br>PISTON LOAD | MAXIMUM<br>PRESSURE | DISPLACEMENT AT PUMP RPM |             |             |            | BYPASS<br>VALVE<br>SIZE | RECOMM.<br>PRESSURE<br>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                | 34,35                    | 28,80       | 24,24       | 19,40      | (3") 80mm               | (300)50                       |
| 6                         | 152,4 | 8      | 203,2 | 3 707   | 9 990                  | 5,37                | 21,99                    | 18,43       | 15,52       | 12,41      | (3") 80mm               | (600)100                      |
| INPUT POWER               |       |        |       |   |                        | kW                  | 132                      | 110         | 90          | 75         |                         |                               |
| PUMP RPM                  |       |        |       |   |                        | RPM                 | 119                      | 99          | 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