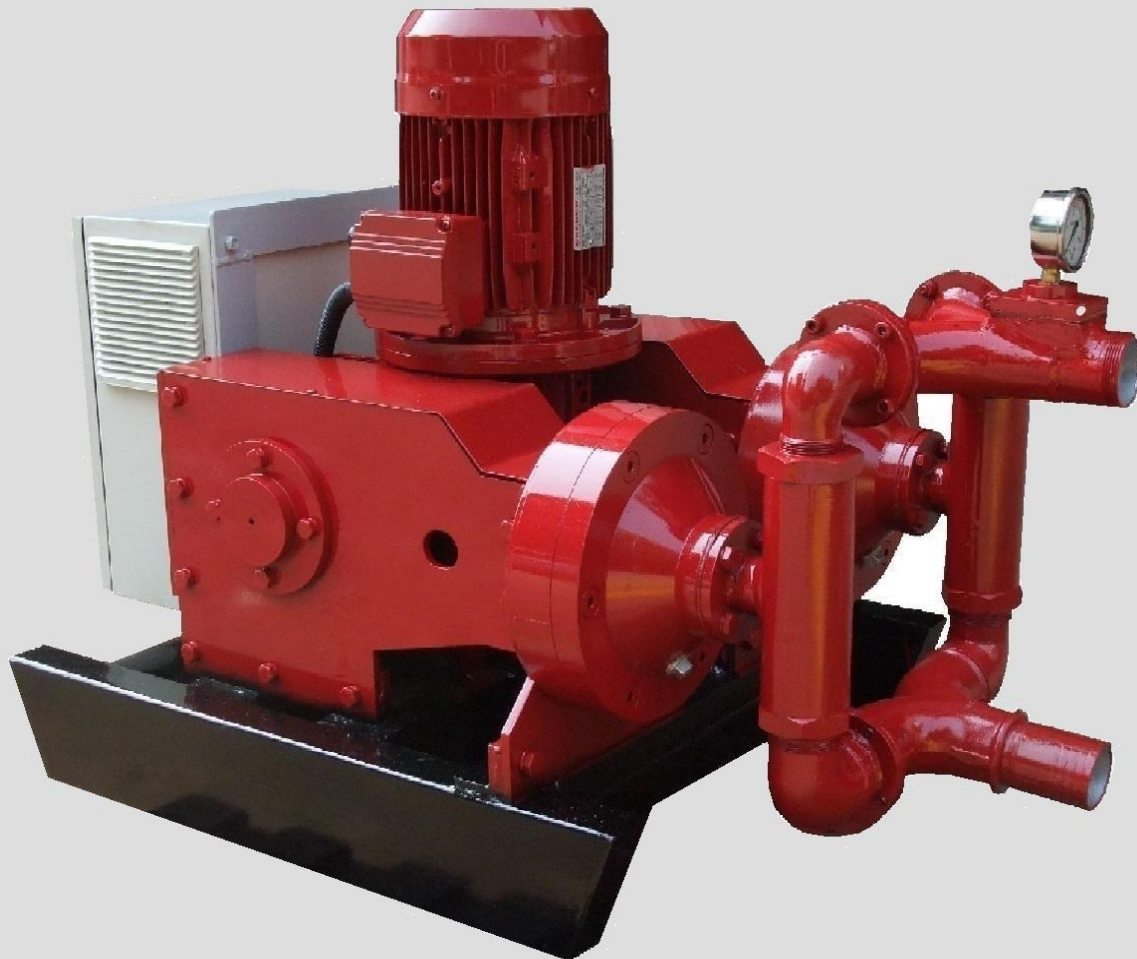


GROUTEC

The Cost Effective Solution for Cement & Chemical Injection



SCOTT VICKERS

Grouting Equipment



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GROUTEC Range of Grouting Equipment

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GROUTEC Specifications at a Glance

SCOTT VICKERS manufactures a range of cement and chemical grouting equipment including:-

- ❖ **PUMPS** - The **Cement Grout Pumps** are all diaphragm-type. These diaphragms, unlike most pump diaphragms, are extremely robust comprising very thick heavy duty rubber with steel reinforcement within the inner and outer surface.

ADVANTAGES

- Unaffected by material being pumped
- Ease of maintenance and repair
- Long diaphragm life

The **Chemical Grout Pumps** are all piston type and are either hand or power-operated. The former is suitable for grouting work where grout volumes and pressures are relatively small. The power-operated pump which is electric, is suitable for larger projects where volume and high pressure are required.

ADVANTAGES

- Simple construction
- Easy to maintain

- ❖ **MIXERS** - The **High Speed Colloidal Mixers** are extremely efficient and can produce a 50kg 6-bag mix within less than a minute from the time the cement has been emptied into the mixing drum.

ADVANTAGES

- Extremely fast mixing
- No seals to wear out
- Ease of maintenance

The **Paddle Agitators** comprise a slow rotating single four-bladed paddle near the base of the unit and fixed baffles plates around the inner surface of the mixing drum. This creates a moving grout mix both horizontally and vertically. The base of the drum is slightly conical with a central outlet.

ADVANTAGES

- No seals to wear out
- Complete discharge of grout
- Maintains consistency & fluidity

- ❖ **GROUT STATIONS** - These comprise a **Mixer, Agitator & Pump** or just a **Mixer & Agitator** and are available with either electric or diesel versions.

ADVANTAGES

- Extremely fast mixing
- No seals to wear out
- Ease of maintenance



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SV5 & SV10 Hand-operated Grout Pumps



The **SV5 & SV10** are hand-operated single diaphragm grout pumps. The units are extremely compact and the simplicity of the design ensures trouble-free performance under varying site conditions. Maintenance is simple and takes little time.



SPECIFICATIONS

Model	Output litres/stroke	Maximum Pressure bar	Inlet mm	Outlet mm	Dimensions cm (without handle)	Weight kg
SV5	0.13	14	25	20	78 x 19 x 33	19
SV10	0.53	14	38	32	112 x 41 x 41	50

SUPPLY

Both models are supplied complete with:-

- 3m delivery hose
- 0.5m suction hose
- Valve Spanner

INJECTION MATERIALS

They are suitable for pumping all customary types of cementitious grouts containing abrasive materials including sand.

ADVANTAGES

- Low wear
- Minimal maintenance costs
- Fast cleaning

CONSTRUCTION DETAILS

Pump Body – Heavy-gauge steel. All stressed areas fully ribbed.

Valve Assembly - One combined suction and delivery chamber with seat and top having screw-cut threads for easy removal. Ball valves made from high- density chrome steel.

Diaphragm - Specially manufactured thick rubber with steel reinforcement.

Pressure Gauge - Bourdon tube type fitted above an oil-filled chamber which isolates the gauge from the grout.

Base - Pump supported on a steel skid chassis with wheels to facilitate transportation. A pressure release valve is fitted as standard.

SV13 & SV380 Chemical Grout Pumps



The **SV13 & SV380** are single piston chemical grout pumps, the former hand-operated and the latter electrically operated. They are extremely compact and the simplicity of each design ensures trouble-free performance under varying site conditions. Maintenance is simple and takes little time.



SPECIFICATIONS

Model	Power W	Voltage V	Output litres/stroke	Output litres/min	Maximum Pressure bar	Dimensions cm	Weight kg
SV13	-	-	0.019	-	100	100 x 48 x 60	14
SV380	650	220	-	0.70	690	30 x 18 x 49	8

ADVANTAGES

- Simple gear system ensures positive feed at all times (**SV380**)
- Electric drill can be fitted to **SV380** without any special tools
- Minimal maintenance costs, fast cleaning & low wear

SUPPLY

Both models are supplied complete with:-

- 3m delivery hose
- Suction hose

In addition the **SV380** is supplied with:-

- Remote speed control
- Injection valve
- Nozzle set
- Disposable hopper

ACCESSORIES

Steel, brass or plastic packers and seal kit set together with other accessories are available

INJECTION MATERIALS

They are both suitable for pumping all customary types of injection epoxy resins and polyurethane grouts with viscosities up to 1,000cps.



SV30 & SV35 Diaphragm Grout Pumps



SV30E



SV35

The **SV30** is single diaphragm and the **SV35** is a double diaphragm grout pump powered by either an electric or pneumatic motor. Both models are extremely compact and the simplicity of the design ensures trouble-free performance under varying site conditions. Maintenance is simple and takes little time.

SPECIFICATIONS

Model	Output litres/min	Maximum Pressure bar	Electric Motor	Pneumatic Motor	Dimensions cm	Weight kg
SV30	72	20	3HP 3ph 50Hz	3.6m ³ /min @ 10bar	92 x 56 x 79	150
SV35	140	20	5HP 3ph 50Hz	3.6m ³ /min @ 10bar	100 x 62 x 80	226

SUPPLY

Both models are supplied complete with:-

- 3m delivery hose
- 0.5m suction hose
- Valve Spanner

ADVANTAGES

- Low wear
- Minimal maintenance costs
- Fast cleaning

INJECTION MATERIALS

They are suitable for pumping all customary types of cementitious grouts containing abrasive materials including sand.

CONSTRUCTION DETAILS

Pump Body – Heavy-duty steel. All stressed areas fully ribbed.

Valve Assembly - One combined suction and delivery chamber with seat and top having screw-cut threads for easy removal. Ball valves made from high- density chrome steel.

Diaphragm - Specially manufactured 20mm thick rubber with steel reinforcement

Pressure Gauge - Bourdon tube type fitted above an oil-filled reservoir designed to record the pressure without the grout acting directly on the gauge.

Base - Pump supported on a steel skid chassis.

Connections - Inlet 60mm OD. Outlet 32mm BSP. Pressure release valve is fitted as standard.

SV60 & SV65 Grout Mixers



SV60E



Agitator blades & Baffle Plates

The **SV60** is a low speed cement grout agitator designed for use as a stand- alone unit with a grout pump or linked to the **SV65** high speed colloidal cement grout mixer, enabling continuous injection while batch mixing. 3 agitator blades & 4 static baffle plates in the **SV60** maintain a liquid mix. A removable filter is placed immediately below the inlet to prevent any extraneous material from entering. The outlet is positioned centrally at the slightly coned base to ensure complete grout discharge. The **SV65** can also be used as a stand-alone unit. It is only 950mm high for ease of loading; the mix can be discharged rapidly through a high speed impeller housed in the base of the unit via a simple recirculate or discharge system enabling the grout to be discharged.



SV65E



Bearing-free mixing system

SPECIFICATIONS

Model	Holding Capacity litres	Mixing Capacity litres	Impeller Speed rpm	Max Output Pressure bar	Max Discharge Rate litres/min	Diesel Engine	Electric Motor	Inlet mm	Outlet mm	Dimensions cm	Weight kg
SV60	700	-	50	-	-	5HP at 2200rpm	3HP 3ph 50Hz	60	50	143 x 111 x Ø	230
SV65	-	300	1450	5	1000	13HP at 2200rpm	10HP 3ph 50Hz	60	60	100 x 62 x 80	226

INJECTION MATERIALS

The **SV65** is suitable for mixing all customary types of cementitious grouts containing bentonite and/or abrasive materials including sand up to a 1:1 ratio

ADVANTAGES

- Extremely fast mixing
- No seals to wear out
- Low maintenance
- Fast cleaning
- Low wear

CONSTRUCTION DETAILS

- Rugged drive system provides output pressure up to 5bar
- High speed, high shear vortex ensures each cement particle is fully wetted.
- Simple bag splitter & safety grill
- Electric or diesel options



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SV6065 Grout Mixer-Agitator Systems



Diesel engine at rear



Electric option

The **SV6065D** is a diesel-operated grout mixing system comprising the following units mounted on a skid chassis:-

- SV65 Colloidal Grout mixer
- Water Tank
- SV60 Grout Agitator
- Diesel Engine

The **SV65 Mixer** provides an extremely efficient and rapid means of continuously producing various types of grout, which can include cement, bentonite & sand.

The mixing tank is fitted with a removable bag splitter to ensure even distribution of the materials into the mix.

The unit has a hand-operated 2-way changeover assembly to enable the grout to be either discharged or recirculated.

The **W150 Water Tank** is fitted on top of the mixer and the required volume of water can be adjusted to the required volume through the level gauge.

The **SV60 Agitator** is able to hold 3 times the mixing capacity of the mixer. There is 3-bladed impeller acting against removable baffle plates fitted on the side of the tank. The impeller rotates through a reduction gearbox.

SPECIFICATIONS

SV65 MIXER	
Mixing Capacity	300 litres
Max Output Pressure	5 bar depending on viscosity
Max Discharge Rate	1000 litres/minute depending on viscosity
Impeller Speed	1450 rpm

W150 WATER TANK	
Holding Capacity	180 litres
Measuring Range	75 - 150 litres

SV60 AGITATOR	
Holding Capacity	700 litres
Impeller Speed	50 rpm

GENERAL	
Diesel Engine	17HP @ 2200rpm
Electric Motors: SV65	10HP 3ph 50Hz
SV60	2HP 3ph 50Hz
Approximate Dimensions	300 x 140 x 150cm
Approximate Weight	800kg

ADVANTAGES

- One-man operation
- Extremely fast mixing
- Easy grout transfer from mixer to agitator
- No seals to wear out from grout
- Low maintenance cost
- Simple operation
- Fast cleaning



Water Tank with Level Gauge

CONSTRUCTION DETAILS

- Rugged drive system provides output pressure up to 5 bar depending on grout viscosity
- Fully enclosed moving parts
- Hinged grills on top of mixer & agitator tanks
- Level gauge on water tank
- Each unit can be removed from chassis
- Electric option



Recirculation & Discharge



SV60 Impeller & Baffle Plates



Bag Splitter & Guard



System - Examples



SV606535E Electrically-operated **SV35** Double Diaphragm Grout Pump, **SV65** High Speed Colloidal Grout Mixer complete with Dust Extraction Hood, **SV60** Low Speed Grout Paddle Mixer, all mounted on a Skid Chassis with Lifting Eyes. Control Panel with Inverter to provide **SV35** with variable speed.

SV6065E Electrically-operated **SV65** High Speed Colloidal Grout Mixer complete with Dust Extraction Hood, **SV60** Low Speed Grout Paddle Mixer, Gearbox for attaching a Mono-type Pump, all mounted within a special Lifting Frame for an offshore project.





SV6065D Diesel-operated **SV65** High Speed Colloidal Grout Mixer complete with Water Tank, **SV60** Low Speed Grout Paddle Mixer, all mounted on a Skid Chassis with Lifting Eyes.

SV6065E Electrically-operated **SV65** High Speed Colloidal Grout Mixer complete with Dust Extraction Hood, **SV60** Low Speed Grout Paddle Mixer, all mounted on a Skid Chassis with Lifting Eyes. Control Panel with Inverter to provide **SV65** with two-stage speed for use with OPC and Micro-fine cement.





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Accessories

Packers



Plastic - One-time use for 16mm drilled holes.
Available in packs of 50 pieces.



Steel - Multiple use for 16mm drilled holes.
Available in packs of 10 pieces.



Brass - One-time use for 10mm drilled holes.
Available in packs of 100 pieces

Large diameter Steel Packers with specially produced hard-soft-hard rubber sleeve, primarily for use in cement contact grouting in precast tunnel segments.
Available in sizes from 25mm - 45mm holes



Data Recorder System



This unit records pressure, flow and total flow as shown in the adjacent picture.



Supply:	Single phase 220-240
Operating pressure:	1-60 bar
Operating flow rate:	0-60 litres/min
Touchscreen:	5" colour
Recorder:	Export of data via USB
Pressure sensor:	Stainless steel 7-segment
Flow sensor:	Magnetic-inductive
Software suite:	Imports data/generate reports

Pressure Gauge Heads

This is used close to the injection point and is useful when a long grout line significantly reduces the actual grout injection pressure.

Available with various pressure ranges.



Specifications at a glance

HAND-OPERATED PUMPS

		SV5	SV10	SV13
Max Output	litre/stroke	0.13	0.53	0.1
Max Pressure	bar	14	14	100
Dimensions	cm	78 x 19 x 33	112 x 41 x 41	100 x 48 x 60
Weight	kg	19	50	14

POWER-OPERATED PUMPS

		SV380	SV30	SV35
Max Output	litre/min	0.70	72	140
Max Pressure	bar	690	20	20
Electric Motor		Drill 220V 650W	3HP 3ph 50Hz	5HP 3ph 50Hz
Pneumatic Motor		-	3.6m³/min@10bar	3.6m³/min@10bar
Dimensions	cm	30 x 18 x 49	92 x 56 x 79	100 x 62 x 80
Weight	kg	8	150	226

MIXERS

		SV60	SV65
Max Mixing Capacity	litres	700	300
Max Output Pressure	bar	-	5 (depending on viscosity)
Impeller Speed (w/o Inverter)	rpm	50	1450
Impeller Speed (with Inverter)	rpm	-	1450 & 1900
Diesel		-	13HP @ 2200rpm
Electric		3HP 3ph 50Hz	10HP 3ph 50Hz

SYSTEMS

SYSTEMS				
		SV6065	SV606530	SV606535
SV30 PUMP				
Max Output	litres/min	-	72	140
Max Pressure	bar	-	20	
SV65 MIXER				
Mixing Capacity	litres	300		
Max Output Pressure	bar	5		
Max Discharge Rate	litres/min	1000		
Impeller Speed	rpm	1450		
W150 WATER TANK				
Capacity	litres	180		
Measuring Range	litres	75 - 150		
SV60 AGITATOR				
Capacity	litres	700		
Impeller Speed	rpm	50		
GENERAL				
Approximate Dimensions	cm	300 x 140 x 150		
Approximate Weight	kg	800	950	1100

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