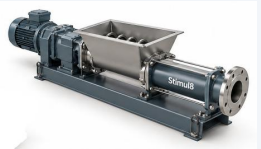



SCH Hygienic


SCR Corrosion resistant


SCHT Wide throat


SCM Mobile skid

Products & Technical Data

Stimul8 Progressing Cavity Pumps

Smooth, low-shear pumping of sludge, slurries, pastes and viscous media.
Engineered and manufactured in India.

20–100
m^3/h standard range

24 bar
up to 4 stages

7
pump series

Pumps & Accessories

Stimul8 Progressing Cavity Pumps

– BUILT FOR DIFFICULT MEDIA

Stimul8 Technologies designs and manufactures progressing cavity pumps in India for process industries, utilities, and EPC contractors. Seven pump series cover sludge, slurries, pastes, hygienic products, and corrosive chemicals. We supply the pump, drive, spares, and support, with short delivery times and direct access to our process engineers.

STANDARD RANGE

20–100 m³/h

6 to 24 bar · −20 to +140 °C

Individual pump selection

We size every pump for its duty: flow, pressure, viscosity, solids, and temperature. We match the speed, number of stages, stator compound, and joint type so the pump reaches the best balance of efficiency and service life.

Media we handle

- Low to very high viscosity, up to 1,000,000 cP
- With solids up to 30 mm, or solids-free
- Abrasive, fibrous and shear-sensitive
- Thixotropic, adhesive and non-flowing
- Lubricating and non-lubricating
- Corrosive, across a wide pH range

Capacity and pressure

- Standard sizes for 20, 40, 45, 50, and 100 m³/h
- 6 bar per stage: 1, 2, or 4 stages for 6, 12, or 24 bar
- Flow proportional to speed for accurate metering
- Other sizes and pressures on request

Wide range of materials

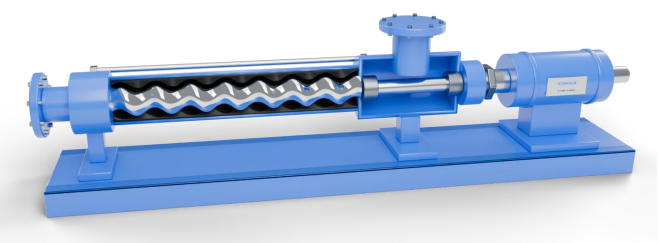
Casings in cast iron, cast steel, fabricated steel, and stainless steel 304/316; PP and PVDF for corrosive media. Rotors in alloy or stainless steel, hard-chrome plated or hardened. Seven stator elastomers, from natural rubber to FKM.

Shaft seal options

Gland packing in GAGP or PTFE; single mechanical seals; and double mechanical seals with quench or flushing for toxic, crystallizing, or dry-running duties. Cartridge seals on request.

Additional features

- Self-priming
- Reversible direction of rotation and flow
- Low pulsation, quiet running
- Horizontal or vertical installation
- Bare-shaft pumps or complete drive sets

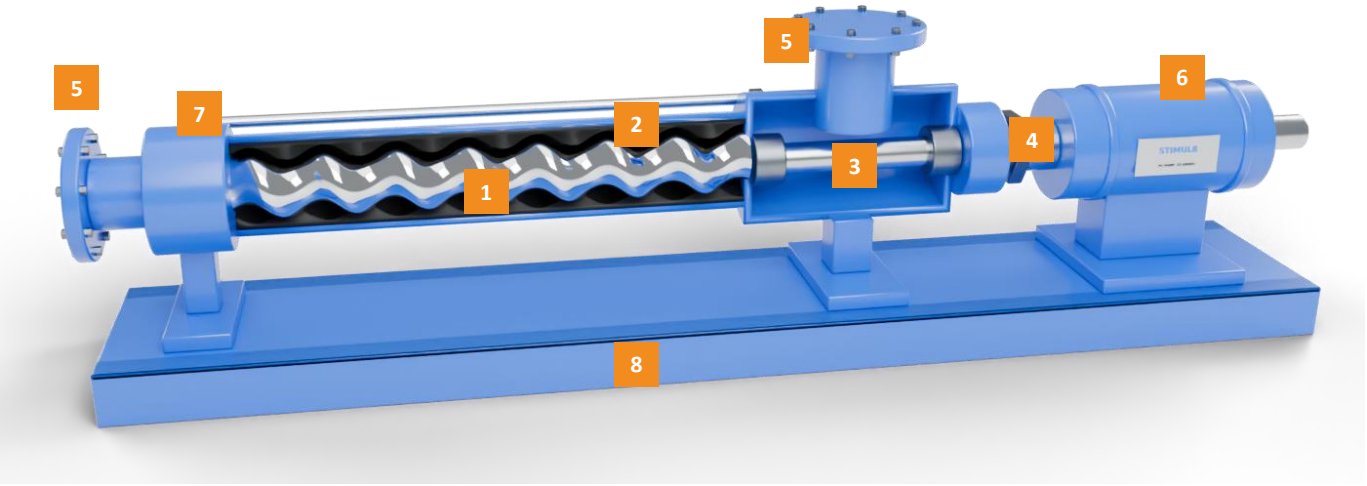


Operating principle

A single-helix steel rotor turns eccentrically inside a double-helix elastomer stator. Their sealing lines form closed cavities that travel from suction to discharge, carrying the product. Each cavity holds a fixed volume; flow rises directly with speed; pulsation is minimal; and the product is never churned.

Design

Every part is built for long, trouble-free service and quick maintenance on site.



1 Rotor
Single-helix rotor in alloy or stainless steel, hard-chrome plated or hardened for wear and corrosion resistance.

2 Stator
Elastomer bonded to a steel tube, with integral seals at both ends. Seven compounds to suit abrasion, oil, acid, or heat.

3 Coupling rod and joints
Transmits torque to the eccentric rotor. Hardened pin joints are standard; heavy-duty cardan joints are used for high loads.

4 Shaft sealing
Gland packing or mechanical seal; replaceable without removing the shaft from its housing.

5 Suction and discharge housings
Enlarged suction housing with clean-out ports; flanged DIN/ANSI connections. Cast iron, cast steel, or stainless steel.

6 Bearing housing
Taper roller bearings carry axial thrust; the free shaft end accepts any drive: geared motor, belt, VFD, or engine.

7 Tie rods
Through-bolt construction clamps the stator between housings and allows fast stator change without special tools.

8 Baseplate and drive
The rigid, fabricated baseplate keeps the pump and drive aligned and is supplied with a coupling and guard as a ready-to-install set.

Pressure by stages

Stages	Max. pressure
1	6 bar
2	12 bar
4	24 bar

More stages at lower pressure per stage extend stator life on abrasive media.

Joints

Pin joint. Hardened, ground pins and bushes, sealed by a sleeve. Simple and easy to service.
Heavy-duty cardan joint. Two sets of pins and bushes share the torsional load, roughly doubling joint life.

Shaft seals

- Gland packing, GAGP, or PTFE
- Single mechanical seal
- Double mechanical seal with quench or flush
- Cartridge seal on request

Product Range

Built on one proven rotor–stator platform, each adapted to how your product is fed, handled, and cleaned.



SCP Series

Standard industrial pump

Workhorse for sludge, slurries, and viscous process media.

100 m³/h · 24 bar · −20 to +140 °C



SCH Series

Hygienic pump

Stainless steel for food, beverage, pharma and cosmetics.

50 m³/h · 24 bar · −20 to +120 °C



SCR Series

Corrosion-resistant pump

PP or PVDF wetted parts for acids, alkalis and aggressive chemicals.

50 m³/h · 12 bar · −10 to +100 °C



SCHP Series

Hopper-feed pump

Feed hopper and auger for pastes and high-solids product.

100 m³/h · 24 bar · −20 to +120 °C



SCHT Series

Heavy-duty wide-throat pump

Large rectangular inlet for dewatered cake and crumbly media.

100 m³/h · 24 bar · −20 to +140 °C



SCV Series

Vertical immersion pump

Pumping element submerged in sumps, pits and tanks.

50 m³/h · 12 bar · −20 to +100 °C



SCM Series

Mobile skid pump

Trolley-mounted unit with control panel, ready to wheel in.

50 m³/h · 12 bar · −20 to +120 °C

Spares & service

Rotors, stators, joints and seals from stock, plus spares for most installed PC pumps. Commissioning, AMCs and training.

Which series for your applications?

Your product	Recommended	Your product	Recommended
Flowable sludge, slurry, viscous fluid	SCP	Food, dairy, pharma, cosmetics	SCH
Pastes, high-viscosity, high solids	SCHP	Acids, alkalis, aggressive chemicals	SCR
Dewatered cake, non-flowing media	SCHT	Sumps, pits, tanks, drums	SCV
Temporary or multi-point transfer	SCM	Not sure?	Ask Us

Values are maximums per series and are not all reached at the same time.

Industrial and Sludge Pumps

For wastewater, process industry and media that will not flow on their own.

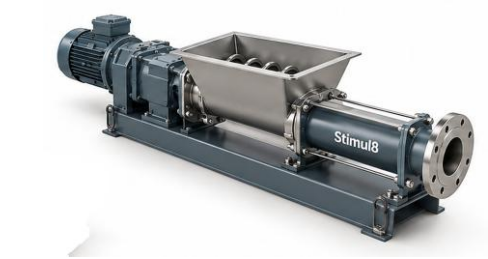


Flow rate	**up to 100 m³/h**
Pressure	**up to 24 bar**
Temperature	**–20 to +140 °C**

SCP Series

Standard progressing cavity pump with bearing housing and free shaft

Fields of application. Municipal and industrial wastewater, sugar and distillery, chemicals, paints, paper and mining, for thin to highly viscous media with or without solids.
Features. Bearing housing with taper roller bearings accepts any drive. Through-bolt construction for fast stator change. Clean-out ports on the suction housing. Sizes for 20, 40, 45, 50 and 100 m³/h.
Options. 1, 2 or 4 stages; heavy-duty cardan joints; gland packing or mechanical seal; geared-motor, belt, VFD or engine drive.



Flow rate	**up to 100 m³/h**
Pressure	**up to 24 bar**
Temperature	**–20 to +140 °C**

SCHT Series

Heavy-duty wide-throat pump with feed screw

Fields of application. Dewatered sludge cake from centrifuges, screw presses and belt filters; press mud, filter cake, food waste and biogas substrates.
Features. Large rectangular inlet that bolts directly under a dewatering machine or conveyor. A horizontal feed screw on the coupling rod pushes non-flowing product into the rotor–stator. Heavy fabricated baseplate.
Options. Inlet sized to your discharge chute; bridge-breaker; lubrication ring for long transfer lines; dry-run protection.



Flow rate	**up to 100 m³/h**
Pressure	**up to 24 bar**
Temperature	**–20 to +120 °C**

SCHP Series

Hopper-feed pump for pastes and high-solids media

Fields of application. Fruit and vegetable mash, starch, spent grain, adhesives, ceramic pastes, putty and thick chemical slurries.
Features. Conical stainless-steel hopper with auger feed for steady filling of the pumping elements. Compact block design on a stainless or painted baseplate with adjustable feet.
Options. Hopper volume to suit your batch; level sensor; hygienic finish; heating jacket for products that must stay warm.

Hygienic and Special Pumps

Purpose-built versions for clean processes, aggressive media and difficult locations.



Flow rate	**up to 50 m³/h**
Pressure	**up to 24 bar**
Temperature	**–20 to +120 °C**

SCH Series · Hygienic

Fields of application. Food, beverage, dairy, pharma and cosmetics: syrups, pulp, yeast, creams, ointments and pastes.
Features. Stainless steel 316/316L wetted parts with smooth contours and no product pockets. Food-grade elastomers. Easy conversion between bare-shaft and close-coupled build.
Options. DIN 11851, SMS, RJT or tri-clamp ports; CIP port; single or double mechanical seals; polished finish.



Flow rate	**up to 50 m³/h**
Pressure	**up to 12 bar**
Temperature	**–10 to +100 °C**

SCR Series · Corrosion resistant

Fields of application. Acids, alkalis, lyes, hypochlorite, ferric chloride, electroplating baths and chemical effluents.
Features. Wetted housings in PP or PVDF, matched with corrosion-resistant rotors and stators. No metal contact with the medium where it matters.
Options. PP for economy, PVDF for higher temperature and stronger chemicals; FKM or EPDM stators; double mechanical seals.



Flow rate	**up to 50 m³/h**
Pressure	**up to 12 bar**
Temperatur e	**–20 to +100 °C**

SCV Series · Vertical immersion

Fields of application. Emptying sumps, pits, sedimentation tanks, drums and containers where floor space or suction lift is limited.
Features. Pumping element immersed in the product, so no priming and no suction-lift limits. Compact vertical drive above the mounting flange; strainer at the inlet.
Options. Column length to suit tank depth; stainless or painted construction; level-controlled starting.



Flow rate	**up to 50 m³/h**
Pressure	**up to 12 bar**
Temperature	**–20 to +120 °C**

SCM Series · Mobile skid

Fields of application. Tank emptying, batch transfer, cleaning and temporary duty across several points in a plant.
Features. Pump and motor on a stainless-steel trolley with lockable castors, push handle and mounted control panel with start, stop and emergency stop.
Options. VFD speed control; hygienic or industrial build; hose connections; dry-run protection.

Technical Data

Performance · SCP, SCHT and SCHP series

Size	Flow, m³/h	Speed, rpm	Ports, DN	1 stage · 6 bar, kW	2 stages · 12 bar, kW
20	20	960	80	9.3	15
40	40	960	100	15	22
45	45	720	100	18.5	30
50	50	720	125	18.5	30
100	100	600	150	37	55

Model code example: SCP-50-2 = SCP series, size 50, 2 stages. Values for water at ambient temperature; 4-stage (24 bar) versions on request. Final selection depends on viscosity, solids and duty.

Stator elastomer selection guide

Elastomer	Temp., °C	Abrasion	Oils, fats	Acids	Alkalis	Hot water
Natural rubber (NR)	−20 to +80	Very good	Poor	Fair	Fair	Fair
Nitrile (NBR)	−10 to +100	Good	Very good	Fair	Fair	Good
High nitrile	−10 to +100	Good	Very good	Fair	Fair	Good
EPDM	−20 to +120	Fair	Poor	Good	Very good	Very good
Hypalon (CSM)	−20 to +110	Good	Fair	Very good	Very good	Good
Neoprene (CR)	−20 to +90	Good	Fair	Good	Good	Fair
Viton (FKM)	−10 to +150	Fair	Very good	Very good	Fair	Good

For reference only. Final selection depends on compatibility with your medium. Food-grade compounds available.

Materials of construction

Part	Industrial (SCP, SCHT, SCHP)	Stainless (SCH)	Corrosion resistant (SCR)
Housings	Cast iron, cast steel, fabricated MS	SS 304 / 316 / 316L	PP or PVDF
Rotor	Alloy steel, hard-chrome plated or hardened	SS 316 / 316L, hard-chrome or polished	SS 316 / 316L
Coupling rod, shaft	Alloy steel, coated	SS 304 / 316	SS 316
Joint pins, bushes	Hardened, ground alloy steel	Hardened SS 410 / 304	SS 316, sealed
Shaft seal	Gland packing GAGP / PTFE	Mechanical seal	Single or double mechanical seal
Baseplate	Fabricated MS, epoxy painted	SS 304	Fabricated MS, epoxy painted

Other materials and paint colours on request.

Applications and Service

Industries

Wastewater & ETP Raw sewage, primary and activated sludge, dewatered cake, polymer, milk of lime	**Sugar & distillery** Molasses, massecuite, spent wash, press mud, filter cake	**Biogas & CBG** Digester feed of dung, press mud and food waste; digestate transfer
Chemicals & petrochemicals Acids, alkalis, lyes, filter cake, adhesives, dispersions, emulsions	**Paints, inks & resins** Dispersion and paste paints, lacquers, printing inks, binders	**Food, beverage & dairy** Mash, yeast, spent grain, fruit pulp, glucose, curd, cream
Pulp & paper High-consistency stock, coating colours, alum, glues, sludge	**Ceramics & minerals** Porcelain slip, clay, alumina, glazes, lime and gypsum slurries	**Mining, construction & marine** Gritty mine water, ore slurry, grout, mortar, bilge water, sludge oil

Accessories

Process protection

- Dry-run protection
- Pressure gauge and pressure switch
- Pressure-relief bypass
- Speed and flow monitoring

Seal support

- Quench pot for mechanical seals
- Flushing systems
- Lantern ring and flushing for packing

Drives and controls

- Geared motors and belt drives
- VFD panels for metering
- Engine drives
- Trolleys and baseplates

Support

Application engineering. Pump selection from your duty data, including viscosity, solids and site conditions.

Commissioning and AMCs. On-site start-up, preventive maintenance and annual maintenance contracts.

Spare parts. Rotors, stators, joints and seals from stock, plus spares for most installed PC pumps.

Training. Operation and maintenance training for your team, at your site or ours.

Tell us what you need to pump.
We will size the right pump.

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