



Pumps and Macerators for Sludge Transfer and Treatment

Sulzer in wastewater treatment

Sulzer is recognized for excellent product quality, performance, reliability and technical innovation required for a wide range of applications in Municipal and Industrial wastewater treatment plants.

As a global leader, our know-how and competitiveness is based on many years of experience in manufacturing pumps and mixing equipment for sludge transfer and treatment, within biological, anaerobic digestion sludge process applications.

Sulzer offers a broad range of products and aftermarket services for all types of wastewater and sludge handling:

- Primary and secondary process sludge
- Sludge dewatering and transfer
- Sludge thickening and transfer
- Sludge blending and holding
- Controlled flocculent pumping
- Mixing and dosing conditioning agents
- AD sludge recirculation and transfer
- Heavy sludge cake transfer
- Imported and tankered in sludge transfer
- Shear sensitive processes and shear thinning slurries
- Sludge maceration and grinding

Progressing cavity pumps for sludge

Sulzer submersible pumps, mixers and agitators are used to transfer, blend and handle sludge, within biological, secondary and anaerobic digester recirculation processes.

For more demanding sludge processes, with high viscosity and high % dry solids (DS) our progressing cavity, positive displacement pump range, provide a near constant flow rate with suction lift capability, for handling wastewater sludge, slurries, and viscous shear thinning non-Newtonian fluids.

The range starts with the entry level, competitively priced PC transfer pump with close coupled drive and gearbox.

Our PC transfer perform pump is designed for easy dismantle and reassembly, maintain in place without the need to disconnect, remove suction or discharge pipework.

The PC cake pump, with wide throat inlet is built to handle de-watered sludge cake in excess of 30% DS concentration.

Progressive cavity dosing pumps are designed for applications where accurate low flow capacities need to be maintained.

PC TRANSFER PUMP

FEATURES AND BENEFITS

- Designed to deliver constant capacity with viscous fluids and shear thinning non-Newtonian fluids
- Selected drives and gearboxes with many low speed options are available to reduce pump wear
- Compact for space saving, can be installed vertically or horizontally and run in either direction
- Competitively priced process pump with integral direct drive and gearbox, baseplate optional

KEY CHARACTERISTICS

Capacities	Up to 440 m ³ /h / 1,900 USgpm
Pressures	Up to 24 bar / 350 psi
Temperatures	-10 up to 100°C / 14 up to 212°F

APPLICATIONS

- Sludge handling and transfer
- Municipal and Industrial effluent
- Shear sensitive processes
- Shear thinning slurries



PC TRANSFER PERFORM PUMP

FEATURES AND BENEFITS

- Saves time with maintain in place features, easy to de-rag and no need to disconnect the pipework
- Designed for use in sludge plants, where high reliability is essential and downtime is kept to a minimum
- An extension of the PC transfer pump with material variants for a wide range of process applications
- Robust drives and gearboxes with low running speeds form an integral part of the unit design

KEY CHARACTERISTICS

Capacities	Up to 225 m ³ /h / 990 USgpm
Pressures	Up to 12 bar / 170 psi
Temperatures	-10 up to 100°C / 14 up to 212°F

APPLICATIONS

- Sludge handling and transfer (MIP)
- Municipal and Industrial effluent (MIP)
- Shear sensitive processes (MIP)
- Shear thinning slurries (MIP)



PC CAKE PUMP

FEATURES AND BENEFITS

- A large auger inlet and screw conveyor to deliver consistent pumping and push the cake to pump
- Saves time with maintain in place features, easy to disassemble, no need to disconnect the pipework
- Feed chamber easily disconnects allowing access for removal of the rotor and screw conveyor assembly
- Designed for use in Sludge plants, where high reliability is essential and downtime is kept to a minimum

KEY CHARACTERISTICS

Capacities	Up to 225 m ³ /h / 990 USgpm
Pressures	Up to 12 bar / 170 psi
Temperatures	-10 up to 100°C / 14 up to 212°F

APPLICATIONS

- Thickened sludge cake (>30% DS)
- Dewatered sludge transfer
- Sludge blending
- Industrial process sludge high % DS



PC DOSING PUMP

FEATURES AND BENEFITS

- For low flow, metering and dosing applications, with continuous and accurate capacity demands
- Gentle pumping action, minimises shear and crush damage to the pumped product
- Dosing pump parts are interchangeable with the PC transfer range, with stock standardization benefits
- An enhanced coupling rod design, gives higher pressure capabilities, up to 72 bar

KEY CHARACTERISTICS

Capacities	5 to 1,250 l/h / 0.02 to 5.50 USgpm
Pressures	Up to 72 bar / 1,044 psi
Temperatures	Up to 120°C / 248°F (St. Steel version)

APPLICATIONS

- Sludge dewatering
- Controlled flocculent pumping
- General industry and chemical processing



MACERATOR GRINDERS

FEATURES AND BENEFITS

- A range of macerators are available, with in-channel and in-pipeline designs
- Prevents clogging and blockages downstream of the Macerator, reducing unplanned maintenance
- Twin shafts, slow speed and high torque, the in-pipeline model provides positive displacement solids grinding and maintain in place, quick removal of rotating wear items

KEY CHARACTERISTICS

Capacities	Up to 330 m ³ /h / 1,400 USgpm (pipeline) Up to 1,150 m ³ /h / 5,000 USgpm (channel)
Pressures	Up to 0.4 bar / 5.8 psi (pipeline)

APPLICATIONS

- Protection of pumps and systems
- Imported sludge transfer applications
- Industrial wet waste grinding and maceration

