

SCREWTEC

SLUDGE SCREW PRESS

Sludge thickening and dewatering in one machine family.

Five models, 4.8 to 92.4 GPM, 0.75 to 4 HP.



Fully closed
system



Low energy,
low noise



Easy access for
maintenance



Call Us Today
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OPERATING MODE

Both machines use a drum with wedge wire spacing. Inside the drum a screw with a variable-pitch shaft rotates, driven by a low-speed, low-power geared motor. Incoming sludge must first be flocculated with polyelectrolyte, prepared in a static or dynamic flocculator.

As the screw turns at low RPM the separated water passes through the drum and is directed to the eluate discharge. The sludge is carried to the outlet at the bottom of the machine. On the Dewatering model it passes through a pneumatic counter-pressure cone before discharge to a dumpster, screw conveyor or transport belt.



- 1 **Sludge inlet** — flocculated sludge enters the drum
- 2 **Wedge wire drum** — eluate drains as the screw advances
- 3 **Compaction cone** — pneumatic counter-pressure, Dewatering model only

FEATURES & BENEFITS



1 Thickener version

Raises a liquid feed to a solids concentration of 4% to 8% SS depending on the model and the incoming sludge. The outlet can be piped to a pump feeding a downstream dehydration stage.

2 Dewatering version

Adds a pneumatic counter-pressure cone and a different screw pitch to compact the sludge further, reaching 15% to 22% dry matter. Both versions share the same footprint.



FEATURES & BENEFITS



3 Screen basket and washing

The screen basket is available in wedge wire or perforated plate. A drum cleaning system, motorized or fixed, keeps the screening surface clear; the washing cycle runs one minute, four times per hour.

4 Low energy and low noise

A low-speed, low-power geared motor drives the screw, which keeps energy consumption, operating cost and noise low compared with conventional dewatering equipment.

5 Fully closed system

The drum and discharge are enclosed throughout, which contains odor and splashing and gives easy access for routine inspection and maintenance.

6 Supplied loose or on a skid

On request the thickener or dehydrator is supplied as a complete system with flocculator, pumps and control panel mounted on a stainless steel mobile skid, for fast installation and relocation between duties.



INSTALLATIONS



In service

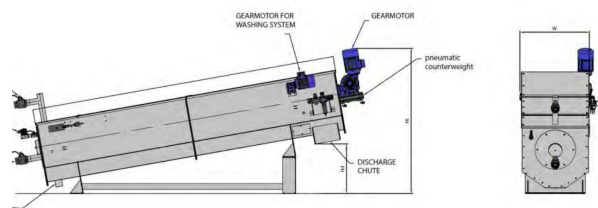
Screwtec units handle activated and digested sludge, and suit thickening and dehydrating material drawn from flotation units.



SPECIFICATIONS

Model	Hydraulic capacity at solids content (GPM)			Solids capacity (lbs DS/h)	Power (HP)	Inlet	Wash water (GPM)
	<2%	3-6%	7-10%				
SCREWTEC 200	4.8	3.5	2.4	33 - 121	0.75	2"	1.3
SCREWTEC 400	16.7	7.9	5.7	66 - 286	1	3"	2.2
SCREWTEC 700	35.2	17.2	10.6	132 - 562	2	3"	2.9
SCREWTEC 900	71.7	33.9	22.4	198 - 992	3	4"	4.4
SCREWTEC 1200	92.4	66.0	33.9	264 - 1322	4	4"	5.3

Wash water based on a washing frequency of one minute, four times per hour. Polymer consumption 8.8 to 22 lb per ton of suspended solids across all models.



DESIGN GUIDELINES

MATERIALS

Construction : AISI 304 stainless steel (AISI 316 optional)

Screen basket : wedge wire or perforated plate

PROCESS

Inlet solids : 0.8% to 5% (thickener), 4% to 8% (dewatering)

Outlet : 4% to 8% SS thickener, 15% to 22% dry matter dewatering

Sludge type : activated and digested sludge

Pre-treatment : polyelectrolyte flocculation required

SYSTEMS

Variable-pitch screw, low-speed geared motor

Drum cleaning : motorized or fixed

Counter-pressure : pneumatic cone, dewatering model only

ALSO FROM AQUALITEC

Screening equipment

Screentec, Raketec, Drumtec, Spiraltec

Tertiary Filtration

Drum Filter Disc, Disc Filter Disc

DAF units

Altec, Deltec, Gamtec, Sigtec



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