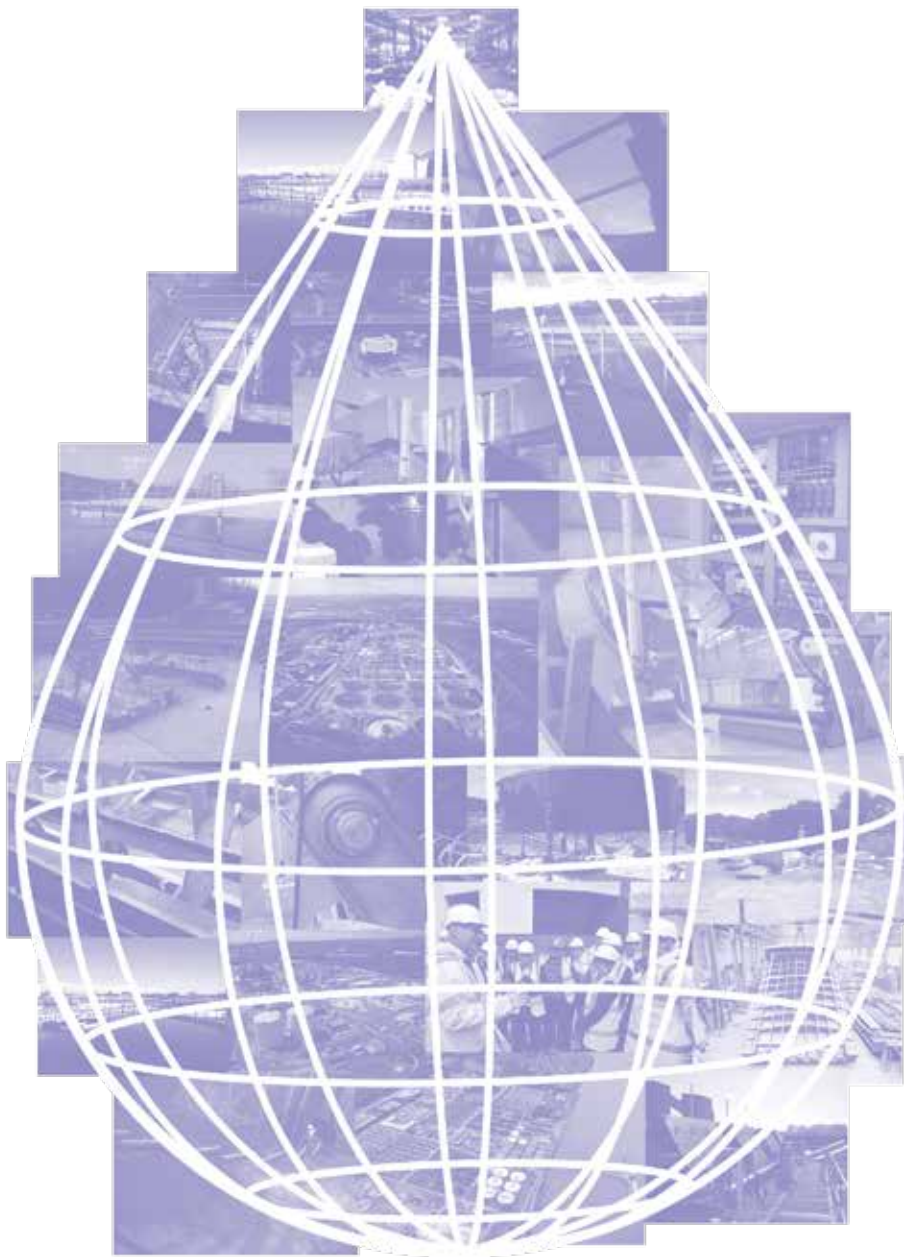


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SiderPol Screen & Compactor





SiderPol Screen & Compactor

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General information

Screening is the first function which must be considered in a civil or industrial wastewater treatment plant. Its purpose is to intercept and remove suspended solid particles that can damage and/or slow down the depurative processes and plant equipment.

The screen/screw compactor with self-cleaning brush is specially designed for fine screening of sewage at the entrance of the plant or in many industrial applications; generally, it is installed downstream of a coarse screen.

It is multifunctional screen as includes the following operations:

- Screening
- Lifting and washing of the screened material
- Compacting/dewatering
- Discharge

The filtration level is defined depending on the type and amount of material expected and according to the scheme of the purification process adopted.

The screen filter consists of a semi-cylindrical basket. The machine is able to block the small suspended solid particles (larger than the screen perforations), lifting them out of the water flow, by means of a screw, compact and convey them to discharge, placed at the top of the machine. During lifting, the material is washed to remove soluble organic substances.

Applications

- Civil waste water treatment plants
- Industrial waste water treatment plants
- Tanneries
- Industrial laundries
- Slaughterhouses
- Paper mills
- Textile and fish industry
- Food and chemical industry



05-0362
Spiral with brushes



05-0362
Compaction area



05-0362
Basket with conical zone

Construction features (see layout)

Screen screw compactor model 05-0362, built using the shaftless screw (anti-clogging spiral) technology, to be installed in the channel or in a steel container.

Screening area consists of a semi-cylindrical filter basket, with holes of variable diameter according to the flow to be treated. For special applications, we offer customized filter baskets.

Screw conveyor with special modular brushes bolted along an helical edge to provide cleaning of the semi-cylindrical screen during the rotation of the spiral.

Lateral plastic strips, reinforced with metal mesh, to allow the seal of the filter screen to the side walls of the channel.

Wear resistant plates bolted inside the housing of the spiral.

Cylindrical compaction zone for pressing the screened material, complete with flexible pipe to drain the liquid and top cover for inspection.

Conical discharge outlet complete with full opening to prevent possible clogging of the compacted screened material during unloading.

Adjustable foot support to allow the lifting of the tilting screen screw.

Installation in channel or in steel container.

Dimensions and level of filtration are determined according to the characteristics of the channel in which the screen screw compactor is installed, the desired discharge height and the flow to be treated



Brushes bolted and circular holes basket

Strengths

- Multifunctional: screening, lifting and cleaning of the screened material, compaction/dewatering, discharge
- Easy and quick to install
- Closed structure to avoid bad smells
- Reduced maintenance
- Tested at the National Screen Evaluation Facility at Chester-le-Street STW – Average Screenings Capture Ratio = 51%

Accessories

- Basket with a trapezoidal bars
- Screen washing device
- Transport area washing device
- Compaction zone washing device
- Control cabinet
- Bagging system for screened material
- Transport area insulation for compaction at low temperatures
- Without compaction zone
- Installation in a steel container tank
- Vertical Installation for flanged connection to pipeline

Machine code	05-0362
Screen screw type	Without central shaft
Diameter	200mm 300mm 400mm 500mm 600mm 700 mm
Spiral type	Reinforced Conical
Inclination	35° to 45°
Length	up to 12m
Basket cleaning	With brushes bolted
Screen perforation	2mm 3mm 5mm 7mm
Basket type	Circular holes
Rated power	0,55kW to 1,1 kW
Rotation speed	10 rpm
Compaction degree	40% to 60 %
Structural work materials	AISI304L AISI316L
Spiral material	Special steel AISI304L AISI316L
Wear-resistant coating	Stainless steel plates



Machine in operation

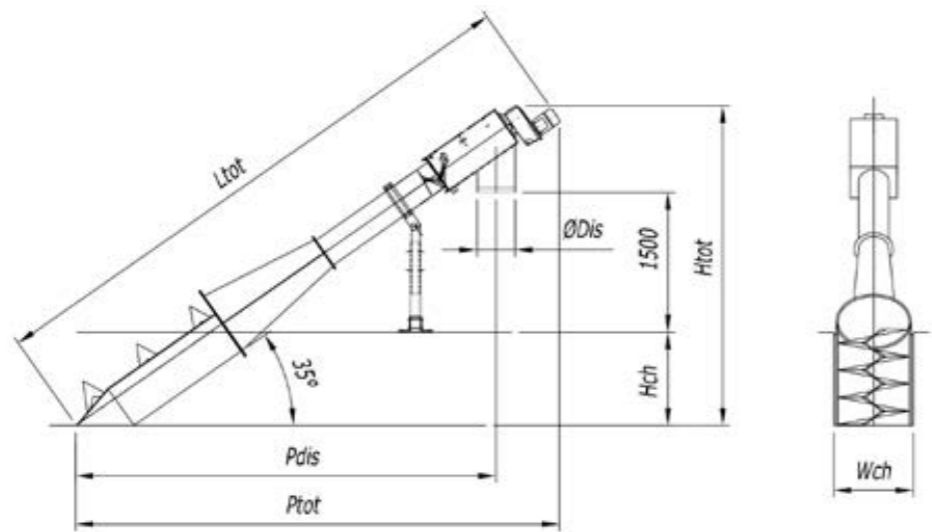


Machine in operation

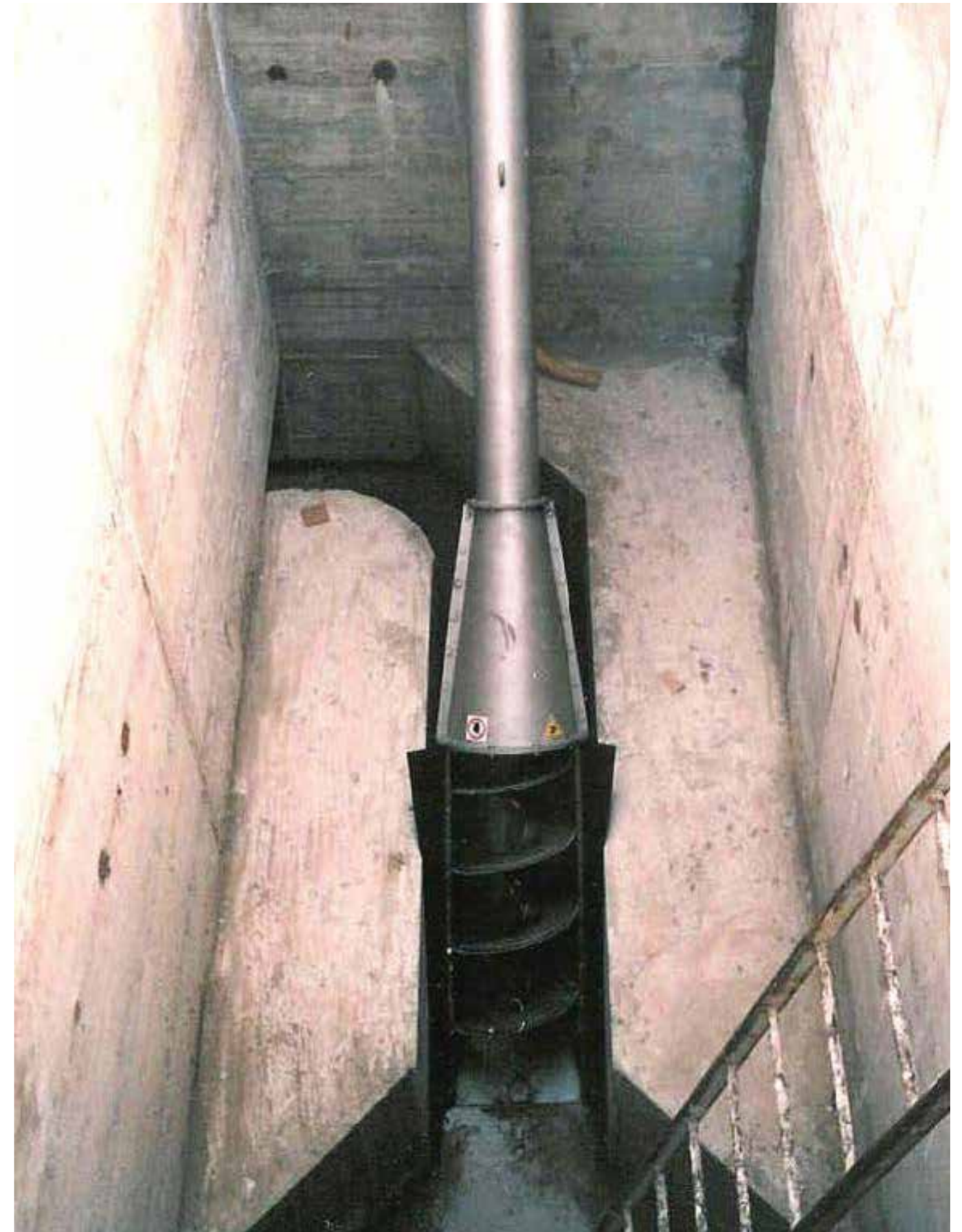


Shipping phase

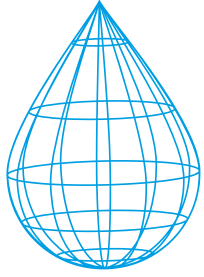
Screen screw compactor 05-0362						
SIZE	200	300	400	500	600	700
Ltot	5355	5355	5355	5355	5760	6100
Ptot	4500	4500	4500	4500	4890	5160
Pdis	3963	3965	3965	3965	4220	4480
Hch	800	800	800	800	800	1000
Htot	2990	3000	3000	3000	3230	3430
Wch	350	350	450	550	650	850
Dis	265	273	273	273	406	406
kg	400	430	470	520	610	660
kW	0,55	0,55	0,55	0,55	1,1	1,1



Flow rates for Screen screw compactor 05-0362						
Maximum flow for water with 200 ppm SS						
Screen Perforation Size	200	300	400	500	600	700
[mm]	[m3/h]	[m3/h]	[m3/h]	[m3/h]	[m3/h]	[m3/h]
7	180	200	368	480	670	1070
5	140	160	370	396	594	970
3	100	126	180	324	468	750
2	85	100	150	315	420	670
Max. W.L. before screen [mm]	400	435	460	570	680	800



Installation in wastewater channel



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