

## Effective Screening of Municipal Wastewater Flows

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Effective screening is a vital first stage operation at wastewater treatment plants (WWTPs) to remove coarse material from the inlet flow stream. Removal of such screenings minimises damage and blockages to downstream process equipment and ensures the effectiveness and reliability of the overall treatment process.

Our solutions for the screening and processing of municipal wastewater flows includes a wide range of high efficiency Launderers and Transfer Conveyors. Add to this our long experience and renowned service standards and its clear that Jacopa are setting the industry standard for screenings equipment.



## Laundry

### Key Features & Benefits:

- No power requirements
- Standardised sizes
- Formed ('U') or Press Break designs ('V')
- Free flowing/gravitational screenings transfer
- Stone trap option
- 304L or 316L stainless steel

### How We Create Value:

- No maintenance cost thanks to the self-cleaning design
- Simple, low cost operation
- Easy installation/retrofit
- Reduces works maintenance
- Efficient solids transfer
- Stainless steel or Recycled plastic odour covers



## Launder

### The Jacopa Launder

Our water launder trough system comprises of straight sections of nominal lengths up to 5.0m long. The launders cater to most site installations and ancillaries include launder bends, bifurcated Y branches, knife gate valves, launder supports, vertical drop chute, plastic or stainless covers and stone traps. Wash water from the feedings screens and a dedicated launder wash water supply aid the transportation of screenings along the launder system.

### Data

Size (Formed) 200mm or 350mm  
Nominal Lengths up to 5m  
Fall 1:40  
Material of Construction 304L or 316L options  
Washwater Connection 1.5"  
Max. Launder Flow 33l/s  
Screening Load Capacity 24m<sup>3</sup>/hr

### INFORMATION REQUIRED AT ENQUIRY

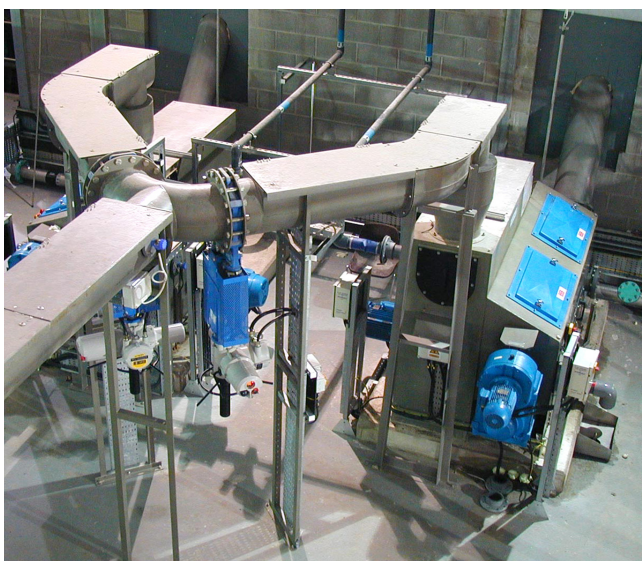
Number of compactors/screens connections plus site drawings.

### Stone Trap Option

Sewage screens remove some heavy debris including rocks, stones and grit. These solids are extremely abrasive to some mechanical components and a fully automated stone trap system has been developed by Jacopa that will effectively remove these solids from the screened material.

The stone trap is located within the launder arrangement prior to the screenings handling equipment. As the flow passes through the stone trap the heavier components will fall out of suspension and be trapped by the opening provided. Lighter rags and organic solids will continue beyond the trap towards the SHU. The effectiveness of the stone trap is flow and velocity dependent, therefore its selected location within the transport system is important.

The trapped debris is elevated from the stone trap by a motorised inclined screw conveyor. The collected debris is then discharged to a container for storage and removal



*Launder with Bifurcated y Branch and Actuated Knife Gate Valves*



*Jacopa Stone Trap*

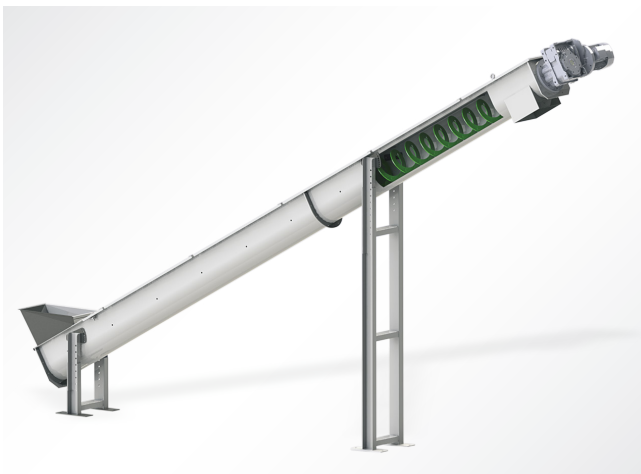
## TSC Transfer (Shaftless) Screenings Conveyor

### Key Features & Benefits:

- Absence of blockage even in cases of fibrous material
- Low and simple maintenance
- Completely closed transport section and odour free
- Reduced speed of rotation and absence of intermediate supports
- Double shaftless versions available

### Options:

- Customized Inlet connections to suit various applications and dimensions
- Outlet chute can be Round/Square/Rectangular
- Supports; Fixed or adjustable
- Multiple inlets/outlets connections
- Slide valves on outlet chutes
- Manual draining valve



## TSC Transfer (Shaftless) Screenings Conveyor

Built of a shaftless screw that rotates inside a trough manufactured in tube or U-shaped sections, the shaftless screw conveyor can be fitted with one or more loading hoppers and one or more outlets.

The rest of the machine is enclosed by covers to prevent odour release and accidental access.

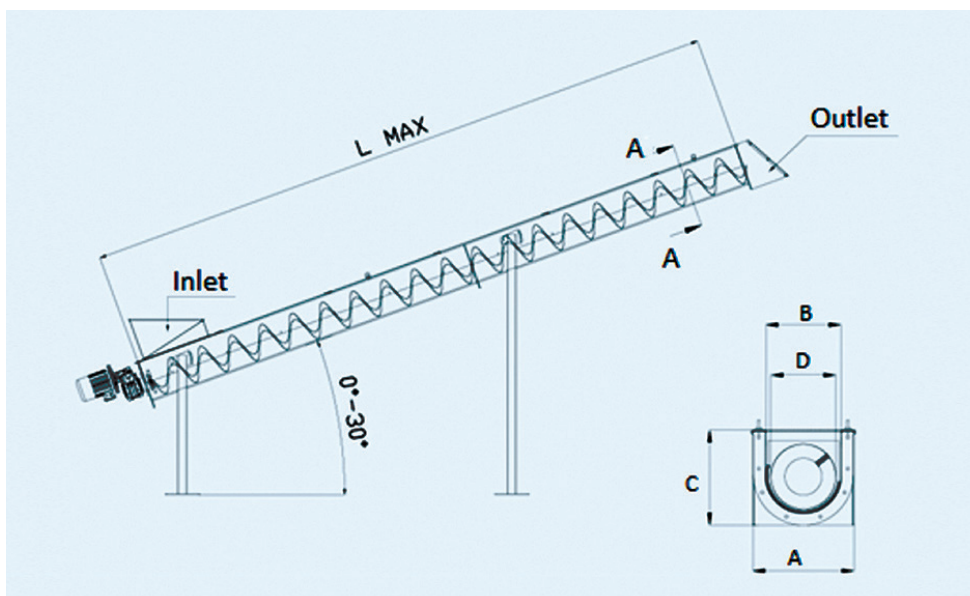
The absence of a shafted screw allows the transportation of unusual and difficult to transport materials that could wrap around the shaft.

The base of the trough or tube is protected by a wear resistant and replaceable HDPE or steel (dependent on material being transported) liner which is easily replaced.

The configuration of the conveyor is specific to customers' requirements and the general arrangement of the facility, so it can be either a pull or push extraction design.

The overall length of the shaftless screw conveyor will be adapted to suit site specific requirements. The maximum overall length of the largest screw can be up to 36m long.

The sloping angle of the screw conveyor varies between 0° and 30°. The steeper angle will have a progressive reduction in efficiency. As a general rule of thumb the extract rate at 30° could see a reduction of 50% compared to that of a conveyor installed at 0° however the actual loss of efficiency is dependent on the material/debris being transported.



Model mm	A mm	B mm	C mm	ØD mm	L Max mm	RPM (Screenings)	m3/hr (at 0°-15°)
TSC150	275	175	248	145	12000	18	0.5
TSC200	325	225	290	180	18000	18	1
TSC250	375	275	340	240	18000	18	2.5
TSC300	450	325	410	280	25000	18	3.7
TSC350	500	375	480	320	25000	18	5.2
TSC400	550	425	570	360	30000	18	8.0
TSC500	665	525	665	460	30000	18	16.0
TSC600	765	625	780	560	36000	18	23.0

## TAC Transfer (Shafted) Screenings Conveyor

### Key Features & Benefits:

- Low and simple maintenance
- Customised designs
- Adjustable feet
- Reduced speed of rotation
- Hanging Bearing
- Double shafted versions available

### Options:

- Customised Inlet connections to suit various applications and dimensions
- Outlet chute can be Round/Square/Rectangular
- Supports; Fixed or adjustable
- Multiple inlets/outlets connections
- Slide valves on outlet chutes
- Manual draining valve



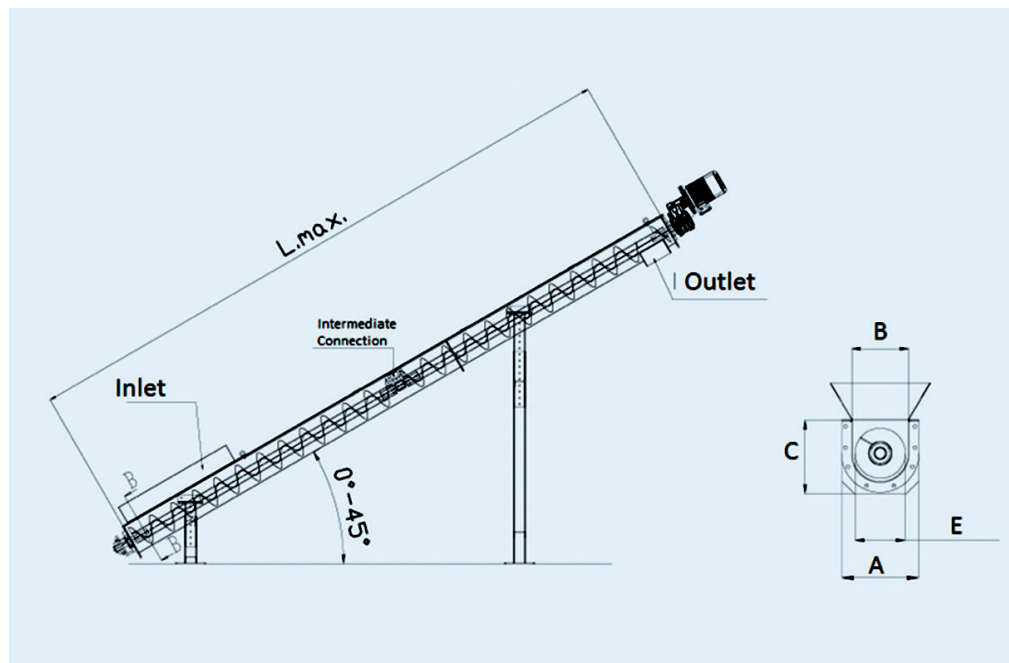
## TAC Transfer (Shafted) Screenings Conveyor

Built using a centralised shafted screw that rotates inside a trough manufactured in tube or U-shaped sections, the TAC screw conveyor can be fitted with one or more loading hoppers and one or more outlets.

The rest of the machine is enclosed by covers to prevent odour release and accidental access.

The shafted screw allows for the transportation of solid or semi-solid material of varying kinds.

The configuration of the TAC conveyor is specific to customers' requirements and the general arrangement of the facility, so it can be either a pull or push extraction design.



The overall length of the shafted screw conveyor will be adapted to suit site specific requirements. The maximum overall length of the largest screw can be up to 30m long.

The sloping angle of the screw conveyor can vary between 0° and more than 30° from the horizontal.

The spiral screw can be manufactured in either high grade carbon steel or stainless steel (AISI 304 or 316)

Model mm	A mm	B mm	C mm	ØE mm	L Max mm
TAC100	212	112	143	100	8000
TAC150	275	175	254	150	12000
TAC200	325	225	300	200	18000
TAC250	375	275	350	250	18000
TAC300	425	325	410	300	25000
TAC350	475	375	475	350	25000
TAC400	525	425	535	400	30000
TAC500	625	525	655	465	30000
TAC600	725	625	735	560	30000

## Double Screw Transfer Screenings Conveyors

**Model DSC**



**Model DAC**



**Contact Jacopa for further information on our DSC and DAC range of Double Screw Conveyors.**

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