

SPIRAL SCREW CONVEYORS STC

Shaftless Screw Conveyors



MACHINE DESCRIPTION

R.E.M. range of screw conveyors is a broad and vast selection where units for every application can be found. **R.E.M.** screw conveyors are multipurpose transport systems. The models are all based on the same technology; screw conveyors are made of the following sections:

- Screw.
- Trough.
- Inlet.
- Discharge.
- Drive.
- Support.

R.E.M. offers this type of machine, that can treat the following materials:

- dewatered, conditioned or thickened biological sludges.
- screenings.
- solid urban waste.
- floating substances from civil or industrial plants.
- waste deriving from food processing (both animal and vegetable foodstuffs).

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REM STC screw conveyors are composed of a **U-shaped** trough that contains a screw of high thickness; the screw is **SHAFTLESS type**. This allows the machine to be able to process materials whose entangled or thread-like nature doesn't succeed in clogging up the processing zone on the whole length of the conveyor. On the bottom of the conveyor there is a liner of **HDPE** material in the form of plates that are easily adapted at the base of the trough and fastened to it by external nuts and bolts. This liner is totally antifriction and wear-resistant. At the machine outlet is possible to fit an axial type of outlet. The machine is completely closed thanks to covers fixed to the structure by nuts and bolts; this, clearly, allows to operate without any leakage and bad smells that can be released by the treated material.

WORKING LOGIC FOR SHAFTLESS SCREW CONVEYOR STC

The screw conveyors are equipped with an inlet zone that, depending on the flow rate requirements of the incoming material, can have three different sizes, i.e.:

1. SQUARE INLET.
2. RECTANGULAR INLET.
3. INCLINED INLET.

The material is conveyed from the inlet zone to the outlet. The screw conveyors are perfectly adaptable machines, in length, to the transport requirements of the material.



GENERAL DIMENSIONAL DATA FOR SHAFTLESS SCREW CONVEYORS STC

Datas in the chart are to be considered approximate; since the machine is able to process materials of different types and therefore of different organic compositions, take these values as illustrative references that must be clarified and requested from our Engineering - Sales department.

MAIN FEATURES FOR SHAFTLESS SCREW CONVEYORS STC

The shaftless screw conveyors, mod. **STC**, are offered in different variants that do not need intermediate bearings. **STC** screws have the following characteristics:

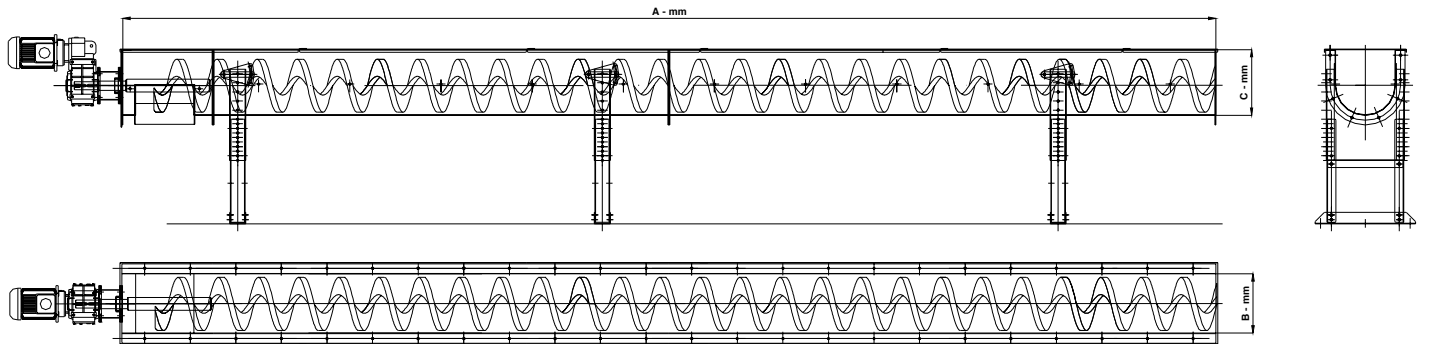
1. Standard execution in st. st. AISI 304/AISI 316.
2. Inlets and outlets having square, rectangular or inclined (15°/30°) shape.
3. Trough made of st. st. AISI 304/AISI 316.
4. Spiral made of high resistance micro-alloy carbon steel, st. st. AISI 304/316 (optional).
5. Liner made of HDPE or (optional) wear strips made of st. st. AISI304/AISI 316 (optional).
6. No mechanical parts in direct contact to conveyed product.
7. Low speed - No blocking or clogging even when conveying fibrous material.
8. Entirely sealed unit for leakage and odour-free environments.
9. Possibility to discharge in bags.
10. Extremely easy to transport materials even of difficult composition.
11. Complete absence of emission of bad smells, as equipped with closing covers.
12. Minimum overall dimensions and maximum versatility, high processing outputs.

MATERIAL TO BE HANDLED: WASTEWATER - SLUDGE OR SCREENINGS

STC MODELS	A min. - mm	A max. - mm	B - mm	C - mm	Flowrates m ³ /h	CAPACITY RATE ANGLE 30° MAX.
STC200	1000	15000	231	255	4	45%
STC250	1000	20000	281	303	8	45%
STC300	1000	20000	331	365	15	45%
STC400	1000	22000	431	488	23	45%
STC500	1000	22000	531	608	34	45%

ATTENTION THE MACHINE CAN BE USED INCLINED UP TO A MAX. OF 30°

n.b.: the manufacturer may modify some dimensions or sizes without prior information



Materials of construction for fabricated parts:

- *Stainless Steel AISI304
- *Stainless Steel AISI316

Materials of construction of spiral:

- *Stainless Steel AISI304
- *Stainless Steel AISI316
- *High resistance steel HRS