

# **SVPS Engineering**

DEVELOPMENT & MANUFACTURING COMPANY OF ELECTROMECHANICAL INSTALLATIONS







### Presentation

Screw conveyor is generally given less importance of Plant Owners due to its simple nature and general presence in all factories. Statistically though, a less engineered screw conveyor, unfortunately shows the biggest downtime loss in a plant, especially in heavy industry. This will not happen in our screw conveying systems. We provide a lot of simple and though sophisticated parts of each system that guarantees perfect operation, less maintenance and downtime. We always focus on the customer needs and always provide a tailor - made solution according to the differences of the material and specifications. Each conveying system is a unitary situation for us with lots of details to be examined and thoroughly solved. This is the key to a successful screw conveyor.

### Installation-General Information

Our company has designed screw conveyors that are simple to dismantle, transport, assembly and erect. Assembling is required minimum time. Usual case is to deliver the screw conveyor fully assembled. In case of high length (above 12 metres) we provide minimum assembly time to our partners. During erection the need for stuff and handling equipment is reduced. Operation, assembling and maintenance documentation always accompanies our screw conveyors.

Moreover, all parts of our screw conveyors are being subjected to thorough quality control (measurements, welding, materials supply), during construction and before loading. In this way we ensure a reliable control of your parts when receive on site. All conveyors are being test run in our workshop and have CE Marking.

Finally, all components and materials we use are from certificated <u>European</u> Companies.







### **Features & Benefits**

### Types of Screw Conveying.

- Trough Screw Conveyor.
- Pipe Screw Conveyor.
- Feeding Screw Conveyor.
- •Weighing Screw Conveyor.
- Mixing Screw Conveyor.

In general trough screw conveyor is used in horizontal and small inclined installations and is easy to perform maintenance due to easy and full accessibility. Pipe Screws are used in narrow spaces and in big inclination or even vertical installations. Feeding Screw Conveyors have special characteristics (Use of high power, variation of speed, double spiral cases if necessary, designing for choke transport above of 80 % filling and many many more) due to the very high importance of feeding one production line. Weighing Screws have the ability to measure with only 0,8 % deviation the weight of the material to be transported or fed. Mixing Screw Conveyors have special flights (according to material to be handled), speed and are custom made due to material deviations.

### Steel construction – Chassis.

- Chassis is manufactured by sheet steel with appropriate profile to receive all statical and dynamical forces. Steel can be S235JR (St 37.2), Abrasion resistance (Hardox 400), Stainless Steel (AISI 304 L, 316 etc.)
- Easy maintenance access in all types of Screw Conveyors (even in the Pipe Screw Conveyors).
- Special horizontal brackets for rigidity purposes.
- Inlet and outlet hopper of tailor made dimensions with counter flanges.

### Tail Assembly.

- Fully assembled tail components assure you of a trouble free operation from start up.
- Heavy steel construction.
- Double spherical roller bearing (or heavy duty roller bearing) for lifetime operation.
- Large tail inlet or outlet hopper directs material flow for proper conveying or proper unloading.
- Double labyrinth and felt seals gaskets for absolute sealing between inner and outer area.







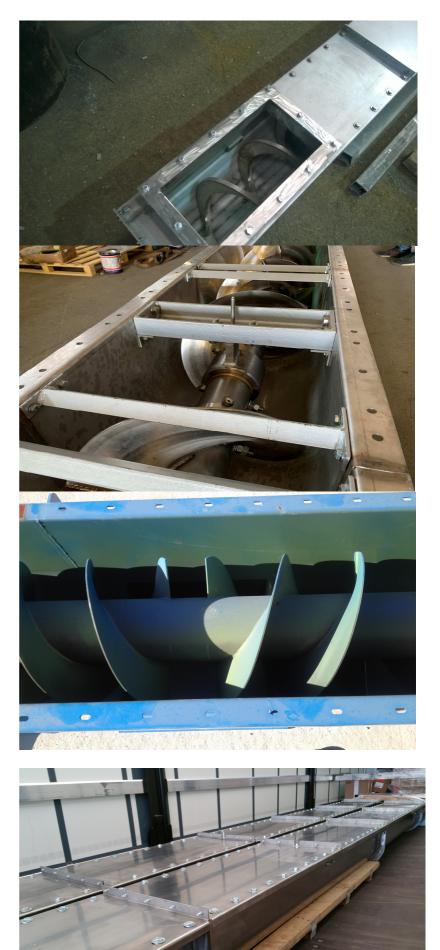
## **Features & Benefits**

#### Head Assembly.

- Fully assembled head components assure you of a trouble free operation from start up.
- Heavy steel construction.
- Double spherical roller bearing (or heavy duty roller bearing) for lifetime operation.
- Large inlet or outlet hopper directs material flow for proper loading or unloading.
- Double labyrinth and felt seals gaskets for absolute sealing between inner and outer area.
- Opposite spiral after the outlet gate (not standard case) for easiness of unloading.
- Plenty of choices in Geared Motor. Helical bevel Gear Reducer, Parallel shaft Gear Reducer with elastic coupling, Parallel shaft Gear Reducer with hollow shaft or taper lock (shrink disc) etc.

### **Crucial Parts.**

- In high length Screw Conveyors sometimes we use intermediate bronze bearing every 4-5 meters approximately. We use minimum dimensions in the intermediate bearing in order the transport space to be as maximum as possible. In high diameter screw conveyor we use hard spring gaskets for the excellence of sealing between the bronze bearing and the material. Special rings protect also the gaskets. In case it is necessary not to use intermediate bearing we provide screw conveyors with big tubes without bronze bearing.
- Shaft of spiral are from tubes without seam with precise dimensions and with big thickness. Special machining is used and <u>rotor balancing</u> as well. Spiral part with tube is bolted to the end axis for ease of maintenance and for reducing the cost of spare parts. End axis is from 42CrMo4 alloy.
- Many sensors protect the equipment and personnel as well. Speed sensors, choke and overfilling sensors, pull rope switches, level indicators and plenty more.
- Special screw conveyors can be manufactured.
  Shaft less screws, double spiral screws, special shape spiral, weighing screws, stainless screws.



## References

#### References.

- Solid Fuels SA.
- Vioalten SA.
- Domiki P.Pavlides SA.
- Pindos
- Geohellas SA.
- Aktor SA.
- FMW.
- Nordmet Hellas SA.
- TMEC Ltd.
- Lafarge Holcim
- MEA Strimonas
- Acmon Systems SA
- PM Engineering
- Aluminium Mitilinaios SA
- Grecian Magnesites SA
- ISOMAT SA
- OMYA SA
- Pantelidis SA
- Xalcor SA











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