

SCREW CONVEYOR

An efficient and flexible conveying equipment

Screw conveyors are divided into three types: horizontal, inclined and vertical. In terms of appearance, they are divided into U-shaped screw conveyors and tubular screw conveyors. It is mainly used for conveying various loose materials such as powder, granular and small pieces. This machine is not suitable for conveying special materials that are easy to deteriorate, have high viscosity, are easy to agglomerate or have high temperature, are afraid of pressure, and are highly corrosive. Its material can be carbon steel, 304, 316L, 321, etc.

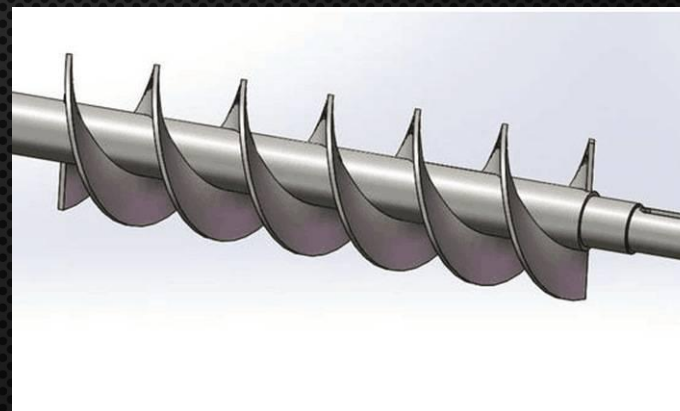


WORKING PRINCIPLE

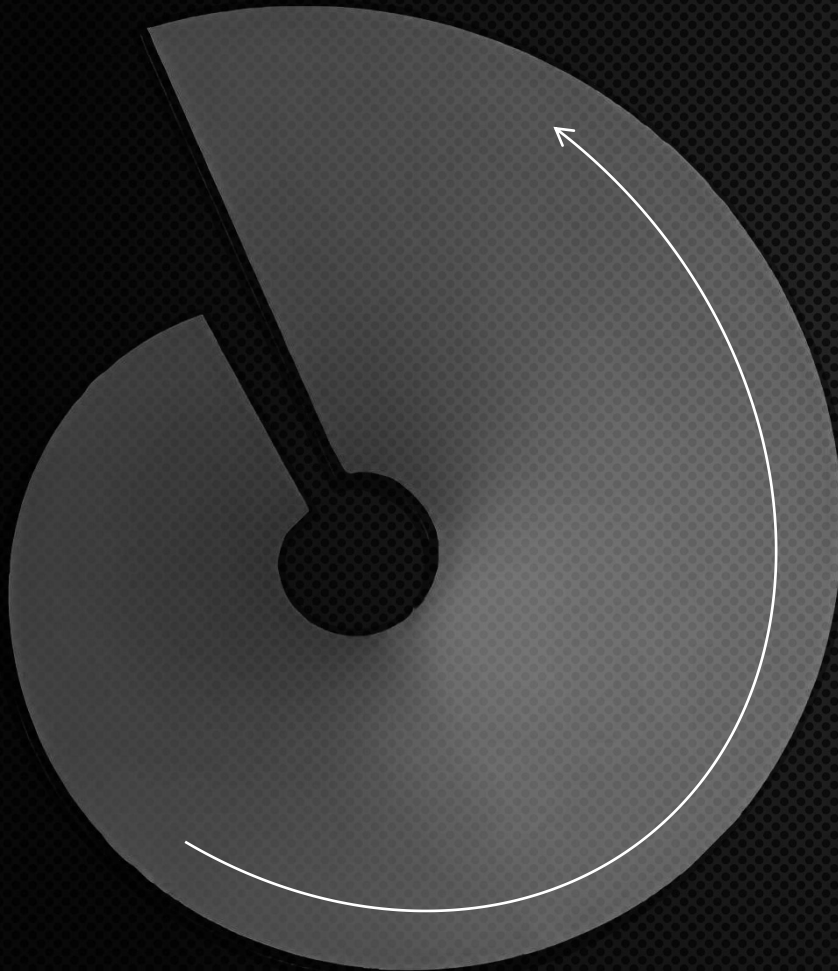


The process of conveying materials by moving them through rotating spiral blades. Specifically, when the driving device of the screw conveyor is started, the motor drives the reducer to run, thereby driving the screw shaft to rotate. The spiral blades welded on the spiral shaft rotate accordingly and generate forward thrust.

During the conveying process, the gravity of the material, the thrust of the spiral blades, and the frictional resistance of the casing to the material work together to cause the material to move forward along the bottom of the conveyor's trough driven by the blades. This movement is similar to the translational movement of a non-rotatable nut along a rotating screw.



FEATURES



- **Simple structure:**

Low cost, easy to manufacture and maintain.

- **Flexible delivery:**

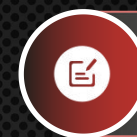
It can be transported horizontally, inclined or vertically, adapting to various working conditions.

- **Good sealing:**

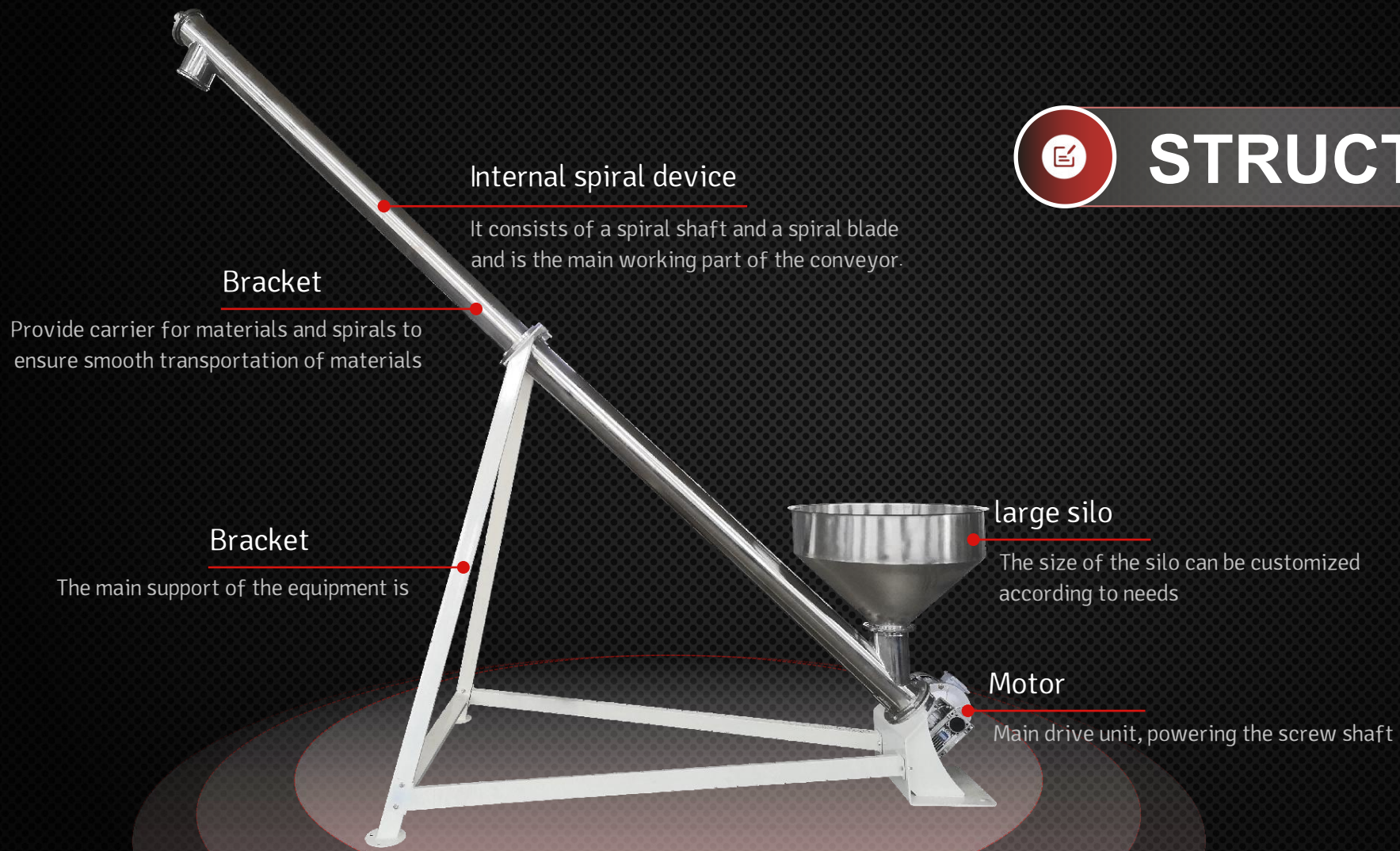
It is conducive to conveying materials that are easy to fly, hot and have a strong smell, and can reduce environmental pollution.

- **Easy to operate:**

It is easy to realize automatic control and improve production efficiency.



STRUCTURES



PARAMETER

Screw conveyor	100	160	200	250	315	400
Spiral diameter(mm)	100	160	200	250	315	400
Spiral distance(mm)	100	160	200	250	315	355
Rotating speed(r/min)	100	120	90	90	75	75
Conveying capacity $\Phi=0.33(\text{m}^3/\text{h})$	2.2	7.6	11	22	36.4	66.1
power Pd 1=10m(kw)	1.1	1.5	2.2	2.4	3.2	5.1
power Pd 1=30m(kw)	1.6	2.8	3.2	5.3	8.4	11
Rotating speed(r/min)	120	90	75	75	60	60
Conveying capacity $\Phi=0.33(\text{m}^3/\text{h})$	1.9	5.7	18	18	29.1	52.9
power Pd 1=10m(kw)	1	1.3	2.1	2.1	2.9	4.1
power Pd 1=30m(kw)	1.5	2.3	4.5	4.5	7	8.9

TYPES OF SCREW CONVEYORS



U-shaped screw conveyor 01



Tubular screw conveyor 02



CASES



APPLICATION

Chemical Industry

Resin, alkali coating, rubber powder, industrial drugs, traditional Chinese medicine powder rubber particles, cosmetics, aluminum chloride solution, paint, etc.

Food Industry

Sugar powder, soy starch, steviol glycosides, salt, rice flour, rapeseed, milk powder, soy milk, egg powder, soy sauce, juice, etc.

Metallurgical Mining

Limestone, metal ore, cryolite, kyanite, magnesite, mica, quartz sand, quartzite, dolomite, kaolin, silica, graphite, diabase

Pollution Treatment

Resin, alkali coating, rubber powder, industrial drugs, traditional Chinese medicine powder rubber particles, cosmetics, aluminum chloride solution, paint, etc.



Quartz Sand



Ceramic Sand



Oil Fracturing Proppant



Calcium Powder



Paint Coating



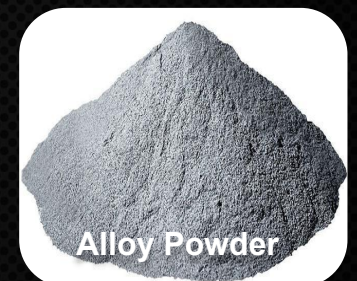
Rubber Particles



Metal Powder



Kaolin



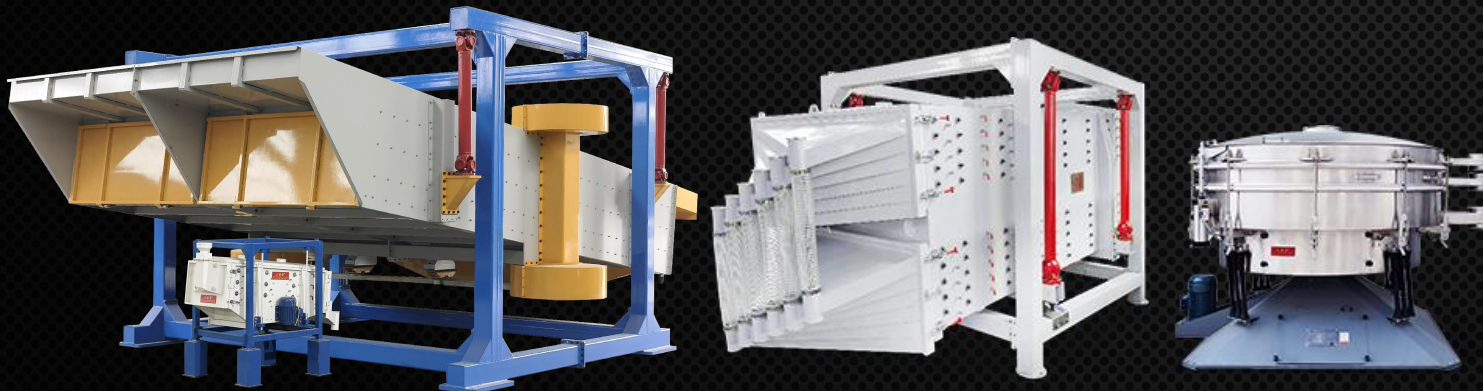
Alloy Powder

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- ④ Thoughtful after-sales tracking service from the installation to the daily maintenance.



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