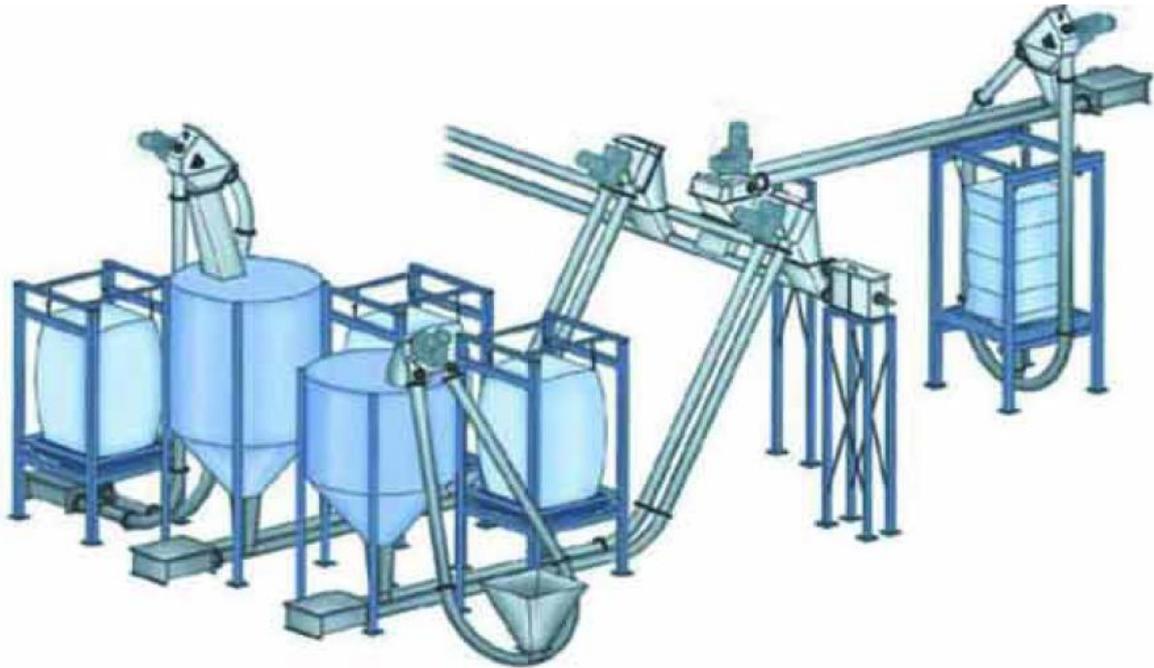




TUBE & CHAIN CONVEYING SYSTEMS

Including Cable & Disc and Chain & Disc Types



- Wide range of capacities to suit varying material types and characteristics



- Alternative arrangements offer compact bulk materials transfer for compact installation

SPECIFICATIONS

Tube and chain conveyors, and tube cable disc conveyors are designed to continuously convey fine powder granules and bulk materials. They can be installed as horizontal, horizontal and vertical, and standalone vertical arrangement.

For horizontal/flat and horizontal/upright, the cable or chains and discs generate horizontal thrust to push the materials. When the internal friction of material is greater than the external friction of material on the tube wall, the material will move with the discs and form a stable flow.

For vertical/upright, the chains and discs generate up vertical thrust. The under-feeding pattern prevents the product falling and generates lateral pressure that will reinforce the internal friction. When the internal friction is greater than the external friction and the product's dead weight, the product will move upwards with the discs and form a continuous flow.

Delivery capacity:	0.4-300m ³ /hr according to model and size
Maximum delivery distance:	80m (horizontal); 60m vertical
Power:	0.2-30kW according to model and size

Tube and Chain & Cable Conveyor System's Features:

1. Flexible: 3D with the tube and chain conveyor
2. Sealed pattern: dust-tight
3. Low energy consumption: low costs
4. No dead areas
5. No metal on metal friction
6. Low maintenance cost
7. Long lifetime operation
8. Explosion and pressure shock resistant design
9. Possible to re-start in filled state
10. Minimal grain or material degradation

Advantages of Tube Type Chain Conveyor

1. Positive displacement conveying suited to easy centralized control, improving degree of automation and satisfying environmental protection for industrial applications.
2. Compact design requiring limited space, tri-dimensional conveying direction available.
3. Flanges between inlet and outlet are airtight, and there is no need to install a filter. No dust emission into the environment.
4. Material is conveyed smoothly along the lines with little internal movement. Therefore, there is little breakage of material. Slow curve conveying ensures minimal product degradation.
5. According to different feeding conditions, distance between inlets can exceed 10m.
6. The hardened chain wheel causes minimum abrasion on operation chain components.
7. Special transfer dish with extremely low coefficient friction and stable delivering capacity.
8. All our tube and chain conveyors use our own computer program to design parts including conveying line and curve parts to maintain necessary static friction and take up and provide precise data to ensure low noise and little abrasion.

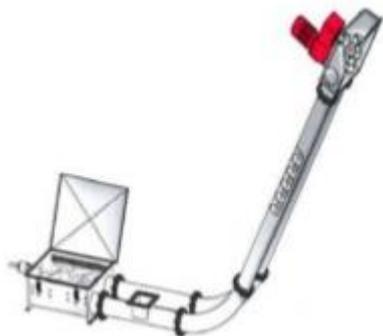
Application Fields for Tube and Chain & Cable Conveyor

Industry for Fine Chemicals: Pigment, dye, paints, coating, carbon black, titanium pigment, ferric oxide, ceramics powder, coarse whiting, fine particle calcium carbonate, bentonite, molecular sieve, kaolin, silica flower, active carbon, etc.

Pesticide Ores: Urea, ammonium chloride, ammonium bicarbonate, soda powder, solid pesticide, tungsten powder, pesticide adjuvants, copper fine ore powder, coal powder, rock phosphate, alumina powder, etc.

Building Material: Cement, clay, yellow sand, quartz sand, clay powder, silica, limestone flour, dolomite fines, wood chips, fiberglass, silicon dioxide, French chalk, etc.

Foodstuff Industry: Flour, starch, grain, milk powder, food additives, etc.



Model	Capacity (m ³ /hr)	Drive (kW)
RFF 115	0.45~ 7.0	0.25~ 2.2
RFF 160	1.36~28.7	0.55~ 7.5
RFF 200	2.13~44.7	0.55~11.0
RFF 270	15.00~60.0	3.00~15.0

Suitable for the following solid material type:

Powder
Fine powder
Pellet, granular
Heat sensitive

Short fibre
Odd shape
Mixed bulk material
Abrasive

Adhesive
Oily
Crispy

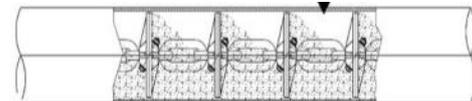
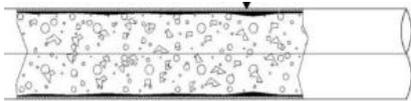


Model	Capacity (m ³ /hr)	Drive (kW)
SKF EK400	28~133	C.F.
SKF EK800	58~232	C.F.

Suitable for use in the following industries:

- | | | |
|-------------------|--------------------|----------------------------|
| Plastics | Aluminium | Edible oil |
| Chemical fibre | Steel, copper | Biofuel |
| Chemical | Metallurgy | Meat processing |
| Pigment | Activated coal | Wood processing, wallpaper |
| Detergent | Carbon black, coke | Paper |
| Fertilizer | Food processing | Pharmaceutical |
| Cement | Feed | Ceramic |
| Power plant | Sugar | Calcium, lime, kaolin |
| Coal | Cereal, nuts | Gypsum, glass |
| Building material | Tobacco | |

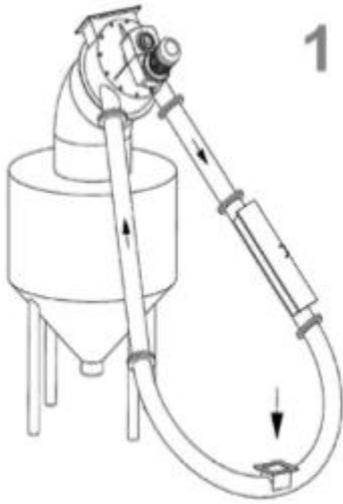
Difference between tube conveying system and conventional conveying system:



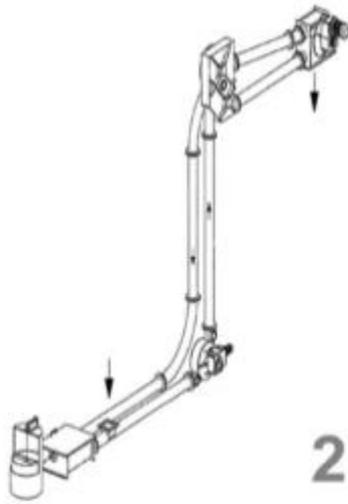
Pneumatic Conveying	Tube chain conveying
Very high conveying speed, 3~40 m/s	Very low conveying speed, 0.1~0.4 m/s
High wear rate	Very low wear
Sparking potential	No sparking
Product breakage	Protect pellet and material shape
20 times power consumption	Very low power consumption

Bucket elevator	Tube chain conveyor
Sparking potential	No sparking
Tension sprocket required	No tension sprocket required
Higher power consumption, 4~5 times	Very low power consumption, 0.37~15 kW, max
Higher speed	Very low conveying speed, 0.1~0.4 m/s
Dead areas exist	No dead areas

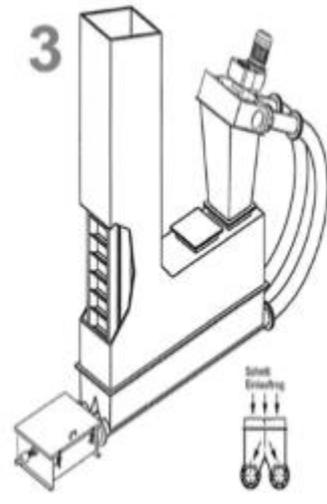
POSSIBLE CONFIGURATIONS



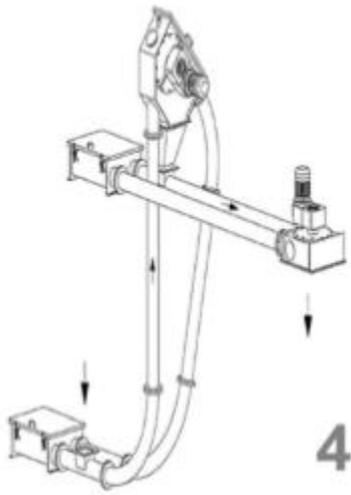
1. Simple conveying loop – single infeed single discharge



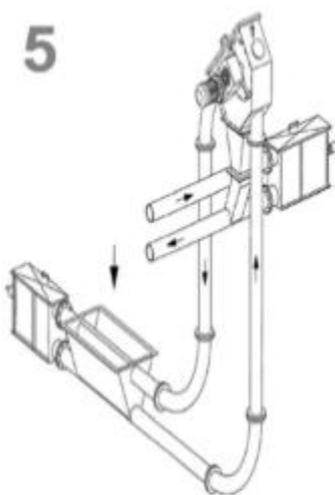
2. Multi directional transfer conveying arrangement



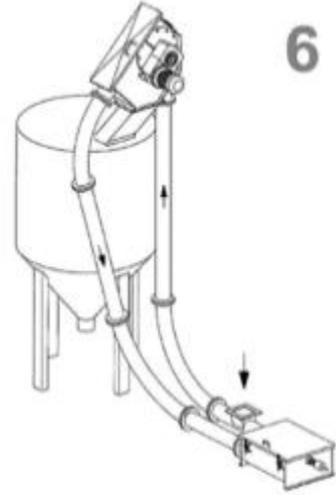
3. Hopper collection arrangement with return discharge



4. Combined vertical transfer with horizontal conveying



5. Vertical lift to horizontal transfer



6. Vertical conveying to hopper or bin

FIELD APPLICATIONS



- Installation arrangement to suit material transfer requirements with infeed and discharge transitions being fabricated for on-site assembly. Support brackets and assemblies are detailed according to planning-in drawing detail for convenient installation.



- Models available in painted finished carbon steel or stainless steel to suit industrial or Food Grade product handling applications.



a) Conveyor tail assemblies are fabricated from heavy gauge carbon or stainless steel and are complete with heavy duty idler chain sprocket unit running in heavy duty bearing sets.



b) The drive assembly is fitted complete with shaft mounted gear unit driving the head chain drive sprocket unit mounted up to heavy duty bearing sets. Flanged conveying tube fittings are provided for convenient installation assembly.



c) Conveying tubes in either painted carbon steel or stainless steel are fitted with heavy duty flanges for easy assembly.



d) Conveyor flighting is fitted up to the heavy-duty chain with bolt fittings for easy and convenient assembly and maintenance. Both round link chain and engineered link type chain may be provided.



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