

TUBULAR DRAG CONVEYORS BROCHURE

Henan Excellent Machinery Co.,Ltd.



TUBULAR DRAG CONVEYORS **INTRODUCTION**

Tubular drag conveyors is a fully enclosed continuous conveying solution that uses a sealed pipeline as the material channel, where circular discs driven by a chain or steel cable move the material forward inside the tube.

The system provides smooth and gentle conveying with low energy consumption, making it well suited for powders, granules, flakes, as well as abrasive or fragile materials. During operation, it effectively minimizes dust emissions and product degradation, while delivering high operational reliability.

Owing to its robust design and stable performance, it is widely applied in industrial processes with stringent requirements for cleanliness and process integrity.

HOW TUBULAR DRAG CONVEYORS WORK

The tubular drag conveyors uses a continuous chain or steel cable with spaced discs running inside a sealed pipe to efficiently convey bulk materials. The low-speed rotating discs gently push the materials forward, effectively reducing dust escape, material damage and energy consumption.

This closed mechanical conveying system, based on reliable transmission principles, can stably complete material conveying tasks along horizontal, vertical and multi-directional composite paths in harsh industrial environments.





TUBULAR DRAG CONVEYORS MAIN STRUCTURE



01

Driver Unit



02

Material Conveying Pipe



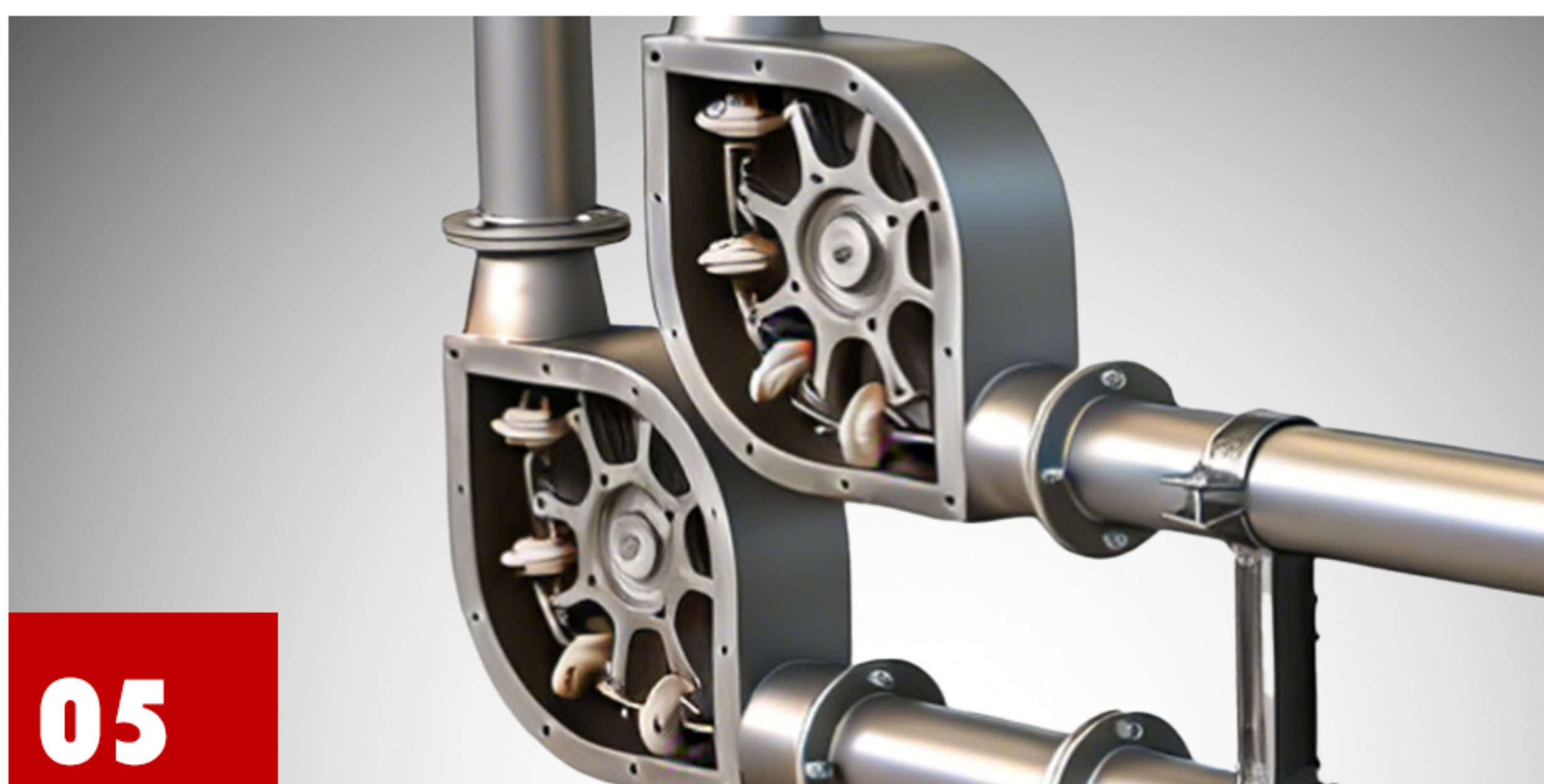
03

Product Sight Glass



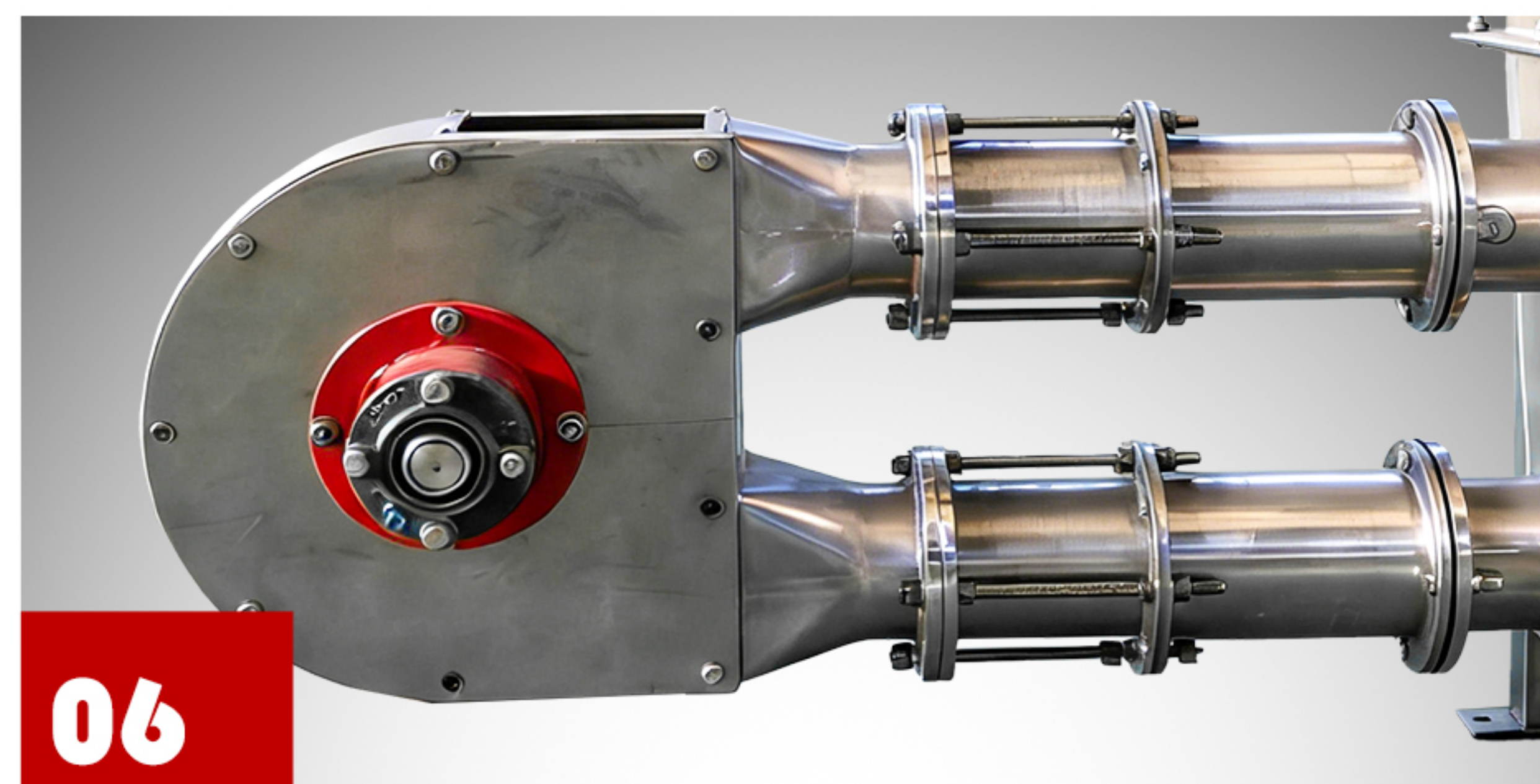
04

Chain & Disc



05

Corner Sprocket Housing



06

Automatic Tensioner

TUBULAR DRAG CONVEYORS

CHAIN TYPE COMPARISON

• Comparison Item	• Steel Rope Type	• Ring Chain Type	• Plate Chain Type
Structural Design	Multi-strand steel rope with discs	Alloy steel round link chain with discs	Heavy-duty steel plate chain with links and pins
Flexibility	Very high	Medium	Low
Bending Capability	Small bending radius, excellent for multiple bends	Big bending radius,not suitable for multiple bends	Low flexibility, not suitable for tight bends
Layout	Suitable for complex layouts with multiple bends along the X, Y, and Z axes	Suited for straight or simple layout	Ideal for straight or moderate bends
Conveying Distance	Medium	Long	Medium to Long
Chain load capacity per unit length	Medium	High	High
Capacity	Medium capacity	Large capacity	High
Impact Resisvtance	Medium	High	Very High
Wear Resistance	Medium	High	Very High
Suitable Materials	Powders, granules, mildly abrasive materials	Abrasive, high-density materials	Abrasive, heavy-duty materials, large bulk materials
Recommended Applications	Limited space, multiple bends, high flexibility required	Heavy-duty, long-distance, continuous	Heavy-duty, high load capacity, long operational life

TUBULAR DRAG CONVEYORS **FEATURES**



Enclosed, Dust-Free Conveying

Tubular drag conveyors feature a fully enclosed tube design, ensuring clean, controlled bulk material transport while meeting environmental and safety requirements.



Gentle Low-Speed Operation

Low-speed chain and disc conveying reduces product breakage, segregation, and fines, preserving material quality throughout the process.



Flexible Multi-Direction Layout

Supports horizontal, vertical, and curved conveying paths, enabling easy integration into compact spaces and complex plant layouts.



Broad Material Compatibility

Handles powders, granules, flakes, and mildly abrasive materials with consistent, reliable performance.



Energy-Efficient Operation

Low drive power and reduced wear result in lower energy consumption and operating costs.

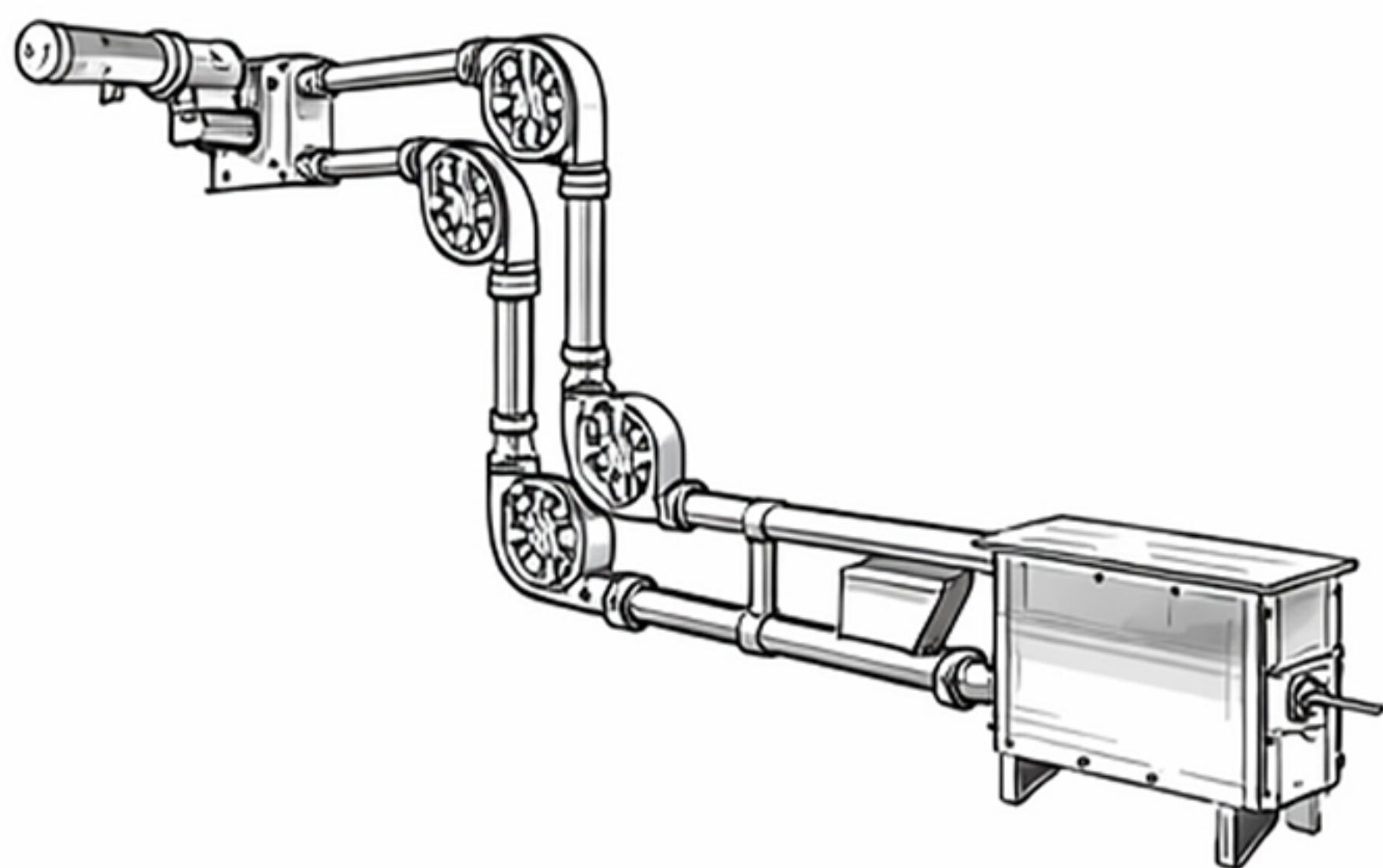


Scalable Modular Design

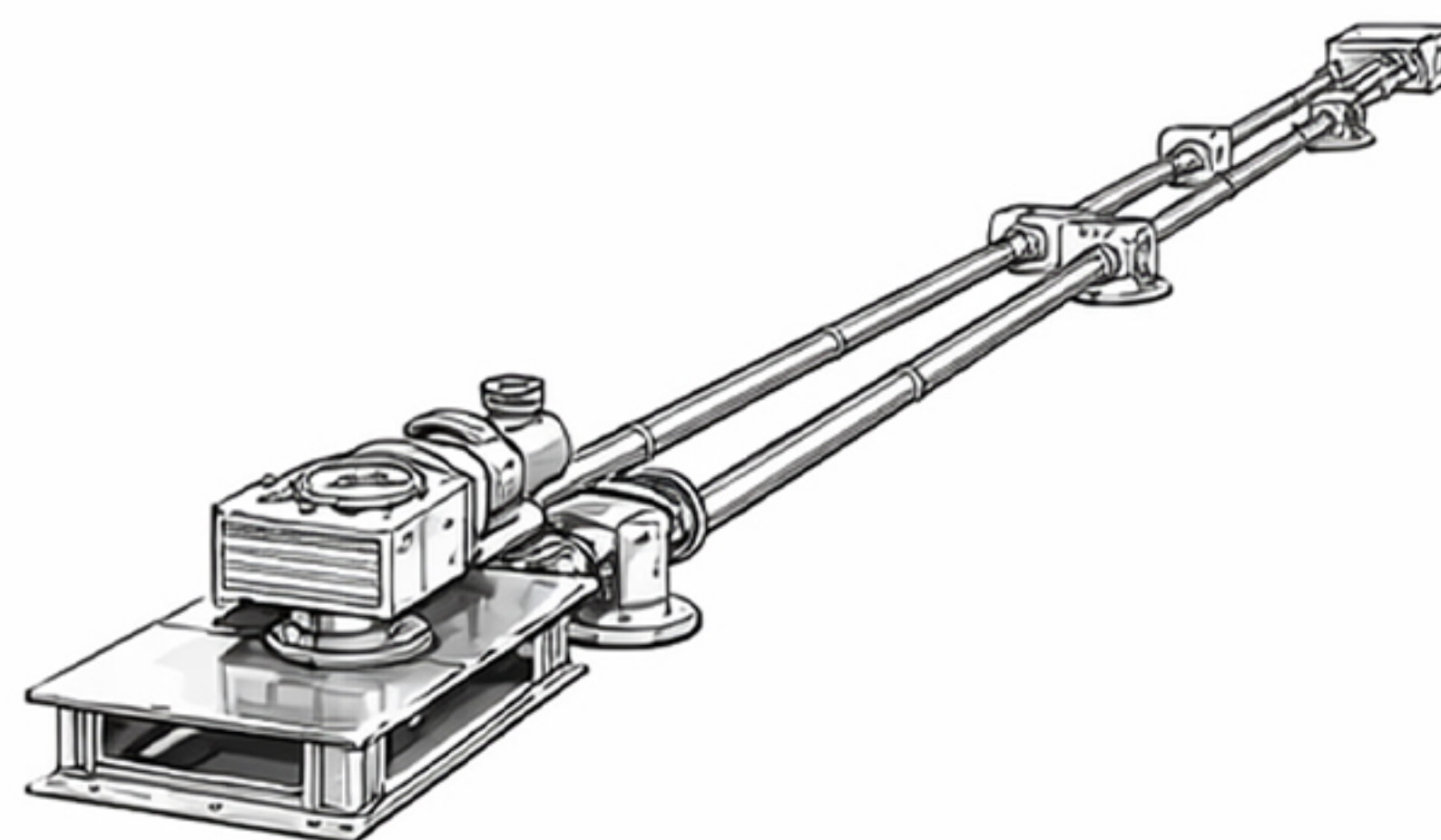
Modular construction allows easy system expansion, capacity adjustment, and line integration.

TUBULAR DRAG CONVEYORS **TYPE**

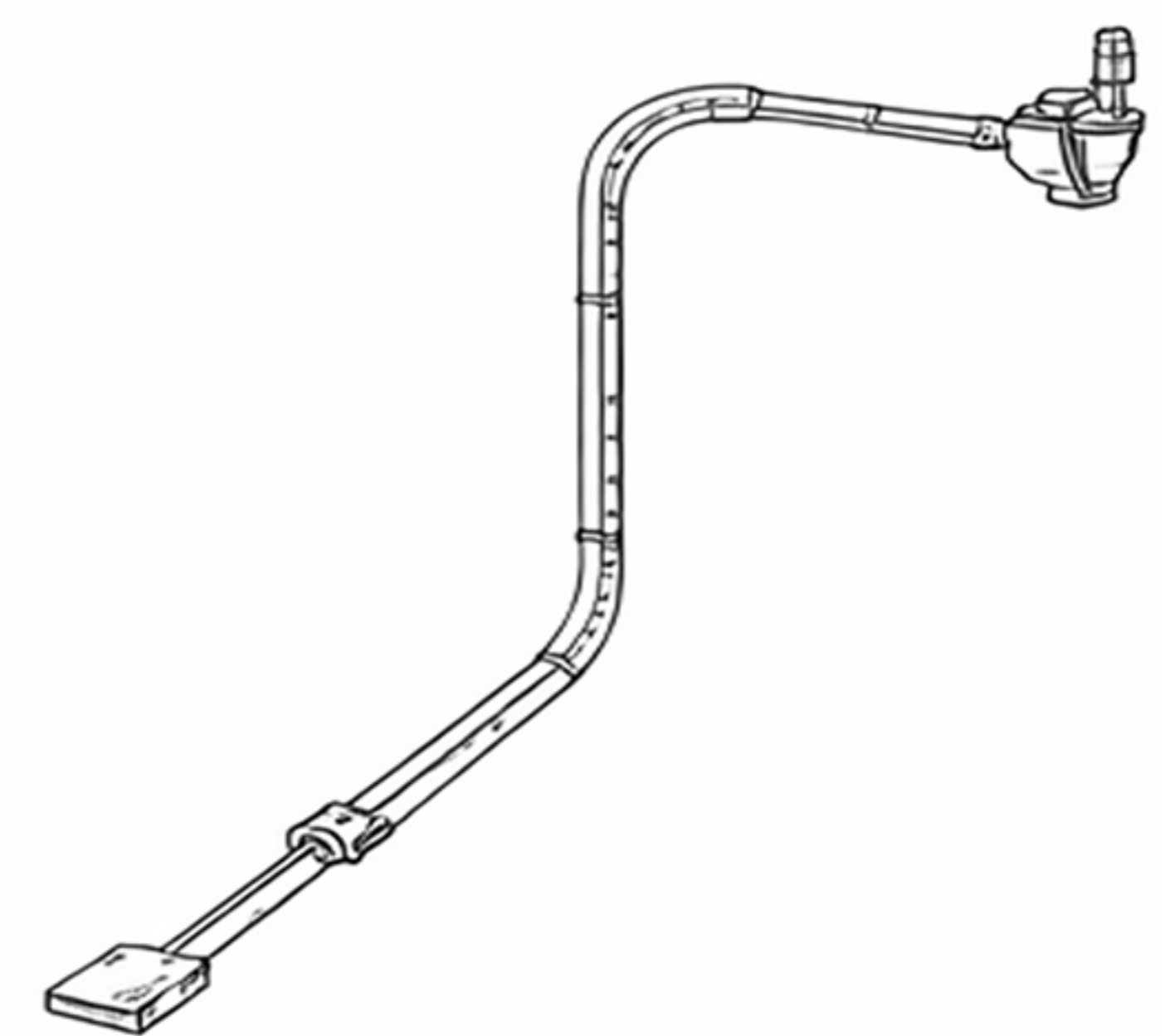
The typical layout forms of tubular drag conveyors under different working conditions include vertical lifting, closed loop, spatial turning, Z-type, multi-point inclined and straight conveying, etc.



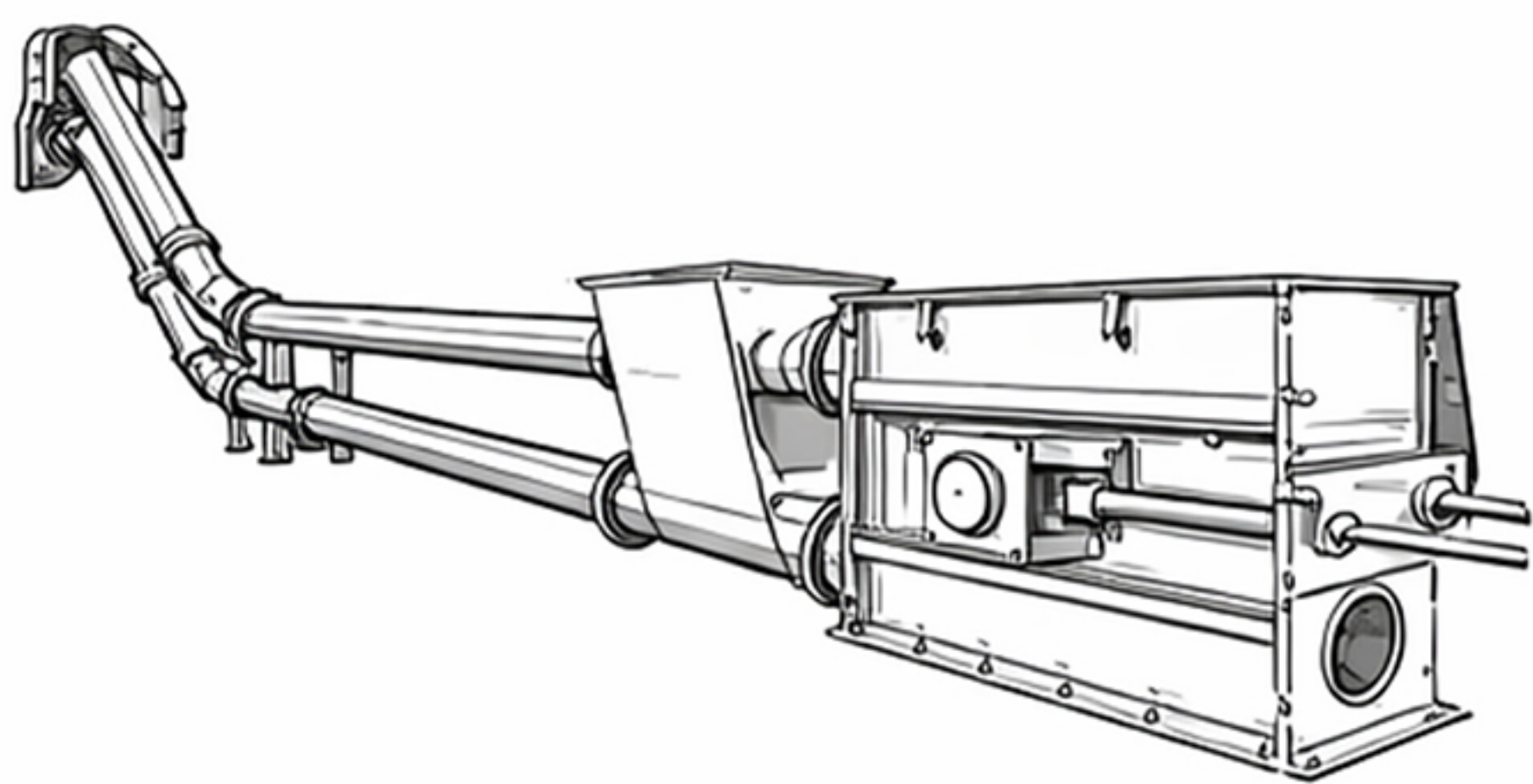
➤ **Z Type**



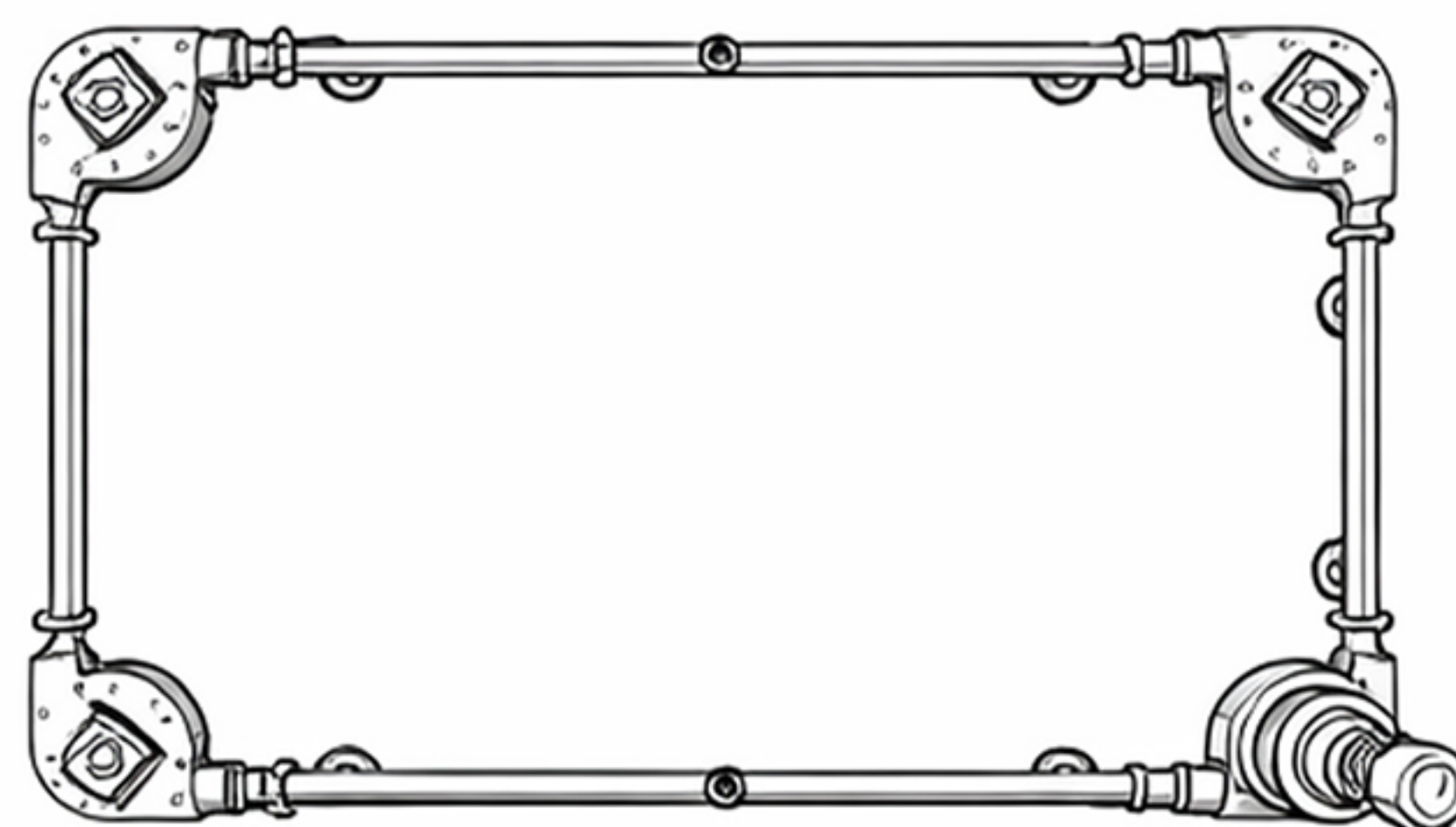
➤ **Inline Type**



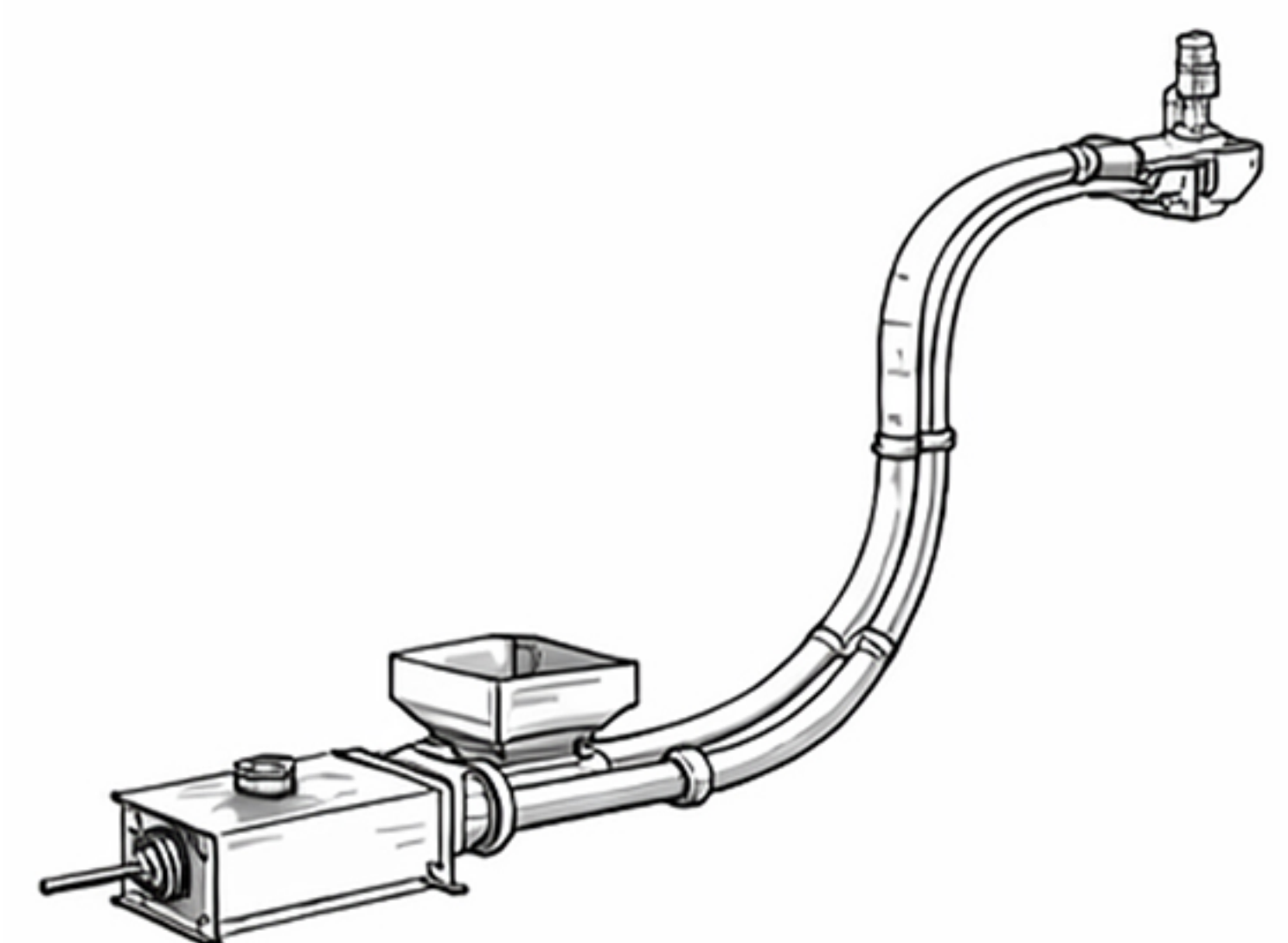
➤ **3D Type**



➤ **Incline Type**



➤ **Loop Type**



➤ **HVH Type**



WHAT CAN TUBULAR DRAG CONVEYORS CONVEY?

Adapted to all industry materials, the sealed conveying method is safer and more efficient, providing a one-stop solution for powder/particle conveying problems.



Food Industry

- Flour
- Grains
- Sugar
- Whole corn
- Soybean meal
- Powdered milk
- Salt
- Starch
- Food additives
- Coffee
- Nuts
- Hops



Chemical industry

- Pigments
- Dyes
- Resins
- Titanium Dioxide
- Carbon Black
- Paints
- Activated Carbon
- Silica Powder
- Kaolin
- Light Calcium
- Calcium Carbonate
- Expansive Clay



Plastics Industry

- PE plastic particles and powders
- PP plastic particles and powders
- PVC plastic particles and powders
- PET plastic particles and powders
- ABS plastic particles and powders
- PC plastic particles and powders



Mining/Metallurgical Industry

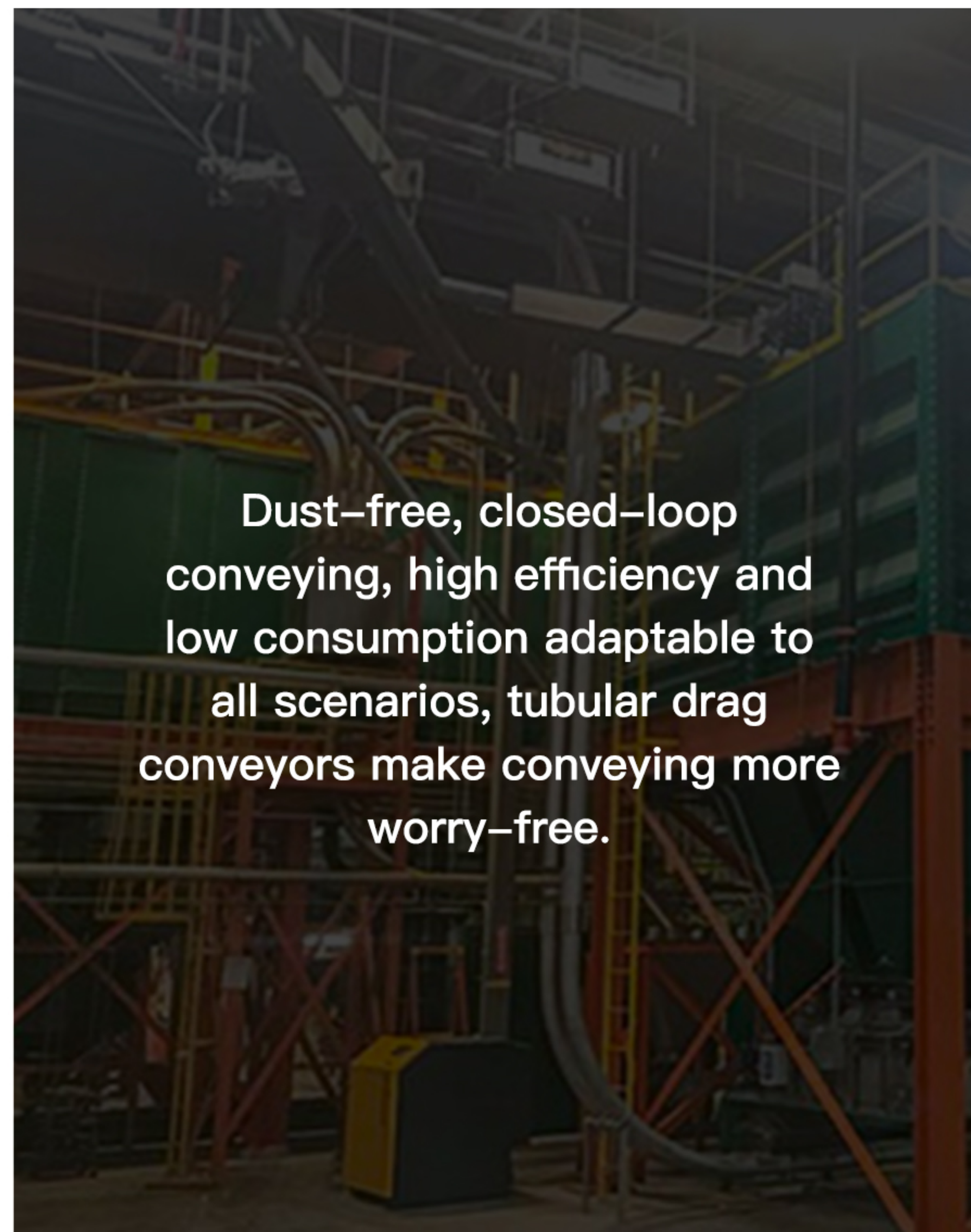
- Coal powder
- Carbon powder
- Ore powder
- Blocky phosphate
- Copper ore powder
- Phosphate ore powder
- Alumina powder
- Tungsten powder
- Calamine
- Slag
- Cement
- Gypsum

UNABLE TO FIND YOUR PRODUCT?

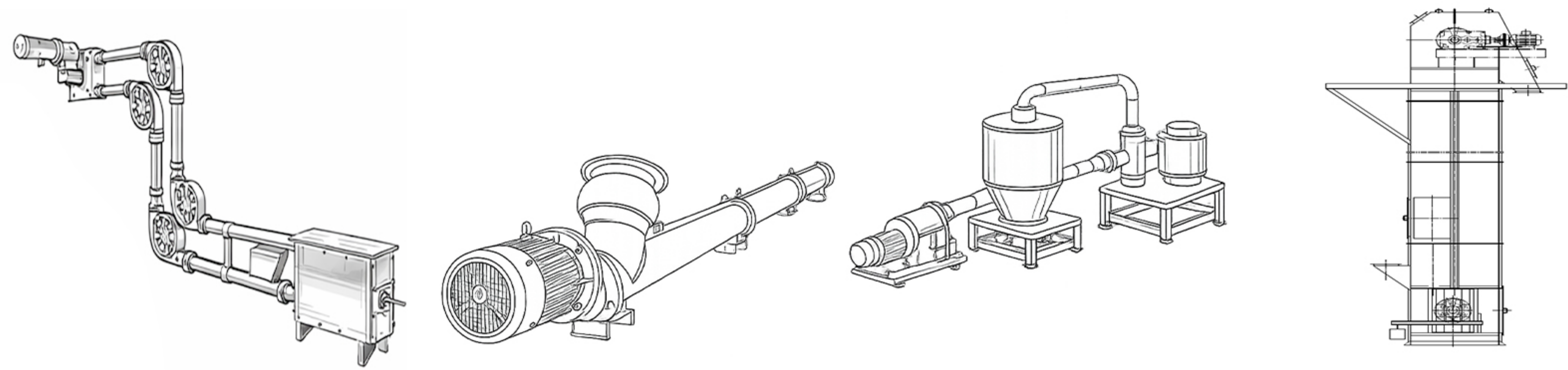
If your product is not listed here, please contact us to learn whether or not EXCT Tubular Drag Chain Conveyors are the right solution for your application.

Remember that you can also request a product test if necessary.

TUBULAR DRAG CONVEYORS **SITE**



WHY USE TUBULAR DRAG CONVEYORS?



Comparison Item	Tubular Drag Conveyors	Screw Conveyor	Pneumatic Conveying	Bucket Elevator
Sealing & Dust Control	Fully enclosed system with minimal dust leakage; environmentally friendly	Open trough, usually requires covers and dust collection systems	Fully enclosed, but requires high-pressure air system	Fully enclosed; good dust containment
Material Integrity	Excellent; gentle conveying, almost no degradation or segregation	Shear and material damage likely	High-velocity air causes separation and product degradation	Good; gentle handling, though minor impact damage may occur
Adaptability to Complex Routes	High; supports horizontal, vertical, and multi-bend layouts	Limited; not suitable for complex routing	Flexible piping, but at very high energy cost	Low; mainly for vertical or limited-bend layouts
Energy Consumption	Low; slow speed, low power, high efficiency	Medium	Very high	High, especially for large lifting heights
Maintenance & Service Life	Simple maintenance, low wear, long service life	Screw flights wear quickly and require frequent replacement	High maintenance; filters and blowers require regular servicing	Medium; chains or belts require periodic inspection
Material Compatibility	Powders, granules, light lumps, and blended materials; very wide application range	Powders and granules; poor for sticky or caking materials	Mainly dry powders; pressure control is complex	Suitable for powders and granules, especially heavy bulk materials
Installation Flexibility	Very high; compact layout, space-saving	Moderate	Flexible, but requires extensive auxiliary equipment	Limited; mainly vertical installation
System Complexity / Initial Investment	Low	Low	High (including compressors and separation systems)	Medium
Noise & Working Environment	Low-noise operation, clean and quiet	Medium noise	High noise	Medium noise, especially at high lifting speeds



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