



# TUBULAR CHAIN CONVEYORS

TECHNICAL BROCHURE



## COMPANY PROFILE

Luxme International Ltd. is a customer-oriented company with extensive experience in solids handling systems.

The company operates primarily in manufacturing, mining, chemical, agricultural, pharmaceutical, and food industries. We engineer and manufacture complete systems to meet individual customer needs at very competitive prices.

Prior to delivery, we invite our clients to witness the purchased equipment in operation at our manufacturing facility. They are given the necessary training to achieve the maximum potential from our products.

Luxme International's in-house development and research activities, together with our close collaboration with companies worldwide, allow us to maintain a competitive edge. The result is improved design and reliability in addition to technological innovation.

Luxme offers customers the opportunity of testing their product in our Tubular Chain Conveyors, Automatic Bag Openers, and other ancillary equipment manufactured by Luxme. The test laboratory is equipped with different loop arrangements with variable speed capabilities for each equipment while offering a dust free environment.

Different types of brush assemblies and valves are operational in closed loops, allowing the customer to view their product being recirculated and witness the end result. This provides the customer with an accurate method of determining conveying reliability and efficiency.

For the last 40 years Luxme products have received international recognition and today we enjoy global success.



*Headquarters*

|                        | PAGE |
|------------------------|------|
| COMPANY PROFILE        | 2    |
| TABLE OF CONTENTS      | 3    |
| LUXME TECHNOLOGY       | 4    |
| TEST FACILITIES        | 5    |
| TECHNICAL DATA         | 6    |
| CONVEYED MATERIALS     | 7    |
| OTHER PRODUCTS         | 12   |
| ANCILLARY EQUIPMENT    | 14   |
| DISC & CHAIN ASSEMBLY  | 19   |
| TYPICAL APPLICATIONS   | 20   |
| TYPICAL ARRANGEMENTS   | 22   |
| STANDARD INSTALLATIONS | 26   |

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## Special Merits

Luxme link chain design acts as a universal joint during product conveying and can turn in multiple directions and planes. It has a heavy duty construction.

Variable chain speed – 4 ft/min to 90 ft/min – contributes to minimal product degradation while maximizing throughput and equipment life.

A unique feature of the Luxme design is the Automatic Continuous Chain Tensioner. This device continuously tensions the entire length of chain in the product conveying path, while maintaining zero tension in the return path. It compensates for the increase in chain tension by automatically adjusting for:

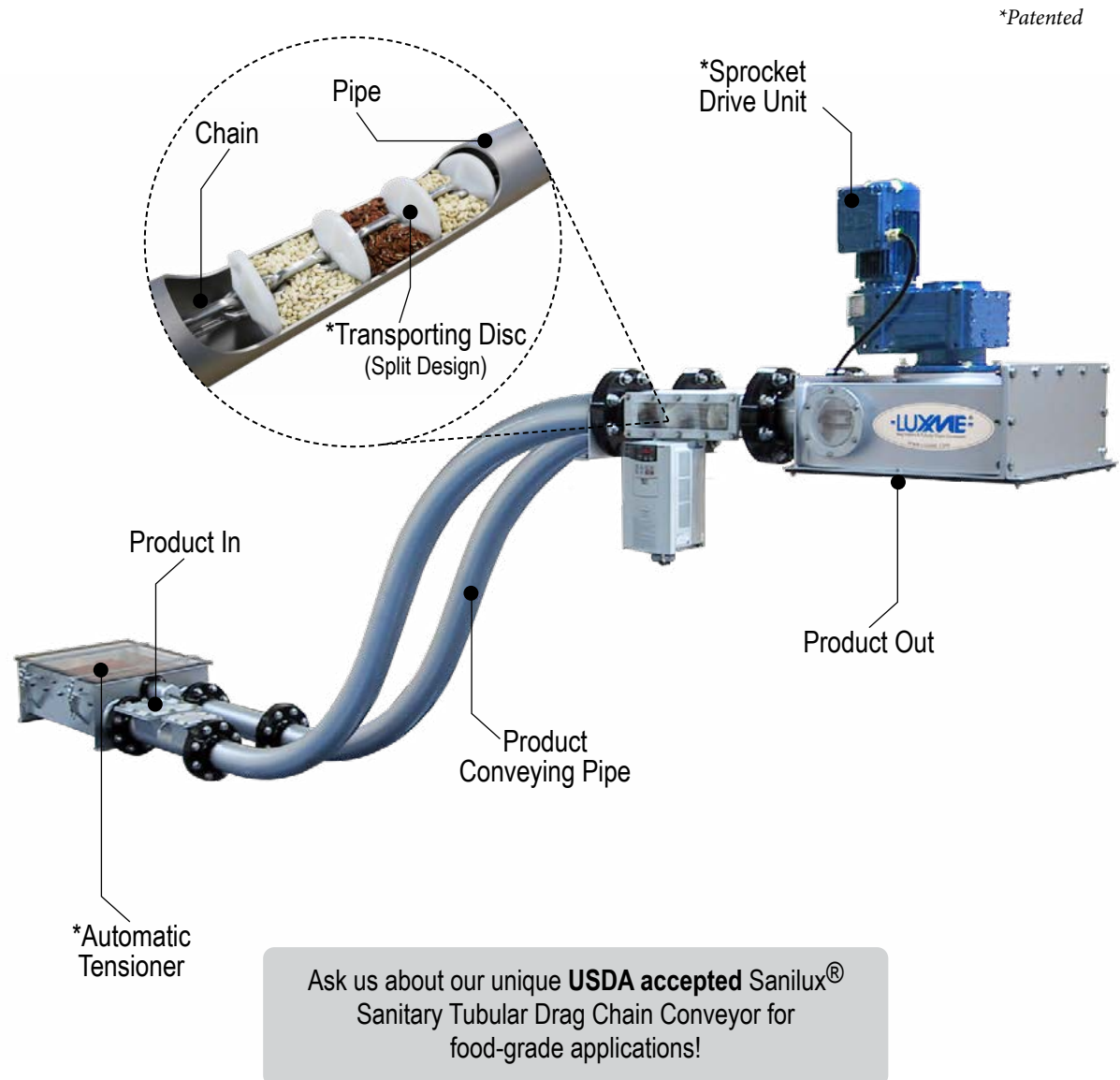
- friction,
- variation in product flow rates,
- changes in atmospheric and product temperature,
- conveying disc wear,
- chain wear, etc.

Using the Automatic Tensioner will minimize the wear and tear of the conveying discs, chain, and pipe.

Luxme Chain Conveyors are manufactured in Montreal, Canada, at our production facility. Luxme has established a worldwide reputation for our equipment's reliability and performance in handling a wide variety of materials.

Visit our website for more information about our complete line of products, or visit our Montreal manufacturing facility to see the equipment in operation in our showroom and test facilities.

The Luxme Chain Conveyor is an enclosed conveying system comprised of a tubular casing that houses circular discs. The discs are attached to a chain which conveys the product using an Automatic Continuous Chain Tensioner and Drive Station units. The conveyor operates as a dust-free system.



OVER 3500 INSTALLATIONS WORLDWIDE

Luxme International Ltd. offers customers the opportunity to perform system simulations, by conveying their materials, using Luxme manufactured products, that include: tubular chain conveyors, automatic bag slitters, clean-in-place systems, product blenders, and more.

Product trials are conducted in a dust-free environment. Tubular chain conveyors, cooling conveyor, clean in place (CIP) washing system, and other ancillary equipment manufactured by Luxme International are used to run tests with the customer's material. The test laboratory is equipped with different loop arrangements using variable chain speed capabilities on each piece of equipment. Different types of brush assemblies and valves operating in closed loops for lengthy recirculation gives an opportunity for the customer to witness the effects of their product being continuously conveyed for a period of many hours. Only one or two drums of product\* is needed to run these tests. This provides the customer with an accurate method of determining conveying reliability and efficiency.

*\* Restrictions are applicable for toxic and hazardous materials.*



## Testing Options

The following testing options are available to our customers:

- 1 Conveying product in Luxme chain conveyors using different loops in closed circuit.
- 2 Product discharge via slide valve, drop bottom valve and drive assembly.
- 3 Chain and disc cleaning by drive assembly brush station and in-line brush station.
- 4 Product heating or cooling in Luxme tubular chain conveyors.
- 5 Wear tests on different types of conveyor discs establishing the disc life expectancy.
- 6 Mass flow measurements using impact flow measuring units.
- 7 Checking the effect of pneumatic and motorized chain knock-out for sticky products.
- 8 Checking the possibilities of product build-up inside the conveying pipes.
- 9 Clean in Place (CIP) washing system and Clean-Trace ATP Swab testing.
- 10 Manual dump station and other Luxme parts and accessories.

## TEST FACILITIES



# TECHNICAL DATA

## Special Considerations

- Conveying capacities are theoretical and represent 100% filling.
- Product Temperatures up to 700°F or more with a cooling jacket.
- Maximum Length = 250 ft. per conveyor / Maximum Height = 100 ft. per conveyor
- Horsepower (HP) is theoretical and based on 100% filling and a bulk density of 50 lbs/ft³.

# CONVEYING CAPACITIES

## TYPE 115

(4" DIAMETER NOMINAL)

|                           |     |     |     |     |     |     |     |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|
| Volumetric Feed (ft³/hr): | 10  | 50  | 100 | 150 | 200 | 300 | 400 |
| Horsepower:               | .75 | .75 | 1   | 1.5 | 2   | 3   | 3   |
| Chain Speed (ft/min):     | 2   | 12  | 24  | 37  | 49  | 74  | 98  |

## TYPE 140

(5" DIAMETER NOMINAL)

|                           |     |     |     |     |     |     |     |     |     |     |     |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Volumetric Feed (ft³/hr): | 50  | 100 | 150 | 200 | 300 | 350 | 400 | 450 | 500 | 550 | 600 |
| Horsepower:               | .75 | .75 | 1   | 1.5 | 2   | 3   | 3   | 3   | 5   | 5   | 5   |
| Chain Speed (ft/min):     | 7   | 15  | 22  | 30  | 44  | 52  | 59  | 67  | 74  | 82  | 89  |

## TYPE 160

(6" DIAMETER NOMINAL)

|                           |     |     |     |     |     |     |     |      |       |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|------|-------|
| Volumetric Feed (ft³/hr): | 100 | 200 | 400 | 500 | 600 | 700 | 800 | 900* | 1000* |
| Horsepower:               | 2   | 3   | 5   | 5   | 7.5 | 7.5 | 7.5 | 10   | 10    |
| Chain Speed (ft/min):     | 11  | 23  | 46  | 57  | 68  | 80  | 91  | 102  | 114   |

## TYPE 200

(8" DIAMETER NOMINAL)

|                           |     |     |     |     |     |      |      |      |      |      |       |       |
|---------------------------|-----|-----|-----|-----|-----|------|------|------|------|------|-------|-------|
| Volumetric Feed (ft³/hr): | 400 | 500 | 600 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500* | 1600* |
| Horsepower:               | 3   | 5   | 5   | 7.5 | 7.5 | 7.5  | 10   | 10   | 10   | 15   | 15    | 15    |
| Chain Speed (ft/min):     | 26  | 33  | 40  | 53  | 59  | 66   | 73   | 79   | 86   | 92   | 99    | 106   |

## TYPE 270

(10" DIAMETER NOMINAL)

|                           |     |     |     |     |     |      |      |      |      |      |      |       |       |
|---------------------------|-----|-----|-----|-----|-----|------|------|------|------|------|------|-------|-------|
| Volumetric Feed (ft³/hr): | 300 | 400 | 500 | 700 | 900 | 1100 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400* | 2600* |
| Horsepower:               | 3   | 3   | 5   | 5   | 7.5 | 7.5  | 10   | 10   | 15   | 15   | 15   | 20    | 20    |
| Chain Speed (ft/min):     | 12  | 16  | 20  | 28  | 36  | 44   | 55   | 63   | 71   | 79   | 87   | 95    | 103   |

\*Subject to material density, granulometry, particle size, chemical characteristics and system usage per day.



Below you will find a **partial list** of products conveyed by Luxme Tubular Drag Chain Conveyors. Please contact us directly for additional information or a complete list of products.



## CONVEYED MATERIALS

|                            |                          |                            |                            |                         |                           |
|----------------------------|--------------------------|----------------------------|----------------------------|-------------------------|---------------------------|
| » Adipic Acid              | » Cellulose Fiber        | » Earth (Bleached)         | » Lead (Sludge)            | » Phosphorite           | » Sodium Carbonate        |
| » Abrasion Left Over       | » Cement                 | » Egg Shells               | » Lime Dust                | » Phosphorous (Red)     | » Sodium Hydroxide        |
| » Activated Carbon         | » Ceramic Fiber          | » Feed Phosphate           | » Lime Stone               | » Plaster               | » Sodium Phosphate        |
| » Activated Coal Ash       | » Ceramic Powder         | » Ferrite Powder           | » Lithium Vanadium Oxide   | » Plastic Flakes        | » Sodium Silicide         |
| » Alumina                  | » Char (Pyrolytic)       | » Ferro Carbon             | » Magnesium                | » Plastic Pellets       | » Soft Coal               |
| » Aluminum Oxide           | » Chem. Additives        | » Fertilizer               | » Magnesium Oxide          | » Plumbeous Oxide       | » Soil                    |
| » Ammonium Dust            | » China Clay             | » Fiber                    | » Maleic Anhydride         | » Polymer Resin         | » Soot                    |
| » Animal Bedding           | » Cigarette Filters      | » Fiber Ink Sludge         | » Maxiban                  | » Polymeric Sand        | » Soup Mix                |
| » Animal Food              | » Clay (Regenerated)     | » Filter Cake Discharge    | » Meal (Clay)              | » Polyurethane Foam     | » Soybean Hulls           |
| » Anthracite               | » Clay (Spent)           | » Filter Dust (Cat Litter) | » Mego                     | » Potash                | » Spar                    |
| » Apple Powder             | » Clay "Noodles"         | » Filter Material          | » Melamine                 | » Potassium Sulphate    | » Spent Pot Liner         |
| » Ash (Hard Coal)          | » Clean Animal Bedding   | » Fish Meal                | » Metal Chips              | » Quartz (Sand)         | » Spices                  |
| » Ash (Nut Shell)          | » Coal (Crushed)         | » Filter Cake              | » Metal Oxide              | » Radio Active Material | » Steel Dust              |
| » Ash/Glass                | » Coal Dust              | » Flour                    | » Metal Silicone Powder    | » Red Lead              | » Synthetic Pellets       |
| » Autocat Material         | » Coal-Alumina (Powder)  | » Flux                     | » Metaloxide/Powder        | » Rock & Sand, Ash      | » Talc Pellets            |
| » Baking Mix & Flour       | » Cocoa Beans            | » Fly Ash                  | » Microtracer (fine metal) | » Roofing Granules      | » Talcum Powder           |
| » Barite - Barium Sulphate | » Cocoa Powder & Balls   | » Food, Pet (Ground)       | » Milk (Skim)              | » Salt / Sugar          | » Tea                     |
| » Barium Carbonate         | » Coffee Beans / Ground  | » Glass bottles (broken)   | » Mixed Compound           | » Sand                  | » Terephthalic Acid (TPA) |
| » Barium Sulfate           | » Coke (Fluid Petroleum) | » Glass Wool               | » Molasses                 | » Sawdust               | » Tetrapotassium P.       |
| » Bedding, Animal (clean)  | » Color Filler           | » Glucose/Lactose          | » Molybdenum Di-Sulfide    | » Scrap Foamglass       | » Titanium Dioxide        |
| » Bedding, Animal (Soiled) | » Compost                | » Granulated Sulfur        | » Mortar                   | » Scrap Metal           | » Tobacco                 |
| » Bentonite                | » Concentrate            | » Graphite Carbon          | » Mud Slurry               | » Sewage (Granules)     | » Torbella                |
| » Biofuel                  | » Contents of Cow        | » Gravel                   | » Natural Graphite         | » Sewage Sludge         | » Trimellitic Anhydride   |
| » Biomass                  | » Cookie Crumbs          | » Grit                     | » Natural Gypsum           | » Shredded Aluminum     | » Pressed Stearic Acid    |
| » Bleached Earth           | » Copper Ore             | » Ground Coffee            | » Nicarbazin (Granulated)  | » Silica Beads          | » Trisodiumpolyphosphate  |
| » Bone Meal                | » Copper Oxide           | » Ground Plastics          | » Nickel                   | » Silicon Feed          | » Uranium (Yellow Cake)   |
| » Brick Dust               | » Corn Cob Bedding       | » Gypsum                   | » Oak (chips and sawdust)  | » Silicone Carbide      | » Urea (Dust)             |
| » Calcined Alumina         | » Corn Fibre (Dried)     | » Hearth Powder            | » Octadecane               | » Silicone Metal Powder | » Urea (Granulated)       |
| » Calcined Petroleum Coke  | » Cryolite               | » Hemp (Dust & Fiber)      | » Oven Remains             | » Sinter Granules       | » Wax Flakes              |
| » Calcium Carbonate        | » Detergent              | » Hydrogen Acid            | » Paper Sludge             | » Sintered Dust         | » Waxes (Flaked-Hard)     |
| » Calcium Chloride         | » Diacetone Acrylamide   | » Iron Oxide (Powder)      | » PCR Flakes               | » Slag                  | » Wheat                   |
| » Calcium Sulphate         | » Diamond Ore            | » Iron Oxide/Dust          | » Peat Moss                | » Sludge (Wet)          | » Wood Ash / Powder       |
| » Caprolactam              | » Dried Coal             | » Iron Sulphate            | » Penicillin-G110          | » Sludge Granules       | » Wood Chips (Wet)        |
| » Carbon Dust/Soot         | » Dried Sludge           | » Kaolin Clay              | » Perlite                  | » Sludge Pellets        | » X-Ray Film              |
| » Cashew Kernels           | » Dry Sand               | » Kiln Dust                | » Pesticide                | » Soap Dust             | » Yellow Cake             |
| » Cat Food                 | » Dry Solids             | » Kiln Fuel-Coke           | » Petroleum Coke           | » Soda Ash              | » Zinc Oxide              |
| » Cellulose (Powdered)     | » Dust (Hot)             | » Klinker Dust             | » Phenolic Resin           | » Sodium Acetate        | » Zinc Stearate           |



# CONVEYED MATERIALS

The following images show the variation in particle size and the granulometry of the product conveyed by Luxme Chain Conveyors in multiple planes. This is a **partial** list.



Activated Carbon Flake



Almonds



Alumina Hydrate



Barium Sulfate



Bleached Earth



Calcined Alumina



Calcined Petroleum Coke Fines



Calcium Carbonate



Calcium Carbonate



Calcium Carbonate Aggregate



Cashew Kernels



Ceramic Fiber



Cigarette Filters



Coal



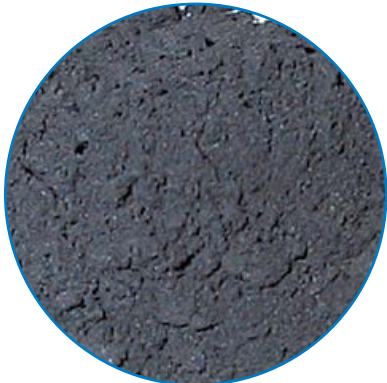
Cocoa Beans



Luxme International serves a variety of industries including the agricultural, pharmaceutical, chemical, mining, food, energy, cement, plastics, paper, and many more.



## CONVEYED MATERIALS



Coke Fuel



Compost



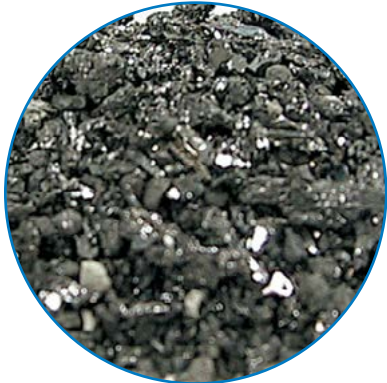
Cryolite



Dry Sand



Eggshells



Ferro Carbon



Fertilizer



Fiber Ink Sludge



Fly Ash After Spray



Fly Ash



Ground Coffee



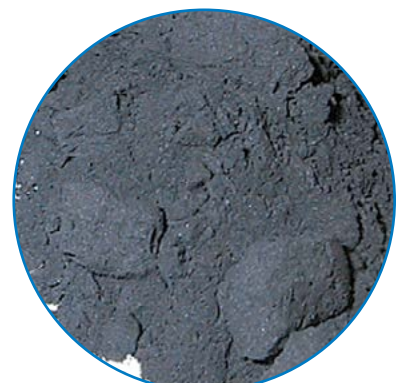
Hydrogenated Tallow Glyceride



Iron Ore



Kaolin Clay



Kiln Fuel Coke



# CONVEYED MATERIALS

Luxme Tubular Drag Chain Conveyors gently transport abrasive, sticky, hard, cold, and hot products for a variety of industries.



Limestone Dust



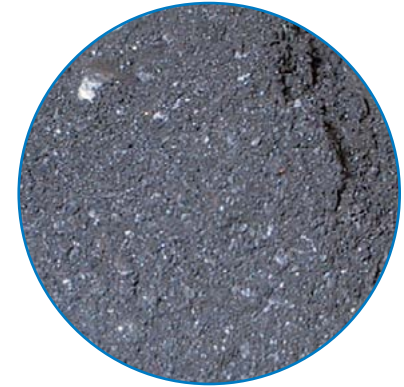
Magnesium Oxide



MaleicAn Hydride



Mego



Natural Graphite



Octadecane



Peanuts



Peat Moss



Penicillin



Pepper (Various Forms)



Phenolic Resin



Potatoes



Rice



Salt



Stearic Acid



Luxme Tubular Drag Chain Conveyors **heavy-duty** construction allows you to convey your product in a continuous manner within a dust-free, highly **sanitary** environment.

## CONVEYED MATERIALS



Tea



Tetrapotassium Pyrophosphate



Tobacco



Wax



Wax Flakes



Wheat



Wood



Wood Ash



Zinc Stearate



Other Products

## UNABLE TO FIND YOUR PRODUCT?

From industrial, pharmaceutical, agricultural, chemical, food and other applications, Luxme takes pride in serving many industries in several countries around the world. If your product is not listed here, please contact us to learn whether or not Luxme Tubular Drag Chain Conveyors are the right solution for your application. Remember that you can also request a product test if necessary.

**We serve a variety of industries by gently and efficiently conveying hundreds of products worldwide!**



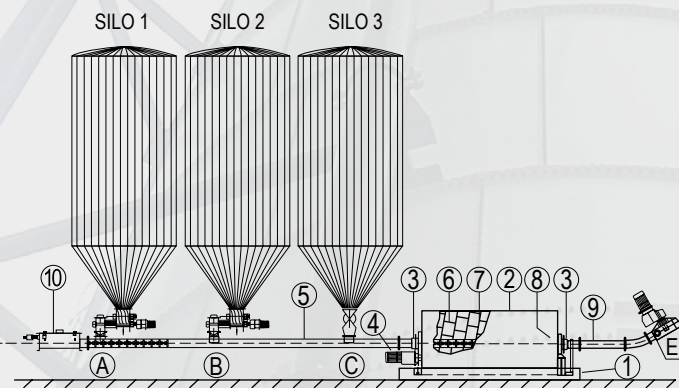
## OTHER PRODUCTS

### Rotary In-Line Blender (Luxmix®)

The Luxme Rotary In-Line Blender provides continuous blending of product. It is comprised of a rotary drum (2), bearings (3) and drive (4).

Different products are discharged at inlets A, B, and C using metering screw feeders. Products are then transferred via a tubular chain conveyor (5) into a rotating drum (2). This drum is equipped with paddles (6) to ensure the product is mixed as it is gently transported towards the mixer discharge that feeds the product back into the tubular conveyor. The product is then conveyed to the outlet located at the end of the tubular conveyor (E).

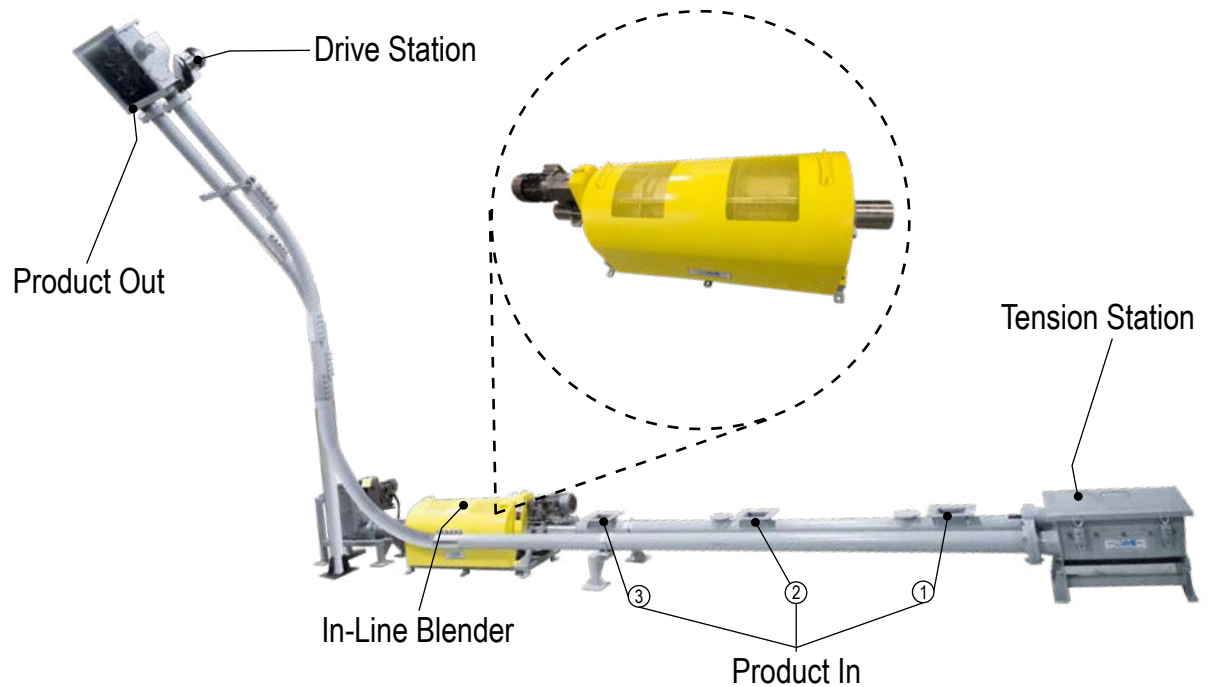
The system is totally enclosed and dust-free. Continuous blending eliminates downtime for loading and unloading. This in-line blending has the potential to eliminate a separate mixing stage in the process.



Silo Discharge through Metering Feeder to the Luxme Rotary In-Line Blender

Luxme Tubular Drag Chain Conveyors gently transport abrasive, sticky, hard, wet, cold, and hot products for a variety of industries.

### In-Line Product Blender



### Cooling Conveyor

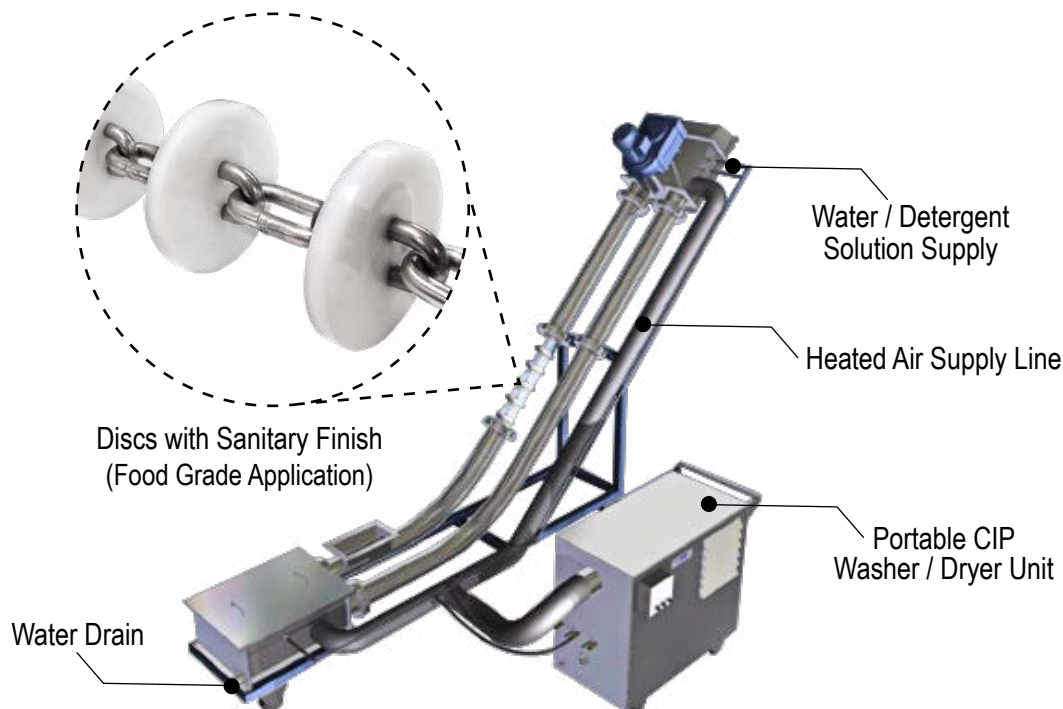
Tubular Chain Cooler Conveyors are the best way to cool down your product as it moves through your conveying system. If you need to cool down materials from temperatures as high as 700°F to more manageable temperatures for processing or storing, our Tubular Drag Chain Cooler Conveyor is the best option for you.





Luxme Chain Conveyors can be equipped with an optional Clean-In-Place washing system. The conveyors are fitted with specially designed air and water quick-disconnect couplings for easy assembly/disassembly. It is a fully automatic, self-washing conveyor for **food-grade** applications.

## Clean-In-Place Washing System



A CLEAN-IN-PLACE CONVEYOR WITH NO METAL TO METAL CONTACT IS AVAILABLE

## LuxPro® Inspecting Camera Disc

The LuxPro® ICD is a unique technology that enables our clients to perform an internal visual inspection of their tubular drag chain conveyor after the initial installation, after each Clean-in-Place (CIP) process is completed, or whenever you deem it necessary. This will allow our clients to make sure that the CIP process was thorough and/or to find internal areas that may need to be checked, maintained, repaired, reinstalled, or sanitized. Please contact us for additional information or a free quote!



## OTHER PRODUCTS

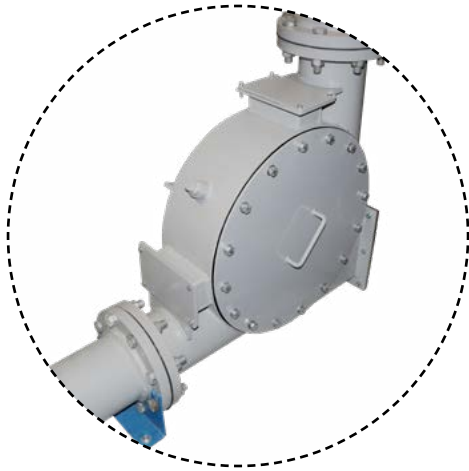
### Clean-in-Place System (CIP)

- » Conveying Chain with Conveying Discs moulded directly to the chain to eliminate hang-points where product may accumulate.
- » Conveying Discs are made from UHMW-PE – FDA approved and food-grade. The conveying chain is made from polished Stainless Steel 316.
- » The conveying pipes and stations have no hanging points ensuring complete washout of the system.
- » The drive station sprockets use Stainless Steel 316 specially designed to minimize product accumulation.
- » The numbers of joints are minimized as part of the CIP design. They are comprised of sealed, slip-on flanges to ensure completely clean joints.
- » The conveying line is designed to have the chain in tension whereas the return line chain is loose. This allows the chain to be cleaned thoroughly as the water jets are able to penetrate the corners of every link.
- » The CIP system is connected to a water and detergent source. It is designed to flood the conveyor with the cleaning solution. The conveyor can be drained through the tension station. These steps are repeated until complete washout is achieved. Heated air can be supplied to dry the conveyor for a new batch process.

Ask us about our unique **USDA accepted Sanilux®** Sanitary Tubular Drag Chain Conveyor for food-grade applications!

# ANCILLARY EQUIPMENT

The **turn station** contains a sprocket or other rotating mechanism, which reduces the wear and tear, and extends the life of the chain and discs. The powered or idler turn station assists the chain movement through the bends. This reduces frictional drag, component wear, and power consumption.



## IDLER 90° TURN STATION

This device features a guide rim or sprocket that allows the chain to gently turn 90°.



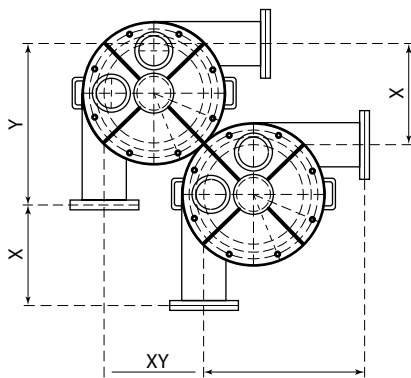
## POWERED TURN STATION

Frequently used in large conveying systems, this 90° turn station provides additional power to the loop arrangement.

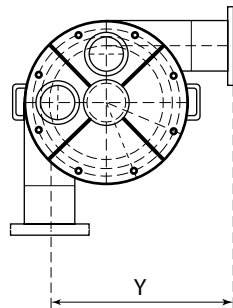


## IDLER TURN STATION

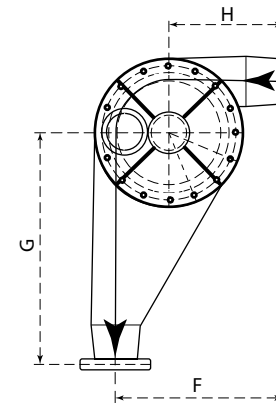
This particular turn station allows the chain to smoothly turn 135°. Commonly used in the return line of tall vertical systems.



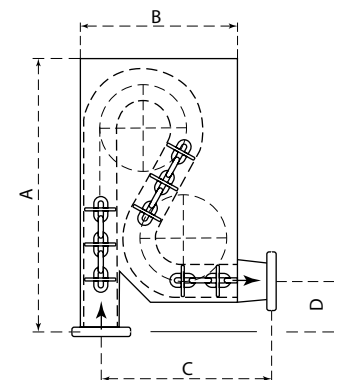
Luxme Chain Conveyor  
flat arrangement



Turn station in return path from  
horizontal to vertical planes



Turn station in conveying path  
from vertical to horizontal planes



Luxme Chain Conveyor  
upright arrangement



A brush assembly or brush station is the most efficient way to clean up any residue from the conveyor's during operation. It can be installed in various locations throughout the system.

## ANCILLARY EQUIPMENT



### INTERMEDIATE BRUSH STATION

Most commonly used in applications involving granular or fine materials.



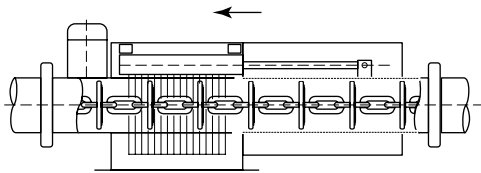
### UPRIGHT IN-LINE BRUSH STATION

Our standard upright design is used for a variety of industries and applications.



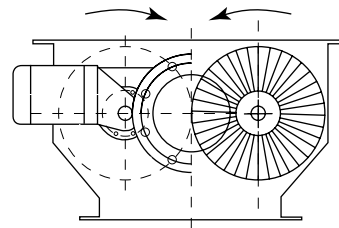
### BRUSH ASSEMBLY DRIVE STATION

Our drive station brush assembly design is commonly used at the end of the line.



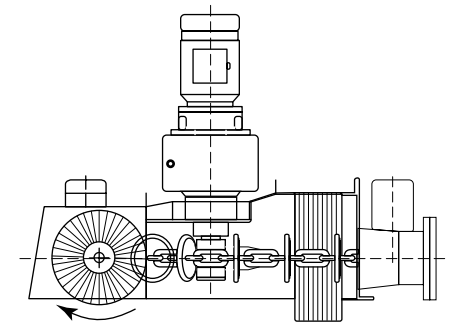
### INTERMEDIATE BRUSH STATION

At intermediate and end outlets, problems can occur when a sticky product adheres to conveying disc. The intermediate brush station has two rotating brushes which dislodge the product and simultaneously cleans the chain.



### IN-LINE BRUSH STATION

Two rotary brushes are positioned in the return line to ensure that the chain is free from product.

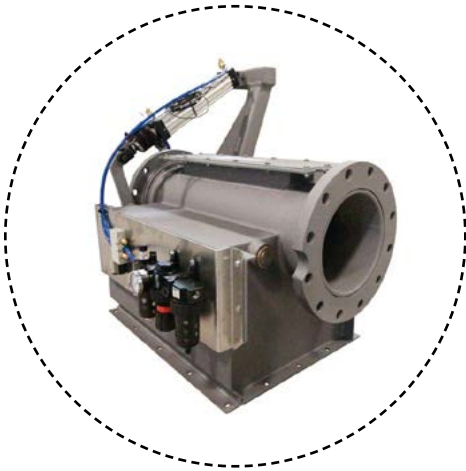


### BRUSH ASSEMBLY DRIVE STATION

Permanent brushing at the product drop-off outlet ensures separation of sticky product from the chain and continuous cleaning of the conveyor

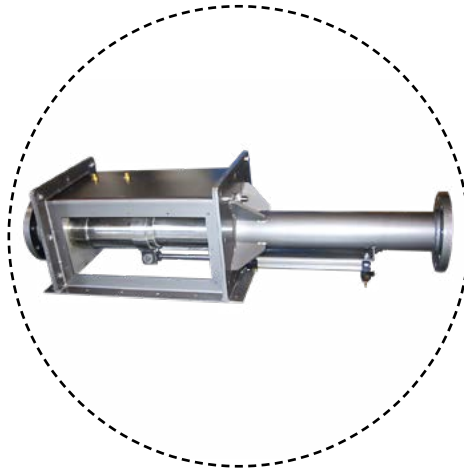
# ANCILLARY EQUIPMENT

Luxme offers you a variety of discharge valves, which allow you to open and close sections of your conveyor so that the material can be redirected or discharged at specific locations automatically.



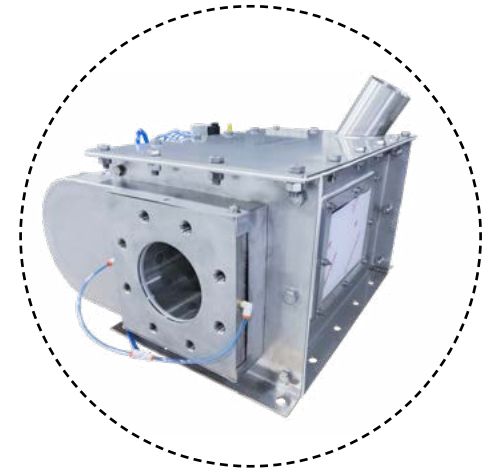
## DROP BOTTOM VALVE

Most commonly used in applications involving non-sticky materials.



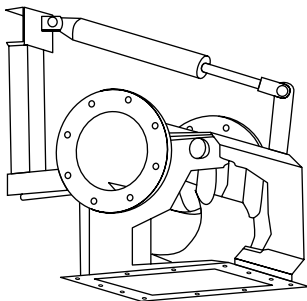
## SLIDING VALVE

Our standard valve design used for a variety of industries and applications.



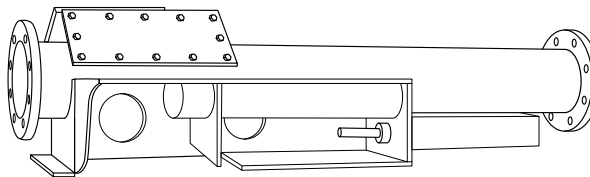
## ROTARY VALVE

Our heavy-duty valve design is reserved for high load, continuous conveying.



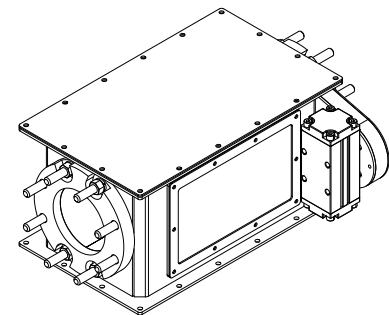
## DROP BOTTOM VALVE

The rotating bottom flap allows the material to drop from the bottom of the conveyor.



## SLIDING VALVE

Smooth and linear movement for discharging the product.



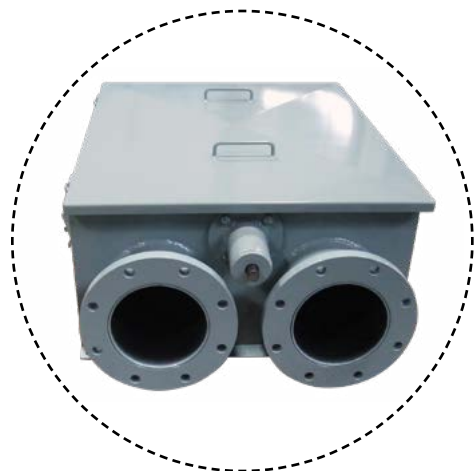
## ROTATING VALVE

Discharges by rotating a section of pipe, which eliminates product breakage. CIP design available.



A tension station maintains the chain's tension during the tubular chain conveyor operation. It helps reduce wear and tear and improves performance.

## ANCILLARY EQUIPMENT



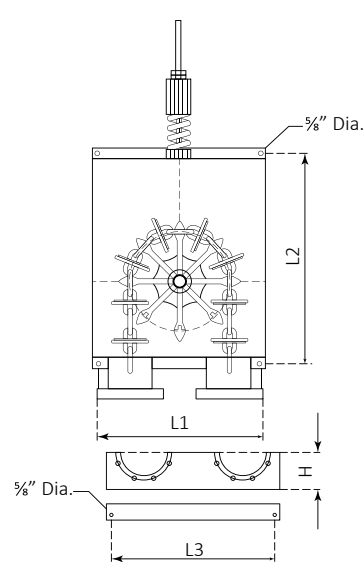
SPRING TENSION STATION I



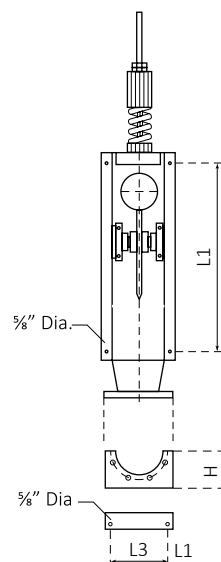
SPRING TENSION STATION II



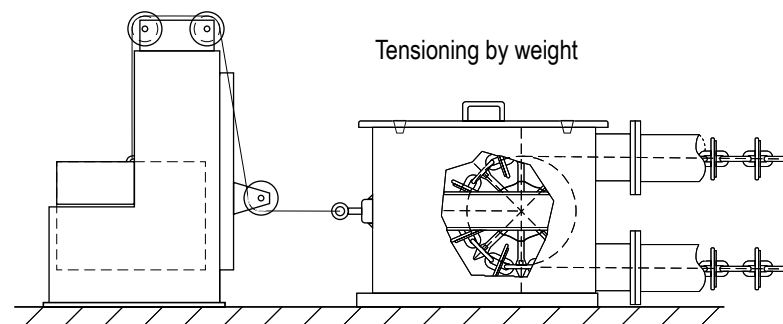
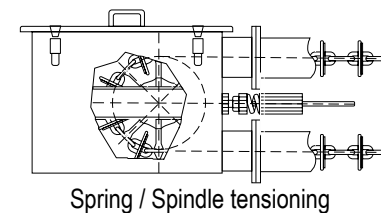
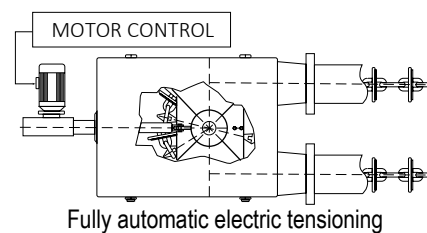
TENSION STATION BY WEIGHT



| TYPE | L1  | L2                               | L3  | H                               |
|------|-----|----------------------------------|-----|---------------------------------|
| 160  | 26" | 34"                              | 26" | 5 <sup>3</sup> / <sub>4</sub> " |
| 200  | 30" | 37 <sup>7</sup> / <sub>8</sub> " | 30" | 7"                              |

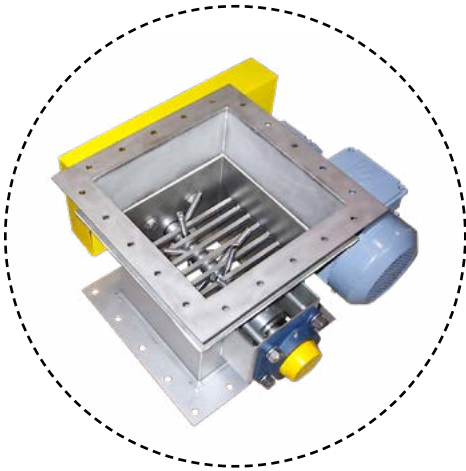


| TYPE | L1                               | L2                               | L3  | H                               |
|------|----------------------------------|----------------------------------|-----|---------------------------------|
| 160  | 29 <sup>5</sup> / <sub>8</sub> " | 10 <sup>1</sup> / <sub>4</sub> " | 9"  | 5 <sup>3</sup> / <sub>4</sub> " |
| 200  | 31 <sup>1</sup> / <sub>4</sub> " | 12 <sup>1</sup> / <sub>4</sub> " | 11" | 6 <sup>7</sup> / <sub>8</sub> " |



\*Recommended for use with hot or abrasive materials.

Luxme's Lump Breaker is a very efficient way to reduce the size of lumps or compacted materials prior to conveying. The Lump Breaker comes in different sizes and models depending on your particular needs.



### SINGLE-SHAFT LUMP BREAKER

Most commonly used in applications involving soft materials.



### DUAL-SHAFT LUMP BREAKER

Our standard lump breaker design used for a variety of applications.



### CUSTOM LUMP BREAKER

Our custom design will adapt to the requirements of any application.

## Lump Breaker

A typical lump breaker comes with two counter-rotating shafts, which break compacted or agglomerated materials into more manageable parts, and it is usually located at the beginning of a conveying system. The size and complexity of its design will vary depending on your application requirements.

Constructed using stainless steel 304 or 316, the lump breaker can be used for food and non-food applications. This is a low maintenance technology that can be easily cleaned and sanitized.





Luxme's patented chain and disc designs guarantee the system performance while minimizing wear and tear. Chain discs come in a variety of materials and models recommended based on the application's needs and requirements. Ask us about the Sanilux® sanitary design.

## DISC & CHAIN ASSEMBLY



### CHAIN WITH MOULDED DISCS

Most commonly used in food and sanitary, self-cleaning CIP applications.



### CHAIN WITH TWO-HALF BOLTED DISCS

Our standard disc design used for a variety of industries and applications.



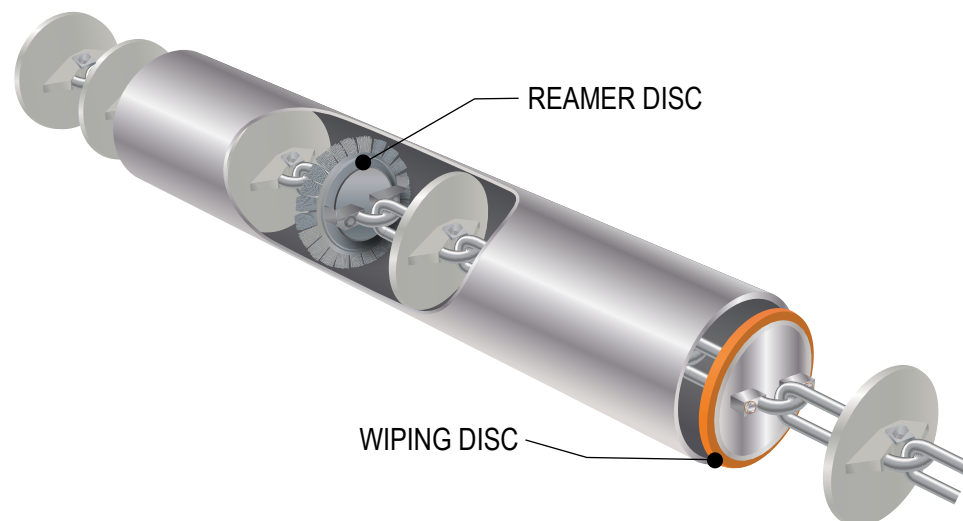
### DISCS WITH BACKING PLATES

Our heavy-duty disc design is reserved for high load, increased material and operating temperatures and highly abrasive materials.

## Additional Disc Options

Depending on your needs, Luxme offers a variety of chain and disc options accepted by the FDA, USDA (only at Luxme), and CE:

- **Sanilux® Discs:** This is a patented no-metal-to-metal contact disc designed for sanitary food applications only available at Luxme .
- **Wiping Disc:** Used in most application, this disc wipes any material residue found in the interior walls of the conveying pipes.
- **Reamer Discs:** These discs help maintain the interior walls of the conveying pipes free from material residue.
- **Other Discs:** For a complete list of available discs and chains, please contact us.



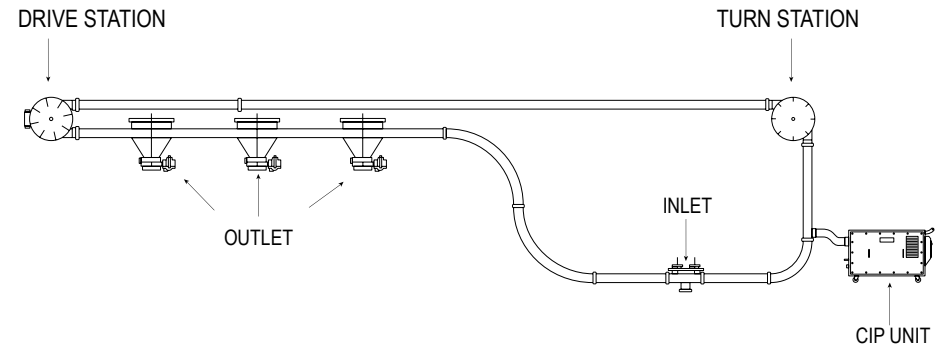
# TYPICAL APPLICATIONS

Luxme Tubular Drag Chain Conveyors can be used in multiple applications with a variety of products and materials. Below you will find a few samples of these applications.

1

## CLEAN IN PLACE WASHING SYSTEM (CIP)

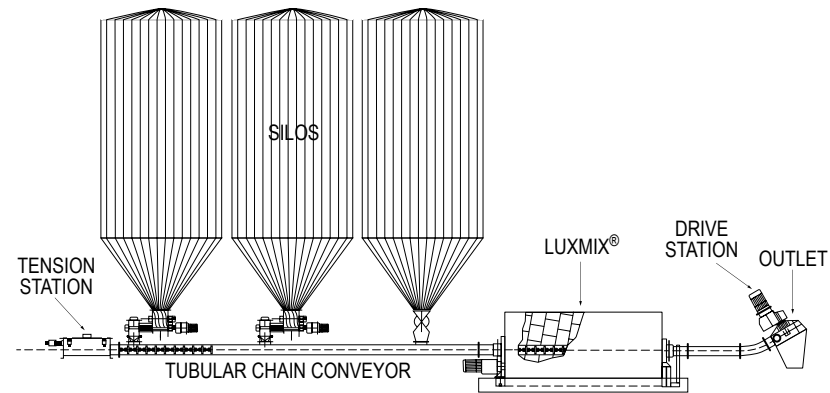
Our CIP system is the best way to decontaminate a Luxme chain conveyor while saving time and increase productivity. Recommended for food-grade loop arrangements.



2

## LUXME ROTARY IN-LINE BLENDER - LUXMIX®

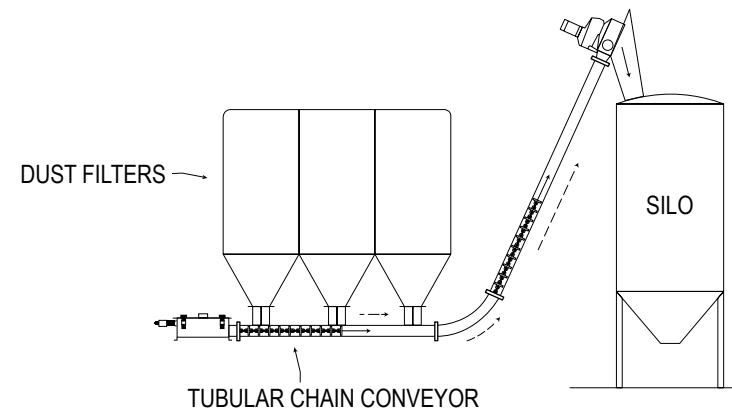
Luxmix® is the perfect solution for mixing multiple products into one blend. The blender gently mixes the products and maintains their integrity.



3

## DUST FILTER / DISCHARGE

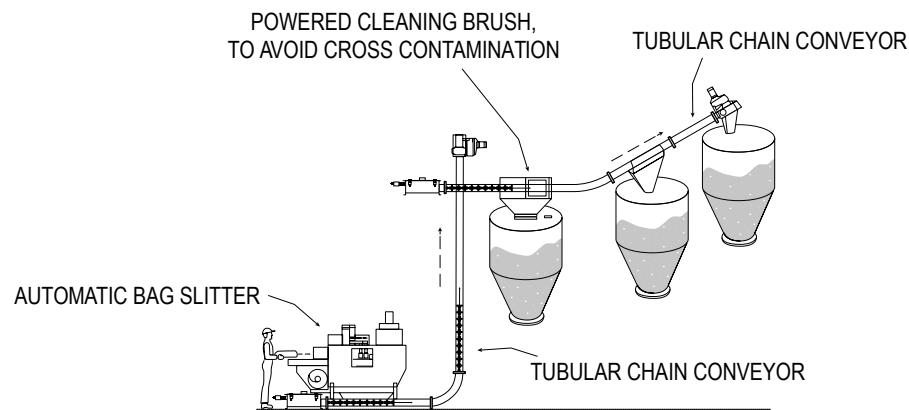
A Horizontal-Vertical Luxme chain conveyor with multiple intakes can transfer material from and to a silo or other storage locations or vehicles.





Luxme's Tubular Chain Conveyors typical arrangements can be combined in order to reach longer distances and heights. All conveying systems are customized and built to meet the application requirements.

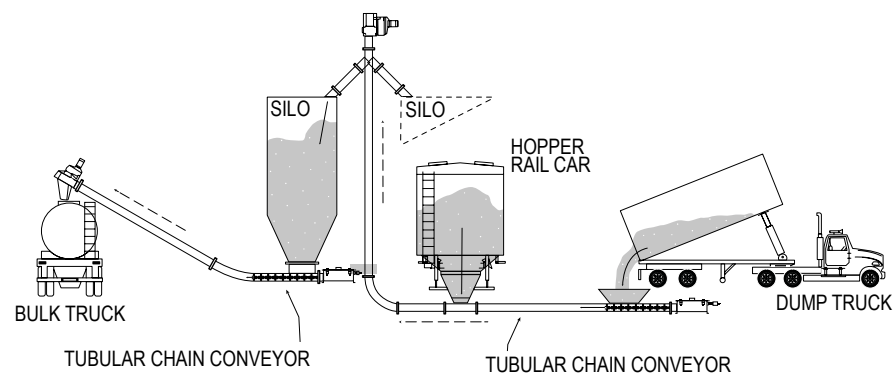
## TYPICAL APPLICATIONS



### AUTOMATIC BAG SLITTER DUMPING

4

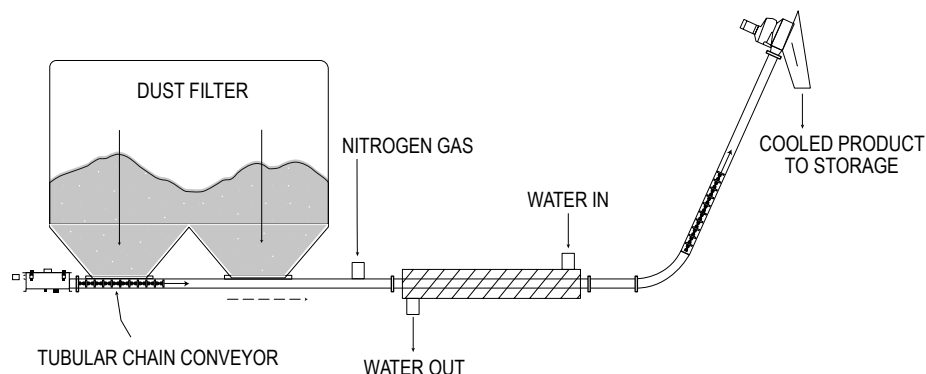
An Automatic Bag Slitter opens and empties the contents of multiple bags into a dual Luxme chain conveyor system: From a Horizontal-Vertical arrangement into a Horizontal Luxme chain conveyor.



### HOPPER RAIL CAR AND TRUCK LOADING AND/OR UNLOADING

5

A dump truck discharges its contents into a Horizontal-Vertical Luxme chain conveyor into one or more silos. The silo is connected to another Luxme chain conveyor, which conveys the material into other storage.



### HOT PRODUCT FROM MILL, BOILER, FURNACE, DRYER, ETC. (COOLING CONVEYOR)

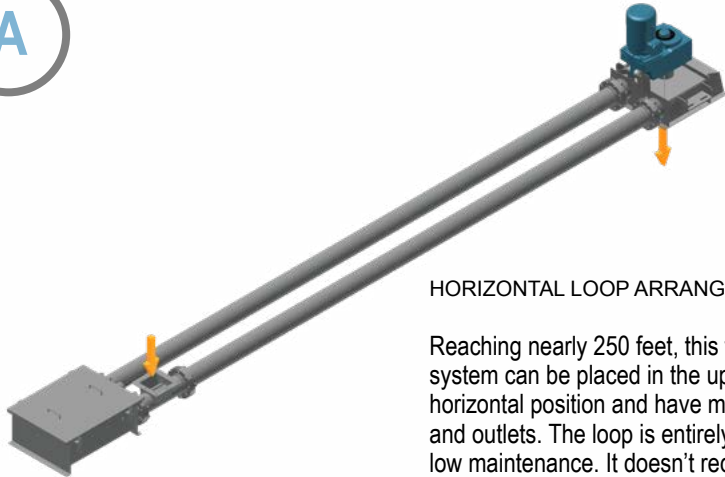
6

A Luxme Chain Conveyor acts as an airlock under the dust filter, sealing at the outlet. The hot product is conveyed through the conveyor with a cooling section into a storage silo. The product is cooled down through the transfer process.

## TYPICAL ARRANGEMENTS

The following arrangements are only a few of the most common designs we currently manufacture. Each tubular conveying system will be adapted to the materials and application needs in order to obtain the best performance possible.

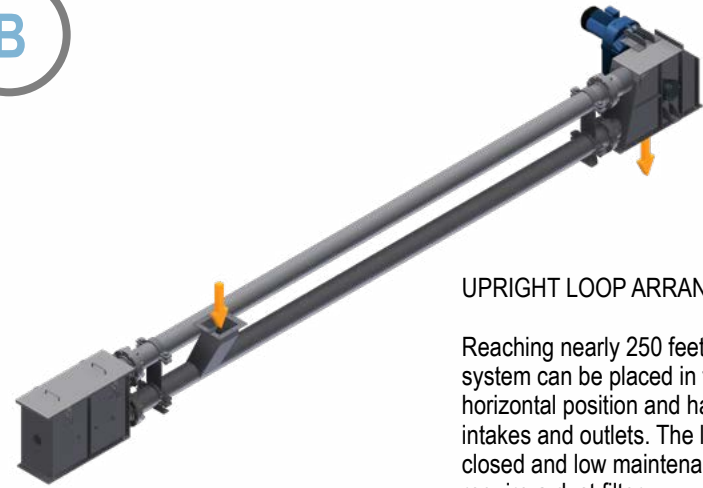
A



HORIZONTAL LOOP ARRANGEMENT

Reaching nearly 250 feet, this flexible system can be placed in the upright or horizontal position and have multiple intakes and outlets. The loop is entirely closed and low maintenance. It doesn't require a dust filter. It can be combined with other loops in order to reach further distances.

B



UPRIGHT LOOP ARRANGEMENT

Reaching nearly 250 feet, this flexible system can be placed in the upright or horizontal position and have multiple intakes and outlets. The loop is entirely closed and low maintenance. It doesn't require a dust filter.

C



INCLINED-HORIZONTAL LOOP ARRANGEMENT

Another low maintenance solution, this system is completely closed and offers a variety of possible angles. By positioning left or right, it saves in maintenance and transfer time as well. It doesn't require center bearings or filters. Low wear and tear at moderate speeds.

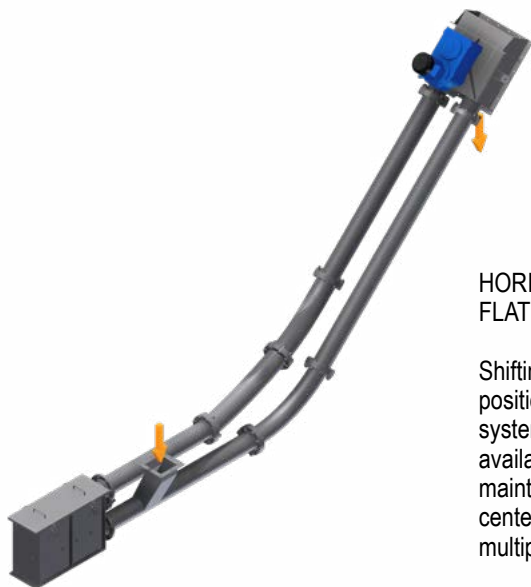
D



"P" SHAPED LOOP ARRANGEMENT

A unique combination between a rectangular and horizontal loop, this is a design that solves many material handling issues. It can have multiple product intakes and outlets.





E

### HORIZONTAL-UPRIGHT – BENDING TO FLAT LOOP ARRANGEMENT

Shifting from the upright to the flat position, the flexibility of this closed system is unique. Designed to fit in any available space, this arrangement is a low maintenance solution that doesn't require center bearings or dust filters. It can have multiple intakes and outlets.



F

### HORIZONTAL-VERTICAL-INCLINED LOOP ARRANGEMENT

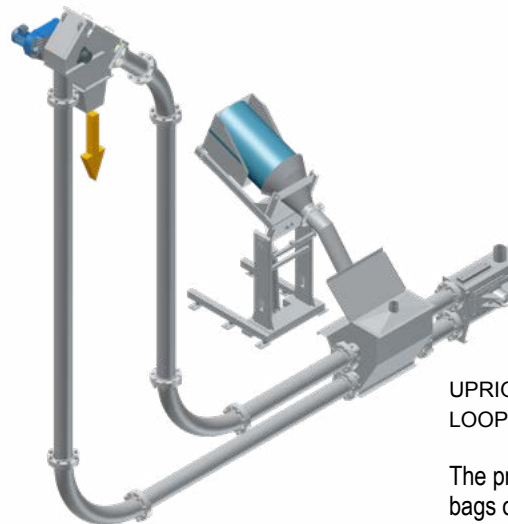
A flexible closed system designed to be integrated to the most challenging spaces and layouts. It is a low maintenance solution that doesn't require intermediate bearings or filters. It can have numerous intakes and outlets.



G

### HORIZONTAL-VERTICAL-INCLINED LOOP ARRANGEMENT

A flexible closed system designed to be integrated to the most challenging spaces and layouts. It is a low maintenance solution that doesn't require intermediate bearings or dust filters. It can have numerous intakes and outlets.



H

### UPRIGHT-HORIZONTAL-VERTICAL LOOP ARRANGEMENT

The product is discharged from drums, bags or boxes into the conveyor. Then it travels to its final destination: a mixer, a storage bin, etc. It can have multiple intakes, and it doesn't require a dust filter.

# TYPICAL ARRANGEMENTS

Whether you are in the market for a single conveyor or a more complex conveying system, our engineers will provide you with all the information necessary to help you make an informed decision.

I



SILOS & BULK BAGS FILLING FROM MANUAL OR AUTOMATIC BAG SLITTING

In many cases, more than one closed system is required in order to cover longer distances. This arrangement features two systems transferring material to two silos and two bulk bags. This system can reach approximately 200 feet and have multiple intakes and outlets. No center bearings or dust filters are required.

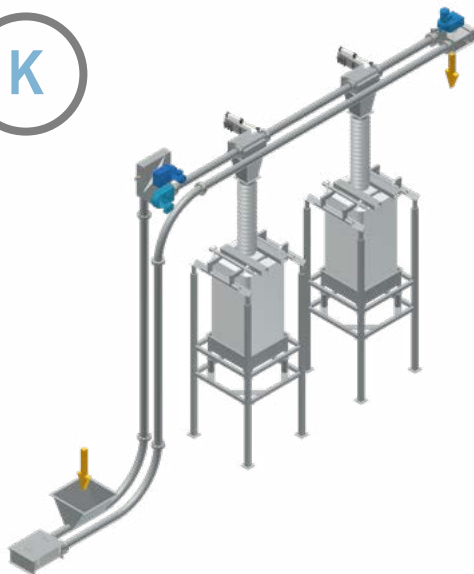
J



HORIZONTAL-VERTICAL-HORIZONTAL LOOP ARRANGEMENT

Specially designed for non-abrasive materials, this closed system can have multiple intakes and outlets. An extremely low maintenance solution, it doesn't require center bearings or dust filters.

K



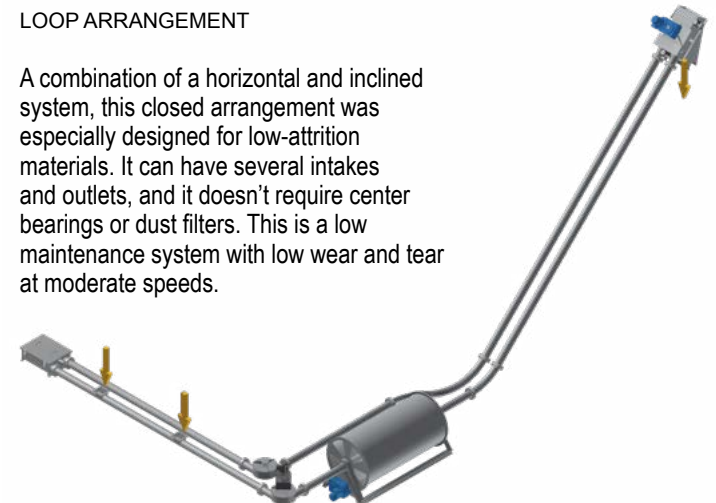
BULK BAGS FILLING FROM MANUAL OR AUTOMATIC BAG SLITTING

This closed system can have multiple intakes and outlets. It features a powered Turn Station that increases the chain power, by decreasing friction, in order to travel longer distances. This is a low maintenance arrangement with low wear and tear at moderate speeds.

L

HORIZONTAL-INCLINED-HORIZONTAL LOOP ARRANGEMENT

A combination of a horizontal and inclined system, this closed arrangement was especially designed for low-attribution materials. It can have several intakes and outlets, and it doesn't require center bearings or dust filters. This is a low maintenance system with low wear and tear at moderate speeds.







M

### RECTANGULAR LOOP ARRANGEMENT

This is one of our best-selling loops. The product is discharged from drums, bags or boxes into the conveyor. The product then travels to its final destination: a silo, a storage bin, etc. It can have multiple intakes and outlets.



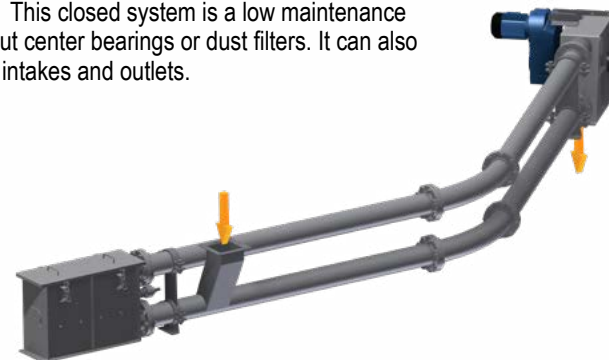
O

### VERTICAL LOOP ARRANGEMENT

Reaching heights of over 100 feet, our vertical loop arrangement is a low maintenance, low wear solution. This closed system can have multiple intakes and can process more than 2500 ft<sup>3</sup> per hour depending on the product. Furthermore, it doesn't require a filter or a tension station.

### BENT UPRIGHT LOOP ARRANGEMENT

If a change of direction is required, this horizontal loop arrangement is the perfect solution for you. It can be positioned right or left thus saving on transfer time and maintenance. This closed system is a low maintenance solution without center bearings or dust filters. It can also have multiple intakes and outlets.



N



P

### TRUCK FILLING STATION

This closed system will transfer your materials efficiently from a bulk bag or silo, into a tank truck or other storage. This low maintenance arrangement doesn't require a tension station.

# STANDARD INSTALLATIONS

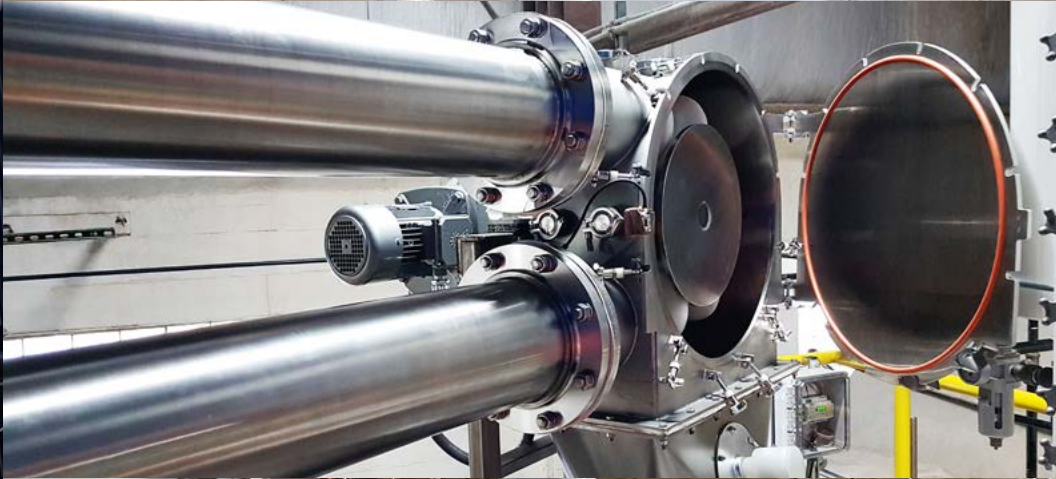
These are only a few of the installations we have designed, built, and installed since 1979. For more installations, please visit our website at [www.TubularChainConveyors.com/installations/](http://www.TubularChainConveyors.com/installations/).





We protect your investment by providing you with durable and efficient tubular chain conveyors. No other company maintains the high levels of quality and design standards that we do.

## STANDARD INSTALLATIONS







Better Engineering • Better Equipment • Better Value



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