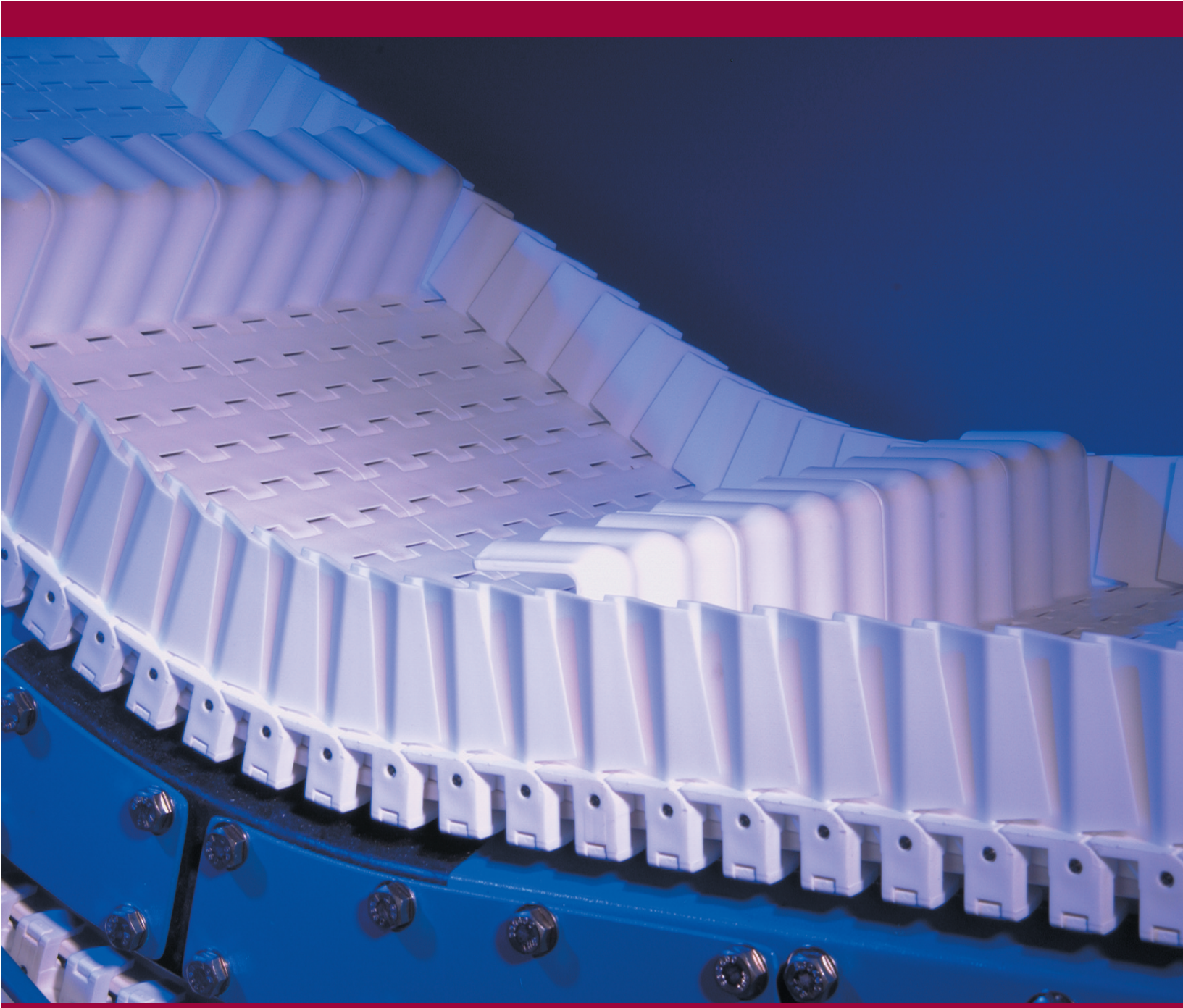


VO-Series

VO-Series
Vertical Offset Conveyors



SpanTech



your Material Handling Specialist



SpanTech



Span Tech – Your Material Handling Specialist

V/O-Series

*Conveyors that do more than transport ...
they **DELIVER.***

The remarkable flexibility of the Span Tech conveyor line allows you to specify a modular solution for your material handling needs.

With our unique design, the chain is completely captured to the conveyor. There are no dangerous catenaries or take-ups, which means:

- *Less chance of injuries*
- *No tracking problems*
- *A very quiet system*
- *Ability to run at high speeds even with horizontal and vertical bends*

Span Tech conveyors are plastic chain based, and are available with stainless steel or powder coated painted steel construction. Our conveyors have been designed and built with simplicity in mind, for simple maintenance and repairs.

The numerous options available will result in a conveyor or conveyor system that's ideal for your application.

Each is built and backed by Span Tech, a company that has earned its reputation as one of the finest in the material handling industry.



VO-Series

*Engineered for dependable, nearly maintenance-free operation.
Design flexibility to fit almost any configuration.*

The Span Tech VO-Series is a vertical offset conveyor. The VO-Series adds the benefit of horizontally oriented product at the beginning and the end of the conveyor. The angles of both vertical curves can be specified to fit various needs. Features optional length of the center straight section between the two curves for maximum design flexibility.

Features & Benefits:

- ◆ Five (5) belt widths available for a variety of applications
- ◆ Speed range of 5 to 75 feet per minute (1.5 to 22.9 meters per minute)
Custom speed ranges available
- ◆ Increased load carrying capacity over a belt conveyor
- ◆ Vertical bends are in 5-degree increments, ranging from 5- to 90-degrees
- ◆ Durable acetal chain provides long life, is completely self-tracking, and is nearly silent running
- ◆ Two-piece drive and idler sprockets for ease of replacement without shaft removal
- ◆ Non-corroding stainless steel drive shaft and idler shaft
- ◆ Non-corroding stainless steel fasteners
- ◆ SpanLon wear strip and center support rail provide long-wearing, silent operation
- ◆ See individual models for minimum product size capability
- ◆ There are no “take ups” with Span Tech conveyors, as you have with belt conveyors. The overall length does not change.

Gearmotor

SEW Eurodrive S Series Helical Worm Drive, 230 or 460 volt (3 phase) operation.

Foot Construction

Steel flange for easy anchoring. These units must be anchored to the floor for stability.

Ease of maintenance...



Chain can be taken apart at any link

Flat Discharge Section

Allows better orientation of product.

Conveyor Chain

White, acetal plastic with stainless steel hinge rods for long life.



Flat Entry Section

Allows better orientation of product.

Conveyor Framing

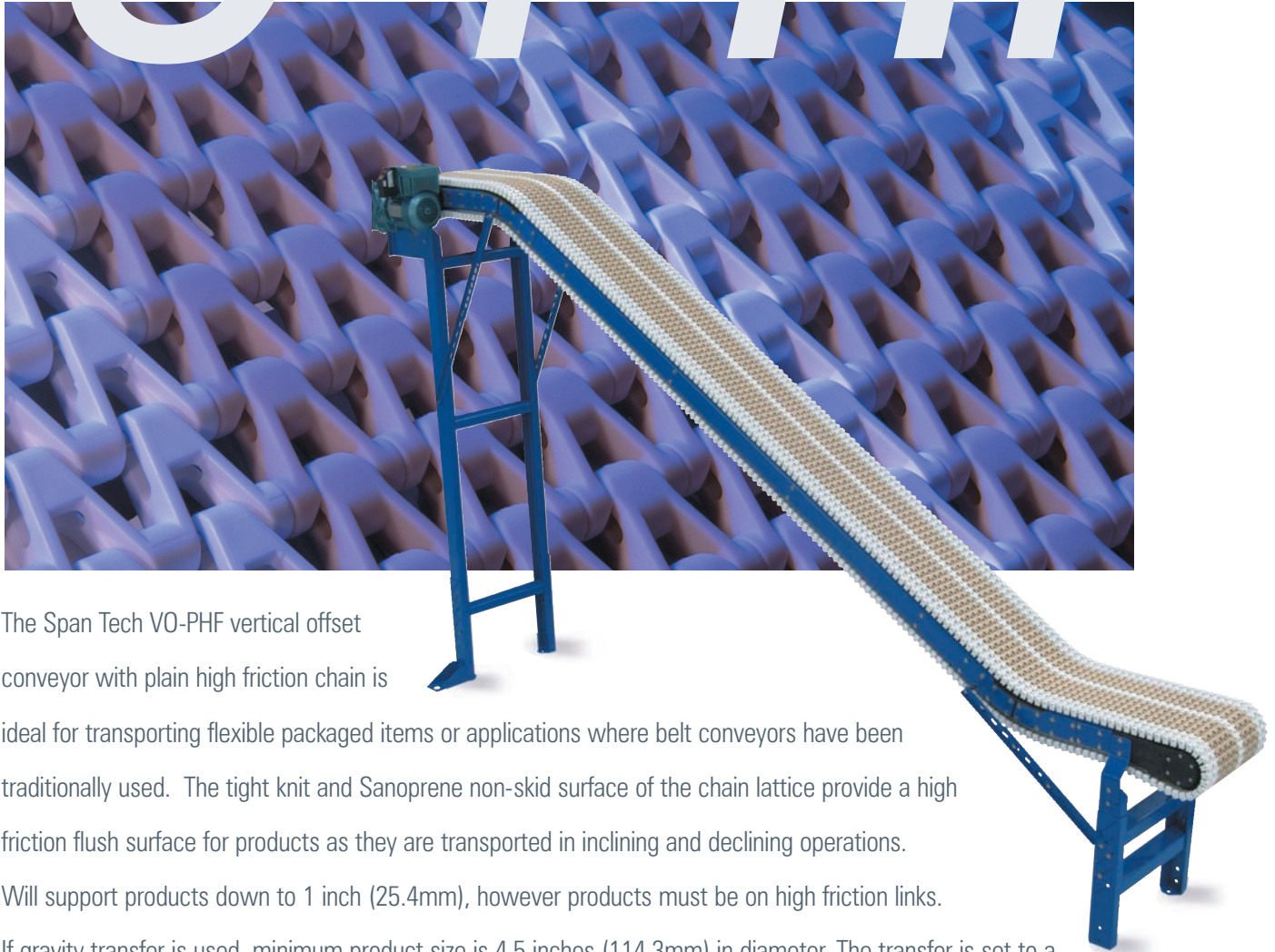
Base material is steel, coated with blue epoxy powder coat paint for a long lasting finish.

Bearings

Lubricated SpanLon bushings are internal to the conveyor frame.

VO-PHF

VO-PHF Plain High Friction Chain



The Span Tech VO-PHF vertical offset conveyor with plain high friction chain is ideal for transporting flexible packaged items or applications where belt conveyors have been traditionally used. The tight knit and Sanoprene non-skid surface of the chain lattice provide a high friction flush surface for products as they are transported in inclining and declining operations. Will support products down to 1 inch (25.4mm), however products must be on high friction links. If gravity transfer is used, minimum product size is 4.5 inches (114.3mm) in diameter. The transfer is set to a decline angle of approximately 6°. For stability, these units must be anchored to the floor.

Ideal for ...

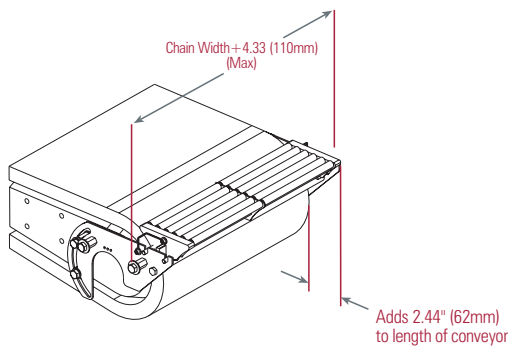
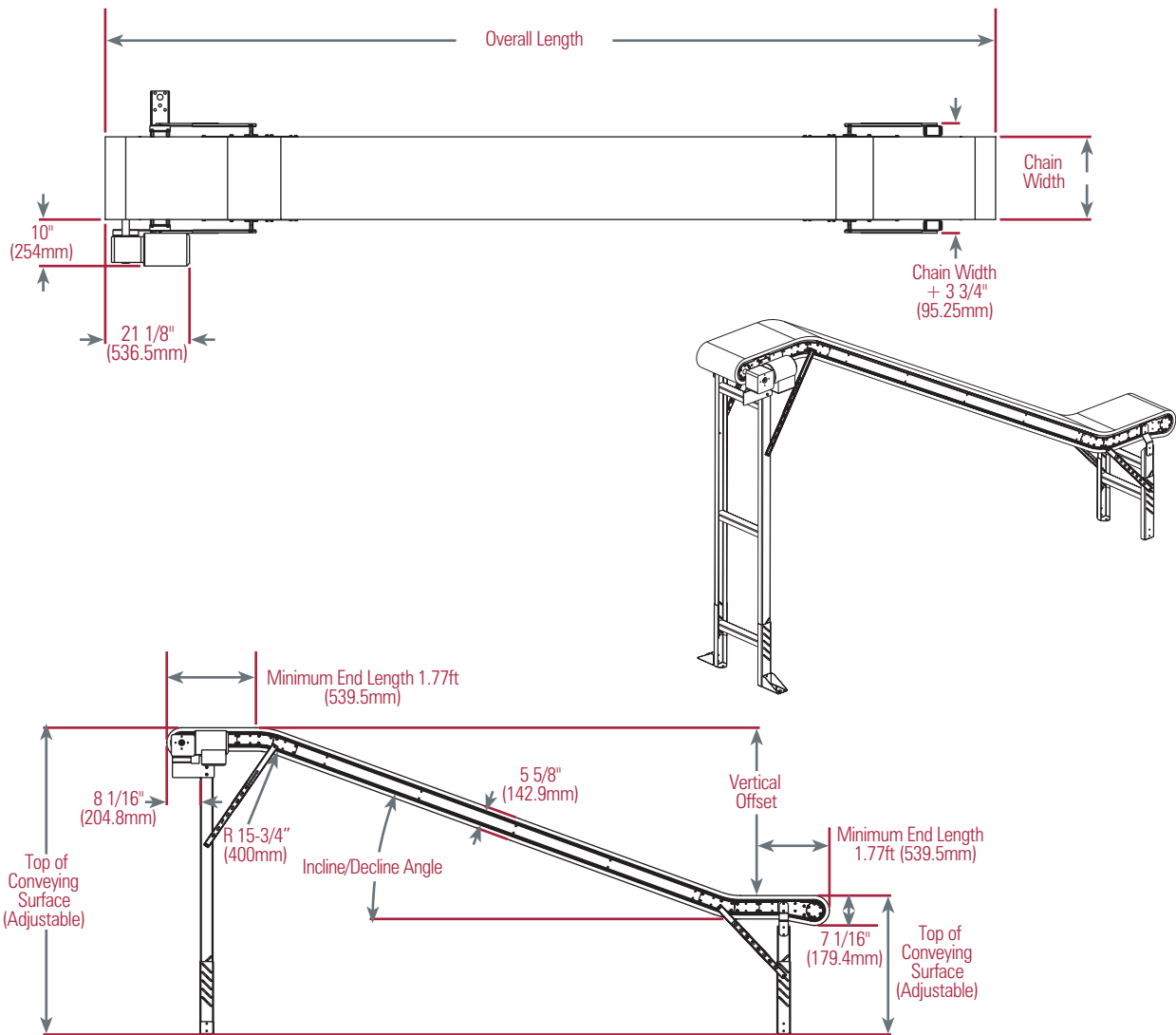


Soft, flexible product.



End-to-end transfers

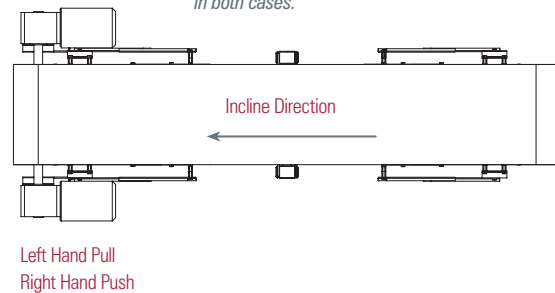
VO-PHF Specifications



Drive Hand Location

Right Hand Pull
Left Hand Push

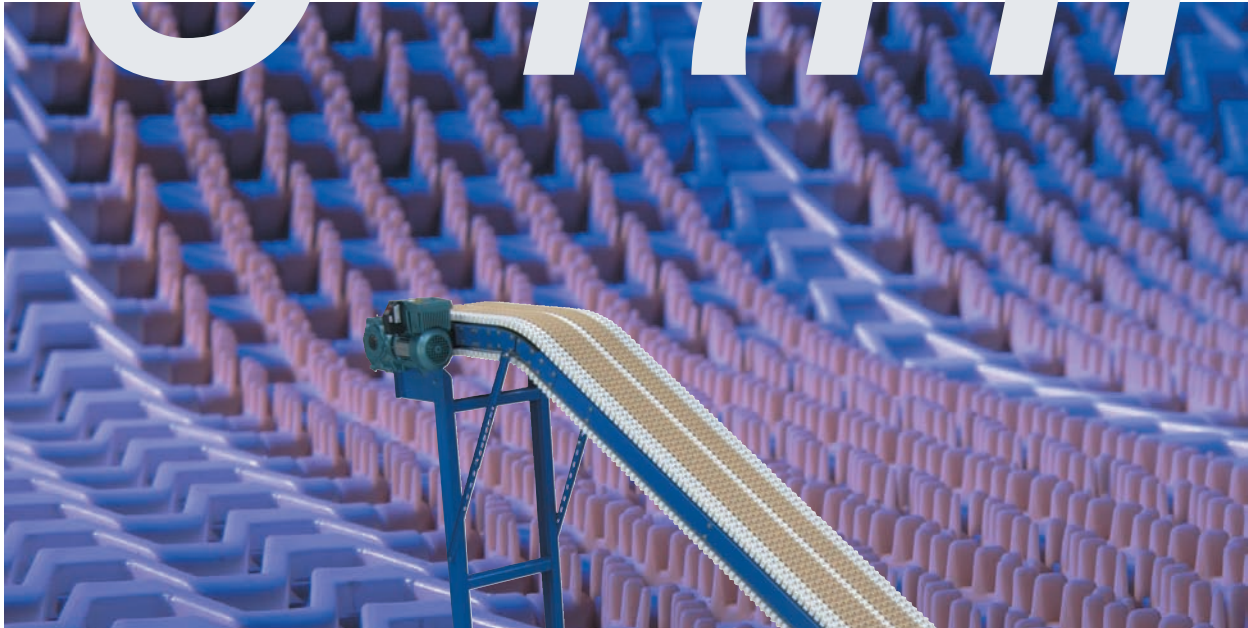
Inclining conveyors can only be pulled, while declining conveyors can only be pushed. The Drive must remain at the higher elevation in both cases.



Note: Regardless of drive position the conveyor will run in either direction.

VO-RHF

VO-RHF Raised High Friction Chain

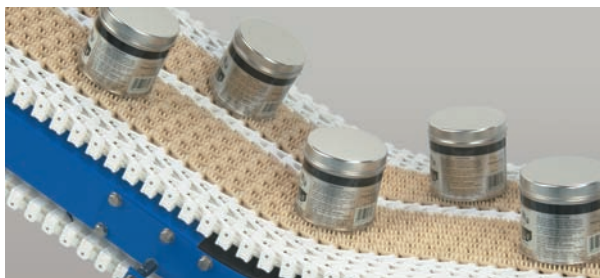


The Span Tech VO-RHF vertical offset conveyor with a raised high friction chain is used for rigid products.

Raised high friction chain features

Sanoprene links. When you add a Finger Transfer, objects down to 1.5 inches (38.1mm) can be transferred off the end of the conveyor. The transfer is set to a decline angle of approximately 10° and the object must be positioned on the raised portion of the chain. For stability, these units must be anchored to the floor.

Ideal for ...

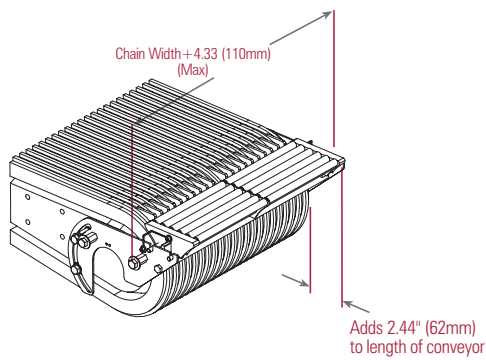
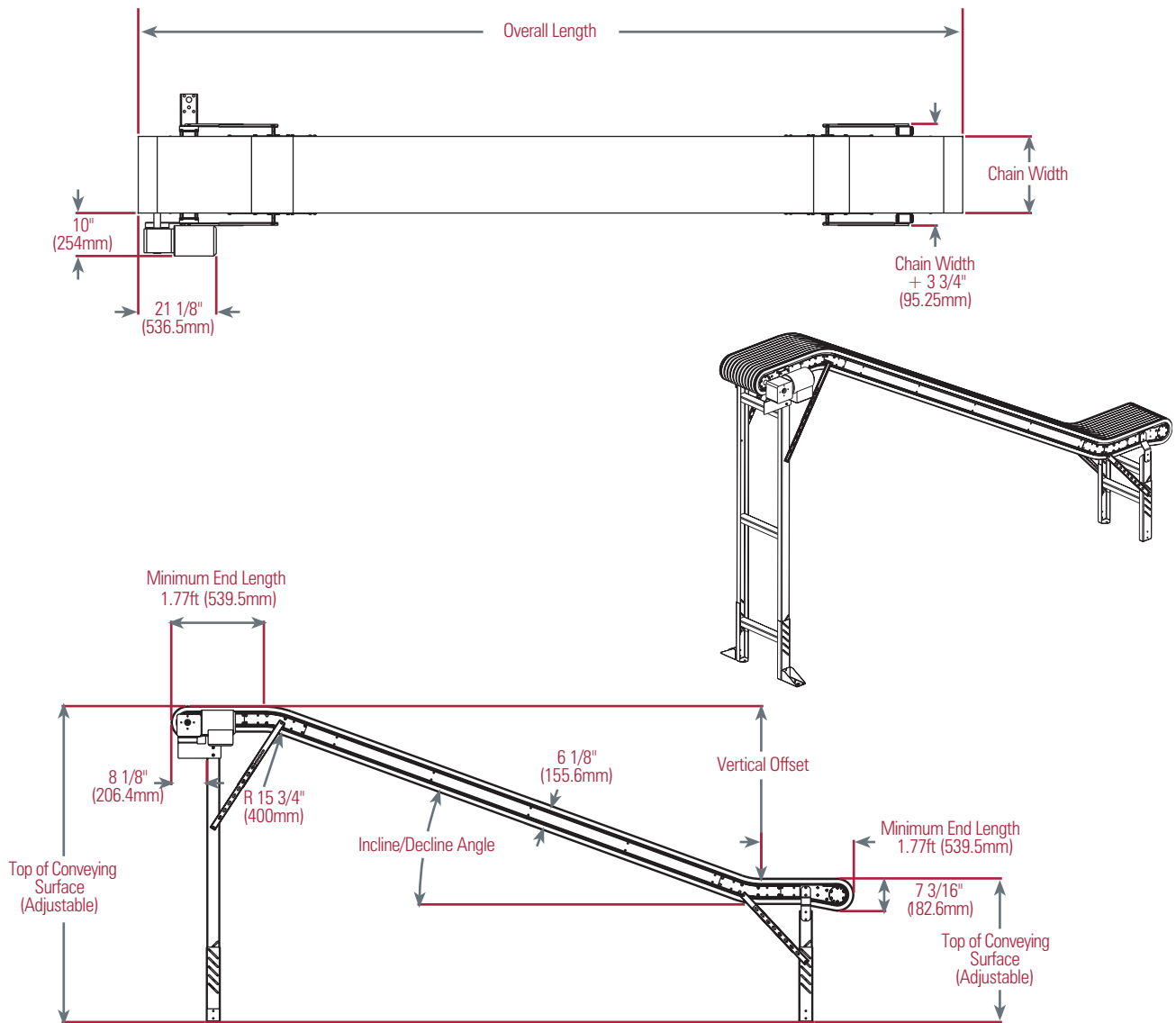


Large or small stable-base products



Finger transfers

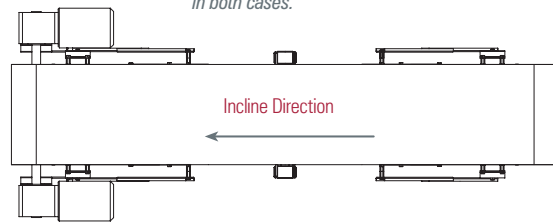
VO-RHF Specifications



Drive Hand Location

Right Hand Pull
Left Hand Push

Inclining conveyors can only be pulled, while declining conveyors can only be pushed. The Drive must remain at the higher elevation in both cases.

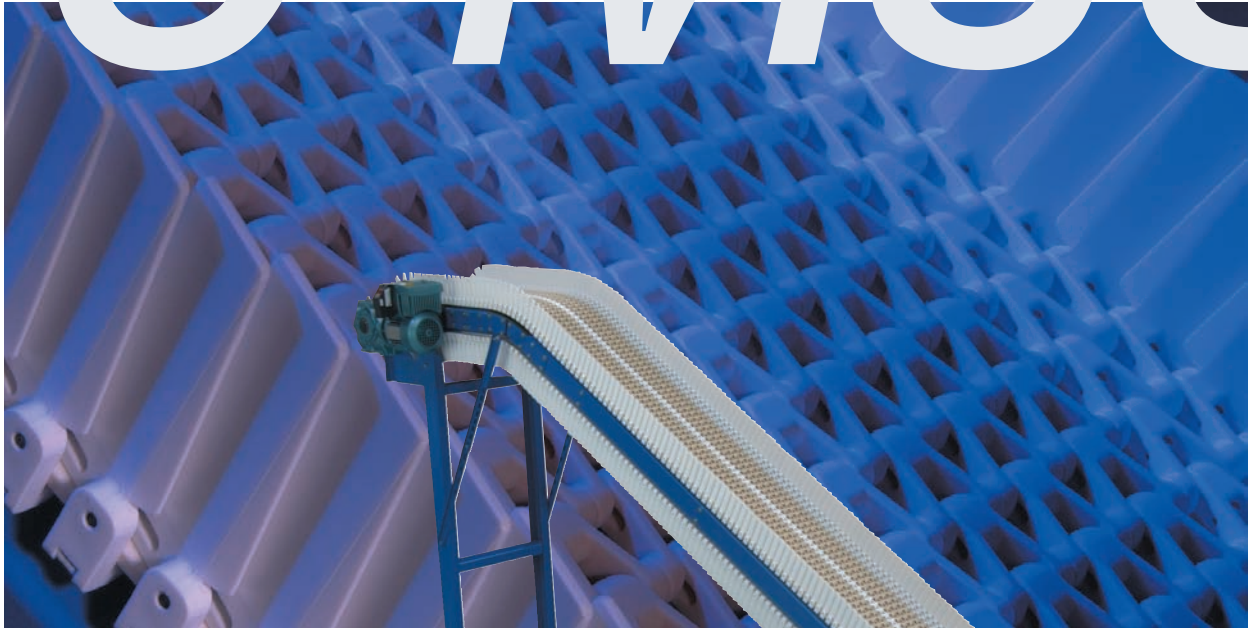


Left Hand Pull
Right Hand Push

Note: Regardless of drive position the conveyor will run in either direction.

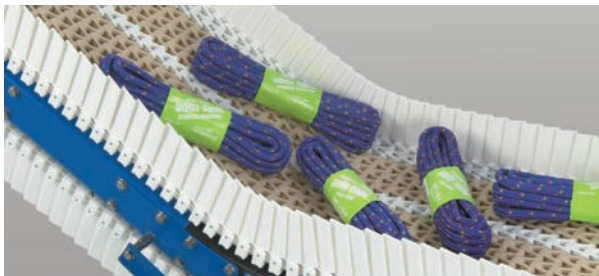
VO-MSG

VO-MSG Moving Side Guide Chain

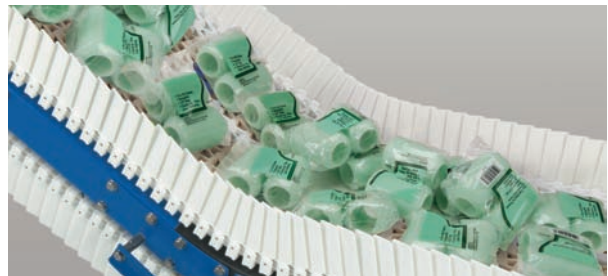


The Span Tech VO-MSG vertical offset conveyor features 75mm left and right guides molded into the side links of the chain. This feature provides positive retention of products during transportation. Use this style chain where the product you are moving might get tangled in conventional guide rails. Gravity or Finger Transfers are not available with this type of conveyor chain. For stability, these units must be anchored to the floor.

Ideal for ...

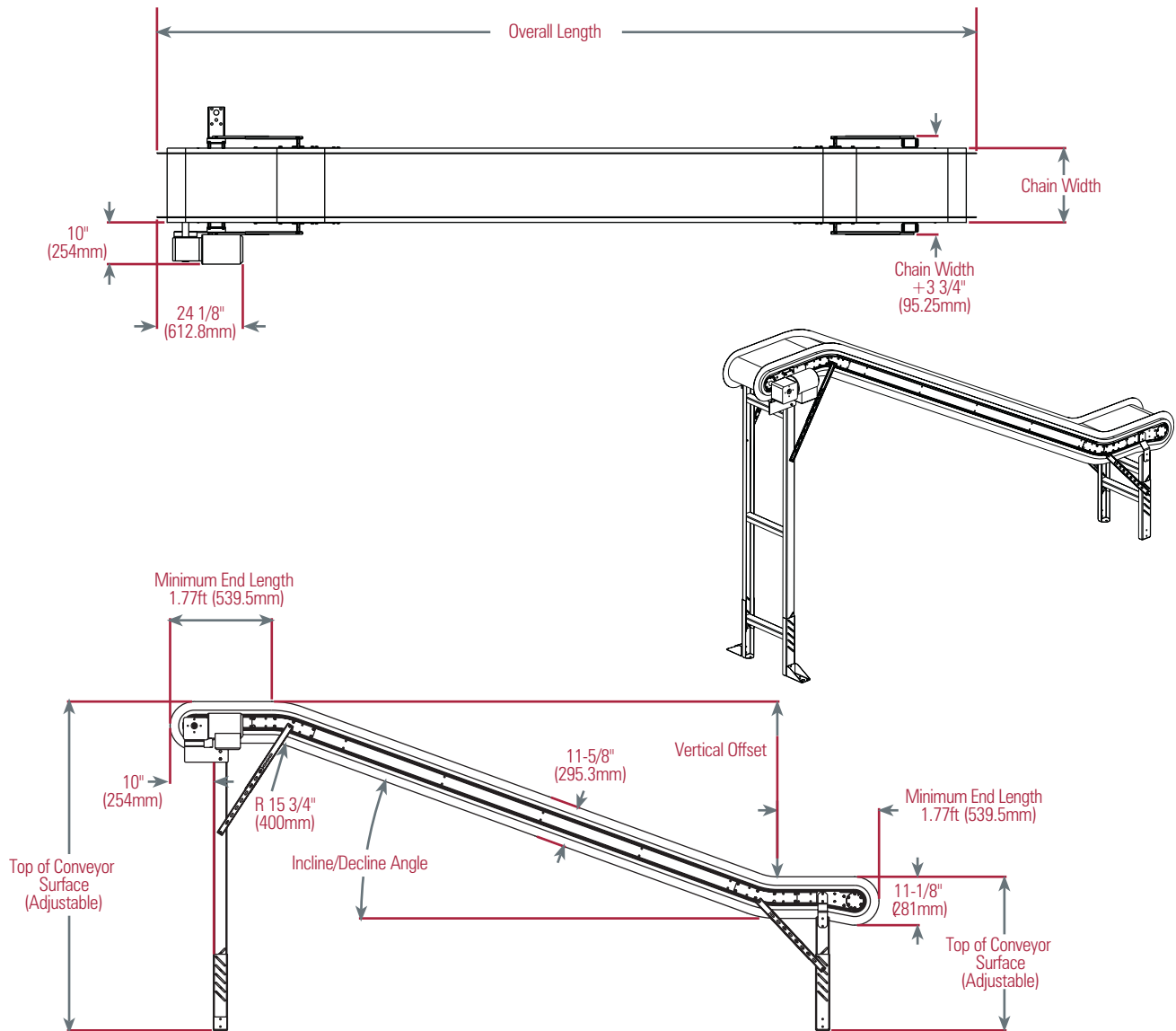


Irregular shapes



Soft, flexible product

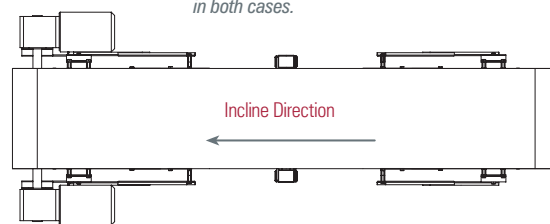
VO-MSG Specifications



Drive Hand Location

Right Hand Pull
Left Hand Push

Inclining conveyors can only be pulled, while declining conveyors can only be pushed. The Drive must remain at the higher elevation in both cases.



Left Hand Pull
Right Hand Push

Note: Regardless of drive position the conveyor will run in either direction.

VO-PSC

VO-PSC Pusher Cleat Chain



The Span Tech VO-PSC vertical offset conveyor with 50mm pusher cleat chain features a series of vertical cleats arranged in rows across the width of the chain. Pusher cleats can be spaced at any 25mm interval. This type of conveyor is used where no side rails are required and the product is inherently stable on the chain. Gravity or Finger Transfers are not available with this type of conveyor chain. Do not use this type of conveyor chain where hands are present. For stability, these units must be anchored to the floor.

Ideal for ...

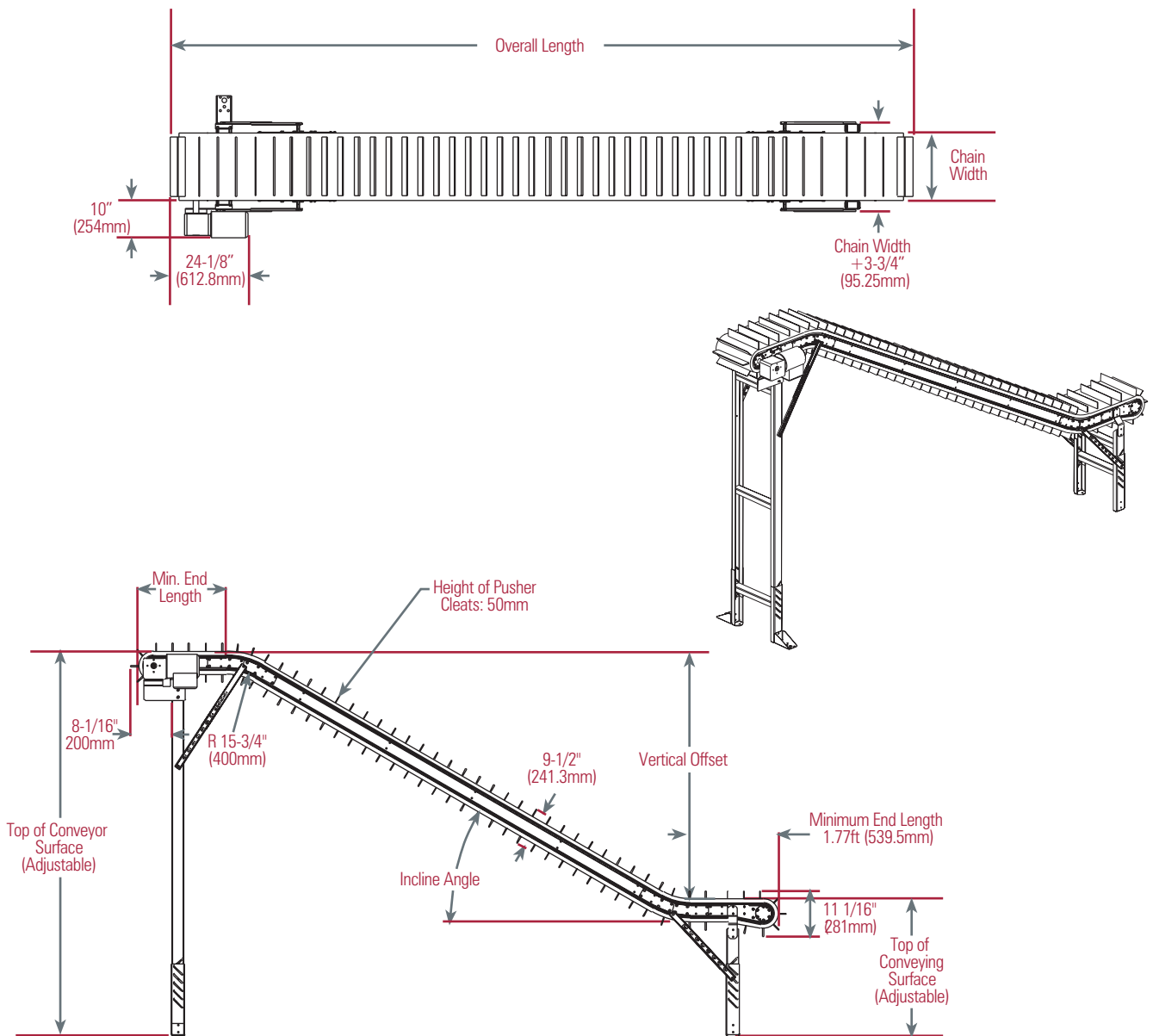


Irregular shapes



Bulk product

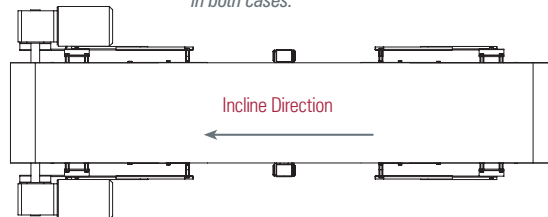
VO-PSC Specifications



Drive Hand Location

Right Hand Pull
Left Hand Push

Inclining conveyors can only be pulled, while declining conveyors can only be pushed. The Drive must remain at the higher elevation in both cases.



Left Hand Pull
Right Hand Push

Note: Regardless of drive position the conveyor will run in either direction.

VO-PMS

VO-PMS Pusher Cleat Moving Side Guide Chain



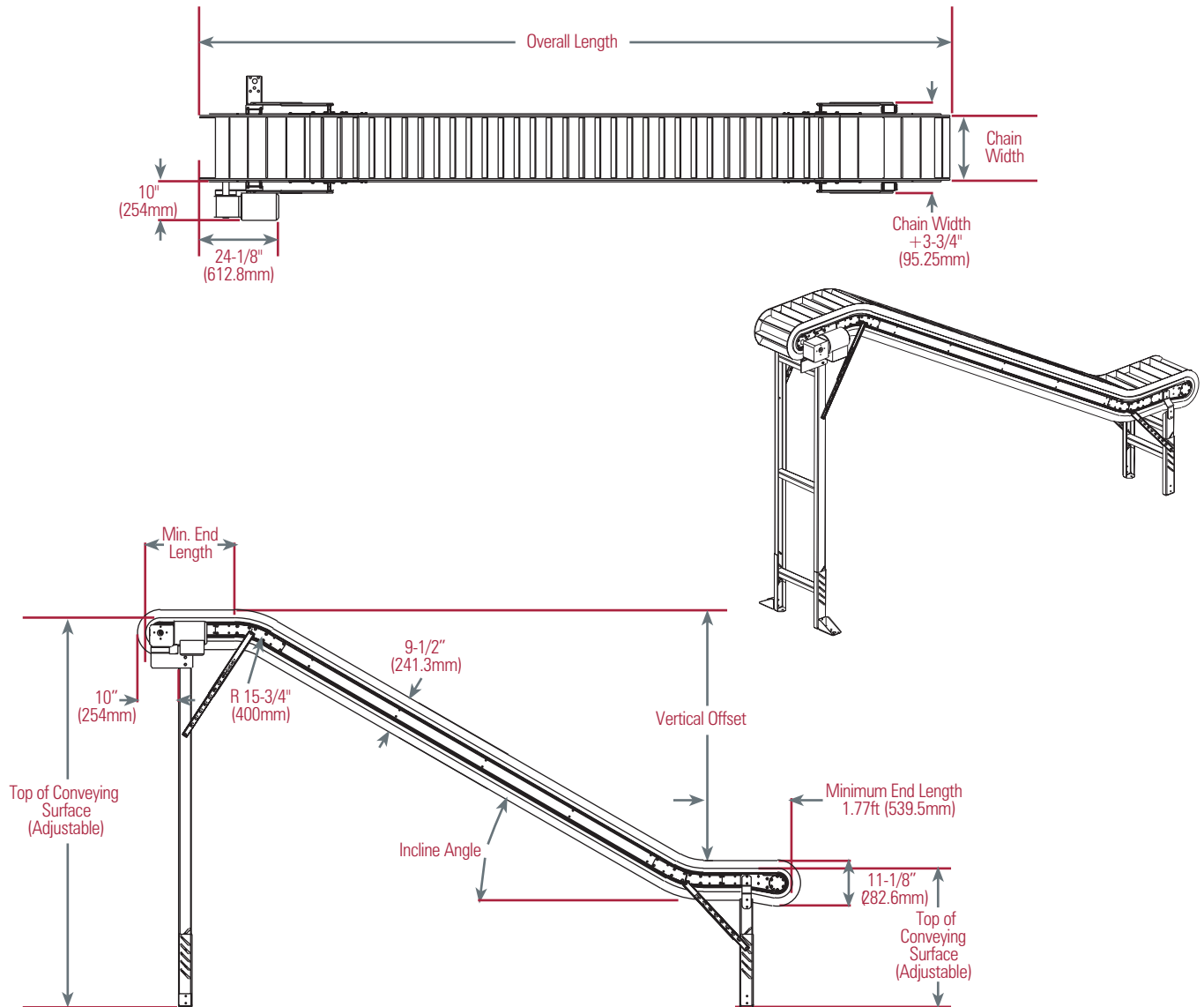
The Span Tech VO-PMS vertical offset conveyor with 50mm pusher cleat and moving side guides chain forms a pocket within the chain bed and is effective in containing a product on the conveyor without the use of side rails. This type of chain is normally used when transporting bulk product on inclines and declines. Gravity or Finger Transfers are not available with this type of conveyor chain. For stability, these units must be anchored to the floor.

Ideal for ...



Bulk product

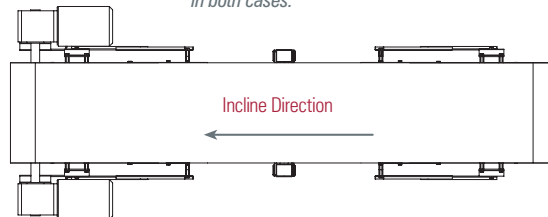
VO-PMS Specifications



Drive Hand Location

Right Hand Pull
Left Hand Push

Inclining conveyors can only be pulled, while declining conveyors can only be pushed. The Drive must remain at the higher elevation in both cases.



Left Hand Pull
Right Hand Push

Note: Regardless of drive position the conveyor will run in either direction.

VO-SMS

VO-SMS Scoop Cleat Moving Side Guide Chain



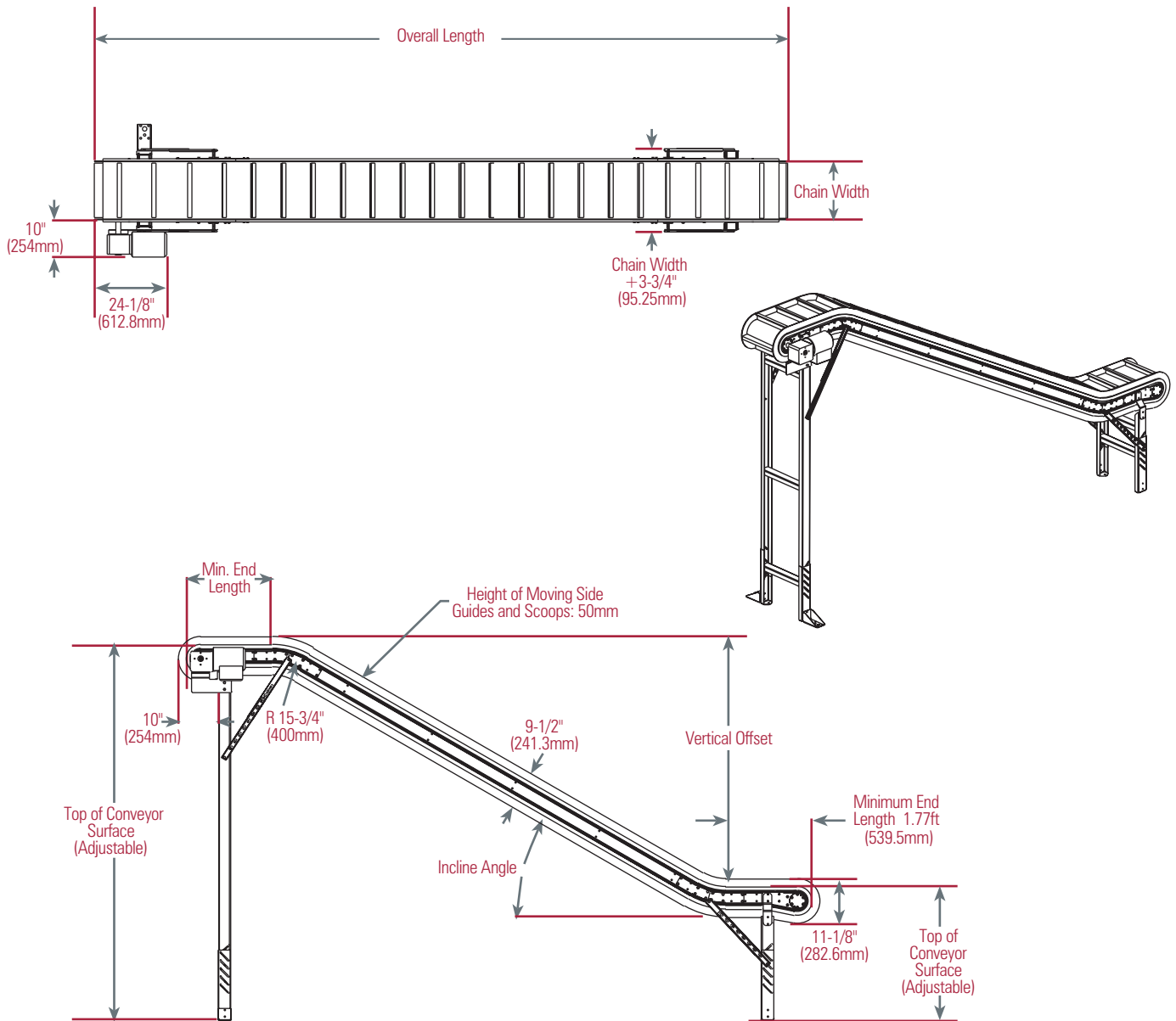
The Span Tech VO-SMS vertical offset conveyor with 50mm scoop cleats and moving side guides chain features a pocket within the chain bed and is effective in containing a product on the conveyor without the use of side rails. This type of chain is especially useful when transporting bulk product in more aggressive inclining and declining angles. Gravity or Finger Transfers are not available with this type of conveyor chain. For stability, these units must be anchored to the floor.

Ideal for ...



Bulk product

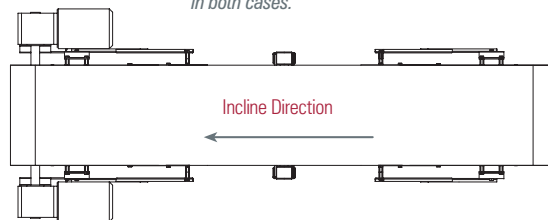
VO-SMS Specifications



Drive Hand Location

Right Hand Pull
Left Hand Push

Inclining conveyors can only be pulled, while declining conveyors can only be pushed. The Drive must remain at the higher elevation in both cases.



Left Hand Pull
Right Hand Push

Note: Regardless of drive position the conveyor will run in either direction.

Options



Fixed Offset Guide Rail

Inside face of guide rail matches with edge of conveyor chain. The guide rail material is ultra-high molecular weight polyethylene with a galvanized steel back channel for durability. The guide rail comes in both 1.25 inch (31.8mm) and 2.25 inch (57.2mm) widths.



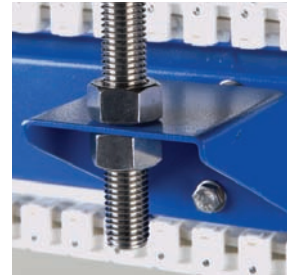
Gravity Transfer

This option permits transfer onto and off of the ends of the conveyor. These units lift out and are held in place by gravity as a safety feature to prevent objects from becoming lodged between the conveyor chain and the transfer rollers. The transfer uses small acetal rollers mounted on 4mm stainless steel rods. The unit is pitch adjustable from level to -15° at the discharge end and from +15° to level on the load end. See Transfer Guidelines chart for application guidelines.



Movimot® Speed Controller

This is a frequency inverter built into the conduit box of the drive motor, with no external wiring other than your incoming power lines. Movimot® provides you with the lowest cost method of controlling the speed of your conveyor. The unit is capable of 200 to 500 volts AC and has a frequency range of 20 to 80 hertz. The unit features an integrated potentiometer for setting acceleration and deceleration times. It is IP65 hose proof/dust proof enclosed.



Ceiling Support Bracket

Painted mild steel brackets bolt to the side of the conveyor frame and support your system on 5/8" (15mm) hanger rods.

Options for VO Series Conveyors

	<i>Fixed Offset Guide Rail</i>	<i>Gravity Transfer</i>	<i>Movimot Speed Controller</i>	<i>Ceiling Support Brackets</i>
VO-PHF	•	•	•	•
VO-RHF	•	•	•	•
VO-MSG			•	•
VO-PSC	•		•	•
VO-PMS			•	•
VO-SMS			•	•

VO-Series Specifications

Dynamic Load Capacity (not to exceed 50 lbs. Per Linear Ft.)

Chart is based upon conveyor with 30° bends.

Standard Conveyor @ 65 FPM

	7.31" Chain Width Total Load			10.85" Chain Width Total Load			14.39" Chain Width Total Load			17.94" Chain Width Total Load			21.48" Chain Width Total Load		
	up to 5'	up to 10'	up to 15'	up to 5'	up to 10'	up to 15'	up to 5'	up to 10'	up to 15'	up to 5'	up to 10'	up to 15'	up to 5'	up to 10'	up to 15'
1/3 hp	244 lbs	165 lbs	N/A	231 lbs	141 lbs	N/A	217 lbs	118 lbs	N/A	204 lbs	N/A	N/A	191 lbs	N/A	N/A
1/2 hp	393 lbs	283 lbs	235 lbs	380 lbs	259 lbs	201 lbs	366 lbs	236 lbs	168 lbs	353 lbs	212 lbs	N/A	341 lbs	189 lbs	N/A
3/4 hp	623 lbs	471 lbs	403 lbs	610 lbs	448 lbs	369 lbs	597 lbs	424 lbs	336 lbs	584 lbs	401 lbs	302 lbs	572 lbs	331 lbs	235 lbs
1 hp	678 lbs	660 lbs	570 lbs	678 lbs	636 lbs	537 lbs	679 lbs	589 lbs	504 lbs	679 lbs	566 lbs	470 lbs	681 lbs	543 lbs	404 lbs

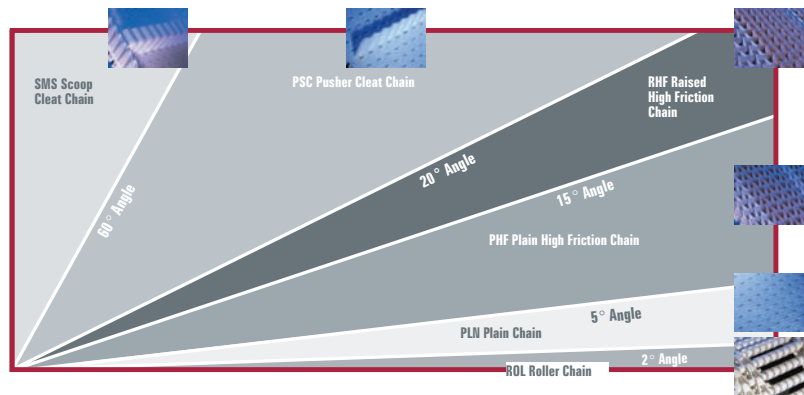
Dynamic Load Capacity (not to exceed 74 kg Per Linear Meter)

Chart is based upon conveyor with 30° bends.

Standard Conveyor @ 20 Meters/Minute

	185.7mm Chain Width Total Load			275.6mm Chain Width Total Load			365.5mm Chain Width Total Load			455.7mm Chain Width Total Load			545.6mm Chain Width Total Load		
	up to 1.52m	up to 3.05m	up to 4.57m	up to 1.52m	up to 3.05m	up to 4.57m	up to 1.52m	up to 3.05m	up to 4.57m	up to 1.52m	up to 3.05m	up to 4.57m	up to 1.52m	up to 3.05m	up to 4.57m
1/3 hp	111 kg	75 kg	N/A	104 kg	64 kg	N/A	98 kg	53 kg	N/A	92 kg	N/A	N/A	86 kg	N/A	N/A
1/2 hp	178 kg	128 kg	106 kg	172 kg	117 kg	91 kg	166 kg	107 kg	76 kg	160 kg	96 kg	N/A	154 kg	86 kg	N/A
3/4 hp	283 kg	213 kg	182 kg	277 kg	203 kg	167 kg	271 kg	192 kg	152 kg	265 kg	182 kg	137 kg	259 kg	150 kg	107 kg
1 hp	307 kg	299 kg	258 kg	307 kg	288 kg	243 kg	307 kg	267 kg	228 kg	308 kg	256 kg	213 kg	309 kg	246 kg	183 kg

Chain Style vs. Maximum Incline Angle



VO-Series Transfer Guidelines

Model & Chain Type	Transfer Type	Smallest Diameter Product Recommended	Maximum Height Recommended	Decline Angle of Transfer	Conveyor Speed Tested	Weight Tested
VO-PHF	Plain with rollers	4.5" (114.3 mm)	9" (228.6mm)	6°	65 fpm	97.8 oz. (2774 g)
VO-RHF	Finger Transfer	1.5" (38.1mm)	1.25" (31.75mm)	10°	65 fpm	1.45 oz. (41 g)
VO-MSG	Transfer not available	X	X	X	X	X
VO-PSC	Transfer not available	X	X	X	X	X
VO-PMS	Transfer not available	X	X	X	X	X
VO-SMS	Transfer not available	X	X	X	X	X

Information based upon controlled environment and specific product.

Smallest Recommended Product Diameter For Chain Surface

VO-PHF	1" (25.4mm)
VO-RHF	1.125" (28.6mm)
VO-MSG	1" (25.4mm)
VO-PSC	1" (25.4mm)
VO-PMS	1" (25.4mm)
VO-SMS	1" (25.4mm)



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