

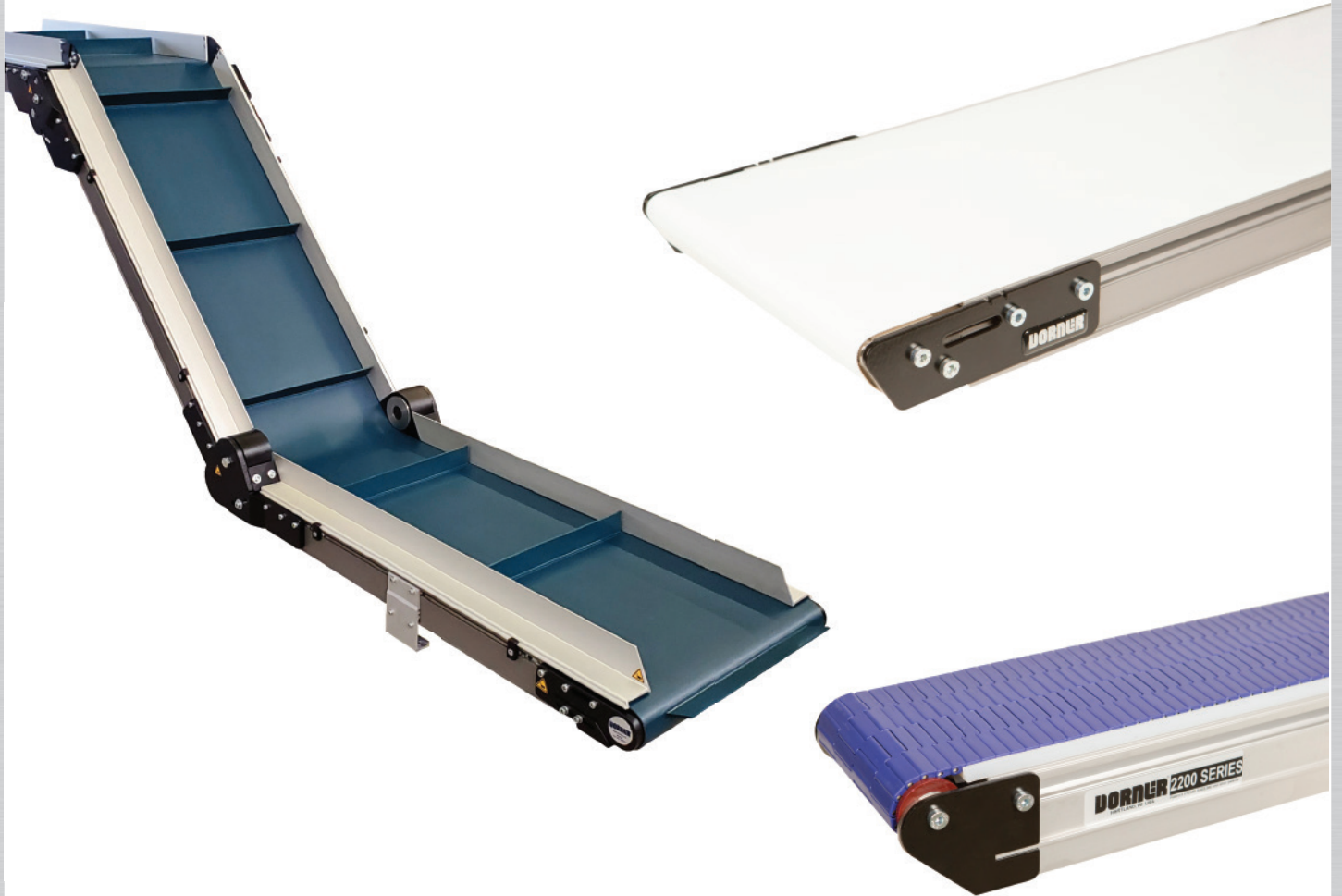
# ENGINEERING MANUAL

Superior V-Guided  
Belt Tracking

High Speed Performance  
- Up to 122 mpm

Fast & Simple to Use  
Online Configurator

Industry-Best  
Product Transfers

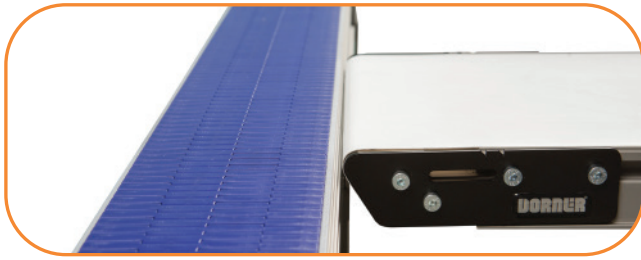


## 2200 SERIES CONVEYORS

Low Profile, High Performance,  
Fabric & Modular Belt Conveyors

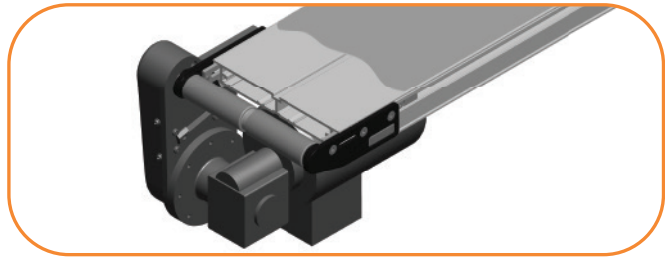
English

**DORNIER**® 



## High Speed Nose Bar Transfers

- 16 mm Nose Bar safely transfers small parts at speeds up to 61 m/min and features V-Guided belting for accurate belt tracking



## V-Guided Belt Tracking

- The industries first low profile V-Guided conveyor, eliminates startup belt tracking and keeps the belt running straight



## Sleek Frame Designs

- Sturdy single piece frame construction with a universal T-Slot allows for fast and simple attachment of accessories and guiding with a variety of industry available hardware



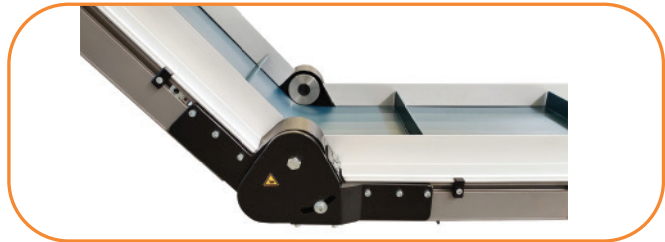
## Precision Move

- Provides accurate alignment of both time and distance to move products efficiently in assembly automation applications



## Rack and Pinion Belt Tension

- Patented rack and pinion tensioning provides a quick single point tension moving both sides of the tail evenly



## Adjustable Angle LPZs

- Sleek, low profile Z-Frame Conveyors are ideal for product elevation changes and can easily adjust to fit machinery layout

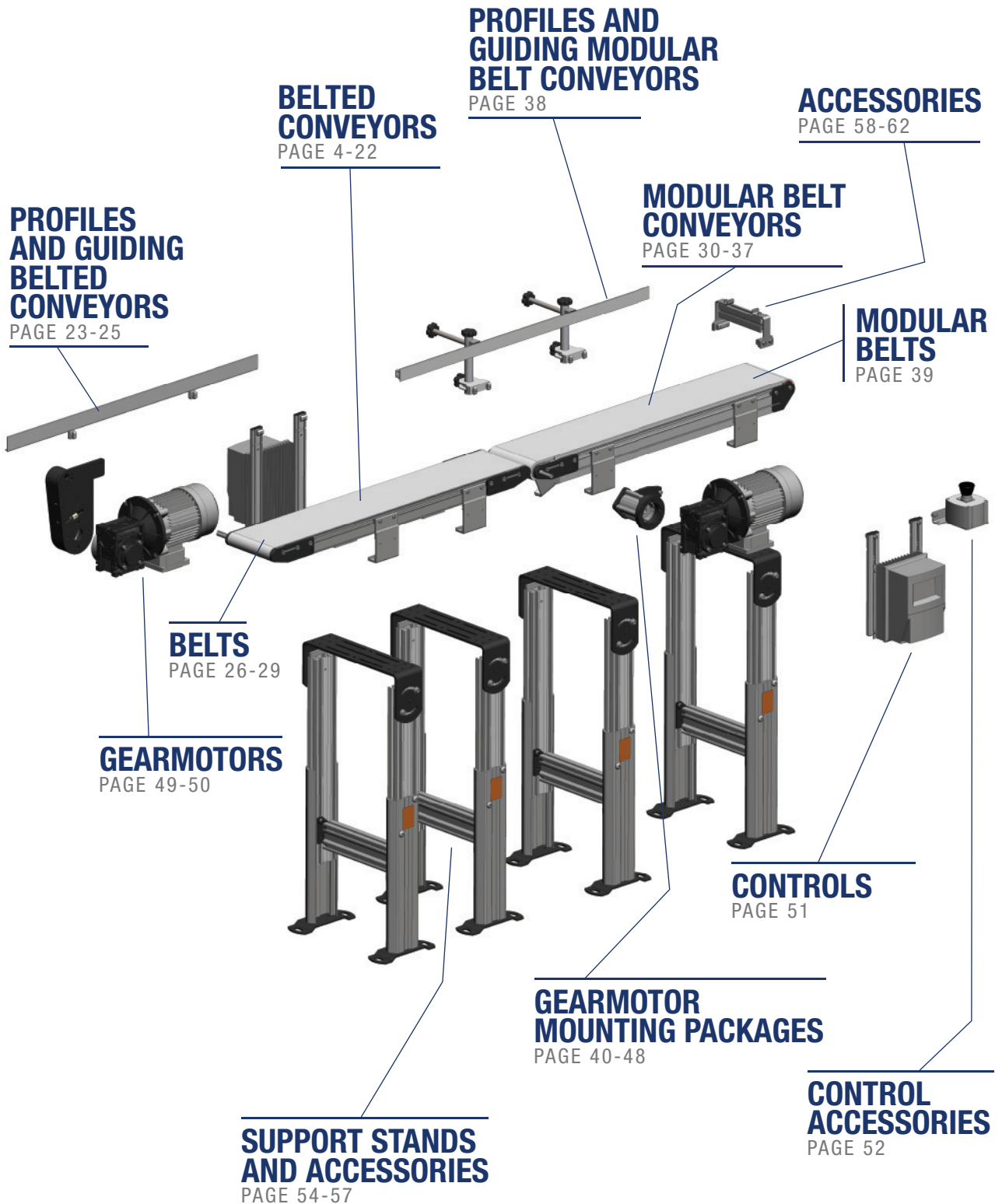
## The Benefits of a Dorner 2200 Series Conveyor

### Low Maintenance

- Dorners Industry Best V-Guiding provides positive belt tracking, even under demanding side load applications
- Precise rack and pinion belt tensioning allows for fast and simple tensioning
- Sealed for life bearings reduces maintenance

### Time Saving

- Dorner's online configurator engineers simple or complex conveyors to meet your needs in minutes
- The industry leading tool delivers a complete 3D CAD assembly model for instant validation of fit
- Dorner provides the industry's fastest lead times with conveyors shipping in as little as 3 business days



**TECHNICAL DATA & CALCULATIONS**  
PAGE 63-76

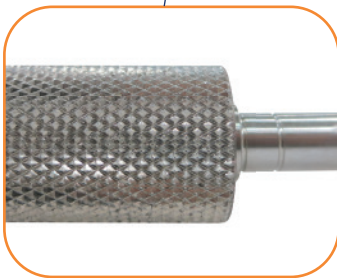
**HARD ANODIZED ALUMINUM BEDPLATE**  
PROVIDES DURABILITY WITHOUT ADDING WEIGHT

**URETHANE BELTING**  
FOR LONG LIFE AND VIRTUALLY INVISIBLE BELT SPLICE

**V-GROOVED BEDPLATE AND V-GUIDED BELTS**  
PROVIDE MAINTENANCE FREE BELT TRACKING

**VARIETY OF GUIDING OPTIONS**

**UNIVERSAL T-SLOT**  
FOR EASE AND FLEXIBILITY OF ADDING ACCESSORIES USING A VARIETY OF INDUSTRY AVAILABLE HARDWARE



**DIAMOND KNURLED DRIVE ROLLER**  
FOR INCREASED LOAD CAPACITY

**GEARMOTOR**  
SEALED GEARMOTORS IN SIZES FROM LIGHT LOAD, STANDARD LOAD AND HEAVY LOAD TO MEET YOUR APPLICATION NEEDS.



Center Drive



Mid Drive

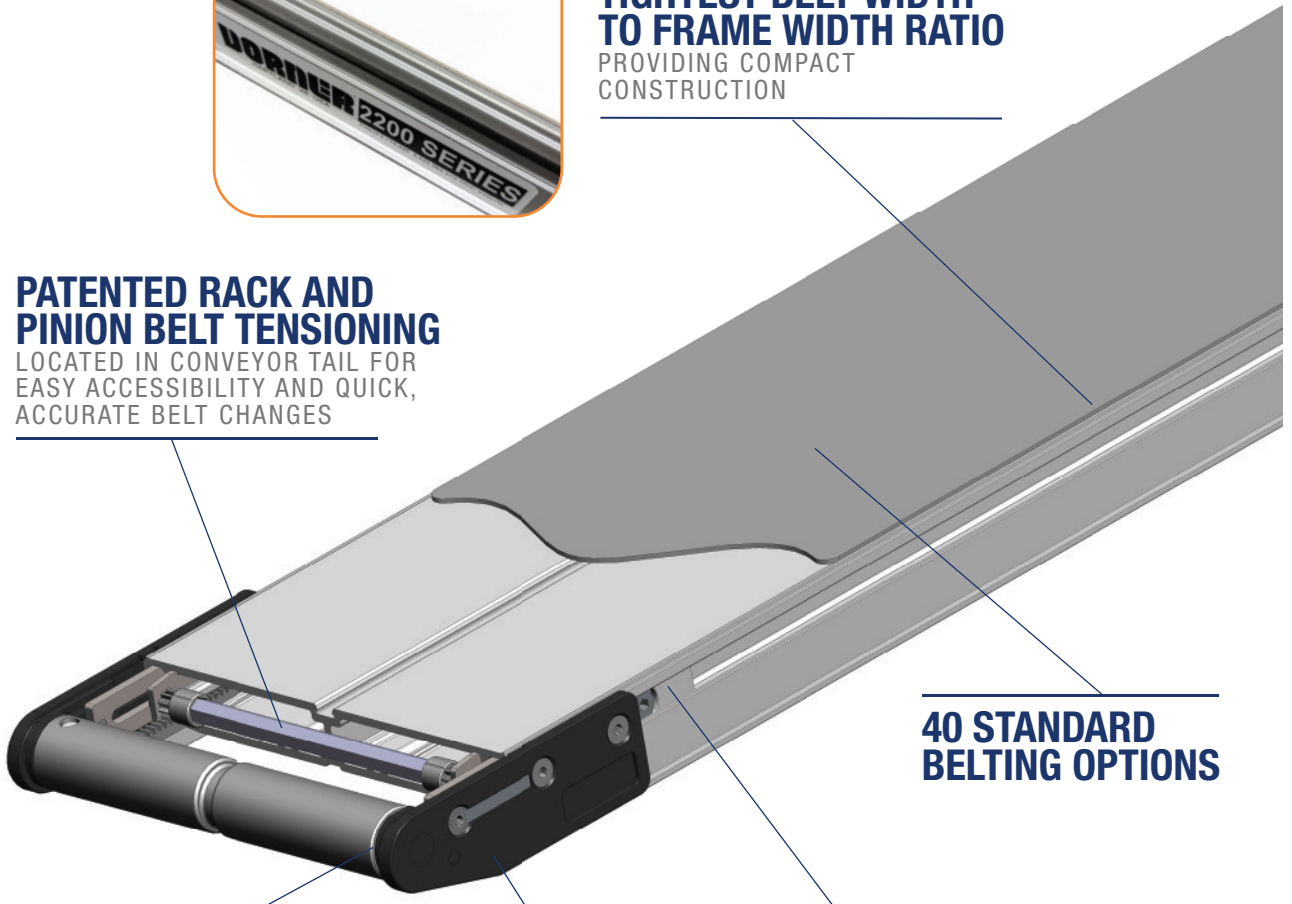
**CENTER AND MID DRIVE OPTIONS**  
FREES UP SPACE ON BOTH ENDS OF THE CONVEYOR AND INCREASES LOAD CAPACITY



**TIGHTEST BELT WIDTH TO FRAME WIDTH RATIO**  
PROVIDING COMPACT CONSTRUCTION

**PATENTED RACK AND PINION BELT TENSIONING**

LOCATED IN CONVEYOR TAIL FOR EASY ACCESSIBILITY AND QUICK, ACCURATE BELT CHANGES



**40 STANDARD BELTING OPTIONS**

**SPHERICAL, SEALED BALL BEARINGS**

FOR LONG, MAINTENANCE FREE LIFE

**TAIL PLATES**

MINIMAL LENGTH TAIL PLATES FOR MAXIMUM T-SLOT EXPOSURE

**PRECISE CAM TRACKING**

FOR FINE ADJUSTMENTS OF NON V-GUIDED BELTS



**16 MM NOSEBAR TAIL OPTIONS**

FOR SMALL PART TRANSFERS



**CENTER DRIVES**

EQUIPPED WITH GAS SPRING BELT TENSION



## Specifications

- Loads up to 36 kg\*
- Belt speeds up to 122 m/min
- Belt widths: 44 mm to 610 mm
- Conveyor lengths: 457 mm to 5,486 mm
- 32 mm diameter drive and idler pulleys turn approximately 107 mm of belt per revolution
- V-groove bedplate with guided belt provides belt tracking, even under demanding side load applications
  - Cam tracking standard on Non V-Guided belt conveyors
- 12 mm diameter integral drive shaft with auxiliary shaft location options



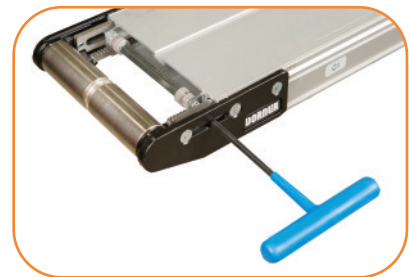
### OPTIONAL: Fixed and Tension Tail Shafts and Sensor Accessories

Easily allows for common driven applications or monitoring devices to be added



### OPTIONAL: 16 mm High Speed Nose Bar Transfer Tail

Available at non-driven end. V-guide supported. Speeds up to 61 m/min



### STANDARD FEATURE: Rack and Pinion

Allows the tail section to be easily slid back for quick belt adjustments and removal

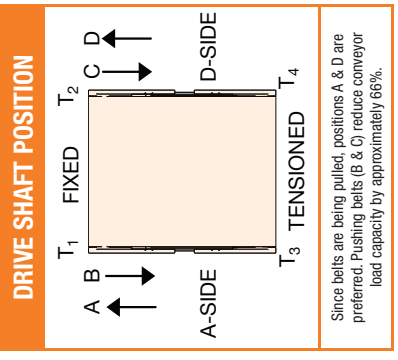
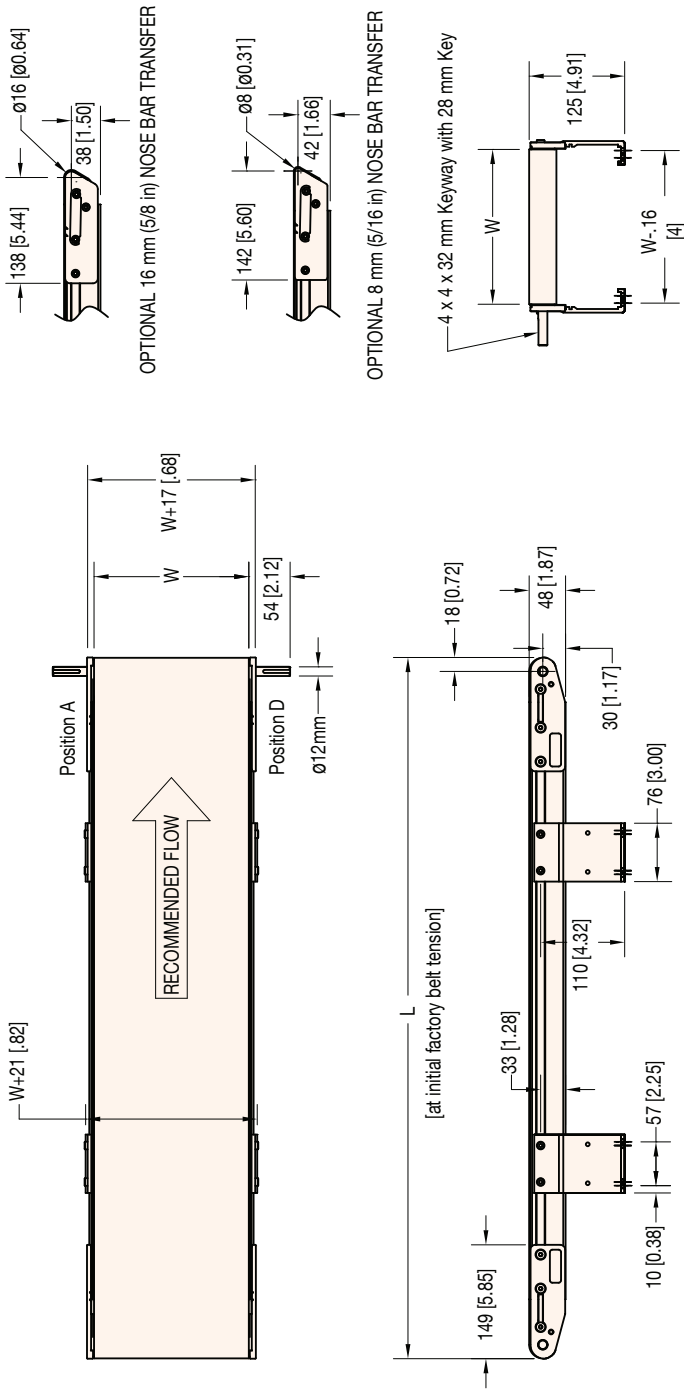
## 2200 Series Belt End Drive Conveyor

22	ED	M	WW	-	LLLL	1	0	A	PP	PP	BB	-	X	T <sup>1</sup>	T <sup>2</sup>	T <sup>3</sup>	T <sup>4</sup>
													<b>Conveyor Tail Options X</b> (if required) *See Drive Shaft Position Chart on next page <b>A or B</b> = Drive Shaft (T <sup>1</sup> only) <b>C or D</b> = Drive Shaft (T <sup>2</sup> only) <b>O</b> = No Shaft <b>K</b> = Keyed Auxiliary Shaft <b>S</b> = Stub Shaft <b>M</b> = Magnet Location (T <sup>3</sup> or T <sup>4</sup> only)				
												<b>Belt Type</b> Profile (D side) Profile (A side)					
												<b>Flow/Drive Shaft Position:</b> A, B, C or D					
												<b>Idler Tail Type:</b> 0 = Standard 32 mm, 5 = Nose Bar 16 mm					
												<b>V-Guide &amp; Mounting Bracket Options:</b> 1 = Non V-Guided Belt, includes mounting brackets and return rollers 2 = V-Guided Belt, includes mounting brackets and return rollers 3 = Non V-Guided Belt, without mounting brackets and return rollers 4 = V-Guided Belt, without mounting brackets and return rollers 5 = Non V-Guided Belt, without mounting brackets, includes return rollers 6 = V-Guided Belt, without mounting brackets, includes return rollers					
												<b>Conveyor Length Reference:</b> LLLL in feet					
												<b>Conveyor Width Reference</b>					
												<b>Documentation Language:</b> U = Europe English, D = German, F = French, S = Spanish					
												<b>Belted ED</b>					

Profile:	
01	Low side
04	76 mm (3") aluminum high side
05	38 mm (1 1/2") aluminum high side
09	13 mm (1/2") alum
10	Extruded UHMW
13	Fully adjustable guiding - 20 mm (0.8") UHMW
14	Tool-less fully adjustable guiding - 20 mm (0.8") UHMW
33	Fully adjustable guiding - 53 mm (2.1") UHMW
34	Tool-less fully adjustable guiding - 53 mm (2.1") UHMW
43	Fully adjustable guiding - Aluminum Face
44	Tool-less fully adjustable guiding - Aluminum Face

\* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.

Order gearmotor mounting packages and gearmotors separately, see pages 40-50  
For support stands and accessories, see page 54-62



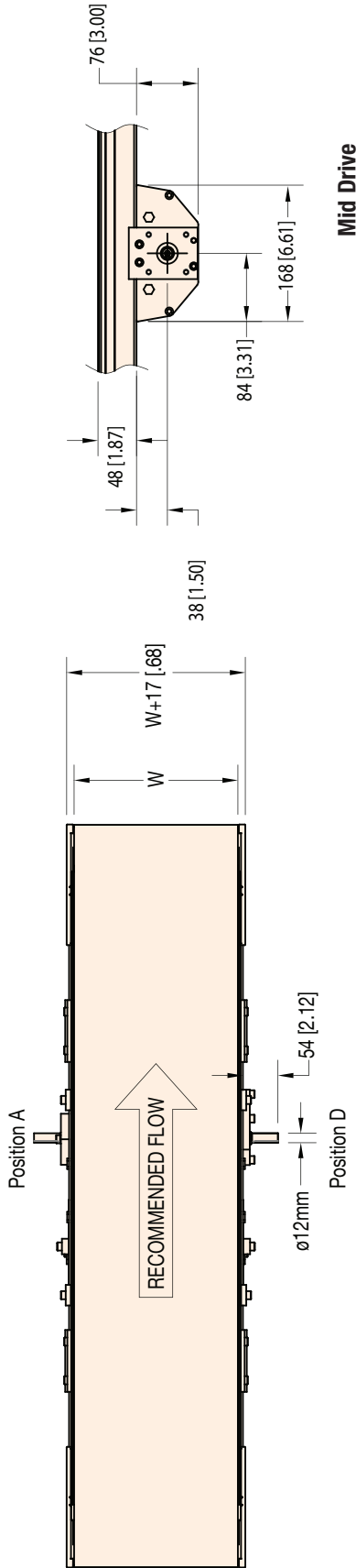
W = Conveyor Belt Width Dim = mm (in)

STANDARD SIZES		W = Conveyor Belt Width Dim = mm (in)											
Conveyor Width Reference	02	04	06	08	10	12	14	16	18	20	22	24	
Conveyor Belt Width (W)	44 mm	95 mm	152 mm	203 mm	254 mm	305 mm	356 mm	406 mm	457 mm	508 mm	559 mm	610 mm	
Conveyor Length Reference	0150	0001 increments up to...											
Conveyor Length (L)	457 mm	3 mm increments up to... 5,486mm*											

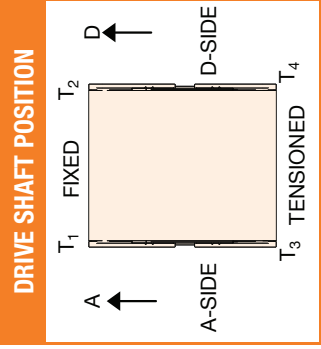
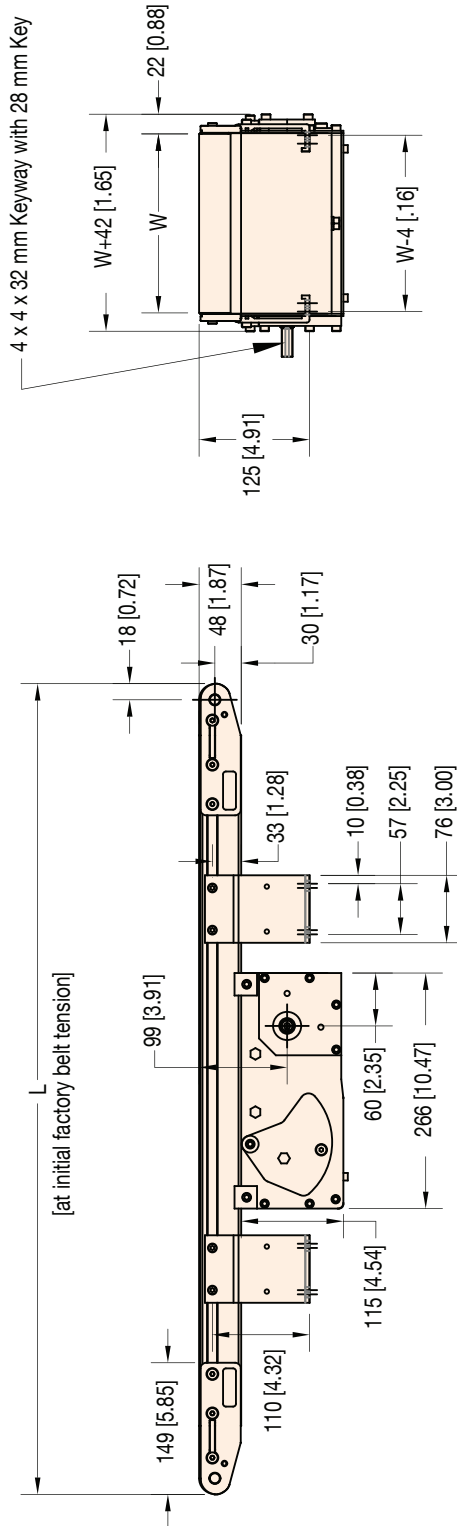
NOTE: Lengths over 3657 mm available in widths 152 mm and wider only.  
 NOTE: Conveyor longer than 3,658 mm will be constructed using two equal length frames.  
 \*NOTE: Max length varies based on tail section.







Mid Drive



W = Conveyor Belt Width Dim = mm (in)

STANDARD SIZES												
Conveyor Width Reference	02	04	06	08	10	12	14	16	18	20	22	24
Conveyor Belt Width (W)	44 mm	95 mm	152 mm	203 mm	254 mm	305 mm	356 mm	406 mm	457 mm	508 mm	559 mm	610 mm
Conveyor Length Reference	0001 increments up to...											
Conveyor Length (L)	0150	3 mm increments up to...										
	457 mm	7,315 mm*										

NOTE: Conveyors 3661 to 5486 mm in length will be constructed using two equal length frame sections.  
 Conveyors 5489 to 7315 mm in length will be constructed using three equal length frame sections.

\*NOTE: Max length varies based on tail section.



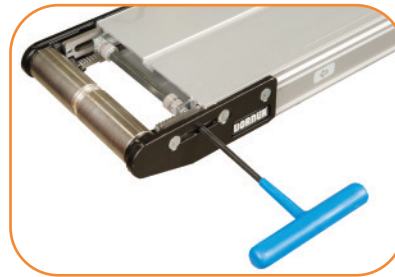
## Specifications

- Loads up to 36 kg\*
- Belt speeds up to 122 m/min
- Belt widths: 44 mm to 610 mm
- Conveyor lengths: 457 mm to 5,486 mm
- Standard cleats available from 20 mm to 30 mm high
- Cleats heights can be cut in 5 mm increments. 5 mm high minimum height
- 32 mm diameter drive and idler pulleys turn approximately 107 mm of belt per revolution
- V-groove bedplate with guided belt provides belt tracking, even under demanding side load applications
  - Cam tracking standard on Non V-Guided belt conveyors
- 12 mm diameter integral drive shaft with auxiliary shaft location options



### OPTIONAL: Fixed and Tension Tail Shafts and Sensor Accessories

Easily allows for common driven applications or monitoring devices to be added



### STANDARD FEATURE: Rack and Pinion

Allows the tail section to be easily slid back for quick belt adjustments and removal

**2200 Series Cleated Belt End Drive Conveyor**

22 C T M W W - L L L L 1 A C P S S S S L - X T<sup>1</sup> T<sup>2</sup> T<sup>3</sup> T<sup>4</sup>

**Conveyor Tail Options X** (if required) \*See Drive Shaft Position Chart on next page  
**A or B** = Drive Shaft (T<sup>1</sup> only)    **C or D** = Drive Shaft (T<sup>2</sup> only)  
**O** = No Shaft    **K** = Keyed Auxiliary Shaft  
**S** = Stub Shaft    **M** = Mag Location (T<sup>3</sup> or T<sup>4</sup> only)

**Belt Type:** **G** = PVC, Green Belt, **W** = Urethane, White Belt

**Cleat Spacing:** **SS.SS** in inches

**Profile Height:** **0** = Low Side, **2** = 25 mm, **3** = 64 mm

**Cleat Type:** **A** = 20 mm, **B** = 30 mm

**Flow/Drive Shaft Position:** **A, B, C or D**

**V-Guide & Mounting Bracket Options:**

1 = Non V-Guided Belt, includes mounting brackets and return rollers	4 = V-Guided Belt, without mounting brackets and return rollers
2 = V-Guided Belt, includes mounting brackets and return rollers	5 = Non V-Guided Belt, without mounting brackets, includes return rollers
3 = Non V-Guided Belt, without mounting brackets and return rollers	6 = V-Guided Belt, without mounting brackets, includes return rollers

**Conveyor Length Reference:** L.L.L.L in feet

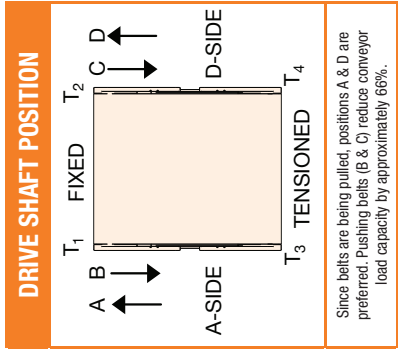
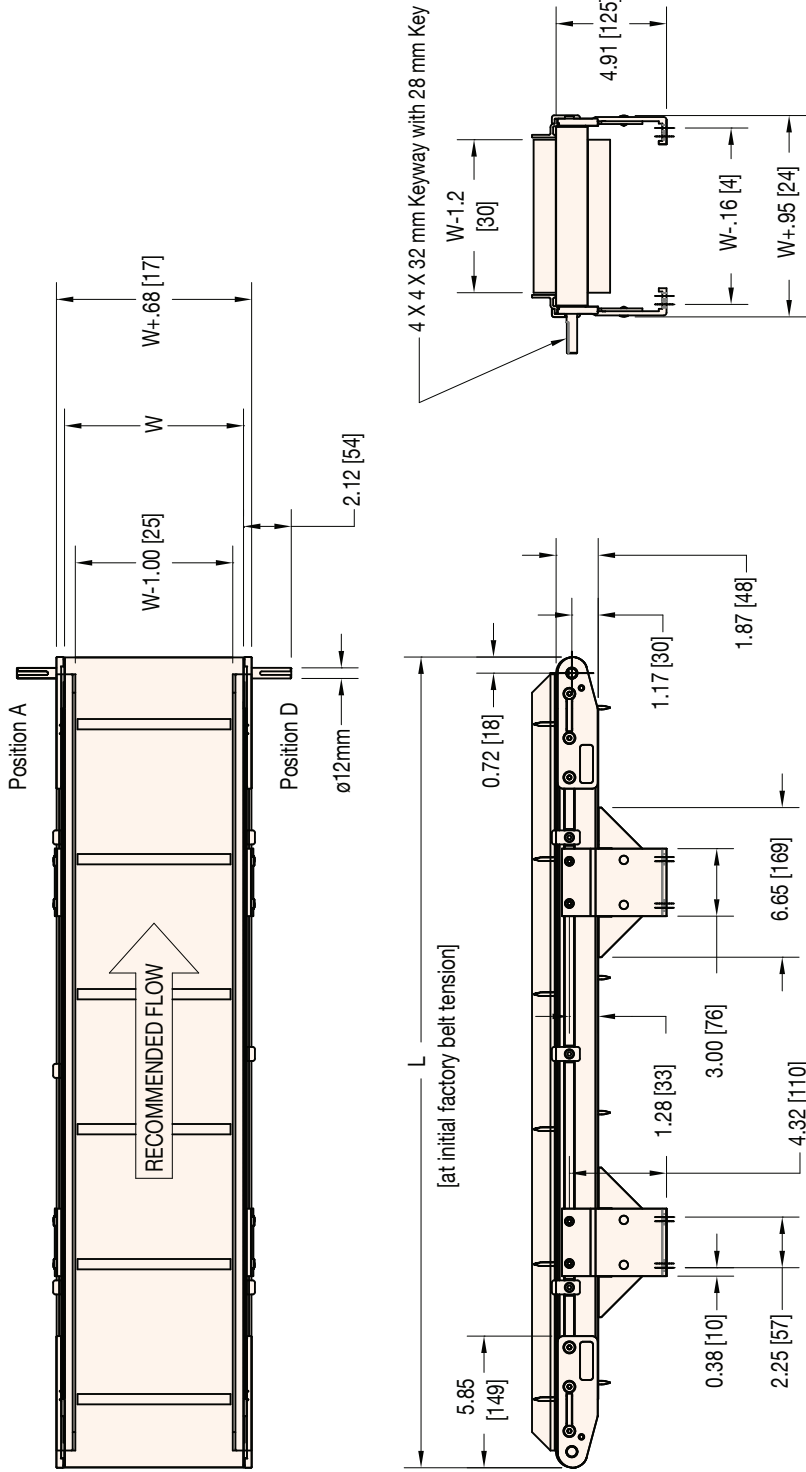
**Conveyor Width Reference**

**Documentation Language:** **U** = Europe English, **D** = German, **F** = French, **S** = Spanish

**Cleated**

\* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.

Order gearmotor mounting packages and gearmotors separately, see pages 40-50  
 For support stands and accessories, see page 54-62



Since belts are being pulled, positions A & D are preferred. Pushing belts (B & C) reduce conveyor load capacity by approximately 66%.

W = Conveyor Belt Width Dim = mm (in)

STANDARD SIZES												
Conveyor Width Reference	02	04	06	08	10	12	14	16	18	20	22	24
Conveyor Belt Width (W)	44 mm	95 mm	152 mm	203 mm	254 mm	305 mm	356 mm	406 mm	457 mm	508 mm	559 mm	610 mm
Conveyor Length Reference	0150	0001 increments up to...										
Conveyor Length (L)	457 mm	3 mm increments up to...										
		5,486 mm										

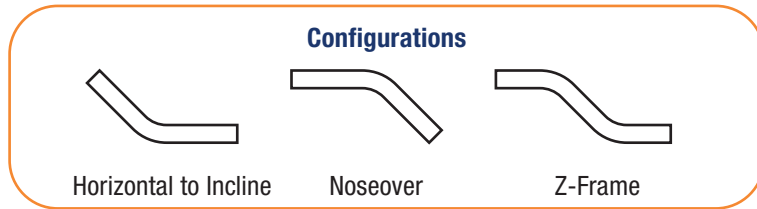
NOTE: Lengths 3962 to 5486 mm available in widths 152 to 610 mm only.  
NOTE: Conveyors longer than 3,658 mm will be constructed using two equal length frames.



LPZ

## Specifications

- Loads up to 30 kg\*
- Belt speeds up to 57 m/min
- Belt widths: 203 mm to 610 mm
- Conveyor lengths: 1097 mm to 4000 mm
- Adjustable angle: 35° to 60°
- Cleats available from 20, 30, 35, 40 and 50 mm high
- 60 mm diameter drive and idler pulleys turn approximately 189 mm of belt per revolution
- V-groove bedplate with guided belt provides positive belt tracking, even under demanding side load applications



Horizontal to Incline

Noseover

Z-Frame



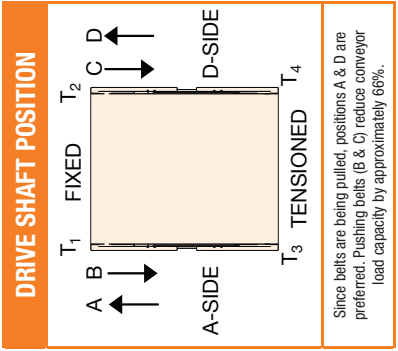
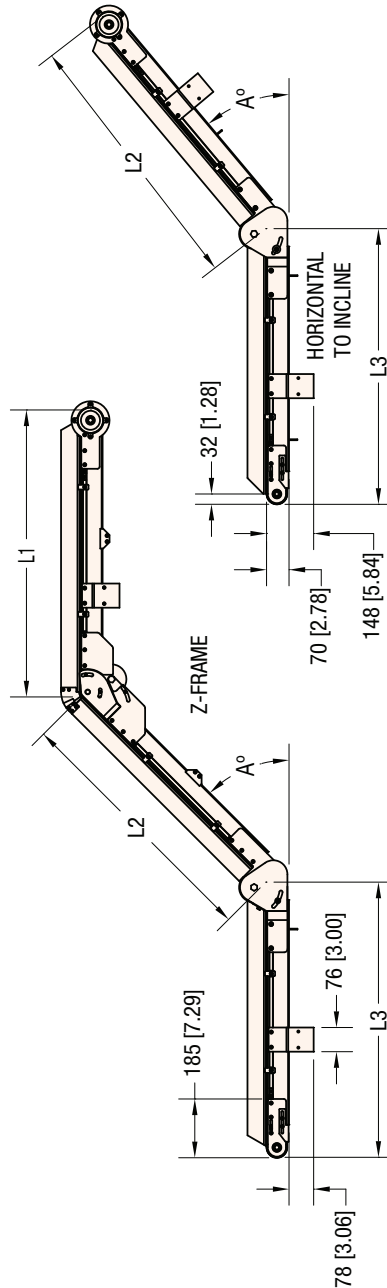
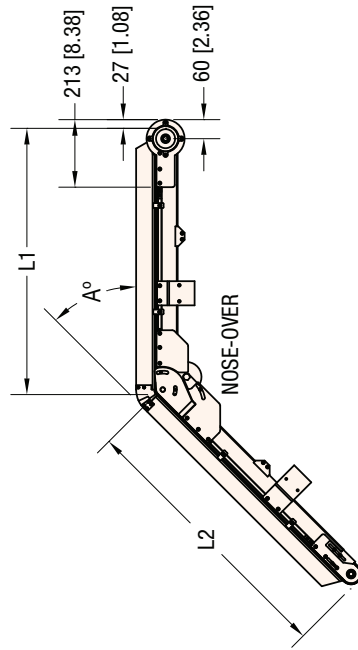
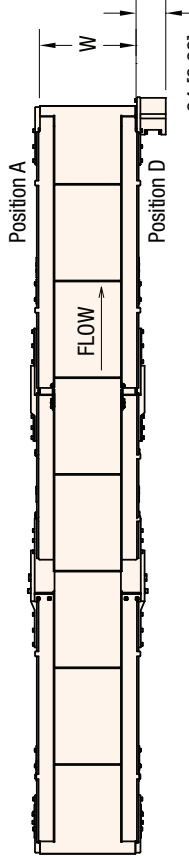
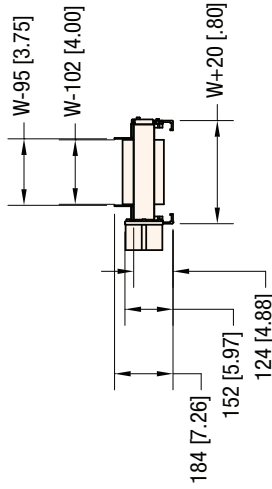
### STANDARD FEATURE: Rack and Pinion

Allows the tail section to be easily slid back for quick belt adjustments and removal

2200 Series Z-Frame Cleated Belt End Drive Conveyor																																
22	C	6	M	W	W	-	L	L	L	L	-	L	L	L	L	-	L	L	L	L	A	A	E	1	A	C	P	S	S	S	S	L
															Belt Type: G = PVC, Green Belt, W = Urethane, White Belt Cleat Spacing: SS.SS in inches Profile Height: 0 = Low Side, 3 = 64 mm Cleat Type: K = 20 mm, L = 30 mm, M = 35 mm, B = 40 mm, E = 50 mm Flow/Drive Shaft Position: A or D only V-Guide & Mounting Bracket Options: 2 = V-Guided Belt, includes mounting brackets and return rollers      6 = V-Guided Belt, without mounting brackets, includes return rollers Belt Direction: E = Incline D = Decline Angle: 60 = 60 degree Adjustable Angle L3 Section Length Reference, Lower Horizontal Section: LL.LL in feet L2 Section Length Reference, Incline Section: LL.LL in feet L1 Section Length Reference, Upper Horizontal Section: LL.LL in feet Conveyor Width Reference Documentation Language: U = Europe English, D = German, F = French, S = Spanish Cleated, 60 mm Spindle																	

\* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.

Order gearmotor mounting packages and gearmotors separately, see pages 40-50  
For support stands and accessories, see page 54-62



Since belts are being pulled, positions A & D are preferred. Pushing belts (B & C) reduce conveyor load capacity by approximately 66%.

W = Conveyor Belt Width Dim = mm (in)  
 Note: Belt direction is not reversible

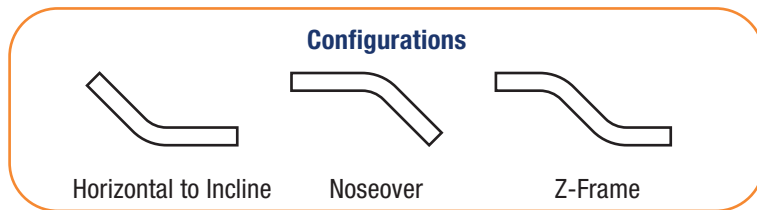
STANDARD SIZES													
Conveyor Width Reference	08	10	12	14	16	18	20	22	24				
Conveyor Inside Frame Width (W)*	203 mm	254 mm	305 mm	356 mm	406 mm	457 mm	508 mm	559 mm	610 mm				
Actual Belt Width	199 mm	250 mm	301 mm	352 mm	402 mm	453 mm	504 mm	555 mm	606 mm				
Cleat Width	101 mm	152 mm	203 mm	254 mm	304 mm	355 mm	406 mm	457 mm	508 mm				
Pocket Width	107 mm	158 mm	209 mm	260 mm	310 mm	361 mm	412 mm	463 mm	514 mm				
Section Length Reference	0180										0984		
Section Length	550 mm										3000 mm		
L1 + L2 + L3 Maximum Conveyor Length											4000 mm		



LPZ

## Specifications

- Loads up to 30 kg\*
- Belt speeds up to 57 m/min
- Belt widths: 305 mm to 610 mm
- Conveyor lengths: 1097 mm to 4000 mm
- Adjustable angle: 35° to 60°
- Cleats available from 20, 30, 35 mm high
- Sidewall available from 20, 30, 35 mm high
- 60 mm diameter drive and idler pulleys turn approximately 189 mm of belt per revolution
- V-groove bedplate with guided belt provides positive belt tracking, even under demanding side load applications



Horizontal to Incline

Noseover

Z-Frame



### STANDARD FEATURE: Rack and Pinion

Allows the tail section to be easily slid back for quick belt adjustments and removal

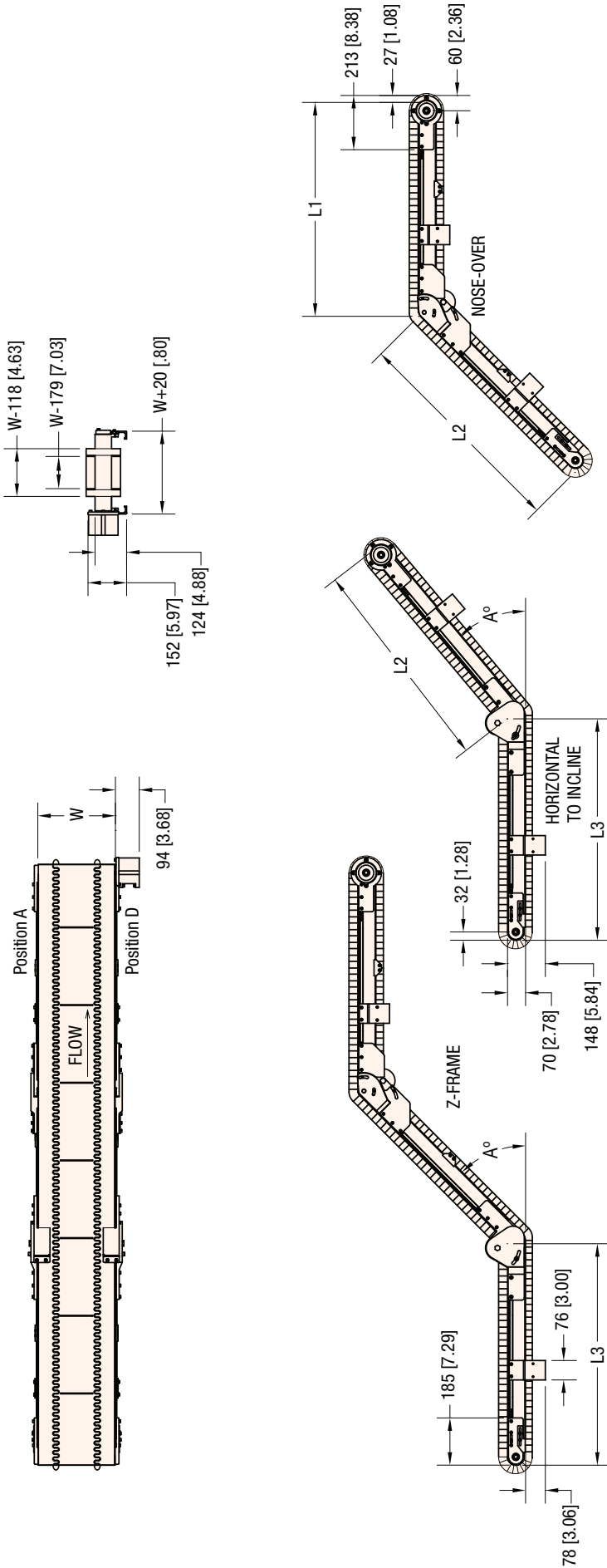
**2200 Series Sidewall Cleated Belt LPZ Conveyor**

22 C 6 M WW - L L L L - L L L L - L L L L A A E 1 A C P S S S S L

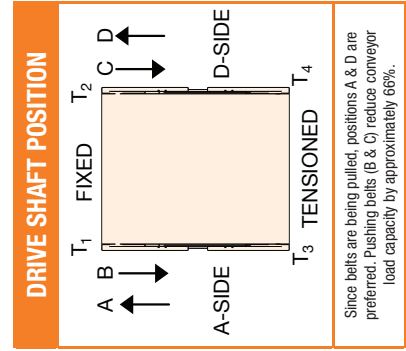
- Belt Type: Z = Urethane, White, Y = PVC, Green Belt  
 - Cleat Spacing: SS.SS in inches  
 - Sidewall Height: N = 20 mm, P = 30 mm, R = 35 mm  
 - Cleat Type: N = 20 mm, P = 30 mm, R = 35 mm  
 - Flow/Drive Shaft Position: A or D only  
 - V-Guide & Mounting Bracket Options:  
 2 = V-Guided Belt, includes mounting brackets and return rollers      6 = V-Guided Belt, without mounting brackets, includes return rollers  
 - Belt Direction: E = Incline D = Decline  
 - Angle: 60 = 60 degree Adjustable Angle  
 - L3 Section Length Reference, Lower Horizontal Section: LL.LL in feet  
 - L2 Section Length Reference, Incline Section: LL.LL in feet  
 - L1 Section Length Reference, Upper Horizontal Section: LL.LL in feet  
 - Conveyor Width Reference  
 - Documentation Language: U = Europe English, D = German, F = French, S = Spanish  
 - Cleated, 60 mm Spindle

\* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.

Order gearmotor mounting packages and gearmotors separately, see pages 40-50  
For support stands and accessories, see page 54-62

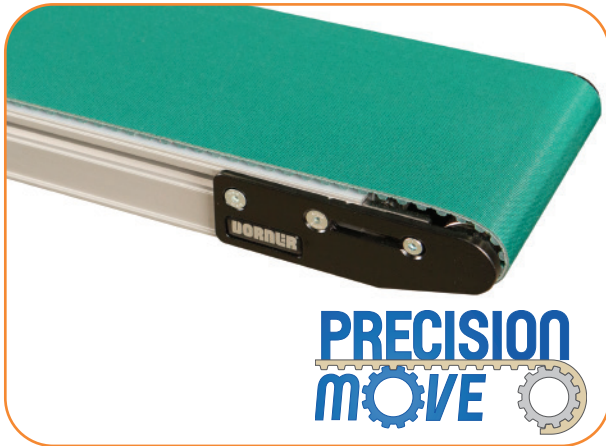


W = Conveyor Belt Width Dim = mm (in)  
 Note: Belt direction is not reversible



Since belts are being pulled, positions A & D are preferred. Pushing belts (B & C) reduce conveyor load capacity by approximately 66%.

STANDARD SIZES		12	14	16	18	20	22	24
Conveyor Width Reference		305 mm	356 mm	406 mm	457 mm	508 mm	559 mm	610 mm
Conveyor Inside Frame Width (W)*		301 mm	352 mm	402 mm	453 mm	504 mm	555 mm	606 mm
Actual Belt Width		126 mm	177 mm	227 mm	278 mm	329 mm	380 mm	431 mm
Cleat Width		137 mm	188 mm	238 mm	289 mm	340 mm	391 mm	442 mm
Pocket Length Reference	0180							
Section Length	550 mm							
L1 + L2 + L3 Maximum Conveyor Length					0001 increments up to...	0984		
					3 mm increments up to...	3000 mm		
					4000 mm			



## Specifications

- Loads up to 91 kg\*
- Belt speeds up to 113 m/min
- Belt widths: 25 mm to 610 mm
- Conveyor lengths: 457 mm to 9,144 mm
- 38 mm pitch diameter drive pulley turns approximately 121 mm of belt per revolution
- T10 profile cogged belt with 12 tooth drive pulley
- Conveyor mechanical accuracy  $\pm 0.5$  mm
- Conveyor package w/servo motor index accuracy  $\pm 1$  mm
- 12 mm diameter integral drive shaft
- Reverse V-Guide provides positive belt tracking, even under demanding side load applications



### STANDARD FEATURE: Reverse V-Guide

Provides positive tracking along the entire length of the conveyor



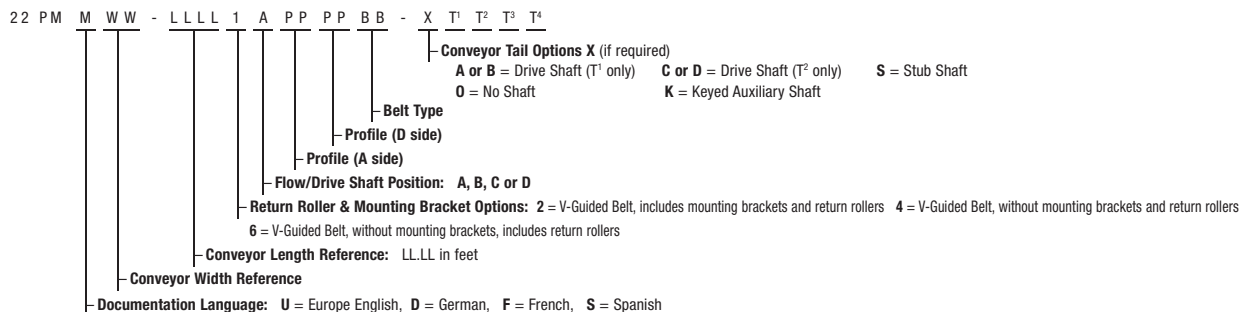
### Positive Drive Belting

Positivity driven belt ensures belt does not slip and allows for higher load capacity

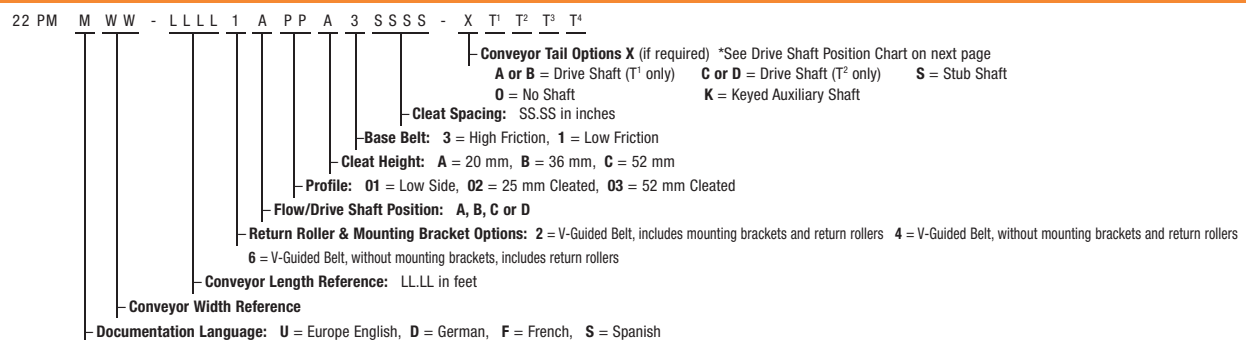


### OPTIONAL: 3 Cleat Heights Available (20 mm, 36 mm, or 52 mm)

#### 2200 Series Precision Move Flat Belt End Drive Conveyor



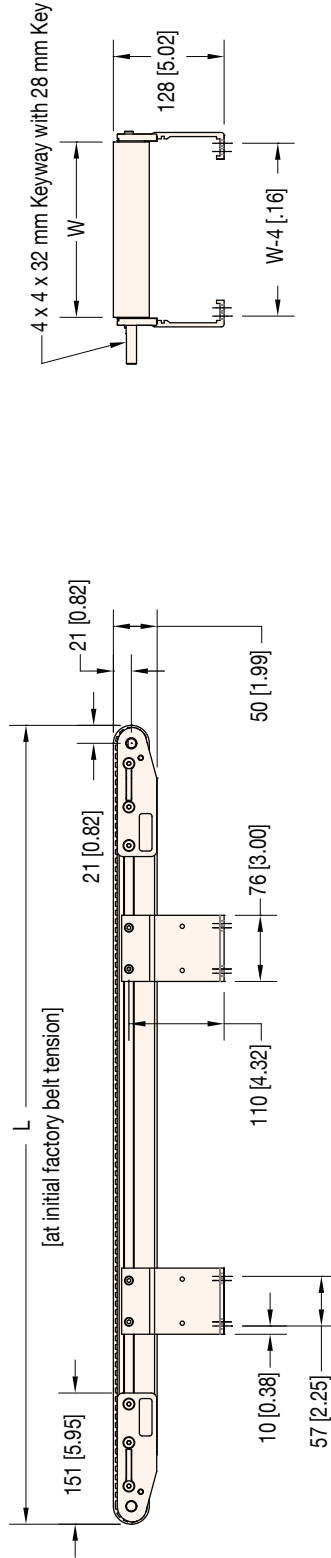
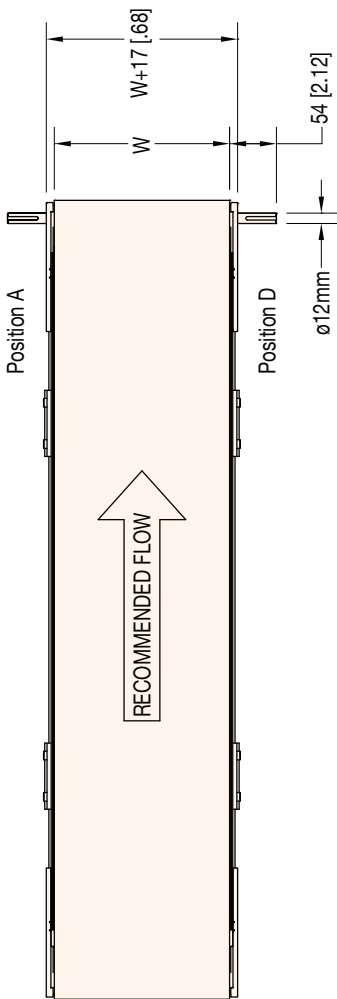
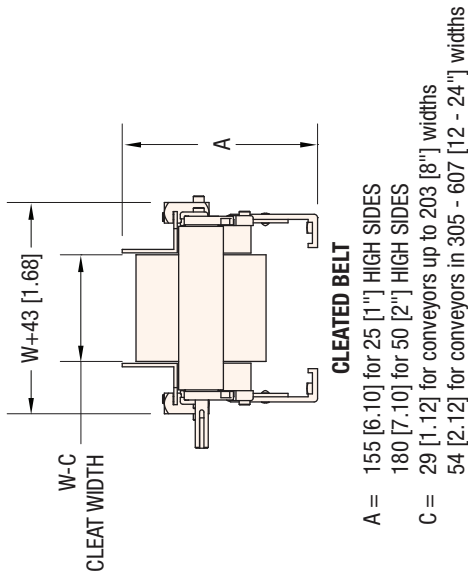
#### 2200 Series Precision Move Cleated Belt End Drive Conveyor



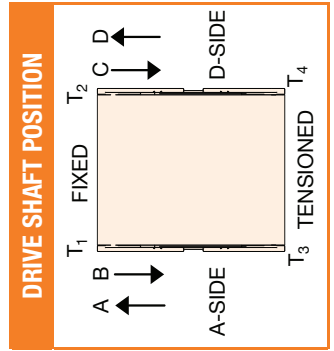
\* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.

Order gearmotor mounting packages and gearmotors separately, see pages 40-50  
For support stands and accessories, see page 54-62



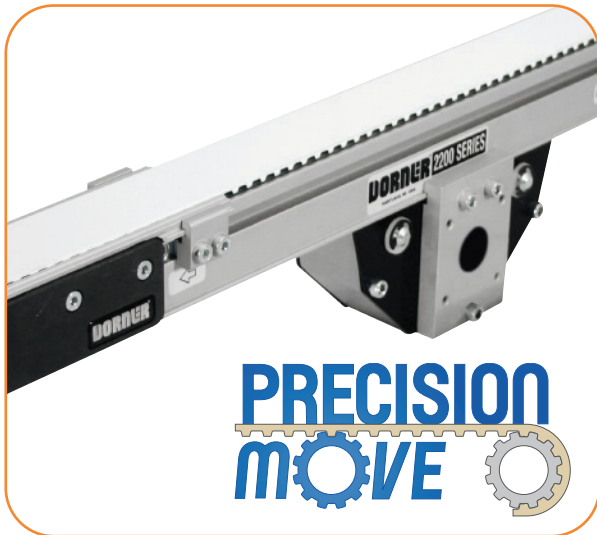


W = Conveyor Belt Width Dim = mm (in)



STANDARD SIZES		W = Conveyor Belt Width		Dim = mm (in)	
Conveyor Width Reference	01 02 04 06 08 12 18 24				
Conveyor Belt Width (W)	25 mm* 45 mm 95 mm 152 mm 203 mm 305 mm 457 mm 607 mm				
Conveyor Length Reference	0150	0002 increments up to...		3000	
Conveyor Length	457 mm	5 mm increments up to...		9,144 mm	

**NOTE:** Actual conveyor length may need to be adjusted to match belt pitch.  
 Conveyors from 3658 to 5486 mm will be constructed using two equal length frame sections.  
 Conveyors from 5487 to 8229 mm in length will be constructed using three equal length frame sections.  
 Conveyors from 8230 to 9144 mm in length will be constructed using four equal length frame sections.  
 \*Cleats not available for 25 mm wide Precision Move Conveyors.



## Specifications

- Loads up to 91 kg\*
- Belt speeds up to 113 m/min
- Belt widths: 25 mm to 610 mm
- Conveyor lengths: 457 mm to 9,144 mm
- 51 mm pitch diameter drive pulley turns approximately 160 mm of belt per revolution
- T10 profile cogged belt with 16 tooth drive pulley
- Conveyor mechanical accuracy  $\pm 0.5$  mm
- Drive shaft options:
  - 12 mm diameter integral drive shaft
  - 16 tooth 0.50 inch diameter hollow spline drive
- Reverse V-Guide provides positive belt tracking, even under demanding side load applications



### STANDARD FEATURE: Reverse V-Guide

Provides positive tracking along the entire length of the conveyor



### Positive Drive Belting

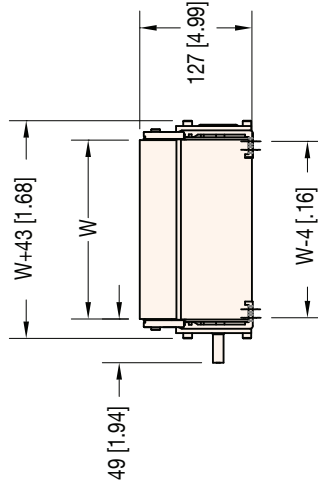
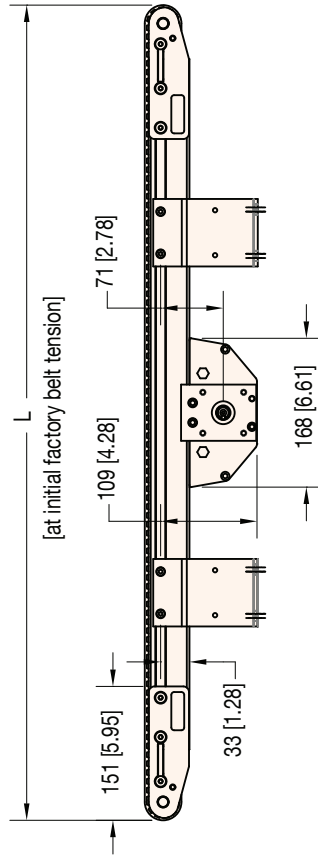
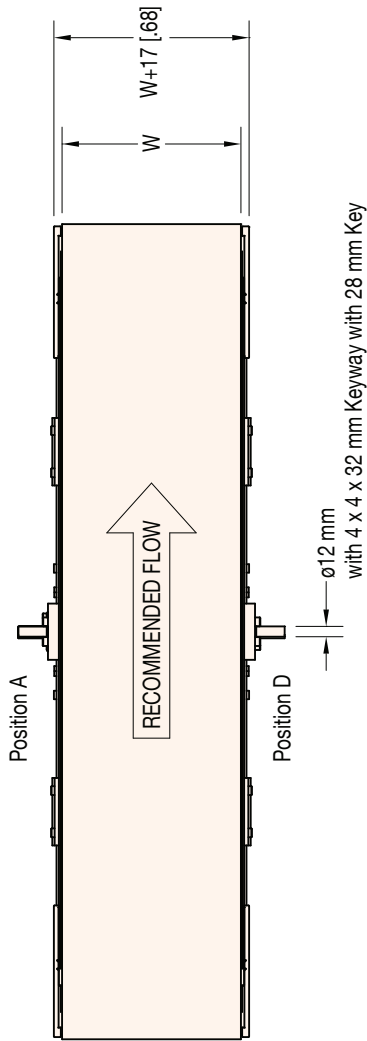
Positively driven belt ensures belt does not slip and allows for higher load capacity

## 2200 Series Precision Move Flat Belt Mid Drive Conveyor

22	PD	M	WW	-	LLLL	1	A	PP	PP	BB	-	X	T <sup>1</sup>	T <sup>2</sup>	T <sup>3</sup>	T <sup>4</sup>
													Conveyor Tail Options X (if required) *See Drive Shaft Position Chart on next page			
													O = No Shaft			
													S = Stub Shaft			
													K = Keyed Auxiliary Shaft			
													Belt Type			
													Profile (D side)			
													Profile (A side)			
													Mid Drive Shaft Position: A = A side, D = D side, E = Both side, G = Gang			
													V-guide & Mounting Bracket Options:			
													2 = V-Guided Belt, includes mounting brackets and return rollers			
													4 = V-Guided Belt, without mounting brackets and return rollers			
													6 = V-Guided Belt, without mounting brackets, includes return rollers			
													Conveyor Length Reference: LLLL in feet			
													Conveyor Width Reference			
													Documentation Language: U = Europe English, D = German, F = French, S = Spanish			

\* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.

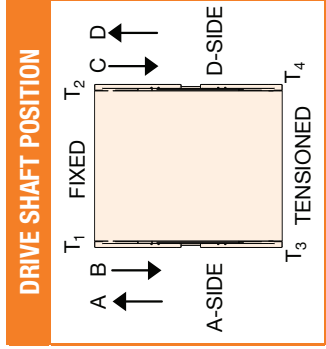
Order gearmotor mounting packages and gearmotors separately, see pages 40-50  
For support stands and accessories, see page 54-62

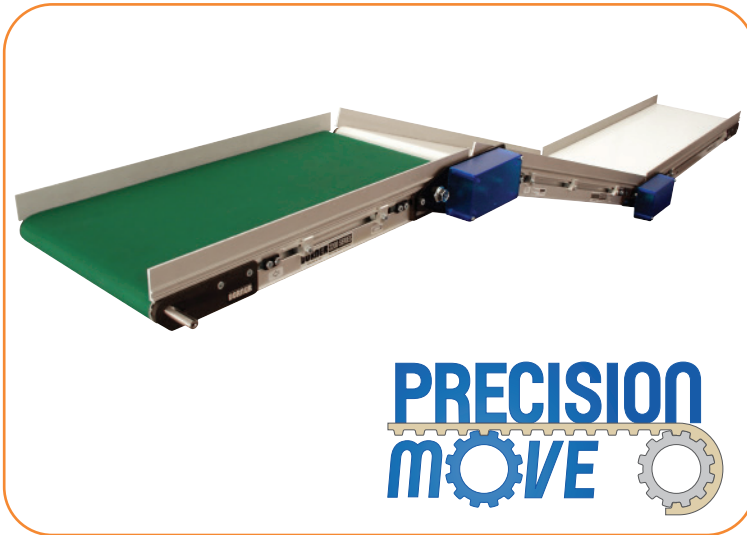


$W$  = Conveyor Belt Width **Dim = mm (in)**

STANDARD SIZES		01	02	04	06	08	12	18	24
Conveyor Width Reference		25 mm	45 mm	95 mm	152 mm	203 mm	305 mm	457 mm	607 mm
Conveyor Belt Width (W)									
Conveyor Length Reference	0150	0002 increments up to...		0002 increments up to...		0002 increments up to...		3000	
Conveyor Length	457 mm	5 mm increments up to...		5 mm increments up to...		5 mm increments up to...		9,144 mm	

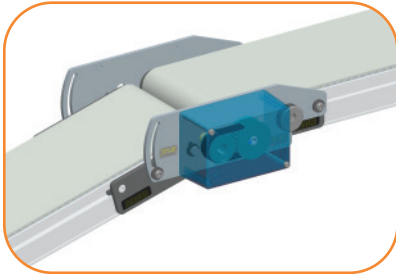
**NOTE:** Actual conveyor length may need to be adjusted to match belt pitch.  
Conveyors from 3658 to 5486 mm will be constructed using two equal length frame sections.  
Conveyors from 5487 to 8229 mm in length will be constructed using three equal length frame sections.  
Conveyors from 8230 to 9144 mm in length will be constructed using four equal length frame sections.





## Specifications

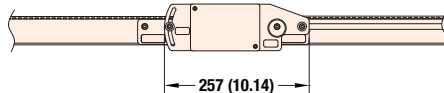
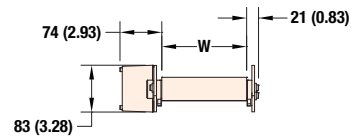
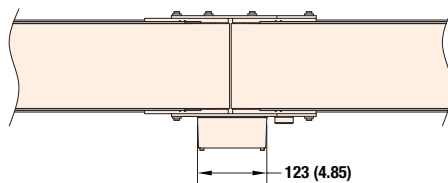
- Link multiple conveyors with 1 drive
- Adjustable angle from 0° to 25°
- Variety of timing belt ratios available
  - 1:1, 1.27:1, 1.75:1, 2:1 can be used to speed or slow down the conveyor
- Maximum number of conveyors = 3
- Pull or close gaps between product
- Change belt types on each conveyor
- Includes tie plates, pulley kit, tension adjustment and guard
- Utilize low, high friction belts, and/or multiple speeds in a single configuration
- Can not be used with cleated belt applications



### STANDARD FEATURE: Slave Drive Kit

Includes tie plates for both sides of conveyor and timing belt / pulleys and guard

Part Number	Drive Teeth	Driven Teeth	Infeed Conveyor Speed Condition
202363-1632	16	32	2X Speed Up
202363-1628	16	28	1.75X Speed Up
202363-2228	22	28	1.27X Speed Up
202363-2222	22	22	Same Speed
202363-2822	28	22	0.78X Slow Down
202363-2816	28	16	0.57X Slow Down
202363-3216	32	16	2X Slow Down



Dim = mm (in)

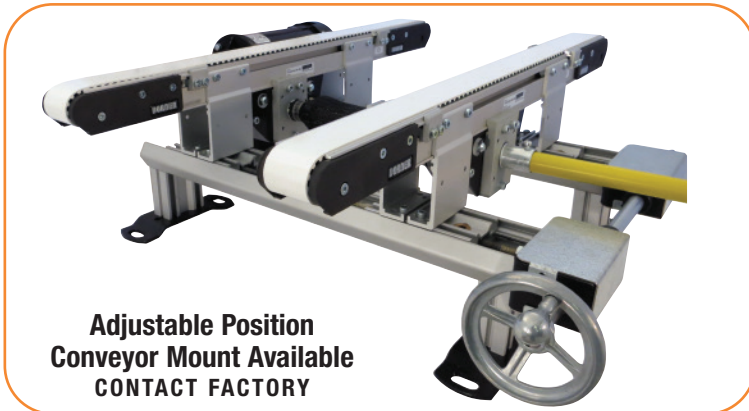
Due to the wide variety of drive set-ups and applications, point of installation guarding is the responsibility of the end user.



**Mid Drive Gang Driven Conveyors**

**Specifications**

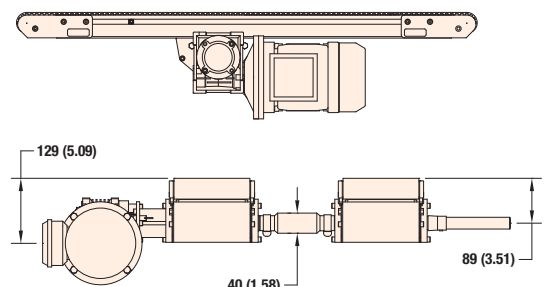
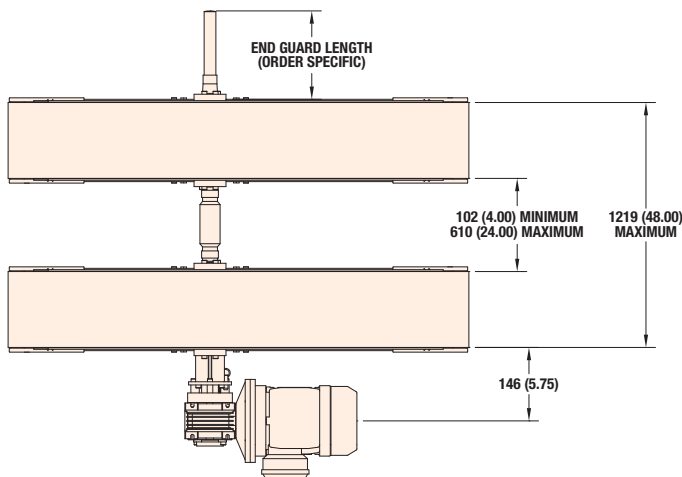
- Adjustable for various product widths
- Drive moveable between tails
- Frees up ends of conveyor
- Conveyor center distances can be moved while conveyor is running
- Minimum width (x) = 101 mm belt to belt (with std. guarding)
- Minimum width (x) = 45 mm belt to belt without guarding (end user responsible for point of installation guarding)
- Maximum width (y) = 1,219 mm belt to belt
- Maximum total torque = 9 Nm
- Compatible with side mount gearmotor package
- Requires 13 mm (0.50 in) diameter 16 tooth spline drive shaft



**Gang Driven Side Mount Package**

**Specifications**

- Compatible with all standard load and heavy load 90° gearmotors
- Conveyor position is adjustable along length of spline drive shaft
- Includes shafts, couplings, and expandable shaft guarding
- Mount package is attached to the first conveyor
- Maximum number of conveyors = 3
- Maximum total torque = 9 Nm



**Refer to page 45 for belt speed options.**  
 Due to the wide variety of drive set-ups and applications, point of installation guarding is the responsibility of the end user.

Dim = mm (in)



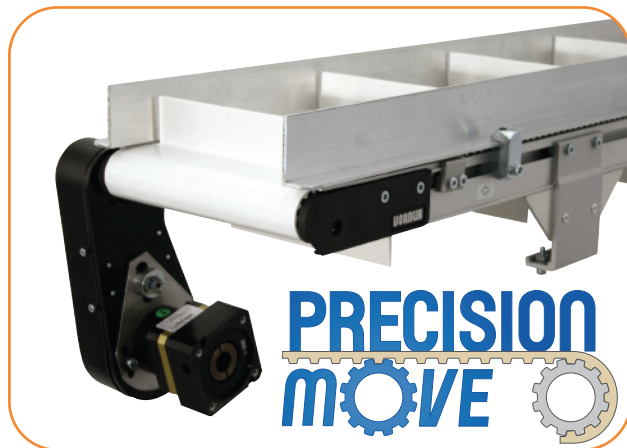
## Precision Move Servo Bottom and Flush Mount Package Specifications

- Capable of standard bottom mount position and flush mount for wide product handling
- Includes rack and pinion timing belt tension system allowing reversing capability
- Includes high strength timing belt drive pulleys

### Servo Gearmotor or Reducer Only

Description	Part Number	Gearmotor Pulley	Conveyor Pulley
Bottom Mount	202436-A*	36 tooth	32 tooth
Flush Mount	202437-A*	36 tooth	21 tooth

\*A = Mount position (A, B, C, D)



## Precision Move Servo Gearhead Only Specifications

### Specifications

- Offered as mount package and gearhead only
- Inline planetary reducer
- 3:1, 4:1, 5:1, 7:1, and 10:1 ratios available
- 93% efficient
- 13 arc-minute backlash
- 20,000 hr rated
- RoHS compliant

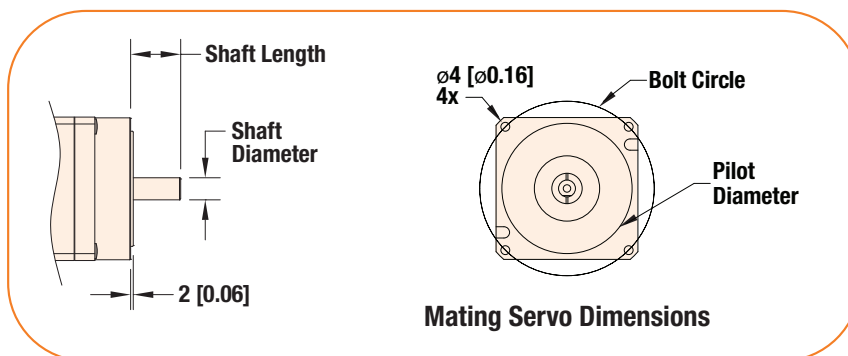
## Gear Reducer for Customer Specified Motor

### Generalized Sizes

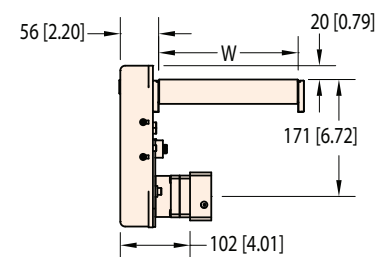
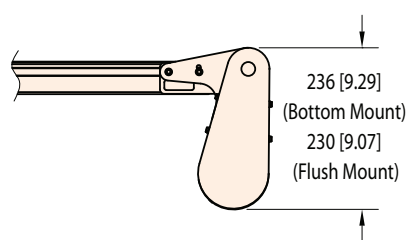
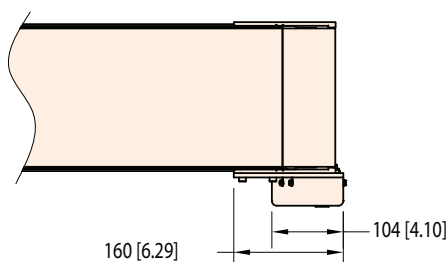
Shaft Diameter		Shaft Length		Bolt Circle		Pilot Diameter
Min	Max	Min	Max	Min	Max	Max
0.24 (6)	0.55 (14)	0.67 (17)	1.54 (39)	2.36 (60)	4.13 (105)	3.15 (80)

Dim = mm (in)

**NOTE:** These are generalized guidelines for mating adapters. Consult DTools or customer service to identify proper adapter for given motor.

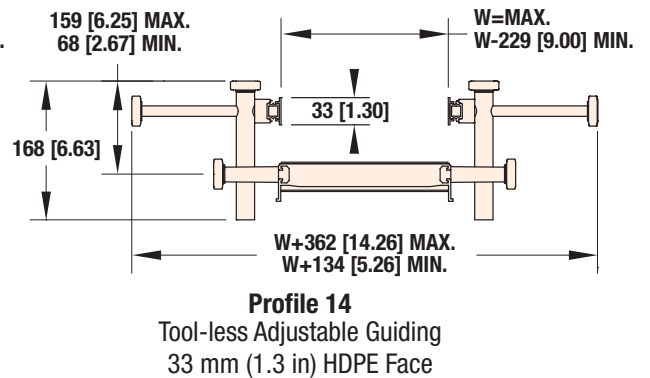
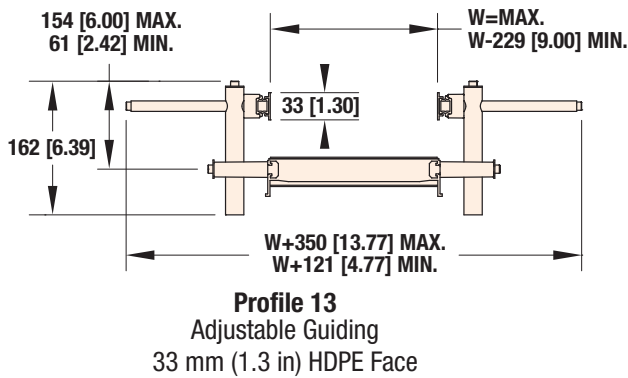
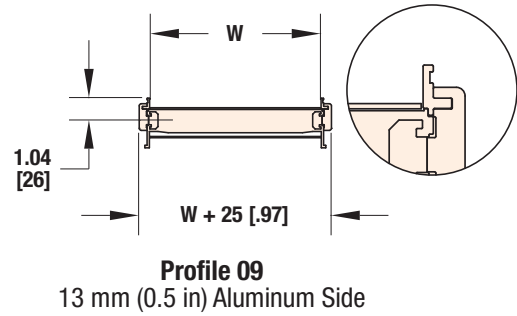
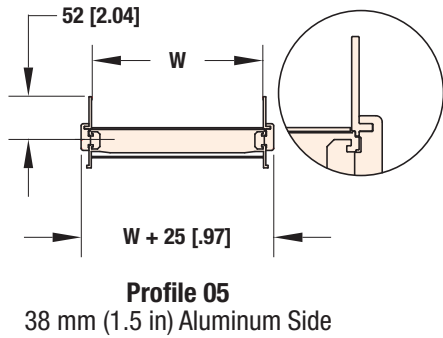
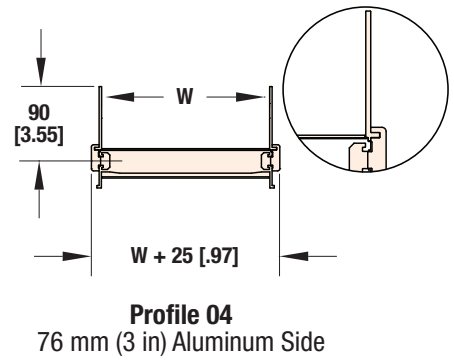
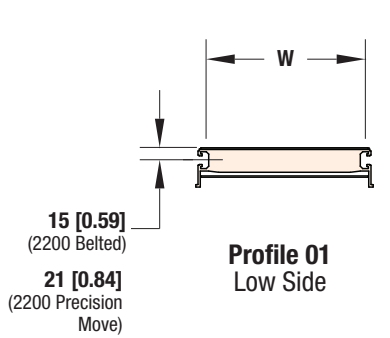


Mating Servo Dimensions



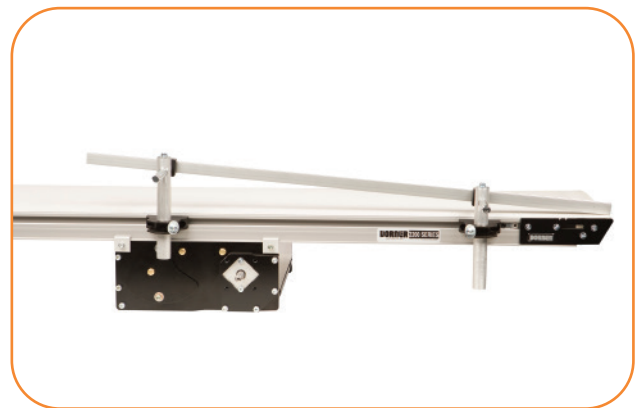
Dim = mm (in)

Due to the wide variety of drive set-ups and applications, point of installation guarding is the responsibility of the end user.



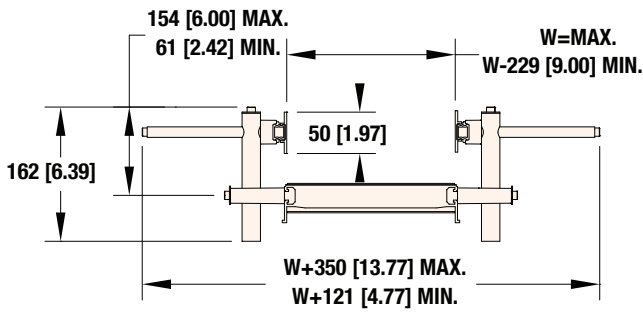
\* = Not available on Gravity Roller Conveyors and do not use with high friction belts

W = Conveyor Belt Width    Dim = mm (in)

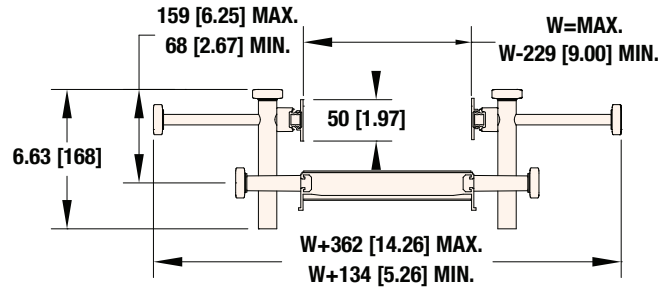


**Profile 13 Flat Belt - Adjustable Guiding**

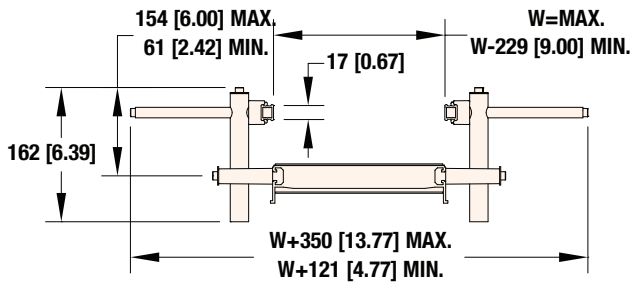
Due to the wide variety of drive set-ups and applications, point of installation guarding is the responsibility of the end user.



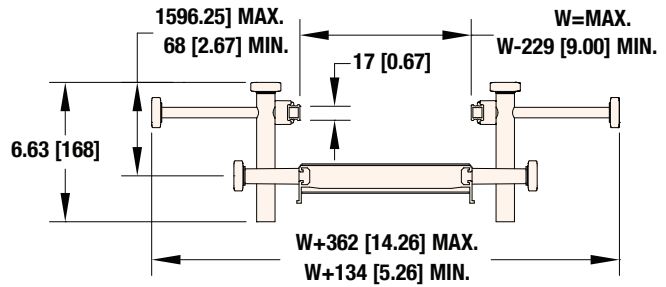
**Profile 33**  
Adjustable Guiding  
50 mm (2 in) HDPE Face



**Profile 34**  
Tool-less Adjustable Guiding  
50 mm (2 in) HDPE Face



**Profile 43**  
Adjustable Guiding  
Aluminum Face

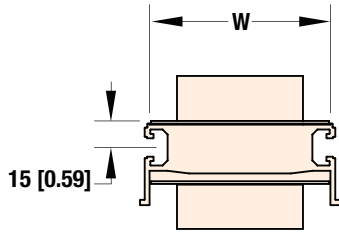


**Profile 44**  
Tool-less Adjustable Guiding  
Aluminum Face

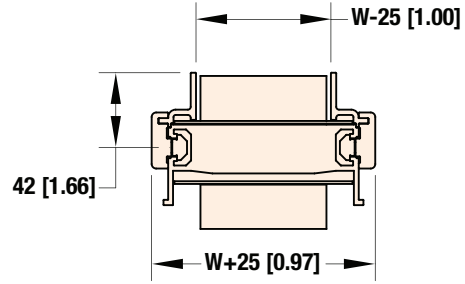
W = Conveyor Belt Width    Dim = mm (in)

*Due to the wide variety of drive set-ups and applications, point of installation guarding is the responsibility of the end user.*

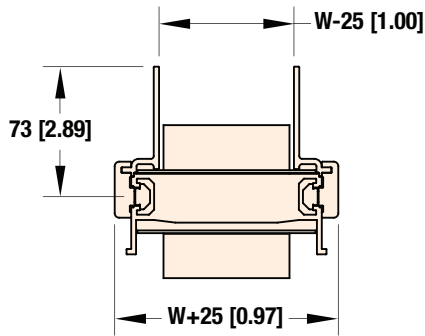




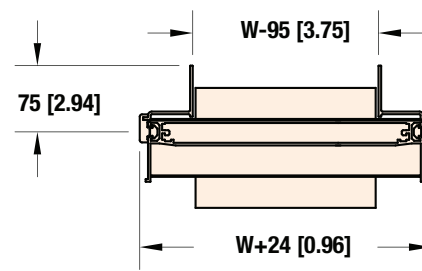
**Cleated Profile 0**  
Low Side Cleated



**Cleated Profile 2**  
25 mm (1 in) Aluminum Side



**Cleated Profile 3**  
64 mm (2.5 in) Aluminum Side



**Cleated LPZ Profile 3**  
64 mm (2.5 in) Aluminum Side

W = Conveyor Belt Width    Dim = mm (in)

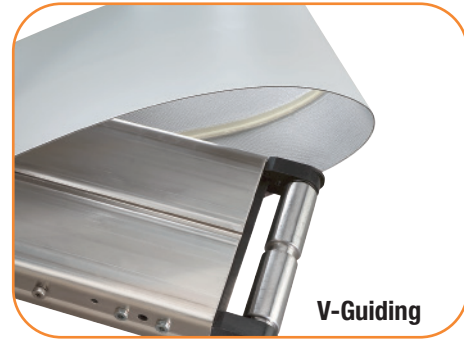


**Profile 04 Flat Belt - Aluminum Side**



**Profile 3 Cleated LPZ - Aluminum Side**

*Due to the wide variety of drive set-ups and applications, point of installation guarding is the responsibility of the end user.*



## Standard Belt Selection Guide

Standard belt material is stocked at Dorner, then cut & spliced at the factory for fast conveyor shipment.

Belt Type - Finger Splice	Belt Type - Plastic Clipper	Belt Type - Metal Clipper	Belt Specifications	V-Guidable	16 mm Nose Bar	Belt Thickness	Surface Material	Maximum Part Temperature	Coefficient of Friction	FDA Approved	Anti-Static	Static Conductive	Chemical Resistance	Special Characteristics or Applications
01	A1	1A	FDA Accumulation	x		1.7 mm	Urethane	100°C	Low	x	x		Good	Packaging, clean room and inspection
02	A2	2A	General Purpose	x		1.8 mm	Urethane	100°C	Med	x	x		Good	Most versatile belt offering
03	A3	3A	FDA High Friction	x		1.7 mm	Urethane	100°C	High	x	x		Good	Packaging, clean room and inspection
05	A5	5A	Accumulation	x	x	1.2 mm	Urethane	100°C	V-Low	x	x		Good	Accumulation of products
06	A6	6A	Electrically Conductive	x		1.6 mm	Urethane	80°C	V-Low		x	x	Good	Electronics Handling
08	A8	8A	High Friction	x		2.1 mm	PVC	70°C	V-High		x		Poor	Conveys up to 35° inclines*
09			iDrive General Purpose	x	x	1.5 mm	Urethane	100°C	High	x			Good	Lower No Load Torque

**Note:** See below for splice details. Plastic Clipper splice requires longer lead times. Clipper splice not available on Z-Frame Series Conveyors.

**Note:** Belts with V-Guiding may have a slight high spot or rib on the top surface. This rib would run longitudinally along the center of the belt. Consult factory with applications for which this may cause interference.

\*Incline varies due to factors like dust, fluids and part material.

## BELT SPLICING



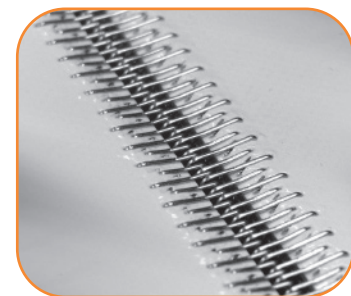
### Finger Splice

All belts are available with a standard Thermoformed finger splice. This splice makes the belt continuous and is virtually undetectable. Splice bonding methods vary by belt type. Consult factory for details.



### Plastic Clipper\*\*

An optional plastic clipper splice is available for quick removal of belts or when conveyors are installed in tight spaces.



### Metal Clipper\*\*

An optional metal clipper splice is also available for quick removal of belts or when conveyors are installed in tight spaces.

\*\* See belt charts for compatibility. Not for use with 2200 Series Nose Bar Transfers. Plastic and Metal Clippers are slightly thicker than base belt. Contact factory for details.



Specialty Belt Selection Guide

Specialty belt material is not stocked at Dorner and needs to be custom ordered for your special conveyor needs.

Belt Type - Finger Splice	Belt Type - Plastic Clipper	Belt Type - Metal Clipper	Belt Specifications	V-Guideable	16 mm Nose Bar	Belt Thickness	Surface Material	Maximum Part Temperature	Coefficient of Friction	FDA Approved	Anti-Static	Static Conductive	Chemical Resistance	Special Characteristics or Applications
19			Nose bar High friction		x	0.7 mm	Urethane	100°C	High	x	x		Good	Nose bar, high friction
50			Heat Resistant			1.3 mm	Silicone	180°C	Low		x		V-Good	High temperature
53			Translucent		x	0.5 mm	Urethane	100°C	V-Low	x			Good	Back lit inspection
54	F4	4F	FDA Sealed Edge**	x		1.6 mm	Urethane	80°C	Low	x	x		Good	Packaging, clean room and inspection
55	F5	5F	FDA Sealed Edge**	x		1.6 mm	Urethane	80°C	High	x	x		Good	Packaging, clean room and inspection
56		6F	Cut Resistant	x		2.1 mm	Urethane	100°C	Med.		x		Good	Oily product release, metal stamping
57		7F	Cut Resistant	x		2.5 mm	Nitrile	80°C	Med.		x		Poor	Felt-like, dry metal stamping, glass and ceramic
58		8F	Cut Resistant	x		1.6 mm	Urethane	90°C	Low		x		Good	Surface gold colored
59	F9	9F	Color Contrasting	x		1.6 mm	PVC	70°C	Med.		x		Poor	Black colored, hides overspray from ink jet
60	G0	0G	Color Contrasting	x	x	1.3 mm	Urethane	100°C	Low	x	x		Good	Green colored
61	G1	1G	Color Contrasting	x	x	1.3 mm	Urethane	100°C	Low	x			Good	Blue colored
63		3G	Electrically Conductive	x		1.2 mm	Urethane	80°C	Low		x	x	Good	Static conductive, electronics handling
64		4G	High Friction	x		4.4 mm	PVC	80°C	V-High		x		Poor	Dark Green colored, rough top surface, product cushioning, incline/decline apps
66		6G	Chemical Resistant	x		1.7 mm	Polyester	100°C	Med.	x	x		V-Good	Good cut resistance, metal stamping apps
67			Low Friction Cleated (Do not use with Z-Frame)	x		1.6 mm	Polyester	100°C	n/a	x			Good	Excellent product release, consult factory for part number and how to specify low friction
68	G8		FDA Encased**	x		1.5 mm	Urethane	80°C	Low	x	x		Good	Urethane enclosed for added sanitary protection
69	G9		FDA Encased**	x		2.2 mm	Urethane	80°C	Med.	x	x		Good	Urethane enclosed for added sanitary protection
71			FDA High Release	x		1.8 mm	Urethane	100°C	Low	x			Good	High release cover
72			Nose bar	x	x	1.2 mm	Urethane	100°C	Med.	x	x		Good	16 mm Nose bar, medium friction
73			Nose bar Low friction		x	0.9 mm	Urethane	100°C	Low	x	x		Good	Nose bar, low friction
75			Black Urethane	x		1.5 mm	Urethane	80°C	Low		x		Good	
76			Black Nose bar	x	x	1.2 mm	Urethane	80°C	Med.		x		Good	Black Color, 5/16" nose bar
77			High Friction, green	x		2.2 mm	Urethane	100°C	High		x		Good	Green color, high friction, urethane, grooved
78			Chemical, Polyolefin, HF			1.4 mm	Polyolefin	60°C	High	x			V-Good	Chemical resistant, food grade
79			Chemical, Polyolefin, LF			1.3 mm	Polyolefin	60°C	Med.	x	x		V-Good	Chemical resistant, food grade
80			High Friction, silicone	x	x	1 mm	Silicone	80°C	High	x			Good	Silicone material, high friction
81			Low Friction, silicone	x	x	1 mm	Silicone	100°C	Med.	x			Good	Silicone material, low to medium friction

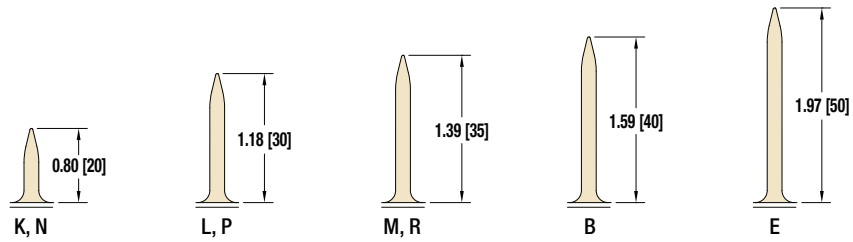
Note: Clipper Splices not available on Z-Frame Series Conveyors.

Note: Conveyors wider than 1,016 mm require V-Guide belt tracking

Note: Belts with V-Guiding may have a slight high spot or rib on the top surface. This rib would run longitudinally along the center of the belt. Consult factory with applications for which this may cause interference.

\*\* Not available in 51 mm widths

## Cleated Belt Profiles



## Cleated Belt Selection Guide

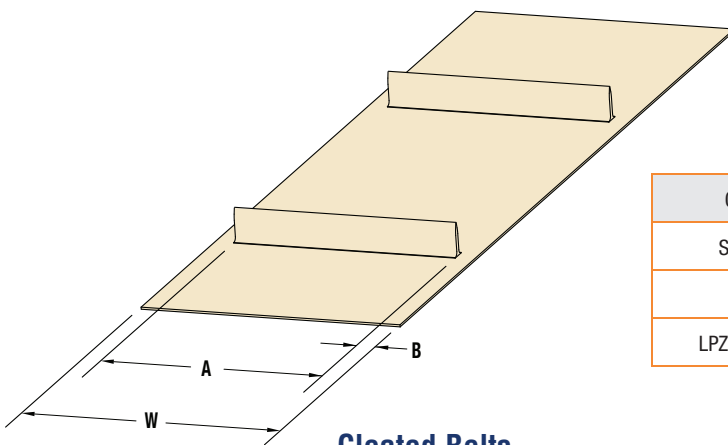
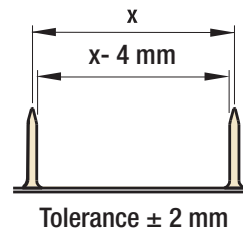
Cleat Type	Base Belt	Belt Thickness	Surface Material	Color	Coefficient of Friction	V-Guidable	Maximum Part Temperature	FDA Approved	Chemical Resistance
K, L, B, E	G-3-ST	2 mm	PVC	Green	Medium	No	80° C	No	Poor
K, L, M, B, E, N, P, R	G-3-ST-W	1.3 mm	Urethane	White	Medium	Yes	90° C	Yes	Good

Note: For Straight Cleated Conveyors = 20, 30, 35 mm  
 For LPZ Cleated Conveyors = 20, 30, 35, 40, 50 mm  
 For LPZ Sidewall Cleated Conveyors = 20, 30, 35 mm

## Cleated Belt Spacing

- Minimum cleat spacing = 50 mm  
 Cleat Selection could impact the minimum spacing.  
 Contact the factory for details.

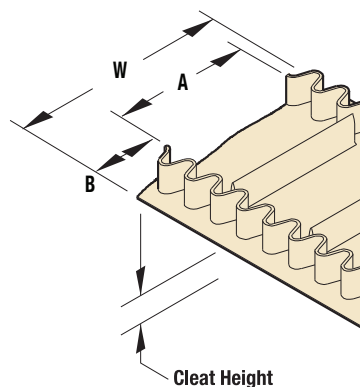
\*Maximum cleat spacing for 457 mm and wider conveyors = 500 mm  
 \*\*Maximum cleat spacing for 2134 mm and longer conveyors = 500 mm  
 457 mm and wider conveyors are limited to 2100 mm long



**Cleated Belts**

Conveyor Type	Cleat/Pocket Width (A)	Offset (B)
Straight Cleated	W-40 mm	20 mm
LPZ Cleated	W-102 mm	51 mm
LPZ Sidewall Cleated	W-190 mm	80 mm

W = Width  
 A = Cleat Width  
 B = Offset



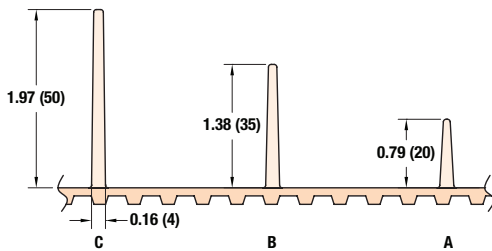
**Sidewall Cleated Belts**

Precision Move Belting

Precision Move Belt Selection Guide

Part Number Reference	Belt Specifications	Tooth Pitch	Thickness	Material	Top Surface	Color	Maximum Part Temperature	Coefficient of Friction	Durometer	FDA Approved	Chemical Resistance	Max Width
1P	Low Friction	10 mm	4.5 mm	Urethane with nylon top	Carcass	Green	91° C	V-Low	N/A		Good	610 mm
3P	High Friction	10 mm	4.5 mm	Urethane	Smooth	White	91° C	High	85A	x	Good	610 mm
2T	High Strength	10 mm	4.6 mm	Urethane with Kevlar cords	Smooth	Natural	71° C	Med	88A		Good	152 mm

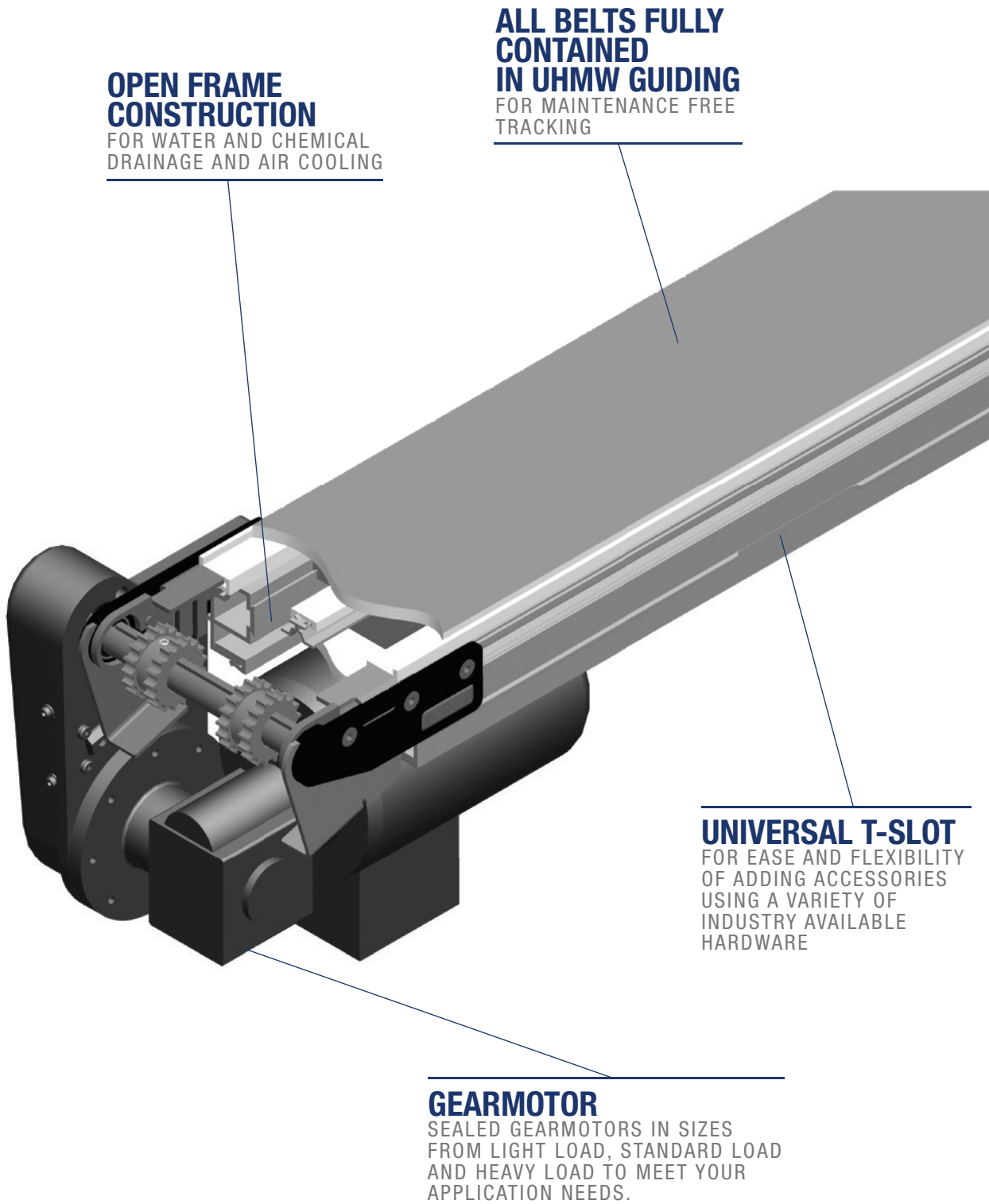
Precision Move Cleat Profiles

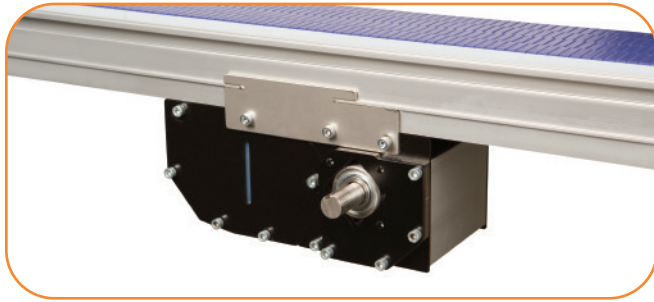


Specifications

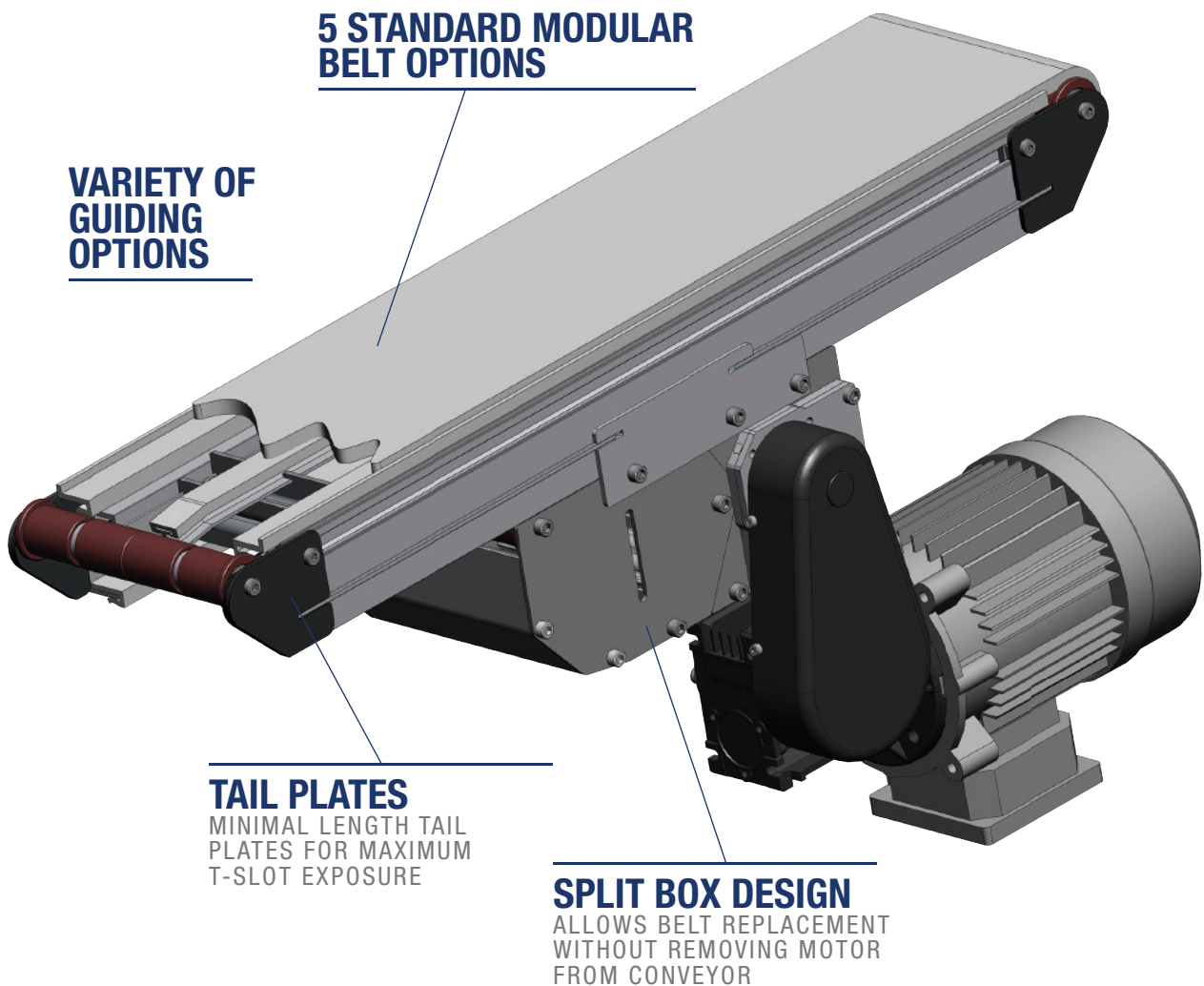
- Base Belt Material: Belt 3P, 4.5 mm thick, high friction FDA approved urethane, 91° C maximum part temperature
- Cleat spacing in 10 mm increments
- Cleats are centered over tooth
- Minimum cleat spacing is approximately 50 mm

**NOTE:** 2200 Precision Move cleated widths 457 mm and over will have a 20.5 mm gap in the cleats and use a return assembly that has a center support bearing.





**CENTER DRIVE OPTION**  
FREES UP SPACE ON BOTH  
ENDS OF THE CONVEYOR



**5 STANDARD MODULAR  
BELT OPTIONS**

**VARIETY OF  
GUIDING  
OPTIONS**

**TAIL PLATES**  
MINIMAL LENGTH TAIL  
PLATES FOR MAXIMUM  
T-SLOT EXPOSURE

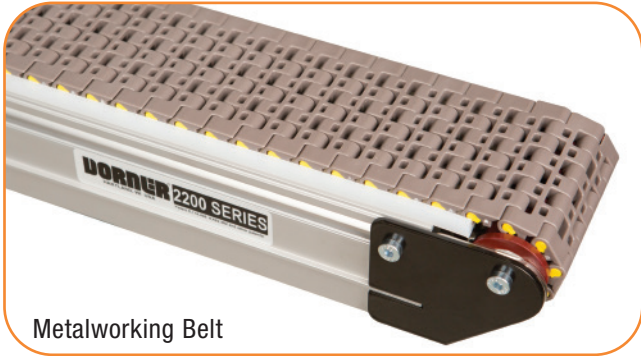
**SPLIT BOX DESIGN**  
ALLOWS BELT REPLACEMENT  
WITHOUT REMOVING MOTOR  
FROM CONVEYOR



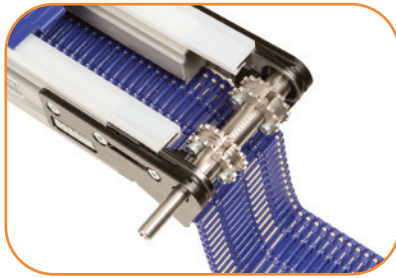
**8 MM NOSEBAR TAIL OPTION**  
FOR SMALL PART TRANSFERS



Micropitch Belt



Metalworking Belt



**STANDARD FEATURE: OPEN FRAME DESIGN**  
for water and chemical drainage and air cooling



**OPTIONAL: 8 mm Nose Bar Transfer**  
Belt Speed up to 53.3 m/min (Micropitch Modular Belt only)

## Specifications

- Loads up to 68 kg\*
- Belt speeds up to 76 m/min
- Belt widths: 76 mm to 610 mm\*\*
- Conveyor lengths: 457 mm to 9,144 mm
- Belt options:
  - Micropitch (General Purpose) Belts
    - 8 mm micropitch modular belt
    - 43.2 mm pitch diameter 17 tooth drive pulley turns approximately 136 mm of belt per revolution
  - Metalworking Belts
    - 15 mm pitch modular belt
    - 47.8 mm pitch diameter 10 tooth drive pulley turns approximately 150 mm of belt per revolution
- 12 mm diameter integral drive shaft
- Fully encapsulated in frame belt return

**2200 Series Modular Belt End Drive Conveyor**

22 MT E M W W - L L L L 1 1 A P P P B B - X T<sup>1</sup> T<sup>2</sup> T<sup>3</sup> T<sup>4</sup>

- Conveyor Tail Options X (if required) \*See Drive Shaft Position Chart on next page  
 A = Drive Shaft (T<sup>1</sup> only) D = Drive Shaft (T<sup>2</sup> only)  
 O = No Shaft K = Keyed Auxiliary Shaft (T<sup>1</sup> and T<sup>2</sup> only)  
 S = Stub Shaft (T<sup>1</sup> and T<sup>2</sup> only)

- Belt Type  
 - Profile (D side)  
 - Profile (A side)

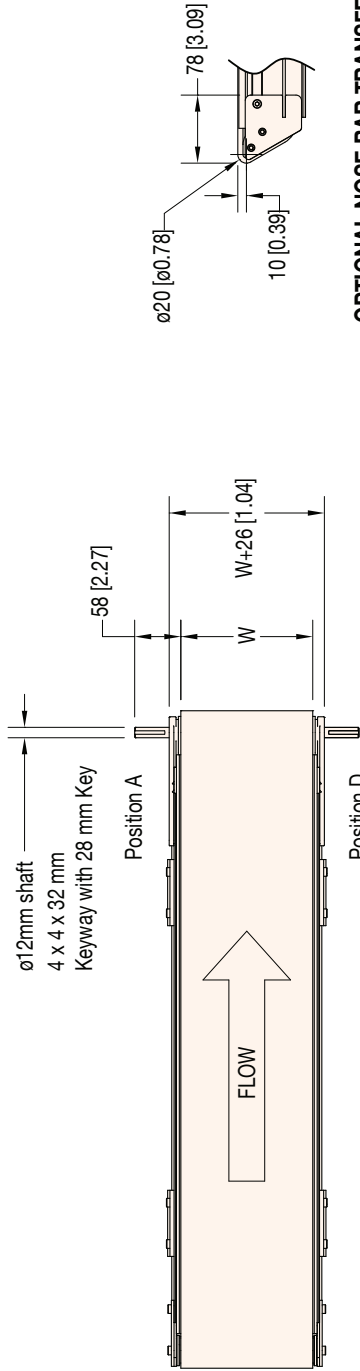
- Flow/Drive Shaft Position: A or D  
 - Infeed Tail Code: 0 = Standard idler, 1 = Nose Bar  
 - Mounting Bracket Options: 1 = Conveyor to include mounting brackets, 3 = Conveyor not to include mounting brackets  
 - Conveyor Length Reference: L.L.L.L in feet  
 - Conveyor Width Reference

- Documentation Language: U = Europe English, D = German, F = French, S = Spanish

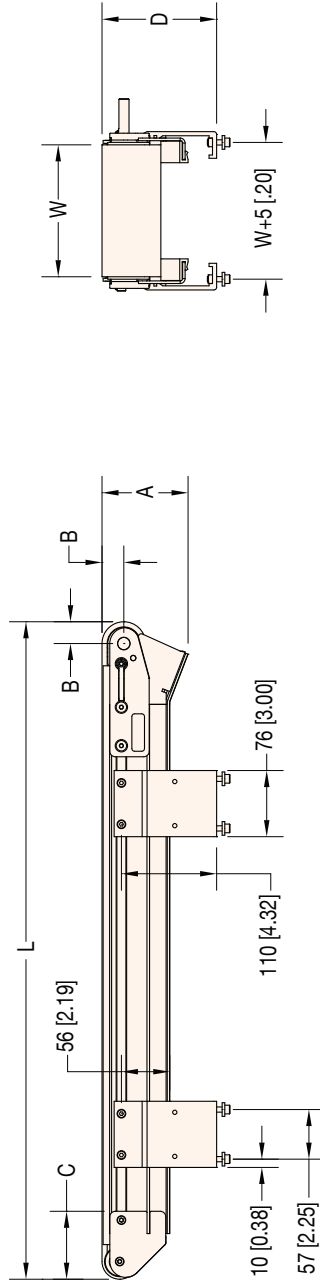
\* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.  
 \*\* Belt selection limits width options

Order gearmotor mounting packages and gearmotors separately, see pages 40-50  
 For support stands and accessories, see page 54-62





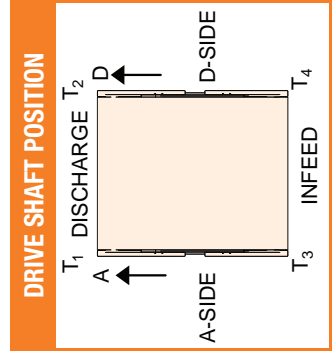
OPTIONAL NOSE BAR TRANSFER

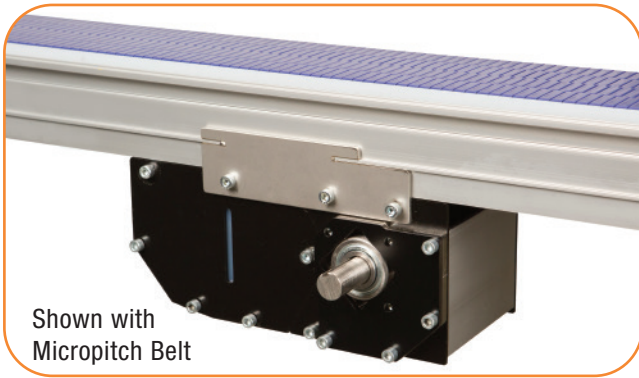


- A=99 [3.90] FOR MICROPITCH BELT
- 102 [4.00] FOR METALWORKING BELT
- B=25 [.99] FOR MICROPITCH BELT
- 28 [1.09] FOR METALWORKING BELT
- C=78 [3.08] FOR MICROPITCH BELT
- 81 [3.18] FOR METALWORKING BELT
- D=132 [5.20] FOR MICROPITCH BELT
- 135 [5.32] FOR METALWORKING BELT

W = Conveyor Belt Width Dim = mm (in)

Standard Micropitch Sizes						
Conveyor Width Reference	04	06	08	12	18	24
Conveyor Belt Width (W)	102 mm	152 mm	203 mm	305 mm	457 mm	610 mm
Conveyor Length Reference	0150	0001 increments up to...				3000
Conveyor Length (L)	457 mm	0.1" (3mm) increments up to...				9144 mm
Standard Metalworking Sizes						
Conveyor Width Reference	03	06	09	12	18	24
Conveyor Belt Width (W)	76 mm	152 mm	229 mm	305 mm	457 mm	610 mm
Conveyor Length Reference	0150	0001 increments up to...				3000
Conveyor Length (L)	457 mm	3 mm increments up to...				9144 mm





Shown with  
Micropitch Belt

## Specifications

- Loads up to 68 kg\*
- Belt speeds up to 76 m/min
- Belt widths: 76 mm to 610 mm\*\*
- Conveyor lengths: 813 mm to 9,144 mm
- Belt options:
  - Micropitch (General Purpose) Belts
    - 8 mm micropitch modular belt
    - 43.2 mm pitch diameter 17 tooth drive pulley turns approximately 136 mm of belt per revolution
  - Metalworking Belts
    - 15 mm pitch modular belt
    - 47.8 mm pitch diameter 10 tooth drive pulley turns approximately 150 mm of belt per revolution
- 0.75 inch diameter integral drive shaft
- Fully encapsulated in frame belt return



### STANDARD FEATURE: OPEN FRAME DESIGN

for water and chemical drainage  
and air cooling



### OPTIONAL: 8 mm Nose Bar Transfer

Belt Speed up to 53.3 m/min  
(Micropitch Modular Belt only)

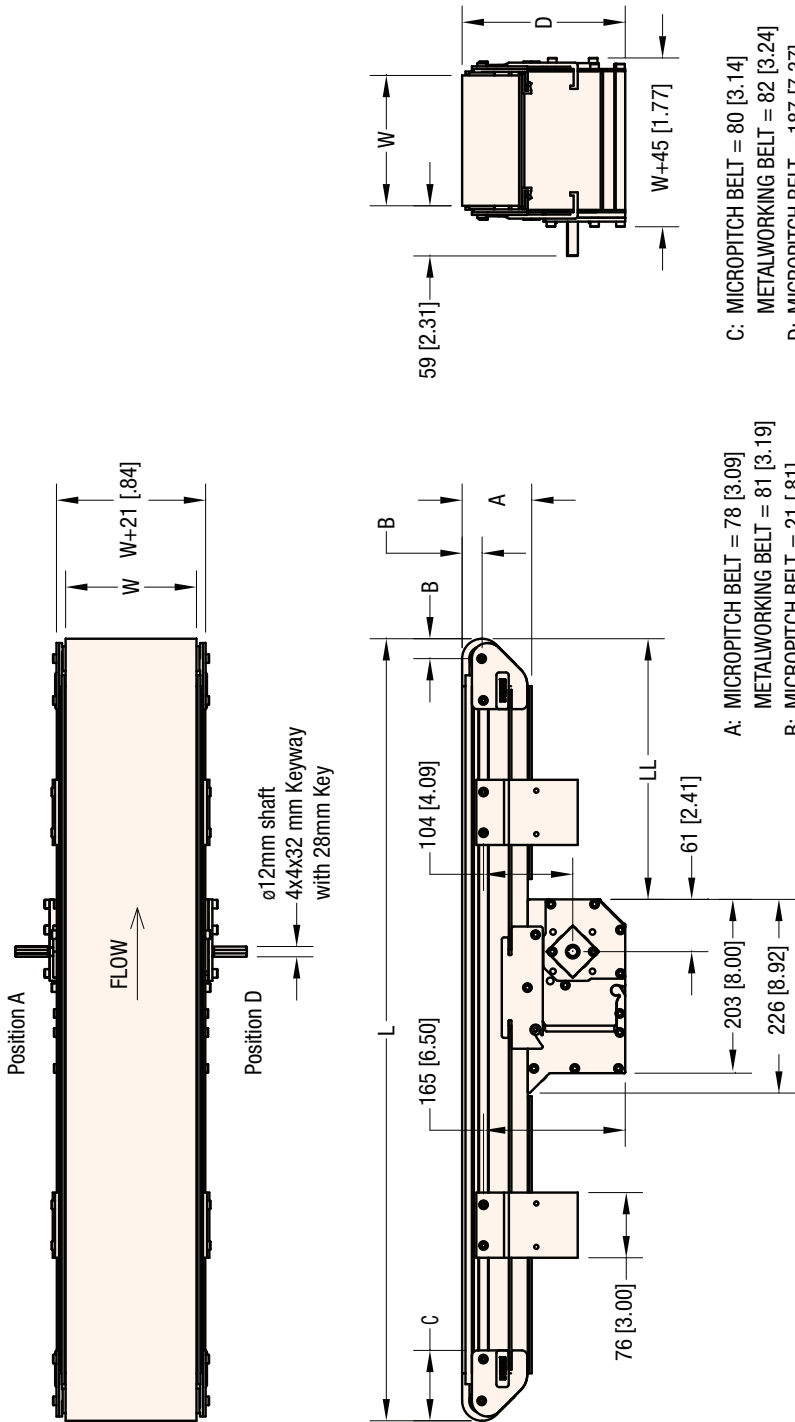
#### 2200 Series Modular Belt Center Drive Conveyor

22	MT	D	M	WW	-	LLLL	1	1	1	A	PP	PP	BB	-	LL
															Length from Discharge End to Drive Module (LL in inches)
															Belt Type
															Profile (D side)
															Profile (A side)
															Drive Shaft Position: A or D
															Infeed Tail Code: 0 = Standard idler, 1 = Nose Bar
															Discharge Tail Code: 0 = Standard idler, 1 = Nose Bar
															Mounting Bracket Options: 1 = Conveyor to include mounting brackets, 3 = Conveyor not to include mounting brackets
															Conveyor Length Reference: L.L.L.L in feet
															Conveyor Width Reference
															Documentation Language: U = Europe English, D = German, F = French, S = Spanish

\* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.

\*\* Belt selection limits width options

Order gearmotor mounting packages and gearmotors separately, see pages 40-50  
For support stands and accessories, see page 54-62



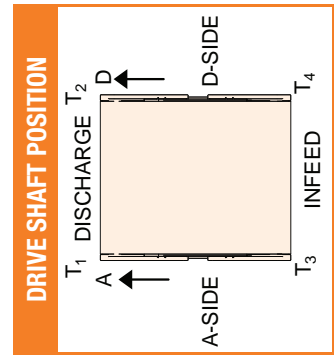
- C: MICROPITCH BELT = 80 [3.14]  
METALWORKING BELT = 82 [3.24]
- D: MICROPITCH BELT = 187 [7.37]  
METALWORKING BELT = 190 [7.48]

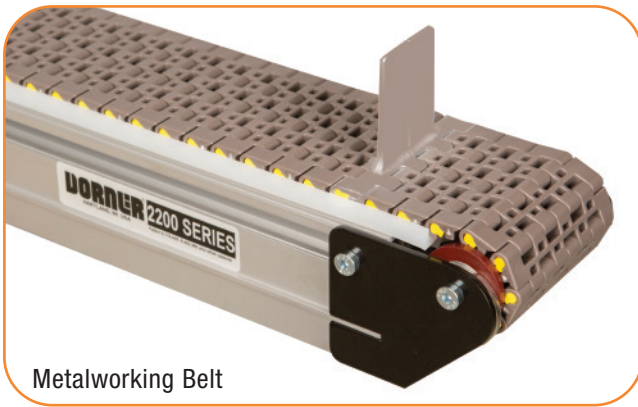
- A: MICROPITCH BELT = 78 [3.09]  
METALWORKING BELT = 81 [3.19]
- B: MICROPITCH BELT = 21 [.81]  
METALWORKING BELT = 23 [.92]

LL (Min = 10, MAX = 60) W = Conveyor Belt Width Dim = mm (in)

Standard Micropitch Sizes						
Conveyor Width Reference	04	06	08	12	18	24
Conveyor Belt Width (W)	102 mm	152 mm	203 mm	305 mm	457 mm	610 mm
Conveyor Length Reference	0150	0001 increments up to...		3000		
Conveyor Length (L)	457 mm	3 mm increments up to...		9144 mm		

Standard Metalworking Sizes						
Conveyor Width Reference	03	06	09	12	18	24
Conveyor Belt Width (W)	76 mm	152 mm	229 mm	305 mm	457 mm	610 mm
Conveyor Length Reference	0267	0001 increments up to...		3000		
Conveyor Length (L)	813 mm	3 mm increments up to...		9144 mm		

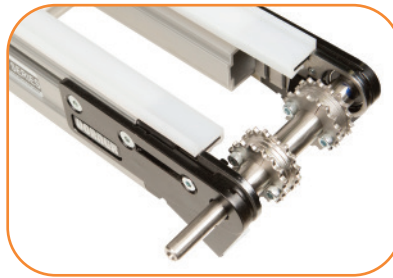




Metalworking Belt

## Specifications

- Loads up to 68 kg\*
- Belt speeds up to 76 m/min
- Belt widths: 76 mm to 610 mm\*\*
- Conveyor lengths: 457 mm to 9,144 mm
- Belt options:
  - Metalworking Belt
    - 47.8 mm pitch diameter 10 tooth drive pulley turns approximately 150 mm of belt per revolution
- 12 mm diameter integral drive shaft
- Fully encapsulate in frame belt return



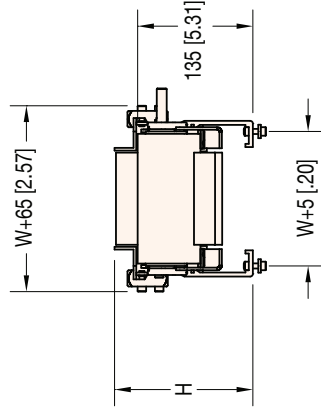
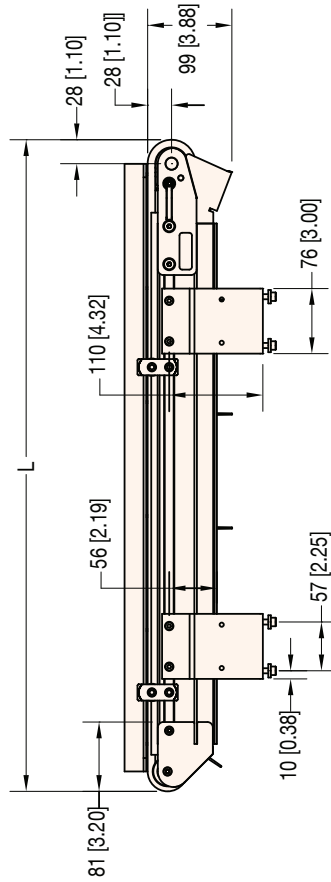
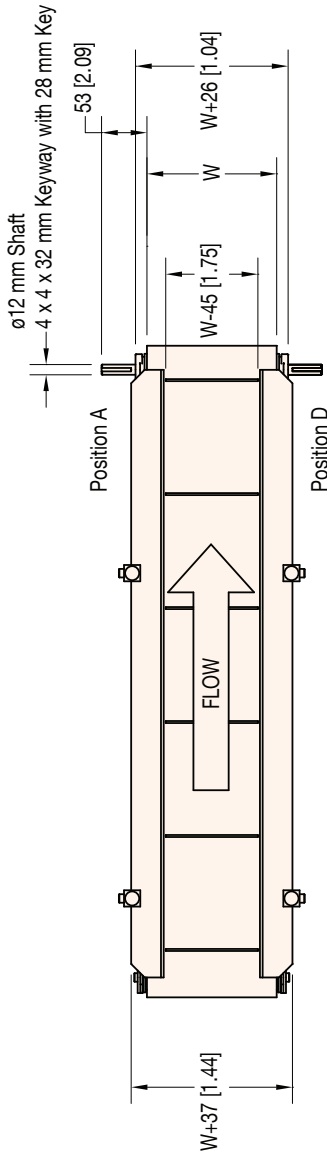
## STANDARD FEATURE: OPEN FRAME DESIGN

for water and chemical drainage  
and air cooling

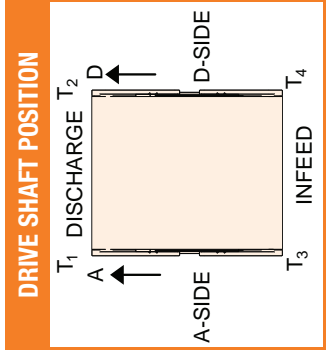
2200 Series Modular Cleated Belt Conveyor																		
22	MT	C	M	WW	-	LLLL	1	A	P	A	BB	SSSS	-	X	T <sup>1</sup>	T <sup>2</sup>	T <sup>3</sup>	T <sup>4</sup>
														Conveyor Tail Options X (if required) *See Drive Shaft Position Chart on next page				
														A = Drive Shaft (T <sup>1</sup> only)		C = Drive Shaft (T <sup>2</sup> only)		
														O = No Shaft		K = Keyed Auxiliary Shaft		
														S = Stub Shaft		M = Mag Location (T <sup>3</sup> or T <sup>4</sup> only)		
														Cleat Spacing: SS.SS in inches				
														Belt Type				
														Cleat Height				
														Profile: 0 = Low Side, 2 = 1" Cleated, 3 = 2" Cleated				
														Flow/Drive Shaft Position: A or D				
														Mounting Bracket Options: 1 = Conveyor to include mounting brackets, 3 = Conveyor not to include mounting brackets				
														Conveyor Length Reference: LLLL in feet				
														Conveyor Width Reference				
														Documentation Language: U = Europe English, D = German, F = French, S = Spanish				

\* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.  
\*\* Belt selection limits width options

Order gearmotor mounting packages and gearmotors separately, see pages 40-50  
For support stands and accessories, see page 54-62

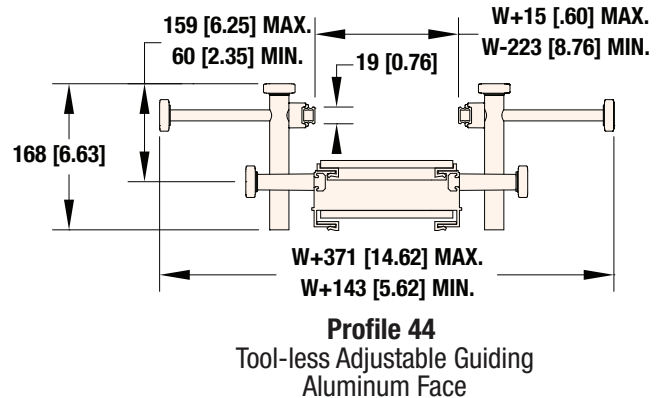
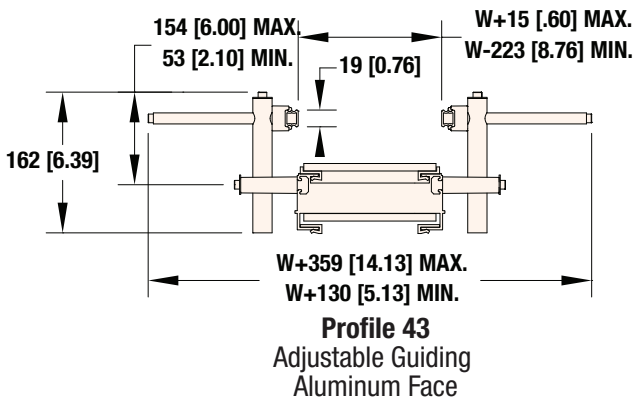
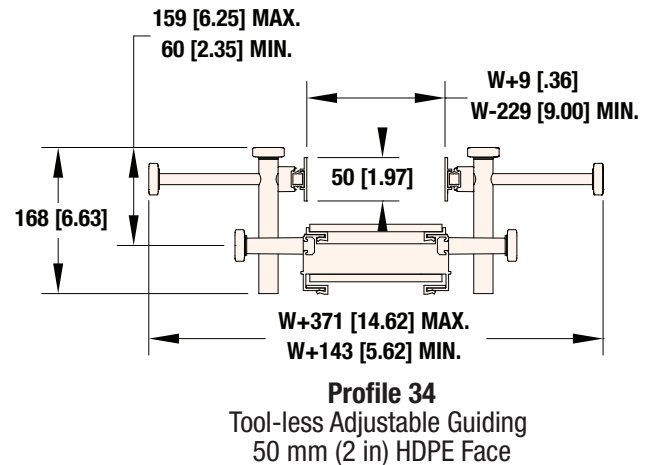
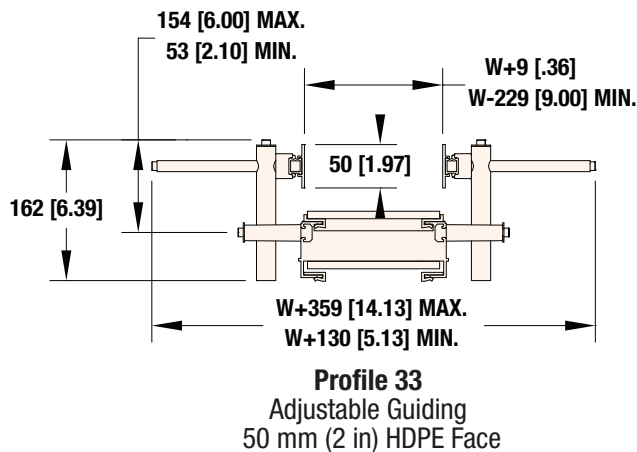
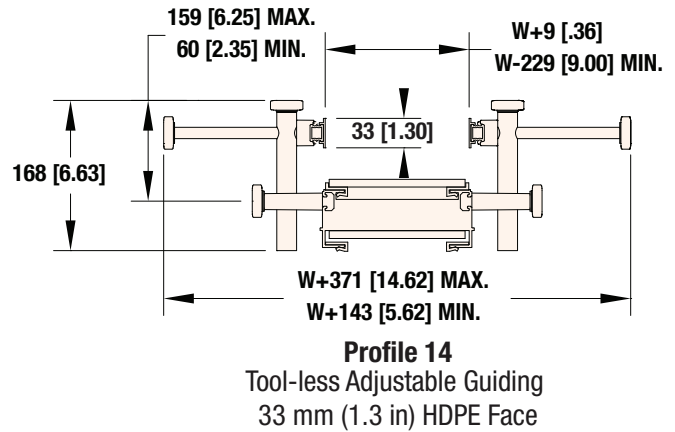
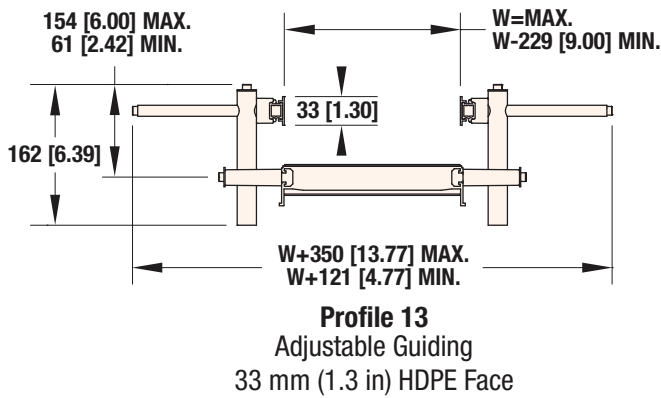
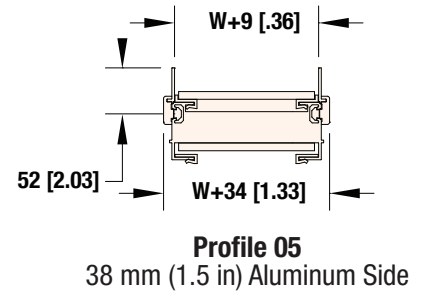
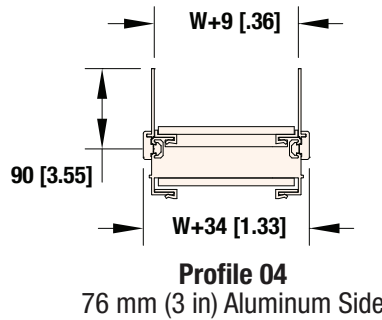
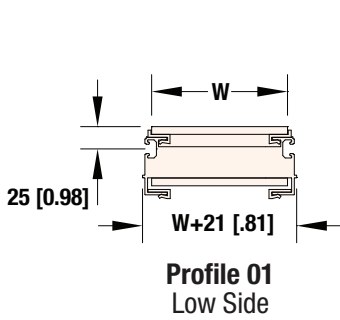


H=162 [6.38] FOR 25 mm [1 in] TALL CLEATED PROFILE  
 H=188 [7.38] FOR 50 mm [2 in] TALL CLEATED PROFILE



$W$  = Conveyor Belt Width **Dim = mm (in)**

Standard Metalworking Sizes					
Conveyor Width Reference	03	06	09	12	24
Conveyor Belt Width (W)	76 mm	152 mm	229 mm	305 mm	610 mm
Conveyor Length Reference	0150	0001 increments up to...			
Conveyor Length (L)	457 mm	3 mm increments up to...			



W = Conveyor Belt Width    Dim = mm (in)

Due to the wide variety of drive set-ups and applications, point of installation guarding is the responsibility of the end user.

Standard Modular Belt Selection Guide

Belt Type	Description	Percent Open	Tooth Pitch	Thickness	Material	Color	Maximum Part Temperature	Coefficient of Friction	FDA Approved	Nose Bar	Cleated	Chemical Resistance
01	Micropitch, Closed Mesh	N/A	8.1 mm	6 mm	Acetal	Blue	93 deg C	0.25	X	X		Good
30	Metalworking Accumulation, Open Mesh	26%	15 mm	8.7 mm	Acetal	Brown	82 deg C	0.22	X		X	Good
31	Metalworking Chemical Resistant, Open Mesh	26%	15 mm	8.7 mm	Polypropylene	White	104 deg C	0.33	X		X	Excellent
40	Metalworking Accumulation, Closed Mesh	N/A	15 mm	8.7 mm	Acetal	Brown	82 deg C	0.22	X		X	Good
41	Metalworking Chemical Resistant, Closed Mesh	N/A	15 mm	8.7 mm	Polypropylene	White	104 deg C	0.33	X		X	Excellent

Note: White belt is available, contact factory for details.

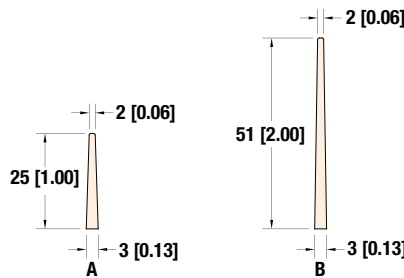
Specialty Modular Belt Selection Guide

Belt Type	Description	Percent Open	Tooth Pitch	Thickness	Material	Color	Maximum Part Temperature	Coefficient of Friction	FDA Approved	Nose Bar	Cleated	Chemical Resistance
02	Micropitch, Open Mesh	34%	8.1 mm	6 mm	Acetal	Blue	93 deg C	0.3	X	X		Good
32	Metalworking Heat Resistant, Open Mesh	26%	15 mm	8.7 mm	Nylon	Black	190 deg C	0.3				Good
42	Metalworking Heat Resistant, Closed Mesh	N/A	15 mm	8.7 mm	Nylon	Black	190 deg C	0.3				Good

Note: White belt is available, contact factory for details.

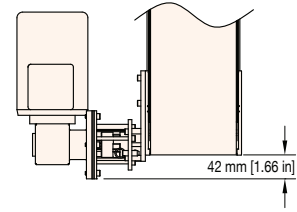
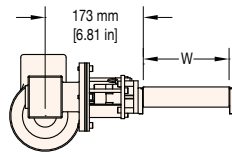
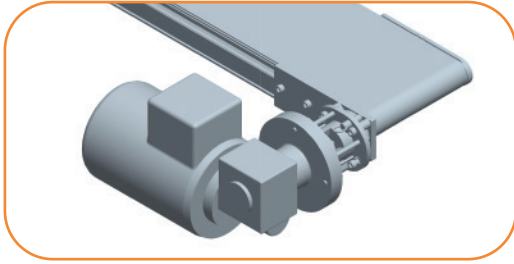
Cleated Belt Profiles

- Metalworking belt conveyors only. See page 36 & 37 for more details.



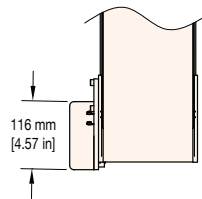
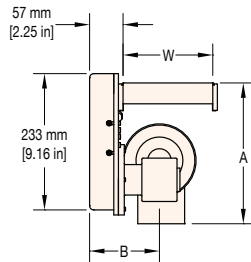
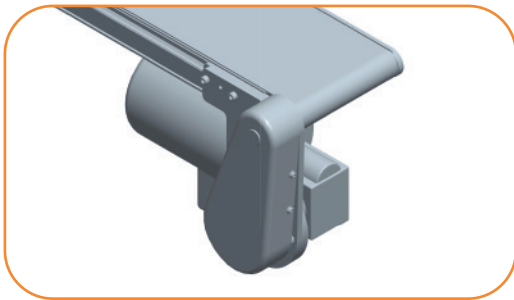
Dim = mm (in)

## Side Mount Package, 90° Gearmotor



- Includes gearmotor mounting bracket, coupling, coupling guard and mounting hardware

## Bottom Mount Package, 90° Gearmotor

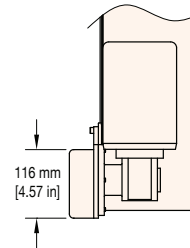
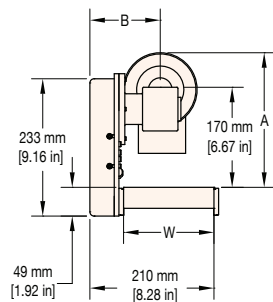
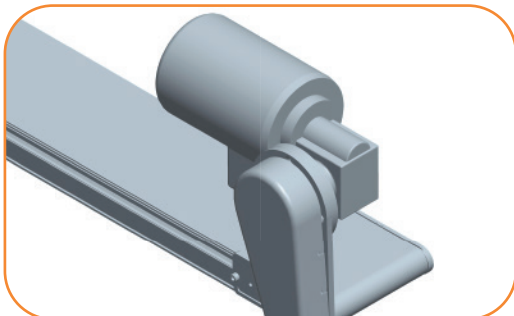


MOTOR "A" & "B" DIMENSION KEY:

- A: LIGHT - 239 mm [9.41 in]  
STANDARD - 240 mm [9.46 in]  
HEAVY - 322 mm [12.68 in]
- B: LIGHT - 102 mm [4.00 in]  
STANDARD - 119 mm [4.69 in]  
HEAVY - 112 mm [4.40 in]

- Includes gearmotor mounting bracket, timing belt and pulleys, guard cover and mounting hardware

## Top Mount Package, 90° Gearmotor

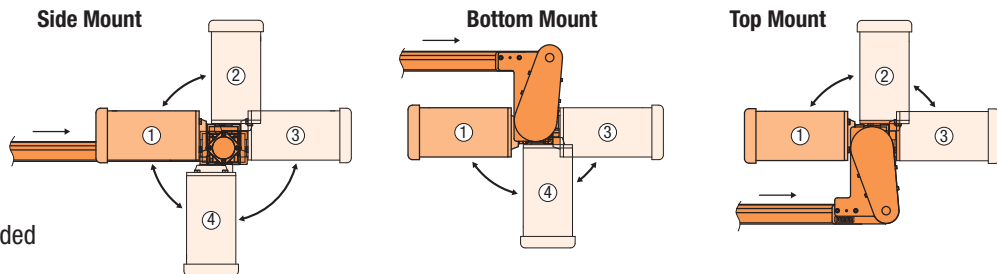


MOTOR "A" & "B" DIMENSION KEY:

- A: LIGHT - 225 mm [8.84 in]  
STANDARD - 228 mm [8.98 in]  
HEAVY - 211 mm [8.31 in]
- B: LIGHT - 102 mm [4.02 in]  
STANDARD - 119 mm [4.69 in]  
HEAVY - 112 mm [4.40 in]

- Includes gearmotor mounting bracket, timing belt and pulleys, guard cover and mounting hardware

## 90° Gearmotor Location Options



**Note:** Position 1 recommended

Consult factory for details

Note: Conveyor and gearmotor are not included in the mounting package and must be ordered separately.

W = Conveyor Belt Width Dim = mm (in)

For ordering information, see page 43



## End Drive Belt Speed

Fixed Speed												
2200 Belt	2200 Precision Move	2200 LPZ	2200 Modular Belt		RPM From Gearmotor	Mount Package		Pulley Kit		Gearmotor Chart		
			Micropitch Belts 01 and 02	Metalworking Belts 30 thru 42		Top & Bottom	Side	Drive Pulley	Driven Pulley	Light Load	Standard Load	Heavy Load
Meter/min	Meter/min	Meter/min	Meter/min	Meter/min								
2.3	2.8	4.5	3.1	3.5	23	X	X	28	28			5
2.6	3.0	4.9	3.4	3.8	25	X	X	28	28	1	3	
3.7	4.3		4.9	5.4	23	X		44	28			5
4.0	4.7		5.3	5.9	25	X		44	28	1	3	
4.7	5.5		6.3	6.9	23	X		44	22			5
4.8	5.6	9.2	6.4	7.1	47	X	X	28	28	1	3	5
5.1	6.0		6.8	7.5	25	X		44	22	1	3	
5.1	6.0		6.8	7.5	23	X		48	22			5
5.6	6.5		7.4	8.2	25	X		48	22	1	3	
6.8	8.0	13.1	9.1	10.1	67	X	X	28	28			5
7.1	8.4	13.6	9.5	10.5	70	X	X	28	28	1	3	
7.5	8.9		10.0	11.1	47	X		44	28	1	3	5
9.5	11.2	18.1	12.6	14.0	93	X	X	28	28	1	3	5
9.6	11.3		12.8	14.1	47	X		44	22	1	3	5
10.5	12.3		13.9	15.4	47	X		48	22	1	3	5
10.8	12.6		14.3	15.8	67	X		44	28			5
11.2	13.2		15.0	16.5	70	X		44	28	1	3	
12.7	14.9	24.2	16.9	18.6	124	X	X	28	28		3	
13.7	16.1		18.2	20.1	67	X		44	22			5
14.3	16.8	27.3	19.0	21.0	140	X	X	28	28	1		
14.3	16.8		19.0	21.0	70	X		44	22	1	3	
14.8	17.4	28.2	19.7	21.8	145	X	X	28	28			5
14.9	17.5		19.9	21.9	93	X		44	28	1	3	5
14.9	17.5		19.9	21.9	67	X		48	22			5
15.6	18.3		20.8	22.9	70	X		48	22	1	3	
19.0	22.3		25.3	27.9	93	X		44	22	1	3	5
19.9	23.4		26.5	29.2	124	X		44	28		3	
20.4	24.0	39.0	27.2	30.0	200	X	X	28	28	1	3	
20.7	24.3		27.6	30.4	93	X		48	22	1	3	5
21.4	25.2	40.9	28.6	31.5	210	X	X	28	28			5
22.5	26.4		29.9	33.0	140	X		44	28	1		
23.3	27.3		31.0	34.2	145	X		44	28			5
25.3	29.8		33.7	37.2	124	X		44	22		3	
27.6	32.5		36.8	40.6	124	X		48	22		3	
28.6	33.6		38.1	42.0	140	X		44	22	1		
29.6	34.8		39.4	43.5	145	X		44	22			5
31.2	36.7		41.5	45.8	140	X		48	22	1		
32.1	37.7		42.7	47.1	200	X		44	28	1	3	
32.3	38.0		43.0	47.5	145	X		48	22			5
33.7	39.6		44.9	49.5	210	X		44	28			5
40.9	48.0		54.4	60.0	200	X		44	22	1	3	
42.9	50.4		57.1	63.0	210	X		44	22			5
44.6	52.4		59.3	65.5	200	X		48	22	1	3	
46.8	55.0		62.3	68.7	210	X		48	22			5

## End Drive Belt Speed

Variable Speed												
2200 Belt	2200 Precision Move	2200 LPZ	2200 Modular Belt		RPM From Gearmotor at 50 Hz	Mount Package		Pulley Kit		Gearmotor Chart		
			Micropitch Belts 01 and 02	Metalworking Belts 30 thru 42		Top & Bottom	Side	Drive Pulley	Driven Pulley	Light Load	Standard Load	Heavy Load
Meter/min	Meter/min	Meter/min	Meter/min	Meter/min								
0.9 - 3.2	1.1 - 3.9	1.8 - 6.3	1.2 - 4.3	1.4 - 4.9	23	X	X	28	28			5
1.0 - 3.6	1.2 - 4.2	2.0 - 6.9	1.4 - 4.8	1.5 - 5.3	25	X	X	28	28	1	3	
1.5 - 5.2	1.7 - 6.0		2.0 - 6.9	2.2 - 7.6	23	X		44	28			5
1.6 - 5.6	1.9 - 6.6		2.1 - 7.4	2.4 - 8.3	25	X		44	28	1	3	
1.9 - 6.6	2.2 - 7.7		2.5 - 8.8	2.8 - 9.7	23	X		44	22			5
1.9 - 6.7	2.2 - 7.8	3.7 - 12.9	2.6 - 9.0	2.8 - 9.9	47	X	X	28	28	1	3	5
2.0 - 7.1	2.4 - 8.4		2.7 - 9.5	3.0 - 10.5	25	X		44	22	1	3	
2.0 - 7.1	2.4 - 8.4		2.7 - 9.5	3.0 - 10.5	23	X		48	22			5
2.2 - 7.8	2.6 - 9.1		3.0 - 10.4	3.3 - 11.5	25	X		48	22	1	3	
2.7 - 9.5	3.2 - 11.2	5.2 - 18.3	3.6 - 12.7	4.0 - 14.1	67	X	X	28	28			5
2.8 - 9.9	3.4 - 11.8	5.4 - 19.0	3.8 - 13.3	4.2 - 14.7	70	X	X	28	28	1	3	
3.0 - 10.5	3.6 - 12.5		4.0 - 14.0	4.4 - 15.5	47	X		44	28	1	3	5
3.8 - 13.3	4.5 - 15.7	7.2 - 25.3	5.0 - 17.6	5.6 - 19.6	93	X	X	28	28	1	3	5
3.8 - 13.4	4.5 - 15.8		5.1 - 17.9	5.6 - 19.7	47	X		44	22	1	3	5
4.2 - 14.7	4.9 - 17.2		5.6 - 19.5	6.2 - 21.6	47	X		48	22	1	3	5
4.3 - 15.1	5.0 - 17.6		5.7 - 20.0	6.3 - 22.1	67	X		44	28			5
4.5 - 15.7	5.3 - 18.5		6.0 - 21.0	6.6 - 23.1	70	X		44	28	1	3	
5.1 - 17.8	6.0 - 20.9	9.7 - 33.9	6.8 - 23.7	7.4 - 26.0	124	X	X	28	28		3	
5.5 - 19.2	6.4 - 22.5		7.3 - 25.5	8.0 - 28.1	67	X		44	22			5
5.7 - 20.0	6.7 - 23.5	10.9 - 38.2	7.6 - 26.6	8.4 - 29.4	140	X	X	28	28	1		
5.7 - 20.0	6.7 - 23.5		7.6 - 26.6	8.4 - 29.4	70	X		44	22	1	3	
5.9 - 20.7	7.0 - 24.4	11.3 - 39.5	7.9 - 27.6	8.7 - 30.5	145	X	X	28	28			5
6.0 - 20.9	7.0 - 24.5		8.0 - 27.9	8.8 - 30.7	93	X		44	28	1	3	5
6.0 - 20.9	7.0 - 24.5		8.0 - 27.9	8.8 - 30.7	67	X		48	22			5
6.2 - 21.8	7.3 - 25.6		8.3 - 29.1	9.2 - 32.1	70	X		48	22	1	3	
7.6 - 26.6	8.9 - 31.2		10.1 - 35.4	11.2 - 39.1	93	X		44	22	1	3	5
8.0 - 27.9	9.4 - 32.8		10.6 - 37.1	11.7 - 40.9	124	X		44	28		3	
8.2 - 28.6	9.6 - 33.6	15.6 - 54.6	10.9 - 38.1	12.0 - 42.0	200	X	X	28	28	1	3	
8.3 - 29.0	9.7 - 34.0		11.0 - 38.6	12.2 - 42.6	93	X		48	22	1	3	5
8.6 - 30.0	10.1 - 35.3	16.4 - 57.3	11.4 - 40.0	12.6 - 44.1	210	X	X	28	28			5
9.0 - 31.5	10.6 - 37.0		12.0 - 41.9	13.2 - 46.2	140	X		44	28	1		
9.3 - 32.6	10.9 - 38.2		12.4 - 43.4	13.7 - 47.9	145	X		44	28			5
10.1 - 35.4	11.9 - 41.7		13.5 - 47.2	14.9 - 52.1	124	X		44	22		3	
11.0 - 38.6	13.0 - 45.5		14.7 - 51.5	16.2 - 56.8	124	X		48	22		3	
11.4 - 40.0	13.4 - 47.0		15.2 - 53.3	16.8 - 58.8	140	X		44	22	1		
11.8 - 41.4	13.9 - 48.7		15.8 - 55.2	17.4 - 60.9	145	X		44	22			5
12.5 - 43.7	14.7 - 51.4		16.6 - 58.1	18.3 - 64.1	140	X		48	22	1		
12.8 - 44.9	15.1 - 52.8		17.1 - 59.8	18.8 - 65.9	200	X		44	28	1	3	
12.9 - 45.2	15.2 - 53.2		17.2 - 60.2	19.0 - 66.5	145	X		48	22			5
13.5 - 47.2	15.8 - 55.4		18.0 - 62.9	19.8 - 69.3	210	X		44	28			5
16.4 - 57.3	19.2 - 67.2		21.8 - 76.2	24.0 - 84.0	200	X		44	22	1	3	
17.2 - 60.1	20.2 - 70.6		22.8 - 79.9	25.2 - 88.2	210	X		44	22			5
17.8 - 62.4	21.0 - 73.4		23.7 - 83.0	26.2 - 91.7	200	X		48	22	1	3	
18.7 - 65.5	22.0 - 77.0		24.9 - 87.2	27.5 - 96.2	210	X		48	22			5

## 2200 Series Motor Mounting Package

22 M Z B G S L A - P P P P

Pulley Kit: Top and Bottom '2828, '4428, '4422, '4822  
 Flush '2816, '4416, '4816

Mount Position: A, B, C, D

Position: A, B, C, D

Load Type: L = Light, S = Standard, H = Heavy

Gearmotor Type: G = European 90 Degree

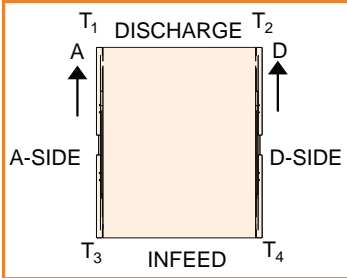
Mount Style: B = Bottom, S = Side, T = Top, F = Flush Bottom

1 = Vertical Mount, 2 = Horizontal Mount

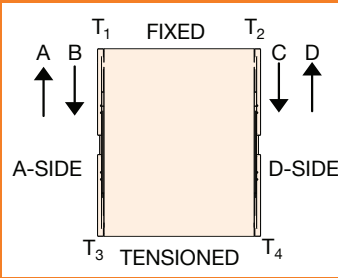
Conveyor Type: E=End Drive, C=Center Drive, M=Mid Drive, Z= LPZ

Documentation Language: M = English only

### MODULAR BELT DRIVE SHAFT POSITION

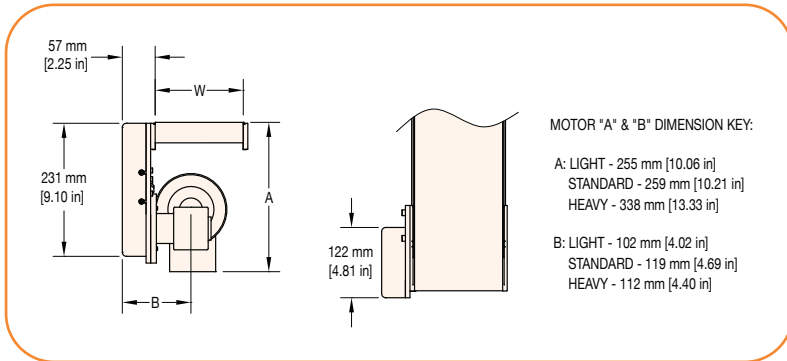


### BELT DRIVE SHAFT POSITION

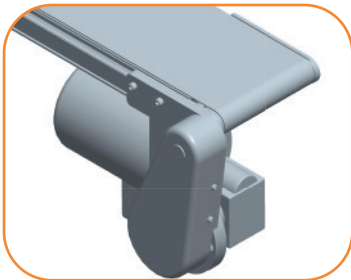


Since belts are being pulled, positions A & D are preferred. Pushing belts (B & C) reduce conveyor load capacity by approximately 66%.

## Flush Bottom Mount Package, 90° Gearmotor



Standard Load



### Product Applications/Uses:

- Wide product transfers
- Product stops/escapements
- Product detection
- Lift stations
- Sheet handling

Dim = mm (in)

## Flush Mount End Drive Belt Speed

Fixed Speed										
2200 Belt	2200 Precision Move	2200 Modular Belt			RPM From Gearmotor	Pulley Kit		Gearmotor Chart		
		2200 LPZ	Micropitch Belts 01 and 02	Metalworking Belts 30 thru 42		Drive Pulley	Driven Pulley	Light Load	Standard Load	Heavy Load
Meter/min	Meter/min	Meter/min	Meter/min	Meter/min						
4.1	4.8	7.8	5.5	6.0	23	28	16			5
4.5	5.3	8.5	6.0	6.6	25	28	16	1	3	
6.5	7.6		8.6	9.5	23	44	16			5
7.0	8.3		9.4	10.3	25	44	16	1	3	
7.0	8.3		9.4	10.4	23	48	16			5
7.7	9.0		10.2	11.3	25	48	16	1	3	
8.4	9.9	16.0	11.2	12.3	47	28	16	1	3	5
12.0	14.1	22.8	15.9	17.6	67	28	16			5
12.5	14.7	23.9	16.7	18.4	70	28	16	1	3	
13.2	15.5		17.6	19.4	47	44	16	1	3	5
14.4	16.9		19.2	21.2	47	48	16	1	3	5
16.6	19.5	31.7	22.1	24.4	93	28	16	1	3	5
18.8	22.1		25.1	27.6	67	44	16			5
19.7	23.1		26.2	28.9	70	44	16	1	3	
20.5	24.1		27.3	30.2	67	48	16			5
21.4	25.2		28.6	31.5	70	48	16	1	3	
22.2	26.0	42.3	29.5	32.6	124	28	16		3	
25.0	29.4	47.7	33.3	36.8	140	28	16	1		
25.9	30.5	49.4	34.5	38.1	145	28	16			5
26.1	30.7		34.8	38.4	93	44	16	1	3	5
28.5	33.5		37.9	41.9	93	48	16	1	3	5
34.8	40.9		46.4	51.2	124	44	16		3	
35.7	42.0	68.2	47.6	52.5	200	28	16	1	3	
37.5	44.1	71.6	50.0	55.1	210	28	16			5
38.0	44.6		50.6	55.8	124	48	16		3	
39.3	46.2		52.4	57.8	140	44	16	1		
40.7	47.9		54.2	59.8	145	44	16			5
42.9	50.4		57.1	63.0	140	48	16	1		
44.4	52.2		59.2	65.3	145	48	16			5
56.2	66.0		74.8	82.5	200	44	16	1	3	
59.0	69.3		78.5	86.6	210	44	16			5
61.3	72.0		81.6	90.0	200	48	16	1	3	
64.3	75.6		85.7	94.5	210	48	16			5

## Flush Mount End Drive Belt Speed

Variable Speed										
2200 Belt	2200 Precision Move	2200 Modular Belt			RPM From Gearmotor	Pulley Kit		Gearmotor Chart		
		2200 LPZ	Micropitch Belts 01 and 02	Metalworking Belts 30 thru 42		Drive Pulley	Driven Pulley	Light Load	Standard Load	Heavy Load
Meter/min	Meter/min	Meter/min	Meter/min	Meter/min						
1.6 - 5.7	1.9 - 6.7	3.1 - 10.9	2.2 - 7.7	2.4 - 8.4	23	28	16			5
1.8 - 6.3	2.1 - 7.4	3.4 - 11.9	2.4 - 8.4	2.6 - 9.2	25	28	16	1	3	
2.6 - 9.1	3.0 - 10.6		3.4 - 12.0	3.8 - 13.3	23	44	16			5
2.8 - 9.8	3.3 - 11.6		3.8 - 13.2	4.1 - 14.4	25	44	16	1	3	
2.8 - 9.8	3.3 - 11.6		3.8 - 13.2	4.2 - 14.6	23	48	16			5
3.1 - 10.8	3.6 - 12.6		4.1 - 14.3	4.5 - 15.8	25	48	16	1	3	
3.4 - 11.8	4.0 - 13.9	6.4 - 22.4	4.5 - 15.7	4.9 - 17.2	47	28	16	1	3	5
4.8 - 16.8	5.6 - 19.7	9.1 - 31.9	6.4 - 22.3	7.0 - 24.6	67	28	16			5
5.0 - 17.5	5.9 - 20.6	9.6 - 33.5	6.7 - 23.4	7.4 - 25.8	70	28	16	1	3	
5.3 - 18.5	6.2 - 21.7		7.0 - 24.6	7.8 - 27.2	47	44	16	1	3	5
5.8 - 20.2	6.8 - 23.7		7.7 - 26.9	8.5 - 29.7	47	48	16	1	3	5
6.6 - 23.2	7.8 - 27.3	12.7 - 44.4	8.8 - 30.9	9.8 - 34.2	93	28	16	1	3	5
7.5 - 26.3	8.8 - 30.9		10.0 - 35.1	11.0 - 38.6	67	44	16			5
7.9 - 27.6	9.2 - 32.3		10.5 - 36.7	11.6 - 40.5	70	44	16	1	3	
8.2 - 28.7	9.6 - 33.7		10.9 - 38.2	12.1 - 42.3	67	48	16			5
8.6 - 30.0	10.1 - 35.3		11.4 - 40.0	12.6 - 44.1	70	48	16	1	3	
8.9 - 31.1	10.4 - 36.4	16.9 - 59.2	11.8 - 41.3	13.0 - 45.6	124	28	16		3	
10.0 - 35.0	11.8 - 41.2	19.1 - 66.8	13.3 - 46.6	14.7 - 51.5	140	28	16	1		
10.4 - 36.3	12.2 - 42.7	19.8 - 69.2	13.8 - 48.3	15.2 - 53.3	145	28	16			5
10.4 - 36.5	12.3 - 43.0		13.9 - 48.7	15.4 - 53.8	93	44	16	1	3	5
11.4 - 39.9	13.4 - 46.9		15.2 - 53.1	16.8 - 58.7	93	48	16	1	3	5
13.9 - 48.7	16.4 - 57.3		18.6 - 65.0	20.5 - 71.7	124	44	16		3	
14.3 - 50.0	16.8 - 58.8	27.3 - 95.5	19.0 - 66.6	21.0 - 73.5	200	28	16	1	3	
15.0 - 52.5	17.6 - 61.7	28.6 - 100.2	20.0 - 70.0	22.0 - 77.1	210	28	16			5
15.2 - 53.2	17.8 - 62.4		20.2 - 70.8	22.3 - 78.1	124	48	16		3	
15.7 - 55.0	18.5 - 64.7		21.0 - 73.4	23.1 - 80.9	140	44	16	1		
16.3 - 57.0	19.2 - 67.1		21.7 - 75.9	23.9 - 83.7	145	44	16			5
17.2 - 60.1	20.2 - 70.6		22.8 - 79.9	25.2 - 88.2	140	48	16	1		
17.8 - 62.2	20.9 - 73.1		23.7 - 82.9	26.1 - 91.4	145	48	16			5
22.5 - 78.7	26.4 - 92.4		29.9 - 104.7	33.0 - 115.5	200	44	16	1	3	
23.6 - 82.6	27.7 - 97.0		31.4 - 109.9	34.6 - 121.2	210	44	16			5
24.5 - 85.8	28.8 - 100.8		32.6 - 114.2	36.0 - 126.0	200	48	16	1	3	
25.7 - 90.0	30.2 - 105.8		34.3 - 120.0	37.8 - 132.3	210	48	16			5

## Precision Move Gang Mid Drive Belt Speed Charts

Fixed Speed					
2200 Precision Move	RPM From Gearmotor	Mount Package	Gearmotor Chart		
Meter/min		Side	Light Load	Standard Load	Heavy Load
3.7	23	X			5
4.0	25	X	1	3	
7.5	47	X	1	3	5
10.7	67	X			5
11.2	70	X	1	3	
14.9	93	X	1	3	5
19.8	124	X		3	
22.4	140	X	1		
23.2	145	X			5
32.0	200	X	1	3	
33.6	210	X			5

Variable Speed					
2200 Precision Move	RPM From Gearmotor	Mount Package	Gearmotor Chart		
Meter/min		Side	Light Load	Standard Load	Heavy Load
1.5 - 5.2	23	X			5
1.6 - 5.6	25	X	1	3	
3.0 - 10.5	47	X	1	3	5
4.3 - 15.0	67	X			5
4.5 - 15.7	70	X	1	3	
6.0 - 20.9	93	X	1	3	5
7.9 - 27.7	124	X		3	
9.0 - 31.4	140	X	1		
9.3 - 32.5	145	X			5
12.8 - 44.8	200	X	1	3	
13.4 - 47.0	210	X			5

**2200 Precision Move Gang Drive Side Mounting Package**

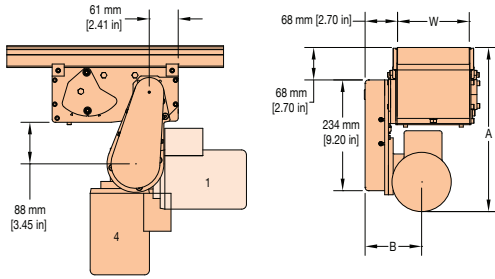
2 2 M G G S - W W O G G A

- Position: A or D
- End Guard Length: (00 to 20)
- Conveyor Quantity: D = Double T = Triple
- Distance Between Outer Conveyor Edges (05 to 48)
- Load Type: L = Light, S = Standard, H = Heavy
- Shaft Type: G = European 90° degree
- Documentation Language: M = English only

See page 21 for product details.

## Center Drive

### TYPE 1 - Vertical Mount



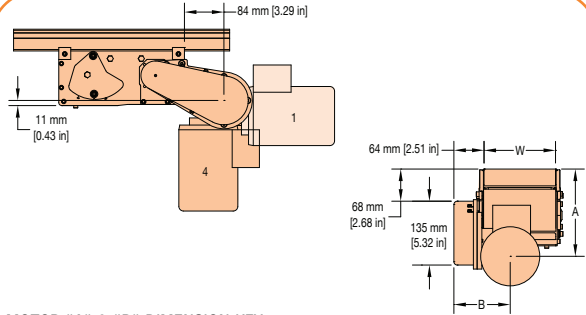
MOTOR "A" & "B" DIMENSION KEY:

A: LIGHT - 336 mm [13.24 in]	B: LIGHT - 103 mm [4.06 in]
STANDARD - 345 mm [13.57 in]	STANDARD - 119 mm [4.69 in]
HEAVY - 359 mm [14.14 in]	HEAVY - 111 mm [4.38 in]

Shown in "D" Position

**90° Gearmotor**

### TYPE 2 - Horizontal Mount



MOTOR "A" & "B" DIMENSION KEY:

A: LIGHT - 238 mm [9.36 in]	B: LIGHT - 103 mm [4.06 in]
STANDARD - 246 mm [9.69 in]	STANDARD - 119 mm [4.69 in]
HEAVY - 261 mm [10.26 in]	HEAVY - 111 mm [4.38 in]

Shown in "D" Position

**90° Gearmotor**

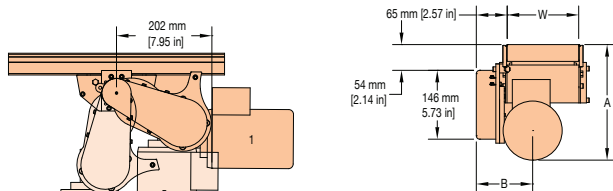
Standard position shown, can be reconfigured to alternative phantom position.

TYPE 2 recommended for tight spaces and allows for easy access to the drive module.

\* Gearmotor not included in mounting package, see page 49-50 for gearmotor options. **Dim = mm (in)**

See page 43 for part number chart.

## Mid Drive



MOTOR "A" & "B" DIMENSION KEY:

A: LIGHT - 222 mm [8.74 in]	B: LIGHT - 103 mm [4.06 in]
STANDARD - 243 mm [9.57 in]	STANDARD - 119 mm [4.69 in]
HEAVY - 257 mm [10.13 in]	HEAVY - 111 mm [4.38 in]

Shown in "A" Position

**90° Gearmotor**

Standard position shown, can be reconfigured to alternative phantom position.  
**Dim = mm (in)**

See page 43 for part number chart.

Center & Mid Drive Belt Speed

Fixed Speed											
2200 Belt	2200 Precision Move	2200 Modular Belt		RPM From Gearmotor	Mount Package		Pulley Kit		Gearmotor Chart		
		Micropitch Belts 01 and 02	Metalworking Belts 30 thru 42				Drive Pulley	Driven Pulley	Light Load	Standard Load	Heavy Load
Meter/min	Meter/min	Meter/min	Meter/min		Bottom	Side					
2.3	2.8	3.1	3.5	23	X	X	28	28			5
2.6	3.0	3.4	3.8	25	X	X	28	28	1	3	
3.7	4.3	4.9	5.4	23	X		44	28			5
4.0	4.7	5.3	5.9	25	X		44	28	1	3	
4.7	5.5	6.3	6.9	23	X		44	22			5
4.8	5.6	6.4	7.1	47	X	X	28	28	1	3	5
5.1	6.0	6.8	7.5	25	X		44	22	1	3	
5.1	6.0	6.8	7.5	23	X		48	22			5
5.6	6.5	7.4	8.2	25	X		48	22	1	3	
6.8	8.0	9.1	10.1	67	X	X	28	28			5
7.1	8.4	9.5	10.5	70	X	X	28	28	1	3	
7.5	8.9	10.0	11.1	47	X		44	28	1	3	5
9.5	11.2	12.6	14.0	93	X	X	28	28	1	3	5
9.6	11.3	12.8	14.1	47	X		44	22	1	3	5
10.5	12.3	13.9	15.4	47	X		48	22	1	3	5
10.8	12.6	14.3	15.8	67	X		44	28			5
11.2	13.2	15.0	16.5	70	X		44	28	1	3	
12.7	14.9	16.9	18.6	124	X	X	28	28		3	
13.7	16.1	18.2	20.1	67	X		44	22			5
14.3	16.8	19.0	21.0	140	X	X	28	28	1		
14.3	16.8	19.0	21.0	70	X		44	22	1	3	
14.8	17.4	19.7	21.8	145	X	X	28	28			5
14.9	17.5	19.9	21.9	93	X		44	28	1	3	5
14.9	17.5	19.9	21.9	67	X		48	22			5
15.6	18.3	20.8	22.9	70	X		48	22	1	3	
19.0	22.3	25.3	27.9	93	X		44	22	1	3	5
19.9	23.4	26.5	29.2	124	X		44	28		3	
20.4	24.0	27.2	30.0	200	X	X	28	28	1	3	
20.7	24.3	27.6	30.4	93	X		48	22	1	3	5
21.4	25.2	28.6	31.5	210	X	X	28	28			5
22.5	26.4	29.9	33.0	140	X		44	28	1		
23.3	27.3	31.0	34.2	145	X		44	28			5
25.3	29.8	33.7	37.2	124	X		44	22		3	
27.6	32.5	36.8	40.6	124	X		48	22		3	
28.6	33.6	38.1	42.0	140	X		44	22	1		
29.6	34.8	39.4	43.5	145	X		44	22			5
31.2	36.7	41.5	45.8	140	X		48	22	1		
32.1	37.7	42.7	47.1	200	X		44	28	1	3	
32.3	38.0	43.0	47.5	145	X		48	22			5
33.7	39.6	44.9	49.5	210	X		44	28			5
40.9	48.0	54.4	60.0	200	X		44	22	1	3	
42.9	50.4	57.1	63.0	210	X		44	22			5
44.6	52.4	59.3	65.5	200	X		48	22	1	3	
46.8	55.0	62.3	68.7	210	X		48	22			5

## Center & Mid Drive Belt Speed

Variable Speed											
2200 Belt	2200 Precision Move	2200 Modular Belt		RPM From Gearmotor at 50 Hz	Mount Package		Pulley Kit		Gearmotor Chart		
		Micropitch Belts 01 and 02	Metalworking Belts 30 thru 42		Bottom	Side	Drive Pulley	Driven Pulley	Light Load	Standard Load	Heavy Load
0.9 - 3.2	1.1 - 3.9	1.2 - 4.3	1.4 - 4.9	23	X	X	28	28			5
1.0 - 3.6	1.2 - 4.2	1.4 - 4.8	1.5 - 5.3	25	X	X	28	28	1	3	
1.5 - 5.2	1.7 - 6.0	2.0 - 6.9	2.2 - 7.6	23	X		44	28			5
1.6 - 5.6	1.9 - 6.6	2.1 - 7.4	2.4 - 8.3	25	X		44	28	1	3	
1.9 - 6.6	2.2 - 7.7	2.5 - 8.8	2.8 - 9.7	23	X		44	22			5
1.9 - 6.7	2.2 - 7.8	2.6 - 9.0	2.8 - 9.9	47	X	X	28	28	1	3	5
2.0 - 7.1	2.4 - 8.4	2.7 - 9.5	3.0 - 10.5	25	X		44	22	1	3	
2.0 - 7.1	2.4 - 8.4	2.7 - 9.5	3.0 - 10.5	23	X		48	22			5
2.2 - 7.8	2.6 - 9.1	3.0 - 10.4	3.3 - 11.5	25	X		48	22	1	3	
2.7 - 9.5	3.2 - 11.2	3.6 - 12.7	4.0 - 14.1	67	X	X	28	28			5
2.8 - 9.9	3.4 - 11.8	3.8 - 13.3	4.2 - 14.7	70	X	X	28	28	1	3	
3.0 - 10.5	3.6 - 12.5	4.0 - 14.0	4.4 - 15.5	47	X		44	28	1	3	5
3.8 - 13.3	4.5 - 15.7	5.0 - 17.6	5.6 - 19.6	93	X	X	28	28	1	3	5
3.8 - 13.4	4.5 - 15.8	5.1 - 17.9	5.6 - 19.7	47	X		44	22	1	3	5
4.2 - 14.7	4.9 - 17.2	5.6 - 19.5	6.2 - 21.6	47	X		48	22	1	3	5
4.3 - 15.1	5.0 - 17.6	5.7 - 20.0	6.3 - 22.1	67	X		44	28			5
4.5 - 15.7	5.3 - 18.5	6.0 - 21.0	6.6 - 23.1	70	X		44	28	1	3	
5.1 - 17.8	6.0 - 20.9	6.8 - 23.7	7.4 - 26.0	124	X	X	28	28		3	
5.5 - 19.2	6.4 - 22.5	7.3 - 25.5	8.0 - 28.1	67	X		44	22			5
5.7 - 20.0	6.7 - 23.5	7.6 - 26.6	8.4 - 29.4	140	X	X	28	28	1		
5.7 - 20.0	6.7 - 23.5	7.6 - 26.6	8.4 - 29.4	70	X		44	22	1	3	
5.9 - 20.7	7.0 - 24.4	7.9 - 27.6	8.7 - 30.5	145	X	X	28	28			5
6.0 - 20.9	7.0 - 24.5	8.0 - 27.9	8.8 - 30.7	93	X		44	28	1	3	5
6.0 - 20.9	7.0 - 24.5	8.0 - 27.9	8.8 - 30.7	67	X		48	22			5
6.2 - 21.8	7.3 - 25.6	8.3 - 29.1	9.2 - 32.1	70	X		48	22	1	3	
7.6 - 26.6	8.9 - 31.2	10.1 - 35.4	11.2 - 39.1	93	X		44	22	1	3	5
8.0 - 27.9	9.4 - 32.8	10.6 - 37.1	11.7 - 40.9	124	X		44	28		3	
8.2 - 28.6	9.6 - 33.6	10.9 - 38.1	12.0 - 42.0	200	X	X	28	28	1	3	
8.3 - 29.0	9.7 - 34.0	11.0 - 38.6	12.2 - 42.6	93	X		48	22	1	3	5
8.6 - 30.0	10.1 - 35.3	11.4 - 40.0	12.6 - 44.1	210	X	X	28	28			5
9.0 - 31.5	10.6 - 37.0	12.0 - 41.9	13.2 - 46.2	140	X		44	28	1		
9.3 - 32.6	10.9 - 38.2	12.4 - 43.4	13.7 - 47.9	145	X		44	28			5
10.1 - 35.4	11.9 - 41.7	13.5 - 47.2	14.9 - 52.1	124	X		44	22		3	
11.0 - 38.6	13.0 - 45.5	14.7 - 51.5	16.2 - 56.8	124	X		48	22		3	
11.4 - 40.0	13.4 - 47.0	15.2 - 53.3	16.8 - 58.8	140	X		44	22	1		
11.8 - 41.4	13.9 - 48.7	15.8 - 55.2	17.4 - 60.9	145	X		44	22			5
12.5 - 43.7	14.7 - 51.4	16.6 - 58.1	18.3 - 64.1	140	X		48	22	1		
12.8 - 44.9	15.1 - 52.8	17.1 - 59.8	18.8 - 65.9	200	X		44	28	1	3	
12.9 - 45.2	15.2 - 53.2	17.2 - 60.2	19.0 - 66.5	145	X		48	22			5
13.5 - 47.2	15.8 - 55.4	18.0 - 62.9	19.8 - 69.3	210	X		44	28			5
16.4 - 57.3	19.2 - 67.2	21.8 - 76.2	24.0 - 84.0	200	X		44	22	1	3	
17.2 - 60.1	20.2 - 70.6	22.8 - 79.9	25.2 - 88.2	210	X		44	22			5
17.8 - 62.4	21.0 - 73.4	23.7 - 83.0	26.2 - 91.7	200	X		48	22	1	3	
18.7 - 65.5	22.0 - 77.0	24.9 - 87.2	27.5 - 96.2	210	X		48	22			5



Light Load, Fixed Speed\*

Chart 1		90 Degree							
<ul style="list-style-type: none"> <li>Sealed Gearmotor</li> <li>Totally enclosed fan cooled</li> <li>IP 54</li> <li>230/400V 3 Phase 50 Hz</li> </ul>								<p>Regulatory Approvals</p> <p>CE</p>	
Part Number		3 Phase					1 Phase		
3 Phase	1 Phase	RPM	Gear Ratio	Watts	Amps	NM	Watts	Amps	Nm
KT102552	BG200888	25	55:1	90	0.75 / 0.45	15	59	0.8	9.9
KT200294	BG200889	47	30:1	90	0.75 / 0.45	9	59	0.8	5.9
KT200293	BG200890	70	20:1	90	0.75 / 0.45	7.5	59	0.8	5
KT200292	BG200891	93	15:1	90	0.75 / 0.45	6.1	59	0.8	4
KT200291	BG200892	140	10:1	90	0.75 / 0.45	4.3	59	0.8	2.8
KT200290	BG200893	200	7:1	90	0.75 / 0.45	3.3	59	0.8	2.2

\*Not available on LPZ Conveyors

Light Load, Variable Speed\*

Chart 2		90 Degree							
<ul style="list-style-type: none"> <li>VFD Variable Speed, 20 to 70 Hz</li> <li>40-60 Hz Full Capacity, 20-39 Hz and 61 to 70 Hz 80% capacity</li> <li>Sealed Gearmotor</li> <li>Totally enclosed fan cooled</li> <li>IP 54</li> <li>230/400V 3 Phase</li> </ul>								<p>Regulatory Approvals</p> <p>CE</p>	
Part Number						Full Capacity		80% Capacity	
3 Phase	MAX RPM	MIN RPM	Gear Ratio	Watts	Amps	NM	NM		
KT102552	35	10	55:1	90	0.75 / 0.45	15	12		
KT200294	66	19	30:1	90	0.75 / 0.45	9	7.2		
KT200293	98	28	20:1	90	0.75 / 0.45	7.5	6		
KT200292	130	37	15:1	90	0.75 / 0.45	6.1	4.9		
KT200291	196	56	10:1	90	0.75 / 0.45	4.3	3.4		
KT200290	280	80	7:1	90	0.75 / 0.45	3.3	2.6		

\*Not available on LPZ Conveyors

Standard Load, Fixed Speed

Chart 3		90 Degree							
<ul style="list-style-type: none"> <li>Sealed Gearmotor</li> <li>Totally enclosed fan cooled</li> <li>IP 54</li> <li>230/400V 3 Phase 50 Hz</li> </ul>								<p>Regulatory Approvals</p> <p>CE</p>	
Part Number		3 Phase					1 Phase		
3 Phase	1 Phase	RPM	Gear Ratio	Watts	Amps	NM	Watts	Amps	Nm
KT200301	BG200882	25	56:1	180	1.20 / 0.7	21	119	1.3	13.9
KT200300	BG200883	47	30:1	180	1.20 / 0.7	17	119	1.3	11.2
KT102553	BG200884	70	20:1	180	1.20 / 0.7	14	119	1.3	9.2
KT200299	BG200885	93	15:1	180	1.20 / 0.7	11	119	1.3	7.3
KT200298	BG200886	124	11:1	180	1.20 / 0.7	9.3	119	1.3	6.1
KT200297	BG200887	200	7:1	180	1.20 / 0.7	6.4	119	1.3	4.2

Note: Dim = mm (in)

## Standard Load, Variable Speed

Chart 4		90 Degree						Regulatory Approvals	
<ul style="list-style-type: none"> <li>VFD Variable Speed, 20 to 70 Hz</li> <li>40-60 Hz Full Capacity, 20-39 Hz and 61 to 70 Hz 80% capacity</li> <li>Sealed Gearmotor</li> <li>Totally enclosed fan cooled</li> <li>IP 54</li> <li>230/400V 3 Phase</li> </ul>									
Part Number						Full Capacity		80% Capacity	
3 Phase	MAX RPM	MIN RPM	Gear Ratio	Watts	Amps	NM	NM		
KT200301	35	10	56:1	180	1.20 / 0.7	21	17		
KT200300	66	19	30:1	180	1.20 / 0.7	17	14		
KT102553	98	28	20:1	180	1.20 / 0.7	14	11		
KT200299	130	37	15:1	180	1.20 / 0.7	11	9		
KT200298	174	50	11:1	180	1.20 / 0.7	9.3	7		
KT200297	280	80	7:1	180	1.20 / 0.7	6.4	5		

## Heavy Load, Fixed Speed

Chart 5		90 Degree						Regulatory Approvals			
<ul style="list-style-type: none"> <li>Sealed Gearmotor</li> <li>Totally enclosed fan cooled</li> <li>IP 54</li> <li>230/400V 3 Phase 50 Hz</li> </ul>											
Part Number						3 Phase			1 Phase		
3 Phase – LH	3 Phase – RH	1 Phase – LH	1 Phase – RH	RPM	Gear Ratio	Watts	Amps	NM	Watts	Amps	Nm
KT200854	KT200848	BG200870	BG200876	23	60:1	370	2.0 / 1.20	44	244	2.3	29
KT200853	KT200847	BG200871	BG200877	47	30:1	370	2.0 / 1.20	40	244	2.3	26
KT200852	KT200846	BG200872	BG200878	67	21:1	370	2.0 / 1.20	32	244	2.3	21
KT200851	KT200845	BG200873	BG200879	93	15:1	370	2.0 / 1.20	25	244	2.3	16.5
KT200850	KT200844	BG200874	BG200880	145	10:1	370	2.0 / 1.20	19	244	2.3	12.5
KT200849	KT200843	BG200875	BG200881	210	7:1	370	2.0 / 1.20	15	244	2.3	9.9


## Heavy Load, Variable Speed

Chart 6		90 Degree						Regulatory Approvals			
<ul style="list-style-type: none"> <li>VFD Variable Speed, 20 to 70 Hz</li> <li>40-60 Hz Full Capacity, 20-39 Hz and 61 to 70 Hz 80% capacity</li> <li>Sealed Gearmotor</li> <li>Totally enclosed fan cooled</li> <li>IP 54</li> <li>230/400V 3 Phase</li> </ul>											
Part Number						Full Capacity		80% Capacity			
3 Phase – LH	3 Phase – RH	MAX RPM	MIN RPM	Gear Ratio	Watts	Amps	NM	NM			
KT200854	KT200848	32	9	60:1	370	2.0 / 1.20	44	35			
KT200853	KT200847	66	19	30:1	370	2.0 / 1.20	40	32			
KT200852	KT200846	94	27	21:1	370	2.0 / 1.20	32	25			
KT200851	KT200845	130	37	15:1	370	2.0 / 1.20	25	20			
KT200850	KT200844	203	58	10:1	370	2.0 / 1.20	19	15.2			
KT200849	KT200843	294	84	7:1	370	2.0 / 1.20	15	12			


FLA = Full Load Amperes

Some motors and gear reducers may normally operate hot to the touch. Consult factory for specific operating temperatures. **Note: Dim = mm (in)**

Frequency Converter


Chart A		Variable Speed Frequency Converter, Full CE Compliance					
<ul style="list-style-type: none"> <li>Adjustable Speed, 20 to 70 Hz</li> <li>IP 54 Enclosure</li> <li>Digital Device</li> <li>Adjustable Start and Stop</li> <li>Adjustable timing generator built in</li> <li>Control by external signals via free inputs</li> <li>Integrated motor protection</li> <li>Includes standard plug for 230V, 50 Hz, 1 Phase</li> </ul>						<p>Regulatory Approvals</p> <p>CE</p>	
Part Number	Input				Output		
	Volts	Phase	Hz	Watts	Volts	Phase	Watts
KT103342	230	1	50	250	230	3	90
KT200350	230	1	50	250	230	3	180
KT103343	230	1	50	446	230	3	370

Motor Protection Switch

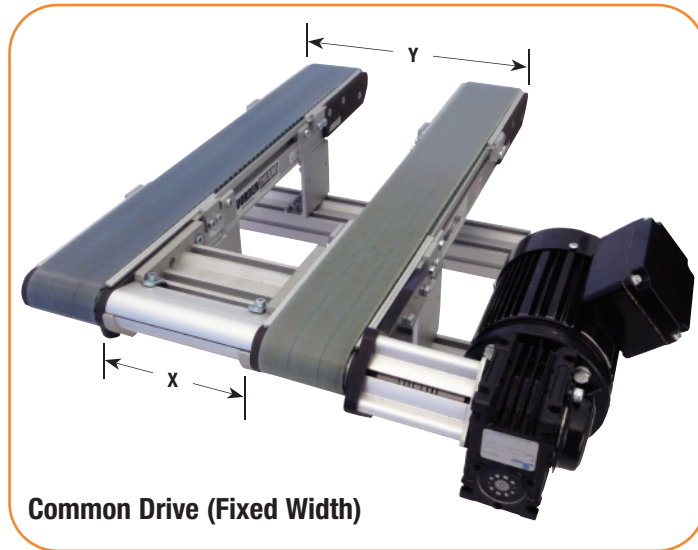
Chart B		Fixed Speed Motor Protection				
<ul style="list-style-type: none"> <li>Provides motor protection</li> <li>IP 54 Enclosure</li> <li>Adjustable for motor current</li> <li>Rotary switch</li> <li>Includes IEC 60309 plug for 400V, 50 Hz, 3 Phase or Type F plug for 250V, 50 Hz, 1 Phase</li> <li>Includes start stop push button</li> </ul>						<p>Regulatory Approvals</p> <p>CE</p>
Part Number	Input			Max Amps	Motor Type	
	Volts	Phase	Hz			
KT103682	400	3	50	0.4	90 Watt	
KT103723	400	3	50	0.8	180 Watt	
KT103724	400	3	50	1.2	370 Watt	
KT103682	230	1	50	0.8	59 Watt	
KT103683	230	1	50	1.3	119 Watt	
KT103684	230	1	50	2.3	244 Watt	

Note: Dim = mm (in)

## Emergency Stop Switch

Chart C		Motor Protection			
<ul style="list-style-type: none"> <li>• Compatible with Frequency Converter</li> <li>• Compatible with Motor Protection Switch</li> <li>• IP 54 Enclosure</li> <li>• Several interconnected switches can be used</li> <li>• Includes on/off push button</li> <li>• Wiring by others</li> </ul>					<p>Regulatory Approvals</p> <p>CE</p>
Part Number	Input Volts	Input Phase	Input Hz		
KT101166	230/400	3	50		

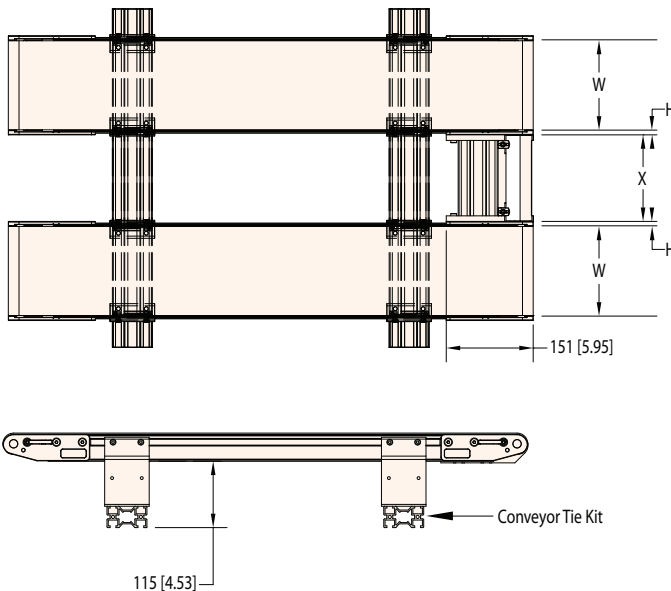
Note: Dim = mm (in)



Common Drive (Fixed Width)

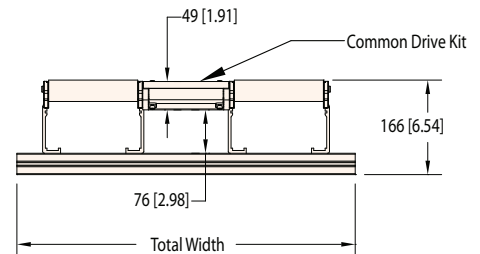
Specifications

- Parts can be wider than conveyor
- Conveyors can be different widths & lengths
- Minimum width (x) = 69 mm
- Maximum width (y) = 914 mm belt to belt
- Maximum number of conveyors = 3
- Maximum total torque = 11 Nm
- Keyless coupling allows belt synchronization between conveyors
- Includes shafts, couplings and guards
- Order conveyor tie kits separately
- Requires stub output shafts between conveyors



Headplate offset "H"

- Belted = 8.6 (.34)
- Precision Move = 8.6 (.34)
- Modular Belt = 13.2 (.52)



2200 Series Common Drive Kit

22CDMK G G G G G  
 | 00270 (2.70") to 03600 (36.00")

Note: One kit must be ordered for each pair of conveyors

Kit Includes:

- Shafts, couplings and guards
- Rigid tie plate for alignment
- Conveyor must be ordered with stubshaft on fixed end

2200 Series Common Drive Table Mount Tie Kit

39MCT W W - Y  
 | | | Number of Conveyors: 1 to 6  
 | | | Total Width: 02 to 48

Kit Includes:

- Conveyor mounting brackets
- Support extrusion

Note: Dim = mm (in)

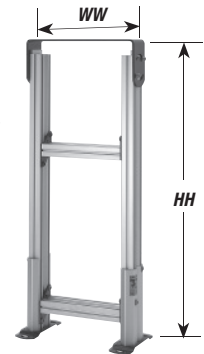
Due to the wide variety of drive set-ups and applications, point of installation guarding is the responsibility of the end user.

## Fixed Height Supports Stands

Fixed Foot Model			
Stand Width (WW)	305 mm	51 mm increments up to...	1,219 mm
Part # Reference	12	in 02 increments up to...	48
Stand Height (HH)* Belt	381 - 483 mm	in 25 mm increments up to...	2,413 - 2,515 mm
Part # Reference Belt	1519	in 0101 increments up to...	9599

Swivel Locking Caster Model			
Stand Width (WW)	305 mm	51 mm increments up to...	1,219 mm
Part # Reference	12	in 02 increments up to...	48
Stand Height (HH)* Belt	508 - 610 mm	in 25 mm increments up to...	1,727 - 1,829 mm
Part # Reference Belt	2024	in 0101 increments up to...	6872

- 102 mm Height Adjustment
- Provides most access to outside T-Slots
- Includes height indicator
- Full width is top plate on 305 mm wide stands only



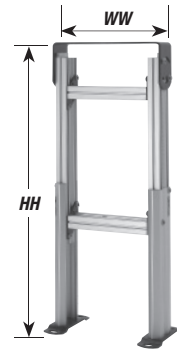
\* Dependent on stand width, stands over 1,067 mm may include outriggers

## Adjustable Height Supports Stands

Fixed Foot Model											
Stand Width (WW)	305 mm			51 mm increments up to...						1,219 mm	
Part # Reference	12			in 02 increments up to...						48	
Stand Height (HH) Belt	305 - 330 mm	330 - 381 mm	356 - 432 mm	406 - 660 mm	483 - 686 mm	610 - 914 mm	762 - 1,219 mm	1,067 - 1,524 mm	1,372 - 1,829 mm	1,676 - 2,134 mm	1,981 - 2,438 mm
Part # Reference Belt	1213	1315	1417	1621	1926	2436	3048	4260	5472	6684	7896

Swivel Locking Caster Model											
Stand Width (WW)	305 mm			51 mm increments up to...						1,219 mm	
Part # Reference	12			in 02 increments up to...						48	
Stand Height (HH) Belt	432-457 mm	457 - 508 mm	483 - 559 mm	533 - 660 mm	610 - 787 mm	737 - 1,041 mm	762 - 1,346 mm	1,194 - 1,651 mm	1,499 - 1,956 mm		
Part # Reference Belt	1718	1820	1922	2126	2431	2941	3553	4765	5977		

- Includes height indicator
- Full width is top plate on 305 mm wide stands only



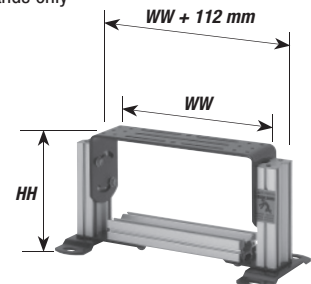
\* Dependent on stand width, stands over 1,067 mm may include outriggers

## Short Support Stands

Fixed Foot Model			
Stand Width (WW)	305 mm	51 mm increments up to...	1,219 mm
Part # Reference	12	in 02 increments up to...	48
Stand Height (HH)* Belt	152 - 203 mm	in 25 mm increments up to...	305 - 356 mm
Part # Reference Belt	0608	in 0101 increments up to...	1214

Swivel Locking Caster Model			
Stand Width (WW)	05 mm	51 mm increments up to...	1,219 mm
Part # Reference	12	in 02 increments up to...	48
Stand Height (HH)* Belt	279 - 330 mm	in 25 mm increments up to...	305 - 483 mm
Part # Reference Belt	1113	in 0101 increments up to...	1719

- For top belt heights below 508 mm
- Full width is top plate on 305 mm wide stands only



**Note:** Due to the wide variety of conveyor and stand options along with possible configurations, stability of the final setup is the responsibility of the end user.

For ordering information, see page 55

Quick Adjust Stands

Fixed Foot Model			
Stand Width (WW)*	305 mm	51mm increments up to...	914 mm
Part # Reference	12	in 02 increments up to...	36
Stand Height (HH)* Belt	610 - 762 mm	in 25 mm increments up to...	1,676 - 1,829 mm
Part # Reference Belt	2430	in 0101 increments up to...	6672
Swivel Locking Caster Model			
Stand Width (WW)*	305 mm	51 mm increments up to...	914 mm
Part # Reference	12	in 02 increments up to...	36
Stand Height (HH)* Belt	686 - 838 mm	in 25 mm increments up to...	1,524 - 1,676 mm
Part # Reference Belt	2733	in 0101 increments up to...	6066

- Metric fasteners
- +/- 76 mm Height Adjustment
- Allows for Quick Height Adjustment
- Tool-less lock and adjustment handles



Fixed Foot Model

Swivel Locking Caster Model

\* Under 305 mm wide use full top plate option

**2200 Series Support Stands**

3 9 M T T W W - HH (min) HH (max) F

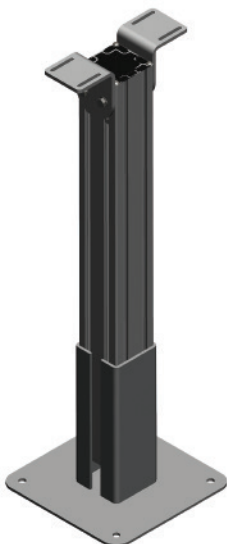
M - Documentation Language: M = English Only  
 T - Stand Type: LH = short stand, FT = tall fixed\*, QA = quick adjust  
 T - Stand Type: FH = fixed height, AT = tall adjustable\*, AH = adjustable height  
 W - Width Reference  
 W - Width Reference  
 HH (min) - Height Reference  
 HH (max) - Height Reference  
 F - Feet or Casters: F = fixed foot pad, C = total lock swivel caster

**EXAMPLE:** 39MAH12-2126CP

**Note:** Due to the wide variety of conveyor and stand options along with possible configurations, stability is final setup of the responsibility of the end user.

\*Tall stands are required when the stand width is 3.5 times the stand height.

Support Post Stands



Specifications

- ± 51 mm height adjustment
- Compatible with 51 mm – 305 mm wide conveyors
- Top of Belt Heights:
  - Minimum = 508 mm
  - Maximum = 2,464 mm
  - Available in 25 mm height increments
- Mounting Configurations:
  - ± 30° angle mount
- Equipped with a steel base plate for floor mounting
- Stand must be lagged to the floor

**2200 Series: Support Post - Beam Type**

3 2 0 R P M W W - L H U H

R - Documentation Language: M = English Only  
 P - Mounting Configuration: UH = ± 30° angle mount  
 M - Mounting Configuration: LH = ± 30° angle mount  
 W - Width Reference  
 W - Width Reference  
 L - Lowest Height to Top of Bracket (in inches)  
 H - Tallest Height to Top of Bracket (in inches)  
 U - Documentation Language: M = English Only  
 H - Documentation Language: M = English Only

**Width Range:** 3 = 45 and 95 mm, 4 = 152 and 203 mm, 5 = 254 and 305 mm

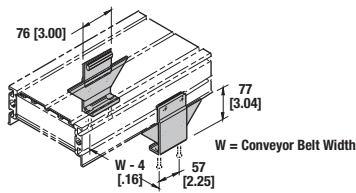
**Note:** Due to the wide variety of conveyor and stand options along with possible configurations, stability of the final setup is the responsibility of the end user.

## Quantity Charts

Support Stands	
Conveyor Length	Number of Supports
610 to 2743 mm	2
2744 to 5486 mm	3
5487 to 8230 mm	4
8231 to 9144 mm	5

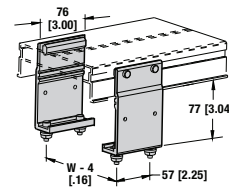
## Mounting Brackets

### Cleated Belt Stand Mounting Bracket



Part Number	Description
240838	Cleated Belt Conveyor

### Flat Belt & Modular Belt Stand Mounting Bracket

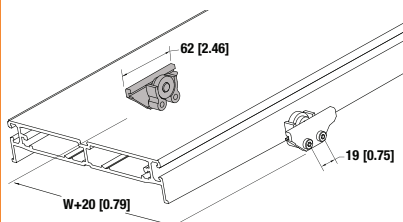


Part Number	Description
240839	Belted Conveyor
202389	Modular Belt Conveyor

**Note:** Conveyors can be ordered with the required number of mounting brackets. If desired, order additional mounting brackets separately.

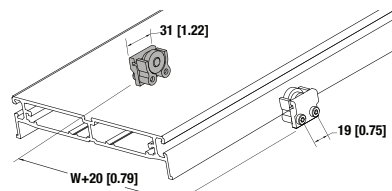
## Return Rollers (Belted Conveyors Only)

### Cleated Belt Return Roller



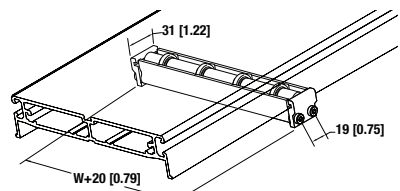
Part Number	Description
206521	Return Roller for Cleated Belt Conveyors

### Flat Belt Return Roller for 44 to 152 mm Wide Conveyors



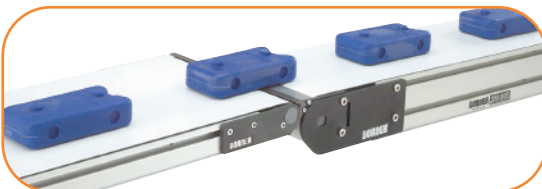
Part Number	Description
206522	Return Roller for 44 mm - 152 mm wide Flat Belt Conveyors

### Flat Belt Return Roller for 203 to 1,219 mm Wide Conveyors



Part Number	Description
206523-WW	Return Roller for 203 mm to 1,219 mm wide Flat Belt Conveyors

## Pulley Transfer Plate (2200 Belted Conveyor Only)



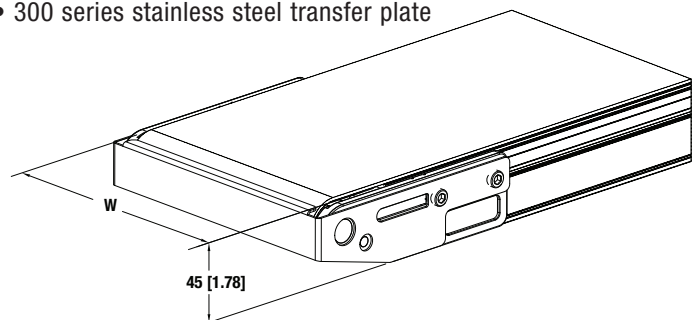
Part Number	Description
207218-WW	2200 Series Pulley Transfer Plate

**WW** = Conveyor Width Reference

Not compatible with clipper splice or high friction belts  
Not compatible with cleated belt conveyors

### Specifications

- 22 mm diameter minimum product transfer
- 300 series stainless steel transfer plate



**Note:** Dim = mm (in)

**Note:** Due to the wide variety of conveyor and stand options along with possible configurations, stability of the final setup is the responsibility of the end user.



Stand Accessories

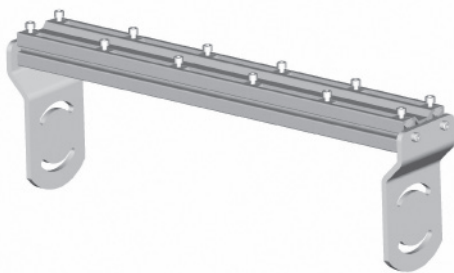
Diagonal Bracing



- For use on steel, aluminum and single post support stands with casters
- Metric fastener mounting hardware included
- For use on all stands with casters and any stands over 1829 mm tall
- One brace per stand for conveyors up to 305 mm wide
- Two braces per stand for conveyors over 305 mm wide

Part Number	Description
39MB-TS	for two-legged H style stands up to 762 mm tall
39MB-TT	for two-legged H style stands over 762 mm tall

Common Mount Kit



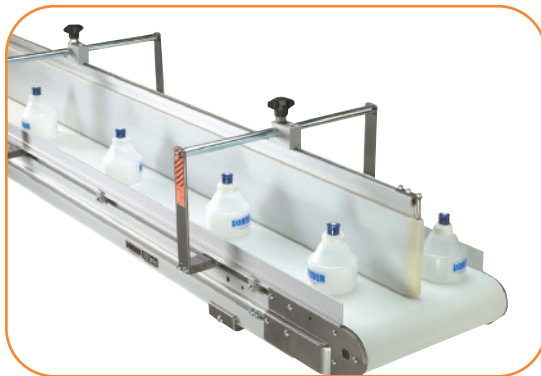
- Stand accessory for mounting multiple conveyors in parallel to one stand
- Adds 40 mm to stand height
- Adds 71 mm to overall stand width

2200 Series: Common Mount Kit

39 M C M  $\frac{W}{\text{Width Stand}}$   $\frac{W}{\text{Number of Conveyors}}$  - #

Example: 39MCM24-4

Adjustable Lane Guiding (2200 Belted Conveyors only)



Specifications

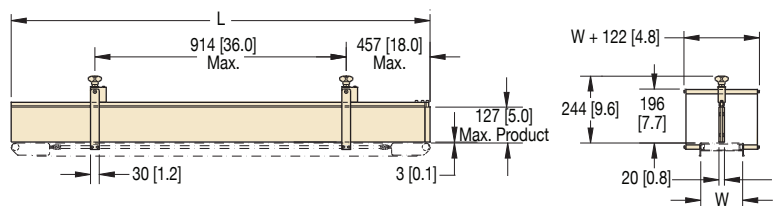
- UHMW guide surface on an anodized aluminum mounting rail
- Painted Steel mounting hardware
- Available in standard 305 mm increments or can be ordered to any length
- 127 mm maximum, 7 mm minimum part height
- 6 mm minimum lane width
- Package includes one lane guide, mounting hardware and adjusting knobs
- For conveyors up to 610 mm wide – Consult factory for wider lane guide availability
- Compatible with standard Dorner bolt-on profiles
- Easily adjusts for quick product change over
- Attach additional guides to create multiple lanes
- Create lanes, plows, merges and transfers
- Order additional lane kits separately

2200 Series Adjustable Lane Guiding

27 M  $\frac{GGG}{\text{Conveyor Length Reference}}$  -  $\frac{WW}{\text{Conveyor Width Reference}}$   $\frac{LL}{\text{Guide Type}}$

500 = 2200 Package (Belted)  
502 = Additional Lane Guide

Example: 27M500-0620



Important: Exceeding 127 mm product height will produce a pinch point.

Note: Dim = mm (in)

## Side Tables



### Specifications

- Provides a 6" (152 mm) or 12" (305 mm) wide working surface
- Adjusts in/out and up/down (0.25" max above bedplate) for product transfer on/off conveyor belts
- Can be positioned anywhere along the conveyor
- Anodized aluminum work surface
- Max load: 5 lbs/ft (6 kg/m), use Adjustable Tie Brackets for added capacity
- Available in 1' (305 mm) increments from 1' (305 mm) to 99' (30,175 mm)

#### 2200 Series Side Tables

27M TTT - 06 LLLL

**Table Length**

ex. 0200 = 610 mm (2 ft)

**Table Width:**

06 = 152 mm (6 in)

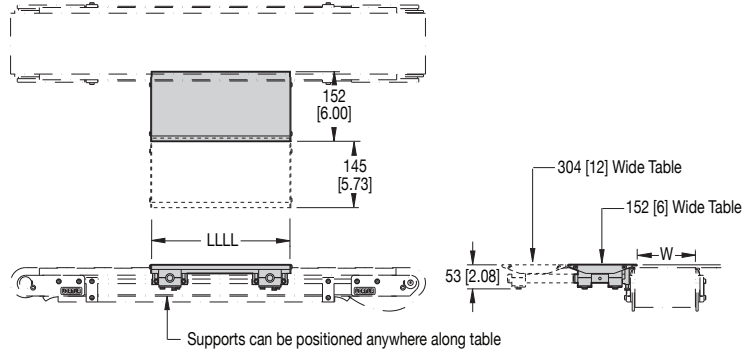
12 = 610 mm (12 in)

**Conveyor / Table Type:**

601 = one side

602 = two sides

**Example:** 27M601-060200



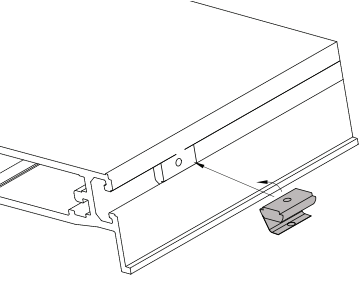
LLLL = 305 to 30,175 mm (1 to 99 ft); Maximum 2,438 mm (8 ft) length single piece

**Note: Dim = mm (in)**

*Due to the wide variety of drive set-ups and applications, point of installation guarding is the responsibility of the end user.*

T-Slot Hardware Accessories

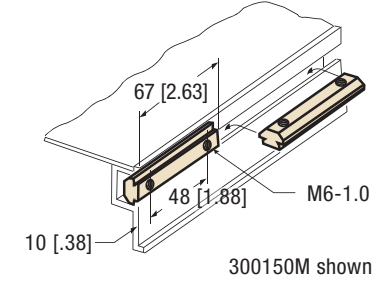
**Spring T-Nut**



- Retains position in T-slot

Part Number	Description
205504	M4 x 0.7 Spring Nut
205505	M5 x 0.8 Spring Nut
205506	M6 x 1.0 Spring Nut
205508	M8 x 1.25 Spring Nut

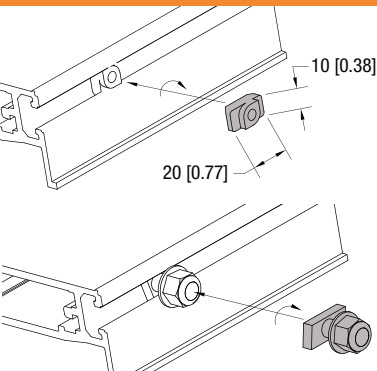
**T-Bars**



- Mounts in T-slots to attach heavy accessories

Part Number	Description
639971M	M6 x 1.0, T-bar, 1 hole, 19 mm long
202390M	M8 x 1.25, T-bar, 1 hole, 16 mm long
643874M	M6 x 1.0, T-bar, 2 hole, 19.0 mm centers, 38 mm long
200626M	M6 x 1.0, T-bar, 2 hole, 22.2 mm centers, 41 mm long
200830M	M6 x 1.0, T-bar, 2 hole, 25.4 mm centers, 44 mm long
639717M	M6 x 1.0, T-bar, 2 hole, 31.8 mm centers, 51 mm long
300150M	M6 x 1.0, T-bar, 2 hole, 47.6 mm centers, 64 mm long
300536M	M6 x 1.0, T-bar, 2 hole, 53.9 mm centers, 73 mm long

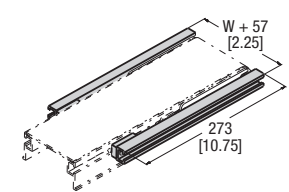
**T-Bolts & T-Nuts**



- Mounts in T-slots to attach accessories
- 1/2 turn install and remove
- T-nut requires thread lock screw

Part Number	Description
203446	M8 x 20mm long Twist Bolt and Nut, Package of 5
203447	M8 x 35mm long Twist Bolt and Nut, Package of 5
206685	M6 Twist T-Nut

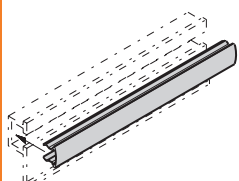
**T-Slot Extenders**



- Provides additional T-slots to the end of conveyor
- Includes mounting brackets and hardware
- Metric fasteners

Part Number	Description
307000M	T-Slot Extender, Pair

**T-Slot Cover**



- Snaps into conveyor and aluminum stand T-slots
- Black plastic extrusion
- Can be trimmed to fit

Part Number	Description
645656P	T-Slot Cover, Per 305 mm of length

Note: Dim = mm (in)

Due to the wide variety of drive set-ups and applications, point of installation guarding is the responsibility of the end user.

## Stops

### Adjustable Stop\*

- Slides up and down T-slot length
- Includes metric mounting hardware

Part Number	Description
207133-WW	Adjustable Stop: Belted
207137-WW	Adjustable Stop: Modular Belt and Precision Move

**WW** = Conveyor Width Reference

\* Not compatible with high friction belts

\* Not compatible with cleated belt conveyors

### End Stop\*

- Anodized aluminum stop
- Includes tail plates and mounting hardware

Part Number	Description
207213-WW	End Stop: Belted
207214-WW	End Stop: Precision Move
207215-WW	End Stop: Modular Belt

**Note:** Not compatible with gang drive nosebar, cleated belt, or modular belt center drive options

## Brackets

### Frame Mount Casters (2200 Belted Conveyor Only)

- Includes metric mounting hardware

\*Provides floor to T-Slot height of: 125mm

Part Number	Description
390207	Frame mount casters, pair

### Floor Mount Brackets

- Includes metric mounting hardware

\*Provides floor to T-Slot height of: 12 2mm

Part Number	Description
390217	Floor mount brackets, pair

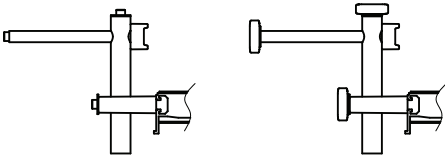
**WW** = Conveyor Width Reference

**Note: Dim = mm (in)**

Due to the wide variety of drive set-ups and applications, point of installation guarding is the responsibility of the end user.

Guide Mounts

**Guide Mount Brackets for Adjustable Profiles**

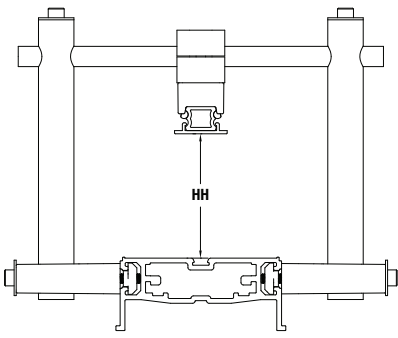


**Profile 13**                      **Profile 14**

Part Number	Description
206686	Fully adjustable guide mount assembly (Profiles 13, 33 & 43)
206687	Tool-less Fully adjustable guide mount assembly (Profiles 14, 34 - 44)

**Note:** Order guide extrusion separately

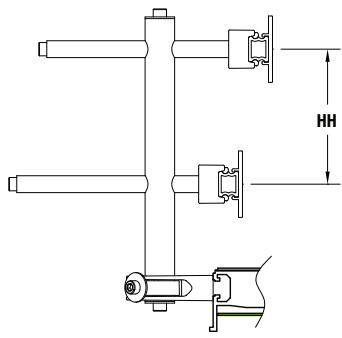
**Overhead Guide Mounting Bracket**



Part Number	Description
206185-WW-03	Adjustable 0 to 76 mm Overhead Guide Mount Bracket
206185-WW-05	Adjustable 0 to 127 mm Overhead Guide Mount Bracket
206185-WW-08	Adjustable 0 to 203 mm Overhead Guide Mount Bracket

**Note:** Order guide extrusion separately

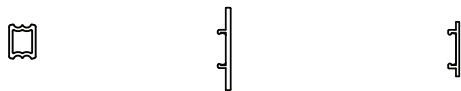
**Dual Guide Mounting Bracket**



Part Number	Description
206186-02	Dual Guide Bracket, 51 mm Between Guides
206186-03	Dual Guide Bracket, 76 mm Between Guides
206186-04	Dual Guide Bracket, 102 mm Between Guides

**Note:** Order guide extrusion separately

**Adjustable Guide Rail Extrusion**



**Aluminum Extrusion**                      **50 mm HDPE Extrusion**                      **33 mm HDPE Extrusion**

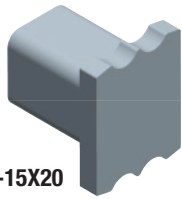
Part Number	Description
FGRR-15X20	Adjustable guide aluminum extrusion, 3 M long
FGRT-3X33	Adjustable guide 33 mm HDPE Cover, 3 M long
FGRT-3X50	Adjustable guide 50 mm HDPE Cover, 3 M long
FGRR-15X20P	Adjustable guide HDPE extrusion, 3 M long

**Note:** Order guide mount brackets separately

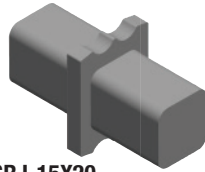
**Note: Dim = mm (in)**  
 Due to the wide variety of drive set-ups and applications, point of installation guarding is the responsibility of the end user.

## Guide Mounts (continued)

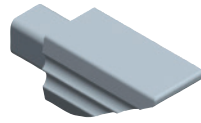
### Adjustable Guide Rail Accessories



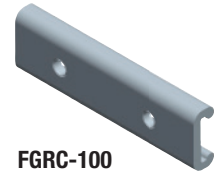
**FGEC-15X20**



**FGRJ-15X20**



**FGEC-30D**

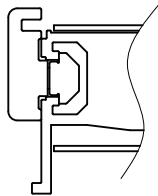


**FGRC-100**

Part Number	Description
FGEC-15X20	End cap for aluminum guide extrusion, 10 pack
FGRJ-15X20	Plastic plug connecting piece for aluminum guide extrusion, 10 pack
FGEC-30D	Lead in for aluminum guide extrusions, 10 pack
FGRC-100	Aluminum connection piece for aluminum guide extrusion, 10 pack

**Note:** Order guide extrusion separately

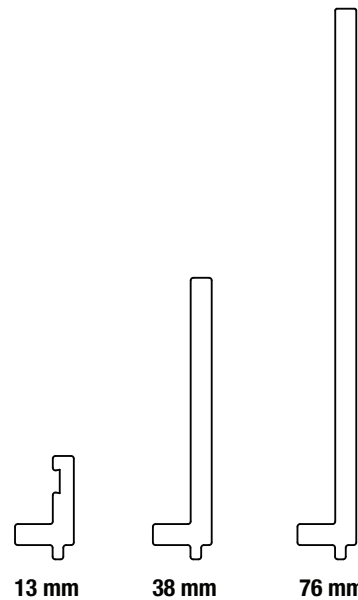
### Bolt on Guide Clip Assembly



Part Number	Description
203661	For use with all High Side Guide Profiles

**Note:** Order guide extrusion separately

### High Side Guide Rails



Part Number	Description
GTB09A04	13 mm Aluminum High Side guide extrusion 1220 mm long.
GTB09A08	13 mm Aluminum High Side guide extrusion 2438 mm long.
GTB05A04	38 mm Aluminum High Side guide extrusion 1220 mm long.
GTB05A08	38 mm Aluminum High Side guide extrusion 2438 mm long.
GTB04A04	76 mm Aluminum High Side guide extrusion 1220 mm long.
GTB04A08	76 mm Aluminum High Side guide extrusion 2438 mm long.

## Drive Shaft Accessories

### Spline Shaft



• Compatible with Precision Move Gang Mid Drive

Part Number	Description
202432-04800	0.50 inch diameter x 16 tooth x 1219 mm long Spline Shaft

**Regulatory Approvals:**







**Conveyors:**

All Dorner 2200 Series standard conveyors (not including gearmotors and controllers) are CE approved. CE approval follows the provisions of the following directives; Machine Directive 2006/42/EC, EU Low Voltage Directive 2006/95/EC, and EMC Directive 2004/108/EC. All conveyors are marked with the CE symbol on the Dorner serial number tag located on the conveyor frame. Contact the factory for the CE Declaration of Conformity.

All Dorner 2200 Series standard conveyors (not including gearmotors and controllers) are designed and manufactured in accordance with the restrictions defined in the “Restriction of Hazardous Substances” directive, citation 2002/95/EC, commonly known as RoHS. All conveyors are marked with the RoHS symbols on the Dorner serial number tag located on the conveyor frame.

**Gearmotors and Controllers:**

All Dorner 2200 Series gearmotors and controllers carry one or more of the following approvals. Products are not covered by each approval. Please see the appropriate part number on the Gearmotor and controller charts located in this manual. In addition, regulatory symbols are located on the product information tags located on the product.

	<p>CE Marking on a product is a manufacturer's declaration that the product complies with the essential requirements of the relevant European health, safety and environmental protection legislation, in practice by the Product Directives. CE Marking on a product ensures the free movement of the product within the European Union (EU).</p>
	<p>This directive restricts (with exceptions) the use of six hazardous materials in the manufacture of various types of electronic and electrical equipment. It is closely linked with the Waste Electrical and Electronic Equipment Directive (WEEE) 2002/96/EC which sets collection, recycling and recovery targets for electrical goods and is part of a legislative initiative to solve the problem of huge amounts of toxic e-waste.</p>
	<p>The UL Recognized Component mark is for products intended to be installed in another device, system or end product. This Recognized Component Mark is for the United States only. When a complete product or system containing UL Recognized Components is evaluated, the end-product evaluation process can be streamlined.</p>
	<p>The UL Recognized Component mark is for products intended to be installed in another device, system or end product. This Recognized Component Mark is for the United States and Canada. When a complete product or system containing UL Recognized Components is evaluated, the end-product evaluation process can be streamlined.</p>
	<p>CSA International (Canadian Standards Association), is a provider of product testing and certification services for electrical, mechanical, plumbing, gas and a variety of other products. Recognized in the U.S., Canada and around the world, CSA certification marks indicate that a product, process or service has been tested to a Canadian or U.S. standard and it meets the requirements of an applicable CSA standard or another recognized document used as a basis for certification.</p>
	<p>The UL Listing Mark means UL found that representative product samples met UL's safety requirements. These requirements are primarily based on UL's own published standards for safety. The C-UL-US Mark indicates compliance with both Canadian and U.S. requirements. The products with this type of Mark have been evaluated to Canadian safety requirements and U.S. safety requirements.</p>

## Clean Room Certifications:

The 2200 Series Conveyors are often used in clean room applications where the generation of particulates from the conveyor are a concern. In these applications the correct installation and application of the conveyor is critical to the proper running of the conveyor and minimizing the dust generated by the conveyor belt or modular belt. The end user must ensure that the conveyor belts are properly tracked and product accumulation is minimized to providing minimal dust generation.

All of the 2200 Series products are designed and constructed to be used in clean room environments. The following 2200 Series products have gone through third party testing and certification and are certified for use in ISO Standard 14644-1 Class 5 and Federal Standard 209 Class 100 Clean Room applications.

**1100 Series Belted Conveyor**

**FlexMove Series Flexible Chain Conveyor**

**FlexMove Stainless Series Conveyor**

**2200 Series Modular Belted Conveyor**

**2200 Series Belted Conveyor**

**2200 Series Precision Move Conveyor**

**3200 Series Belted Conveyor**

**3200 Series Modular Belted Conveyor**

**3200 Series Precision Move Conveyor**



Contact the factory for copy of the certification.



**Materials and Chemical Resistance:**

Conveyor Frames, Plastics and Modular Belting	
The following is a list of base materials used in the 2200 Series conveyor:	
Material	Conveyor Component
Acetal Copolymer, POM	Modular Belts, molded bearing housings
Polypropylene, PP	Modular Belts
Polyamide, PA	Adjustable Guide Support Brackets
UHMW-PE	Modular Belt Slide Rail, Adjustable Guide Face
Thermoplastic Elastomer, TPE	Modular Belt Friction Insert
Aluminum, anodized (Note: cut ends of aluminum is not anodized)	Conveyor Frame, Support Legs, High Side Guiding, Adjustable Guide Horizontal Post, Adjustable Guide Rail

The materials used in the 2200 Series product can resist many chemicals, however some should be avoided. Avoid the following:

- Acids with PH less than 4
- Bases with PH higher than 9

Resistance to Materials: Conveyor Frames, Plastics and Modular Belting					
The following table provides the resistance to materials used in the conveyor to several chemicals. Application testing is recommended to determine long term material durability.					
<b>Legend:</b>					
1 = Very good resistance   2 = Good resistance   3 = Moderate resistance   4 = Not recommended   X = no data available					
Acids	Acetal POM	Polypropylene	Polyamide PA	UHMW-PE	Aluminum
Acetic acid	3	1	4	1	2
Benzoic acid	3	1	4	1	4
Boric acid	3	1	2	1	2
Citric acid	3	1	2	1	2
Chromic acid	4	1	4	1	3
Hydrofluoric acid	4	1	4	1	4
Hydrochloric acid	4	1	4	1	3
Hydro cyanic acid	4	X	4	1	1
Nitric acid	4	1	4	1	3
Oleic acid	3	1	2	1	1
Oxalic acid	4	1	2	1	1
Phosphoric acid	4	1	4	1	3
Sulphuric acid	4	2	4	1	3
Tartaric acid	3	1	2	1	1
Basic Compounds	Acetal POM	Polypropylene	Polyamide PA	UHMW-PE	Aluminum
Ammonia	1	1	2	1	2
Calcium hydroxide	1	X	2	1	4
Caustic soda	1	X	2	1	3
Potassium hydroxide	1	1	2	1	4

## Resistance to Materials: Conveyor Frames, Plastics and Modular Belting *(continued)*

**Legend:**

1 = Very good resistance | 2 = Good resistance | 3 = Moderate resistance |  
4 = Not recommended | X = no data available

<b>Salts</b>	<b>Acetal POM</b>	<b>Polypropylene</b>	<b>Polyamide PA</b>	<b>UHMW-PE</b>	<b>Aluminum</b>
Potassium bicarbonate	2	X	2	1	1
Potassium permanganate	2	2	4	1	1
Sodium cyanic	2	X	2	1	4
Sodium hydrochloride	3	X	4	1	4
Acid salt	2	X	3	1	X
Basic salt	1	X	2	1	X
Neutral salt	1	X	2	1	X
<b>Organic Compounds</b>	<b>Acetal POM</b>	<b>Polypropylene</b>	<b>Polyamide PA</b>	<b>UHMW-PE</b>	<b>Aluminum</b>
Acetone	1	1	1	1	1
Aniline	2	1	3	1	1
Benzene	1	3	2	4	1
Benzine	2	X	2	3	1
Butyl alcohol	2	X	2	1	1
Carbon disulphide	1	3	2	3	1
Carbon tetrachloride	1	3	1	3	2
Chloroform	1	4	3	4	X
Ethyl acetate	1	1	2	1	1
Ethyl alcohol	1	X	2	1	1
Heptane	2	1	1	2	X
Methyl alcohol	1	X	2	1	2
Methyl ethyl ketone	1	2	1	2	2
Nitrobenzene	2	2	2	1	1
Phenol	3	1	4	1	1
<b>Gases</b>	<b>Acetal POM</b>	<b>Polypropylene</b>	<b>Polyamide PA</b>	<b>UHMW-PE</b>	<b>Aluminum</b>
Carbon dioxide	3	1	1	1	1
Carbon monoxide	2	X	1	1	1
Chlorine	2	4	4	3	1
Hydrogen Sulfide	3	1	1	1	1
Sulphur dioxide	2	1	3	1	1
<b>Other</b>	<b>Acetal POM</b>	<b>Polypropylene</b>	<b>Polyamide PA</b>	<b>UHMW-PE</b>	<b>Aluminum</b>
Carbon tetrachloride	1	3	1	3	2
Beer	1	1	2	1	1
Fruit juice	1	2	2	1	2
Gasoline	1	1	2	1	1
Milk	1	1	1	1	1
Oil	1	3	1	1	1
Vinegar	1	1	2	1	1

**Belting:**

The following is a list of the top coat materials used in 2200 Series conveyor belting:

Material	Belt Number
Urethane	01, 02, 03, 05, 06, 09, 54, 55, 56, 53, 60, 61, 63, 68, 69, 72, 73, 75, 76, 77
PVC (non FDA approved)	08, 18, 59, 64
Silicone	50, 80, 81
Polyester	66
Nitrile	57
Urethane (hard)	58

**Resistance to Materials: Belting**

The following table provides the resistance to belt materials used in the conveyor to several chemicals. Application testing is recommended to determine long term material durability.

**Legend:**

1 = Good resistance | 3 = Limited resistance | 4 = Not recommended

Materials	Urethane	PVC (non FDA)	Silicone	Polyester	Urethane (hard)
<b>Chemicals</b>					
Acetic acid (glacial acetic acid)	4	3	1	1	4
Acetic acid 10 %	3	1	1	3	1
Acetic anhydride	3	4	1	1	4
Acetone	4	4	1	3	4
Aluminium salts	1	1	1	1	1
Alum	1	1	1	1	1
Ammonia, aqueous	3	1	1	3	1
Ammonia, gaseous	1	1	3	1	1
Ammonium acetate	1	1	1	1	1
Ammonium carbonate	1	1	1	1	1
Ammonium chloride	1	1	1	1	1
Ammonium nitrate	1	1	1	1	1
Ammonium phosphate	1	1	1	1	1
Ammonium sulphate	1	1	1	1	1
Amyl alcohol	1	4	3	1	1
Aniline	3	3	3	4	4
Barium salts	1	1	1	1	1
Benzaldehyde	4	4	4	4	4
Benzine (see also Motor fuels)	1	3	3	1	1
Benzoic acid	1	1	1	1	1
Benzol	3	4	4	3	3
Boric acid	1	1	1	1	1
Boric acid, solution	1	1	1	1	1
Bromine	4	4	4	4	4
Bromine water	4	3	1	4	3
Butane, gaseous	1	1	1	1	1
Butane, liquid	1	1	1	1	1
Butyl acetate	4	4	4	3	4
n-Butyl alcohol	1	3	1	1	1
Calcium chloride	1	1	1	1	1
Calcium nitrate	1	1	1	1	1
Calcium sulphate	1	1	1	1	1
Carbon disulphide	4	4	3	4	4
Carbon tetrachloride	3	4	4	4	3
Chlorine, liquid	4	4	4	4	4

## Resistance to Materials: Belting (continued)

### Legend:

1 = Good resistance | 3 = Limited resistance | 4 = Not recommended

Materials	Urethane	PVC (non FDA)	Silicone	Polyester	Urethane (hard)
Chlorine, gaseous, dry	4	4	4	4	4
Chlorine, gaseous, wet	4	4	4	4	4
Chlorine water	4	1	3	4	3
Chlorobenzene	4	4	4	4	4
Chloroform	4	4	4	4	4
Chlorosulphonic acid	4	4	4	4	4
Chromic acid	4	4	4	4	4
Chromium salts	1	1	1	1	1
Chromium trioxide	1	1	1	1	1
Citric acid	4	1	1	1	4
Copper salts	1	1	1	1	3
Cresols	3	3	3	4	3
Cresols, aqueous	3	3	3	3	3
Cyclohexane	4	4	4	1	4
Cyclohexanol	4	4	4	4	4
Cyclohexanone	4	4	4	4	4
Decahydronaphthalene	4	4	4	4	4
Dibutyl phthalate	3	4	1	4	4
Diethyl ether	4	4	4	4	4
Dimethyl formamide	4	4	3	4	4
1.4 Dioxan	4	4	3	4	4
Ether	4	4	4	4	4
Ethyl acetate	4	4	4	3	4
Ethyl alcohol, non-denatured 100%	1	3	3	1	1
Ethyl alcohol, non-denatured 96%	1	3	3	1	1
Ethyl alcohol, non-denatured 50%	1	3	3	1	1
Ethyl alcohol, non-denatured 10%	1	3	1	1	1
Ethyl benzene	4	4	4	4	4
Ethyl chloride	4	4	4	4	4
Ethylene chloride	4	4	4	4	4
2-Ethyl hexanol	1	3	1	1	1
Formaldehyde	1	3	1	3	1
Formic acid, dilute	4	1	1	3	3
Glycerine	1	1	1	1	1
Glycerine, aqueous	1	1	1	1	1
Glycol	1	3	1	1	1
Glycol, aqueous	1	1	1	1	1
Heptane	1	3	3	1	1
Hexane	1	3	3	1	1
Hydrochloric acid, conc.	3	1	4	3	1
Hydrochloric acid 10 %	3	1	1	1	1
Hydrofluoric acid 40 %	4	4	4	4	4
Hydrogen chloride, gaseous, dilute	3	1	3	3	1
Hydrogen chloride, gaseous, conc.	3	3	3	4	3
Hydrogen peroxide 10%	3	1	1	3	1
Hydrogen sulphide	3	3	3	3	3
Iron salts (sulphate)	1	1	1	1	1
Isooctane	1	3	3	1	1
Isopropyl alcohol	1	3	1	1	1
Lactic acid	1	3	1	1	1
Magnesium salts	1	1	1	1	1
Mercury	1	1	1	1	1

Resistance to Materials: Belting (continued)					
Legend: 1 = Good resistance   3 = Limited resistance   4 = Not recommended					
Materials	Urethane	PVC (non FDA)	Silicone	Polyester	Urethane (hard)
Mercury salts	1	1	1	1	1
Methyl alcohol, aqueous 50 %	3	3	1	1	1
Methyl alcohol (methanol)	1	3	1	1	1
Methyl ethyl ketone	4	4	1	3	4
Methylene chloride	4	4	4	4	4
Naphthalene	3	4	4	3	4
Nickel salts	1	1	1	1	1
Nitric acid	4	3	4	4	4
Nitrobenzene	4	4	1	3	4
Octane (see also isooctane)	1	3	4	1	1
Oleic acid	1	3	4	1	1
Oxalic acid	1	1	1	1	1
Ozone	1	3	3	1	3
Perchloroethylene	4	4	4	4	4
Phenol	3	3	1	4	3
Phenol, aqueous	4	3	1	4	3
Phosphoric acid 85 %	4	1	1	3	1
Phosphoric acid 50 %	1	1	1	1	1
Phosphoric acid 10 %	1	1	1	1	1
Phosphorus pentoxide	1	1	1	1	1
Potash lye 50 %	4	1	4	3	4
Potash lye 25 %	4	1	4	1	4
Potash lye 10 %	4	1	3	1	4
Potassium carbonate (potash)	1	1	1	1	1
Potassium chlorate	1	1	1	1	1
Potassium chloride	1	1	1	1	1
Potassium dichromate	1	1	1	1	1
Potassium iodide	1	1	1	1	1
Potassium nitrate	1	1	1	1	1
Potassium permanganate	1	1	1	1	1
Potassium persulphate	1	1	1	1	1
Potassium sulphate	1	1	1	1	1
Propane, gaseous	1	1	1	1	1
Propane, liquid	1	1	1	1	1
Pyridine	4	4	3	4	4
Silver salts	1	1	1	1	1
Soda lye 50% (see potash lye)	4	1	4	4	4
Soda lye 25%	4	1	4	3	4
Soda lye 10%	4	1	3	1	4
Sodium bisulphite	1	1	1	1	1
Sodium carbonate (natron)	1	1	1	1	1
Sodium carbonate (soda)	1	1	1	1	1
Sodium chlorate	1	1	1	1	1
Sodium chloride (common salt)	1	1	1	1	1
Sodium hydroxide (caustic soda)	4	1	4	1	4
Sodium hypochlorite	1	1	1	3	1
Sodium nitrate	1	1	1	1	1
Sodium nitrite	1	1	1	1	1
Sodium perborate	1	1	1	1	1
Sodium phosphate	1	1	1	1	1
Sodium sulphate (Glauber salt)	1	1	1	1	1
Sodium sulphide	1	1	1	1	1

## Resistance to Materials: Belting (continued)

### Legend:

1 = Good resistance | 3 = Limited resistance | 4 = Not recommended

Materials	Urethane	PVC (non FDA)	Silicone	Polyester	Urethane (hard)
Sodium sulphite	1	1	1	1	1
Sodium thiosulphate (fixing salt)	1	1	1	1	1
Stearic acid	1	1	1	1	1
Succinic acid	1	1	1	1	1
Sulphur	1	1	1	1	1
Sulphur dioxide	3	3	3	3	4
Sulphuric acid 96%	4	4	4	4	4
Sulphuric acid 50%	4	3	4	3	4
Sulphuric acid 25%	4	3	3	1	3
Sulphuric acid 10%	4	3	1	1	3
Tartaric acids	1	1	1	1	1
Tetrachloroethane	4	4	4	4	4
Tetrachloroethylene (perchloroethylene)	4	4	4	4	4
Tetrahydrofuran	4	4	4	4	4
Tetrahydronaphthalene	4	4	4	4	4
Thiophene	4	4	4	4	4
Tin II chlorides	1	1	1	1	1
Toluene	4	4	4	4	4
Trichloroethylene	4	4	4	4	4
Urea, aqueous	1	1	1	1	1
Water	1	1	1	1	1
Xylene	4	4	4	3	4
Zinc salts	1	1	1	1	1
<b>Products</b>					
Alum	1	1	1	1	1
Anti-freeze*	1	3	1	1	1
Aqua regia	4	4	4	4	4
Asphalt	1	3	3	1	1
Battery acid	4	4	4	4	4
Benzine	1	3	3	1	1
Bleaching lye (12.5%)	1	1	1	1	3
Bone oil	1	3	4	1	1
Borax	1	1	1	1	1
Brake fluid* Bosch	1	3	1	1	3
Brake fluid* Skydrol	4	4	3	4	4
Chloride of lime (aqueous suspension)	1	1	1	1	3
Chlorine (active)	4	4	4	4	4
Chrome baths* (technical)	1	3	3	1	1
Chromosulphuric acid	4	4	4	4	4
Cresol solution	3	3	4	4	4
Diesel oil	1	1	3	1	1
Fertilizer salts	1	1	1	1	1
Fixing salt	1	1	1	1	1
Floor wax	1	3	3	1	1
Formalin	1	3	3	1	1
Fuel oils*	1	1	3	1	1
Furniture polish*	1	3	3	1	1
Gypsum	1	1	1	1	1
Ink*	1	1	1	1	1
Linseed oil	1	3	1	1	1
Litex (styrene)	4	4	4	4	4

Resistance to Materials: Belting <i>(continued)</i>					
Legend: 1 = Good resistance   3 = Limited resistance   4 = Not recommended					
Materials	Urethane	PVC (non FDA)	Silicone	Polyester	Urethane (hard)
Mineral oils (non-aromatic)	1	1	1	1	1
Moth balls	3	4	3	3	3
Diesel oil*	1	1	3	1	1
Petrol (gasoline) DIN51635	1	3	3	1	1
Petrol, regular	1	3	3	1	1
Petrol, super	3	4	3	1	3
Motor oils*	1	1	1	1	1
Oil no. 3 (ASTM)	1	3	1	1	1
Oleum	4	4	4	4	4
Paraffin	1	1	1	1	1
Paraffin oil	1	1	1	1	1
Petroleum	1	3	3	1	1
Petroleum ether	1	3	4	1	1
Photographic developer	1	1	1	1	1

### Bearings and Lubrication:

All bearings on the 2200 Series conveyor are sealed and lubricated for life. No grease zerk is available and no greasing over the life of the product is required.

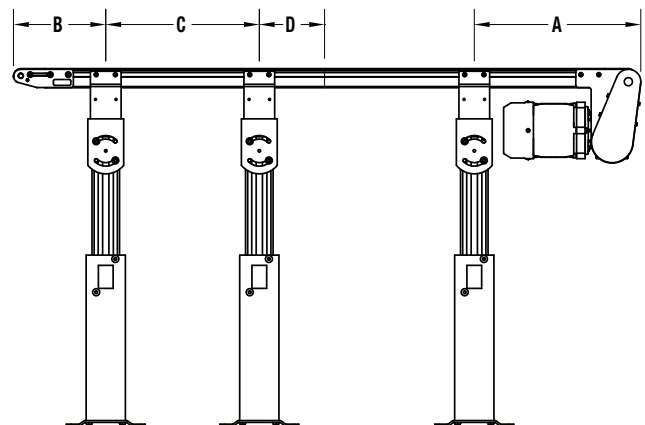
All gearmotors used on the 2200 series conveyor are sealed and may be mounted in any position. Changing gear oil lubrication may be needed over the life of the gearbox. Please check the appropriate gearmotor manual for instructions.

### Support Stand Locations:

Support Stand Locations		
Symbol	Description	Value, mm
A*	Maximum distance back at drive end	457
B	Maximum distance back at idler end	610
C	Maximum distance between supports	2743
D**	Maximum distance away from frame split	600

\*Note: For heavy load mount packages stand location must be mounted directly under gearmotor.

\*\*Note: Mounting offset frame split requires tie kit 206519

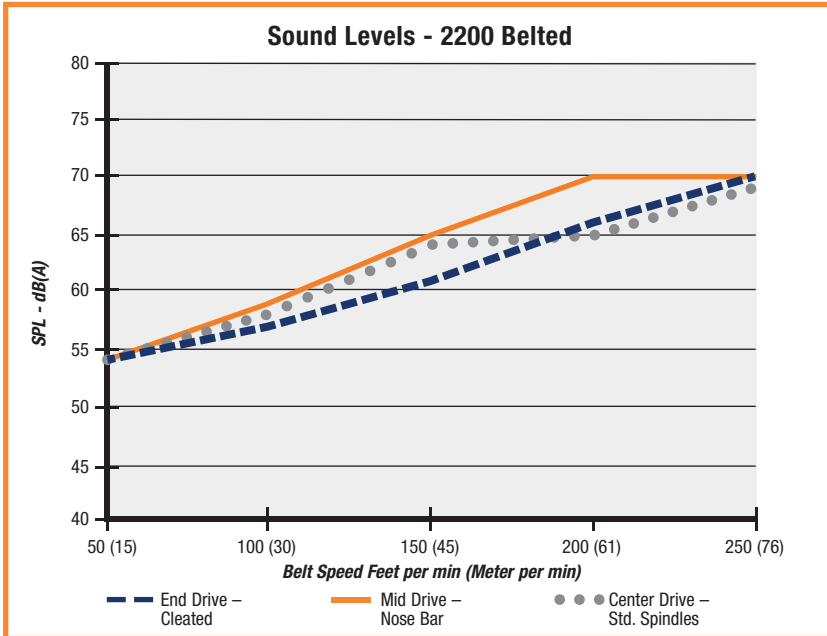


## Conveyor Noise Level (Decibel Ratings)

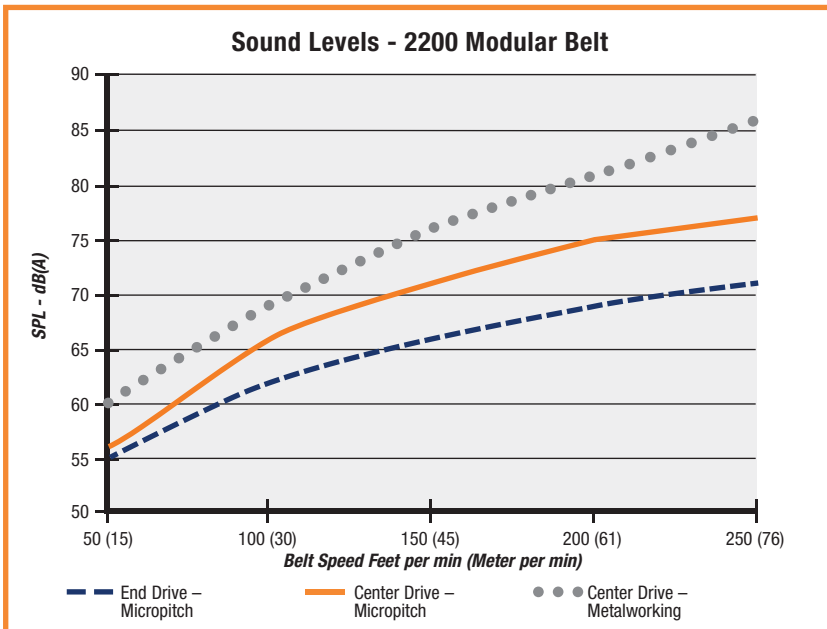
The actual noise level generated by the conveyor depends on several factors; the installation configuration, the product running on the conveyor, the surrounding equipment, the conveyor options and belt speed. The noise level generated by the conveyor is typically less than the general noise level of factory equipment.

Generally a higher belt speed will result in a higher noise level. In addition modular belt conveyors will run slightly louder than belted conveyors. The following charts provide basic decibel ratings for a typical conveyor arrangement.

### Belted Conveyors:



### Modular Belt Conveyors:





### Maximum Load Capacity

The following Load Capacity Charts **do not** take into account the conveyor configuration, length or gearmotor selection. Your specific conveyor may not be capable of the maximum load condition. Please confirm your maximum load per application with the Dorner DTools program at [www.dornerconveyors.com](http://www.dornerconveyors.com).

All load capacities shown are non-accumulated evenly distributed loads.

2200 Series End Drive Belted Conveyor		
Belt Width (mm)	Direction 1, Pulling the Belt	Direction 2, Pushing the Belt
44 wide	13.6 Kg	6.8 Kg
95 wide	19 Kg	9.5 Kg
152 wide	27 Kg	13 Kg
203 wide	32 Kg	16 Kg
254 to 610 wide	36 Kg	18 Kg

2200 Series Belted Center Drive Conveyor		
Belt Width (mm)	Direction 1, Pulling the Belt	Direction 2, Pushing the Belt
44 wide	18.1 Kg	5.9 Kg
95 wide	27 Kg	9 Kg
152 wide	40 Kg	13.6 Kg
203 wide	47 Kg	16 Kg
254 to 610 wide	54 Kg	18 Kg

2200 Series Mid Drive Belted Conveyor	
Belt Width (mm)	Direction 1, Pulling the Belt
44 wide	13.6 Kg
95 wide	19 Kg
152 wide	27 Kg
203 wide	32 Kg
254 to 610 wide	36 Kg

2200 Series Precision Move End and Mid Drive Conveyor	
Belt Width (mm)	Direction 1, Pulling the Belt
25 wide	90 Kg
44 wide	90 Kg
95 wide	90 Kg
152 wide	90 Kg
203 wide	90 Kg
305 wide	90 Kg
457 wide	90 Kg
610 wide	90 Kg

2200 Series Modular Belt End and Center Drive Conveyor	
Belt Width (mm)	Direction 1, Pulling the Belt
76 wide	36 Kg
95 wide	36 Kg
152 wide	45 Kg
203 wide	45 Kg
305 wide	68 Kg
457 wide	68 Kg
610 wide	68 Kg

## No Load Torque

No load torque is the amount of torque required to turn an empty conveyor. The torque value varies by conveyor length and configuration. The following charts provide basic values for an average length conveyor. Your specific conveyor may not have a higher value. Please confirm your no load torque and maximum load per application with the Dorner DTools program at [www.dornerconveyors.com](http://www.dornerconveyors.com).

### Belted Conveyor

Belted Conveyor No Load Torque			
Belt Width (mm)	End Drive (Nm)	Mid Drive (Nm)	Center Drive (Nm)
44 wide	.45	.79	1.02
95 wide	.68	1.02	1.24
152 wide	.90	1.36	1.70
203 wide	1.13	1.70	2.26
254 wide	1.36	2.03	2.60
305 wide	1.58	2.26	2.83
356 wide	1.69	2.37	3.05
406 wide	1.81	2.49	3.16
457 wide	1.92	2.71	3.39
508 wide	2.03	2.83	3.62
559 wide	2.15	2.94	3.72
610 wide	2.26	3.16	3.96

### Modular Belt Conveyor:

The no load torque on modular belt conveyors is dependent on the conveyor length and width. Use the following formula to determine no load torque. Where:

L = conveyor length (mm)

W = conveyor width (mm)

Micropitch No Load Torque (Nm) =  $(0.3COF) * (L/1000 * (W/1000)^2) * (6.35 \text{ Kg/sq m}) * (43.2/1000 \text{ in pitch}) * 9.81$

Metalworking No Load Torque (Nm) =  $(0.3COF) * (L/1000 * (W/1000)^2) * (6.35 \text{ Kg/sq m}) * (47.8/1000 \text{ in pitch}) * 9.81$

Example: 2200 Series Modular Belt Micropitch, 305 mm wide x 3000 mm long

Micropitch No Load Torque (Nm) =  $(0.3COF) * (3000/1000 * (305/1000)^2) * (6.35 \text{ Kg/sq m}) * (47.8/1000 \text{ in pitch}) * 9.81$

Micropitch No Load Torque (Nm) = 0.74 Nm

### Belting and Coefficient of Friction

The coefficient of friction is used to determine the load a conveyor can carry. It effects a conveyor in two ways: the friction that exists between the conveyor belt and the bed surface, and if accumulating product, the friction that exists between the conveyor top surface and the product.

#### Coefficient of Friction, between the bottom of the conveyor belt and bed surface:

Product	Surfaces	Application Condition	Coefficient of Friction
2200 Series Belted	Impregnated polyester fabric to anodized aluminum bed plate	Dry	0.33
2200 Series Modular Belt	Acetal modular belt to UHMW wear strips	Dry	0.30

#### Coefficient of Friction, between the top surface of conveyor belt and product:

##### 2200 Series Belted

The following table provides the coefficient of friction between steel product and various belt top surfaces. All factors below are assuming dry conditions.

Belt Number	Top Surface Material and Type	Coefficient of Friction
01, 54, 58, 68, 73, 81	Smooth hard urethane	0.40
02, 59, 60, 61, 66, 72, 76, 79	Smooth medium urethane	0.50
03, 19, 55, 69, 75, 77, 78, 80	Glossy soft urethane	>1.0, do not accumulate
05, 06, 50, 53, 63	Impregnated polyester fabric	0.20
08, 18, 64	PVC, Very High friction	>1.0, do not accumulate

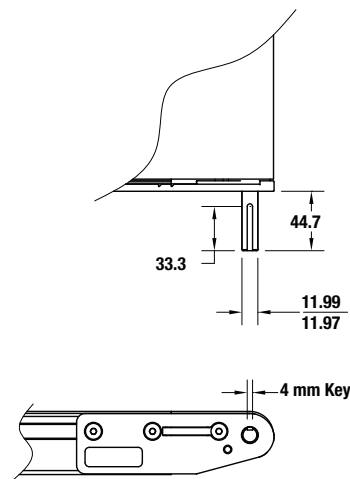
##### 2200 Series Modular Belt

The following table provides the coefficient of friction between acetal modular belt and various products. All factors below are assuming dry conditions.

Product Being Accumulated	Typical Coefficient of Friction
Steel	0.25
Glass	0.20
Aluminum	0.25
Plastic	0.25
Wood	0.30
Paper and Cardboard	0.30

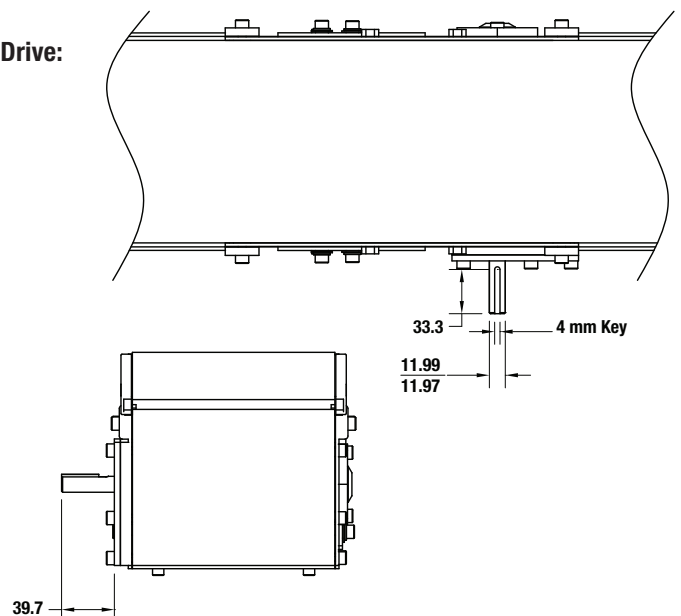
### Conveyor Drive Shaft Tolerances:

#### End Drive, Belted and Modular Belt:



(All dimensions in millimeter)

#### Center Drive:



## Calculating Conveyor Belt Speed

### 2200 Series Belted Conveyors:

To calculate the conveyor belt speed you need to know the following factors:

- Drive roller diameter
  - 32 mm for end, mid and center drives
- Number of teeth of pulley located at drive roller (if equipped)
- Number of teeth of pulley located at gearmotor (if equipped)
- RPM of gearmotor

$$\text{Belt Speed (Meter/min)} = (\text{Drive roller diameter}/1000) * (3.14) * (\text{RPM of gearmotor}) * \frac{(\text{Teeth at gearmotor})}{(\text{Teeth at drive roller})}$$

Example:

2200 Series End Drive with a Bottom mount with a 28 tooth pulley located at the drive roller and a 44 tooth pulley located on the gearmotor. The gearmotor is a 20:1 ratio with 86 rpm output.

$$\text{Belt Speed (M/min)} = (32/1000) * (3.14) * (86) * (44/28)$$

$$\text{Belt speed (M/min)} = 13.6 \text{ M/min}$$

### 2200 Series Modular Belt Conveyors:

To calculate the conveyor belt speed you need to know the following factors:

- Drive sprocket pitch diameter
  - 43.2 mm for Belts 01 and 02
  - 47.8 mm for Belts 30, 31, 32, 40, 41 and 42
- Number of teeth of pulley located at drive roller (if equipped)
- Number of teeth of pulley located at gearmotor (if equipped)
- RPM of gearmotor

$$\text{Belt Speed (M/min)} = (\text{Drive pitch diameter}/1000) * (3.14) * (\text{RPM of gearmotor}) * \frac{(\text{Teeth at gearmotor})}{(\text{Teeth at drive roller})}$$

Example:

2200 Series Straight Modular Belt Conveyor with a Bottom mount with a 28 tooth pulley located at the drive roller and a 44 tooth pulley located on the gearmotor. The gearmotor is a 20:1 ratio with 86 rpm output. Belt type is 30.

$$\text{Belt Speed (M/min)} = (42.8/1000) * (3.14) * (86) * (44/28)$$

$$\text{Belt speed (M/min)} = 20.3 \text{ M/min}$$

## Calculating Conveyor Load Capacity

There are several factor that effect the overall conveyor load of the 2200 Series conveyor. These include:

- Conveyor size and configuration
- Conveyor speed
- Application temperature
- Product Accumulation
- Number of starts and stops per hour

Located online at [www.dornerconveyors.com](http://www.dornerconveyors.com) is the Dorner conveyor configuration tool, DTools. This tool allows you to configure your conveyor layout and determine the maximum load capacity for the conveyor. It is suggested that this program be used to calculate the conveyor load as the calculation is quite complicated. This configuration program however does not take into account temperature, dirty conditions, and conveyor starts and stops. If these conditions are part of your application please use the load reducing factors as shown below.

Maximum Load = (Load from DTools)(Temperature Factor)(Start/Stop Factor)

Temperature Factor		
Ambient temperature can negatively affect the capacity of the conveyor.		
Temperature F	Temperature C	Temperature Factor
-4	-20	1.0
32	0	1.0
68	20	1.0
104	40	0.9
140	60	0.8

Start / Stop Factor	
Frequent Start / Stops of the conveyor can negatively affect the capacity of the conveyor. All start / stop applications must use a soft start mechanism such as a Frequency Inverter with a 1 second acceleration cycle.	
Application Condition	Start / Stop Factor
Continuous Run or 1 start/stop per hour	1.0
Maximum 10 starts/stop per hour	0.83
Maximum 30 starts/stop per hour	0.70
Greater than 30 starts/stop per hour	0.62

**2200 Series Conveyors are best for:**

- Small to Medium Part Handling
- Precision Part Movement
- Positioning
- Transfers
- Part Incline/Decline Routing (Z Frames)
- Automated and Manual Assembly
- Accumulation

**Sizes & Measurements**

- 25 to 610 mm (widths)
- 457 to 9144 mm (lengths)

**Loads & Speeds**

- Up to 91 kg
- Up to 122 meters per minute



**Conveyor Configurations**



Straight



Z-Frame

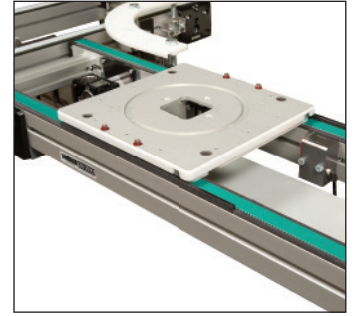
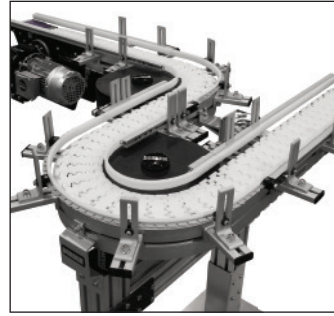
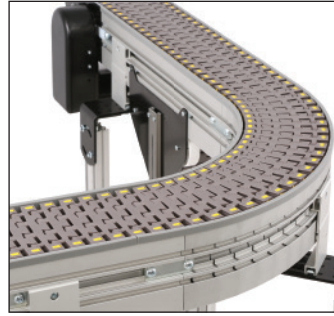


Horizontal to Incline

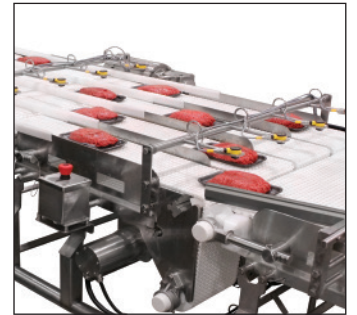
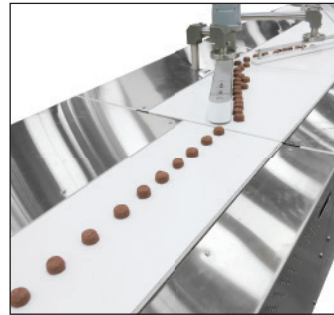
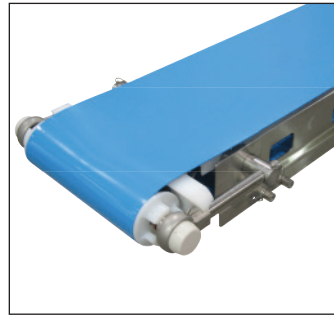
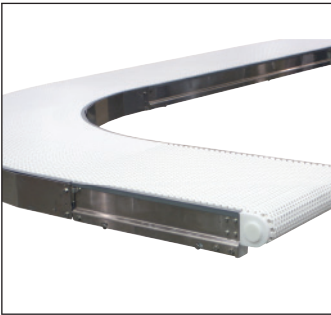


Nose-Over

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