ENGINEERING MANUAL

Superior V-Guided Belt Tracking

Universal Motor & Mounting Package

Fast & Simple to Use Online Configurator

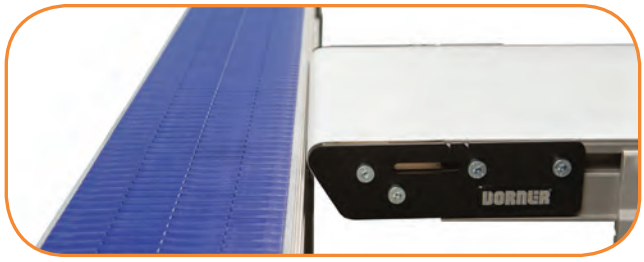
Industry-Best Product Transfers

2200 SERIES CONVEYORS

Low Profile, High Performance, Fabric & Modular Belt Conveyors

DORNER®

MOVE FAST. MOVE SMART.



High Speed Nose Bar Transfers

- 5/8" Nose Bar safely transfers small parts at speeds up to 200 ft/min and features V-Guided Belting for accurate belt tracking

Universal Drive

- A breakthrough in conveyor drive technology; a single part number covers all speeds, loads, and mounting positions for 2200 End Drive Conveyors

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

iDrive

- The industry's most compact drive saves space and reduces integration time

LPZs

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

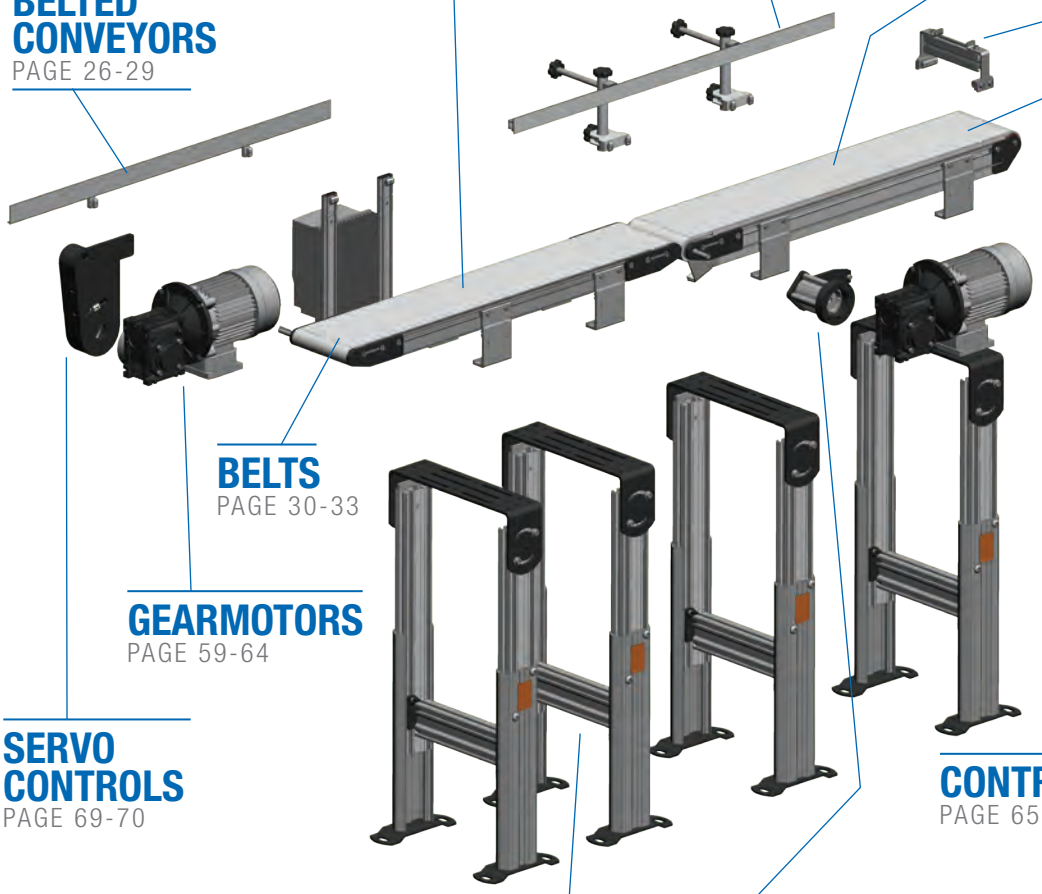
The Benefits of a Dorner 2200 Series Conveyor

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
- Universal Drive provides flexibility in design layout and simplicity in spare part management

Time Saving

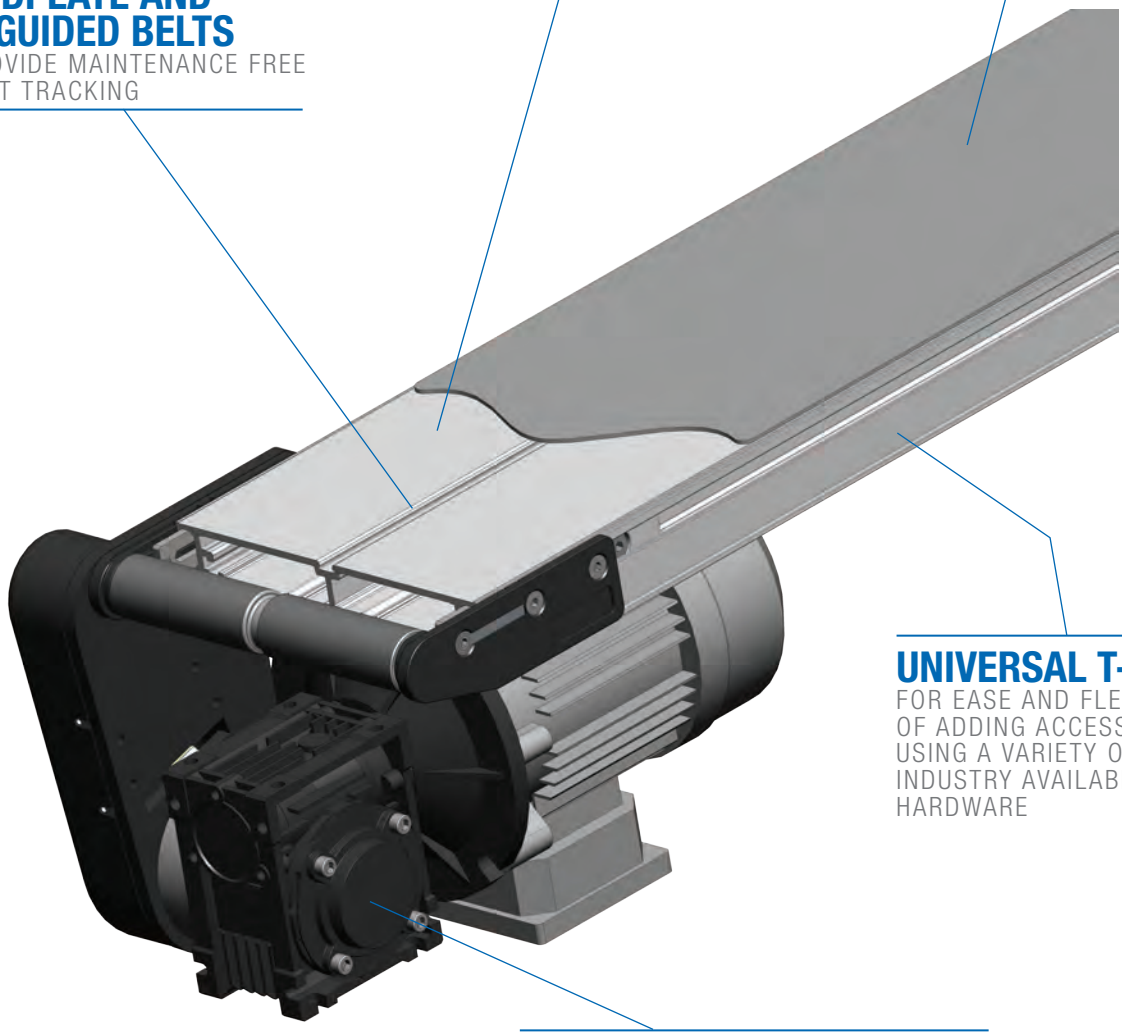
- Dorner's online configurator engineers simple or complex conveyors to meet your needs in minutes
- The industry leading tool delivers a complete 3D CAD assembly model for instant validation of fit
- Dorner provides the industry's fastest lead times with conveyors shipping in as little as 3 business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



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



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

eDRIVE®
LOW INERTIA ROTOR ALUMINUM BODY MOTORS PROVIDE LOW TEMPERATURES IN SMALL PACKAGE

UNIVERSAL DRIVE
SINGLE PART NUMBER MOTOR/MOUNT/DRIVE PACKAGE COVERS ALL SPEED, LOAD AND MOUNTING POSITIONS FOR END DRIVE CONVEYORS

2200 SERIES

Center Drive

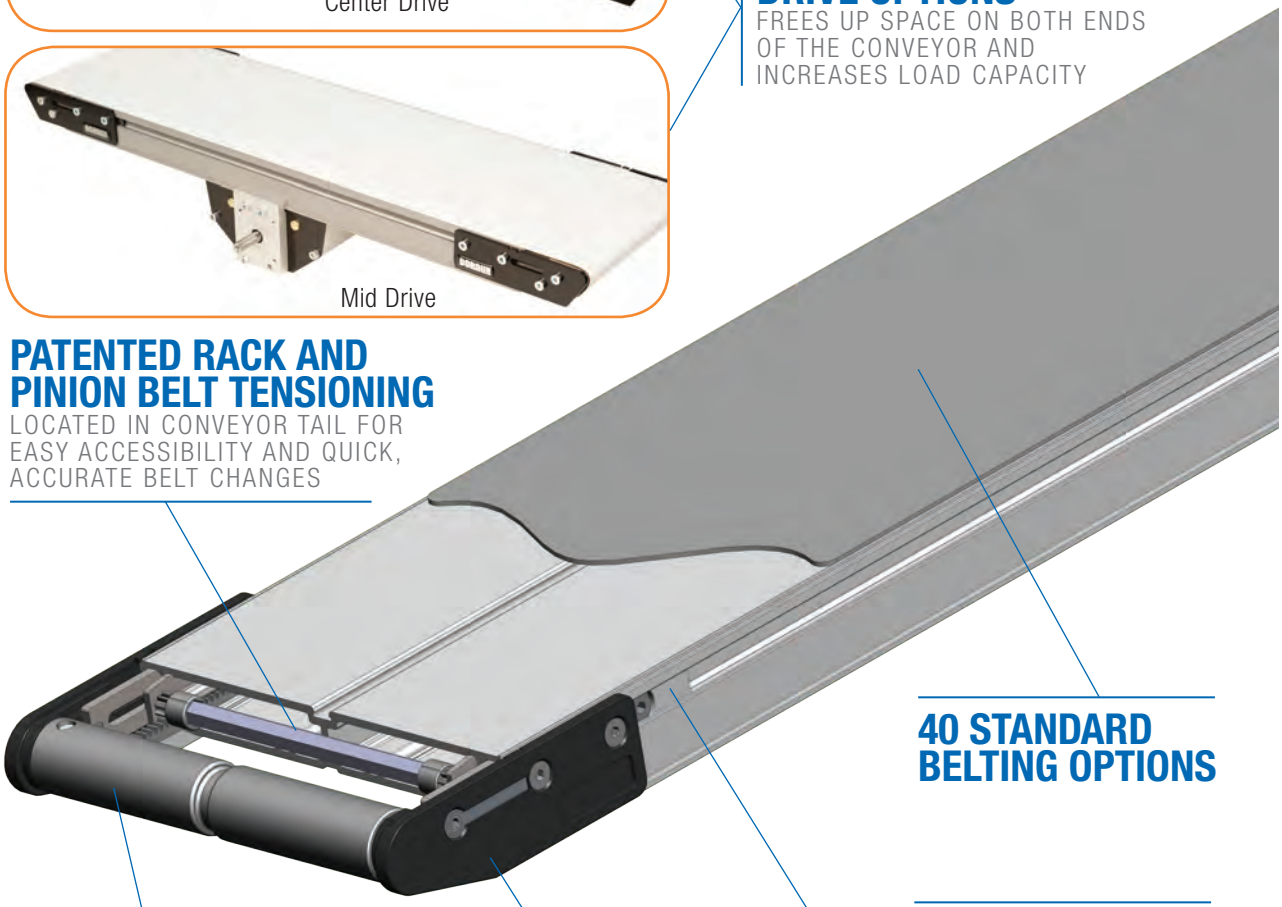
Mid Drive

CENTER AND MID DRIVE OPTIONS

FREES UP SPACE ON BOTH ENDS OF THE CONVEYOR AND INCREASES LOAD CAPACITY

PATENTED RACK AND PINION BELT TENSIONING

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



40 STANDARD BELTING OPTIONS

VARIETY OF GUIDING OPTIONS

SPHERICAL, SEALED BALL BEARINGS

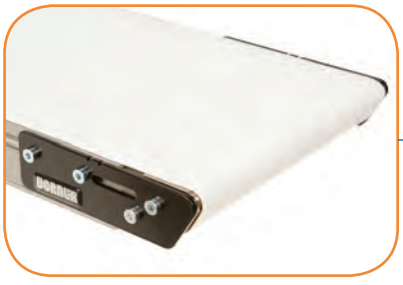
FOR LONG, MAINTENANCE FREE LIFE

TAIL PLATES

MINIMAL LENGTH TAIL PLATES FOR MAXIMUM T-SLOT EXPOSURE

PRECISE CAM TRACKING

FOR FINE ADJUSTMENTS OF NON V-GUIDED BELTS

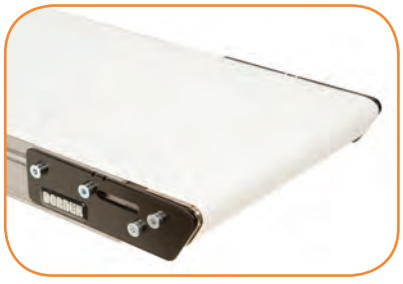


5/8" & 5/16" NOSEBAR TAIL OPTIONS

FOR SMALL PART TRANSFERS

Specifications

- Loads up to 80 lbs* (36 kg)
- Belt speeds up to 400 ft/min (122 m/min)
- Belt widths: 1.75" (44 mm) to 24" (610 mm)
- Conveyor lengths: 18" (457 mm) to 18' (5,486 mm)
- 1.25" (32 mm) diameter drive and idler pulleys turn approximately 4.2" (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 auxilary shaft location options

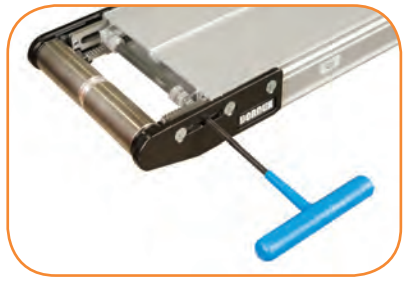


OPTIONAL:
5/8" High Speed Nose Bar Transfer Tail

Available at non-driven end. V-guide supported.
Speeds up to 200 ft/min (61 m/min)

OPTIONAL:
5/16" Nose Bar Transfer Tail

Available at non-driven end.
Speeds up to 75 ft/min (22 m/min)



STANDARD FEATURE:
Rack and Pinion

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

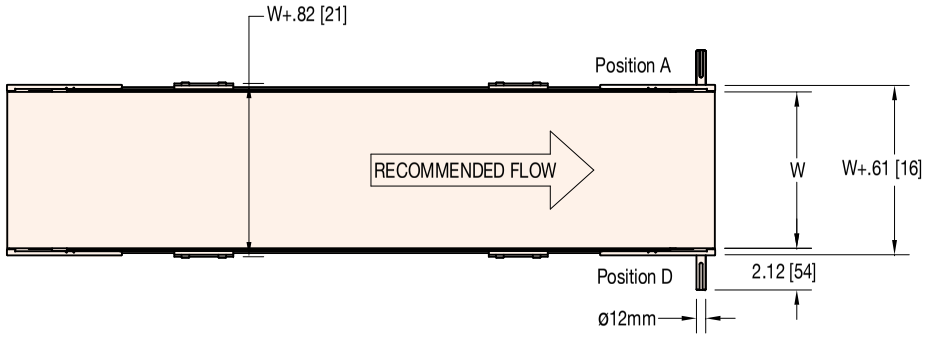
2200 Series Flat Belt End Drive Conveyor

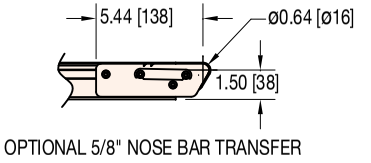
22 E D M W W - L L L L 1 0 A P P P P B B - X T¹ T² T³ T⁴

- **Conveyor Tail Options X** (if required) *See Drive Shaft Position Chart on next page
  - **A or B** = Drive Shaft (T¹ only)
  - **C or D** = Drive Shaft (T² only)
  - **0** = No Shaft
  - **K** = Keyed Auxiliary Shaft
  - **S** = Stub Shaft
  - **M** = Magnet Location (T³ or T⁴ only)
- **Belt Type**
- **Profile (D side)**
- **Profile (A side)**
- **Flow/Drive Shaft Position: A, B, C or D**
- **Idler Tail Type: 0** = Standard 1.25", **3** = Nose Bar 5/16", **5** = Nose Bar 5/8"
- **V-Guide & Mounting Bracket Options:**
  - **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
- **Conveyor Length Reference:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language: M** = US, **U** = Europe

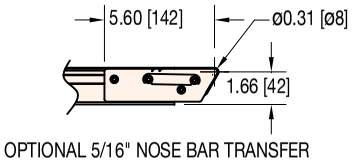
* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.

Order gearmotor mounting packages and gearmotors separately, see pages 47-64
For support stands and accessories, see page 76-89

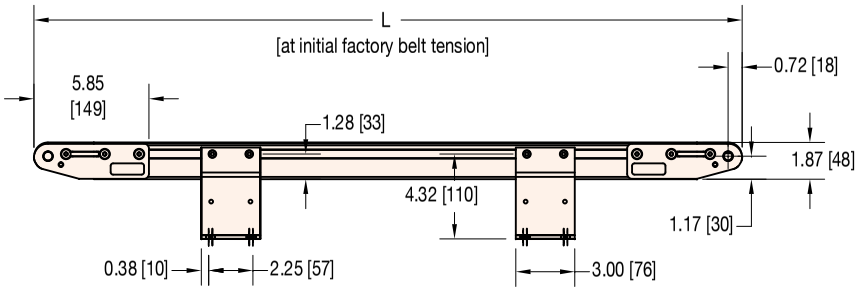


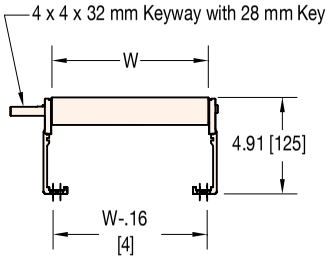


OPTIONAL 5/8" NOSE BAR TRANSFER



OPTIONAL 5/16" NOSE BAR TRANSFER



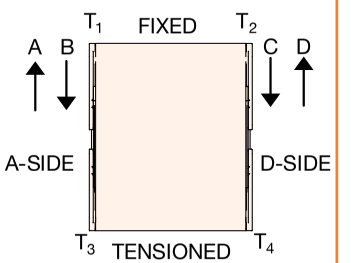


W = Conveyor Belt Width **Dim** = in (mm)

STANDARD SIZES														
Conveyor Width Reference	02	03	04	05	06	08	10	12	14	16	18	20	22	24
Conveyor Belt Width (W)	1.75" (44mm)	2.75" (70mm)	3.75" (95mm)	5" (127mm)	6" (152mm)	8" (203mm)	10" (254mm)	12" (305mm)	14" (356mm)	16" (406mm)	18" (457mm)	20" (508mm)	22" (559mm)	24" (610mm)
Conveyor Length Reference	0150		0001 increments **up to...**										1800	
Conveyor Length (L)	1.5' (457mm)		0.12" (3mm) increments **up to...**										18' (5,486mm)	

NOTE: Lengths 13' to 18' available in widths 6" to 24" only.
NOTE: Conveyor longer than 12' (3,658 mm) will be constructed using two equal length frames.

DRIVE SHAFT POSITION



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

Center Drive

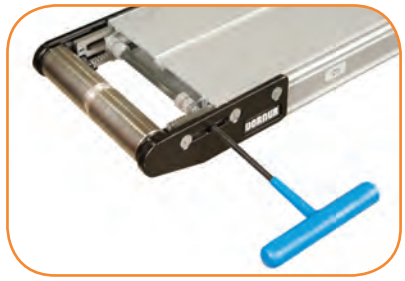
OPTIONAL:
Compact Mid Drive
Small footprint to fit in tight spaces

Specifications

- Loads up to 120 lbs* (54 kg) (Center Drive)
  Loads up to 80 lbs* (36 kg) (Mid Drive)
- Belt speeds up to 400 ft/min (122 m/min)
- Belt widths: 1.75" (44 mm) to 24" (610 mm)
- Conveyor lengths: 18" (457 mm) to 24' (7,315 mm)
- 1.25" (32 mm) diameter drive and idler pulleys turn approximately 4.2" (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 auxilary shaft location options

OPTIONAL:
5/8" High Speed Nose Bar Transfer Tail
Available at non-driven end. V-guide supported.
Speeds up to 200 ft/min (61 m/min)

OPTIONAL:
5/16" Nose Bar Transfer Tail
Available at non-driven end.
Speeds up to 75 ft/min (22 m/min)



STANDARD FEATURE:
Rack and Pinion
Allows the tail section to be easily slid back for quick belt adjustments and removal

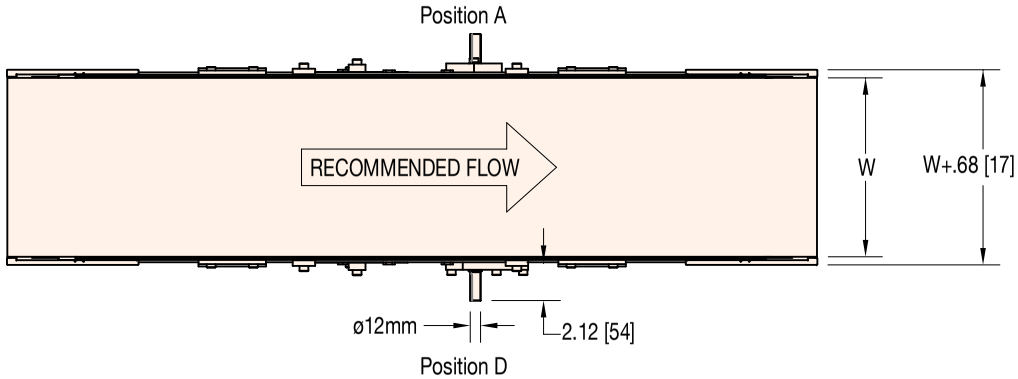
2200 Series Flat Belt Mid/Center Drive Conveyor

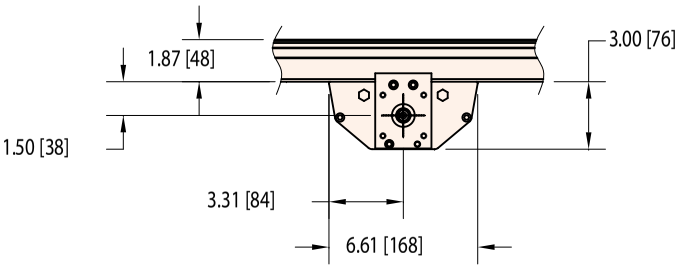
22 CD M WW - LLLL 1 0 0 A PP PP BB - X T¹ T² T³ T⁴

- **Conveyor Tail Options X** (if required) *See Drive Shaft Position Chart on next page
  - **0** = No Shaft
  - **K** = Keyed Auxiliary Shaft
  - **S** = Stub Shaft
  - **M** = Mag Location (T³ or T⁴ only)
- **Belt Type**
- **Profile (D side)**
- **Profile (A side)**
- **Center/Mid Drive Shaft Position:** **A** = A side, **D** = D side, **E** = Both sides
- **Tension Tail Type:** **0** = Standard 1.25", **3** = Nose Bar 5/16", **5** = Nose Bar 5/8"
- **Fixed Tail Type:** **0** = Standard 1.25", **3** = Nose Bar 5/16", **5** = Nose Bar 5/8"
- **V-Guide & Mounting Bracket Options:**
  - **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
- **Conveyor Length Reference:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language:** **M** = US, **U** = Europe
- **Drive Type:** **CD** = Center Drive, **MD** = Mid Drive

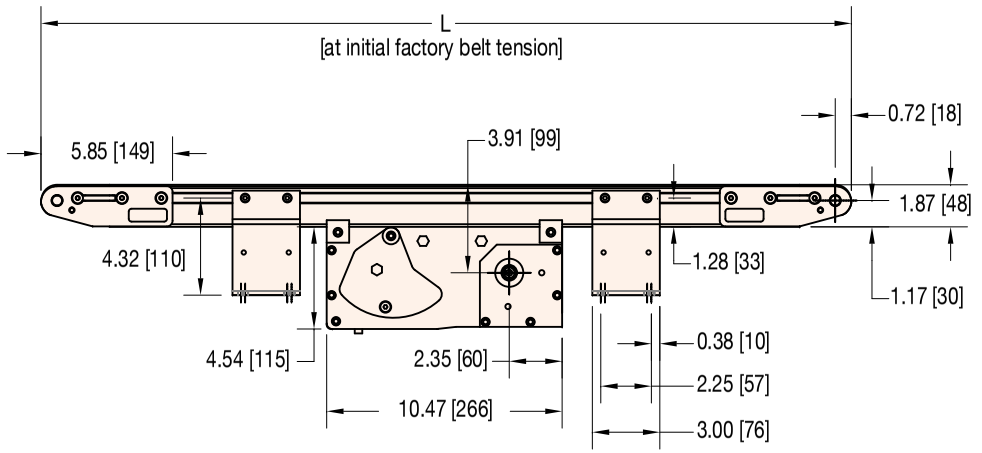
* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.

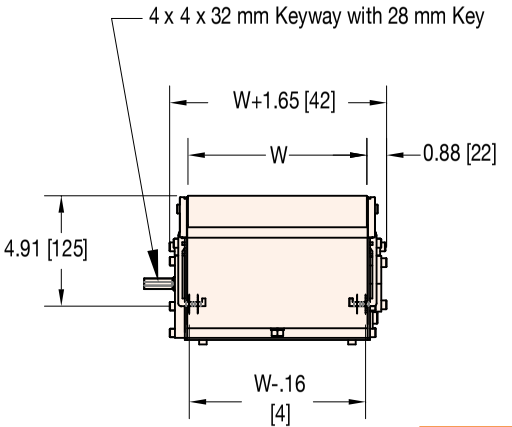
Order gearmotor mounting packages and gearmotors separately, see pages 47-64
For support stands and accessories, see page 76-89





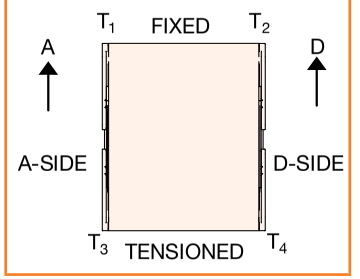
Mid Drive





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

DRIVE SHAFT POSITION

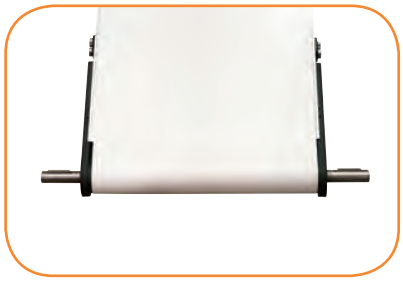


STANDARD SIZES														
Conveyor Width Reference	02	03	04	05	06	08	10	12	14	16	18	20	22	24
Conveyor Belt Width (W)	1.75" (44mm)	2.75" (70mm)	3.75" (95mm)	5" (127mm)	6" (152mm)	8" (203mm)	10" (254mm)	12" (305mm)	14" (356mm)	16" (406mm)	18" (457mm)	20" (508mm)	22" (559mm)	24" (610mm)
Conveyor Length Reference	0150		0001 increments **up to...**										2400	
Conveyor Length (L)	1.5' (457mm)		0.12" (3mm) increments **up to...**										24' (7,315mm)	

NOTE: Conveyors 12.01' to 18' in length will be constructed using two equal length frame sections.
Conveyors 18.01' to 24' in length will be constructed using three equal length frame sections.

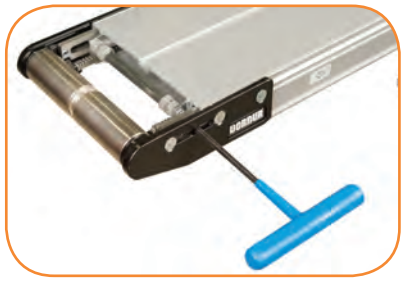
Specifications

- Loads up to 80 lbs* (36 kg)
- Belt speeds up to 400 ft/min (122 m/min)
- Belt widths: 1.75" (44 mm) to 24" (610 mm)
- Conveyor lengths: 18" (457 mm) to 18' (5,486 mm)
- Cleats available from 0.24" (6 mm) to 2.36" (60 mm) high
- 1.25" (32 mm) diameter drive and idler pulleys turn approximately 4.2" (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 auxilary 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

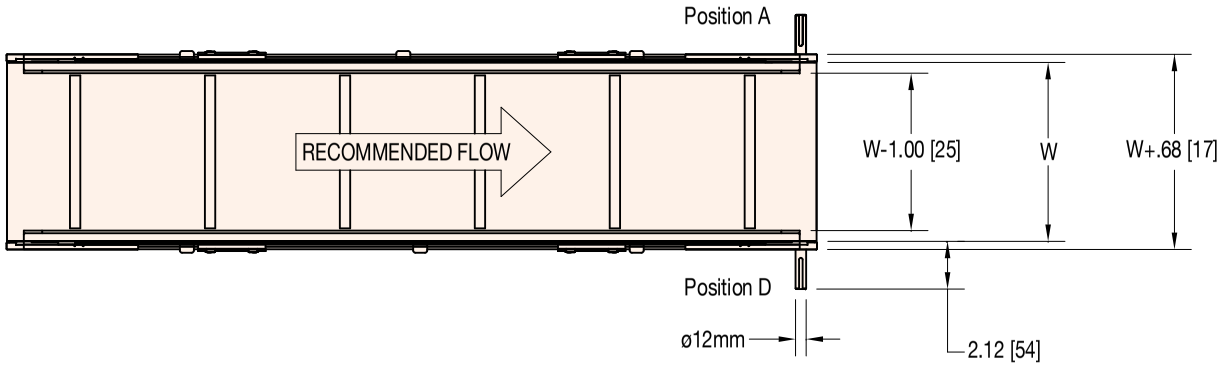
2200 Series Cleated Belt End Drive Conveyor

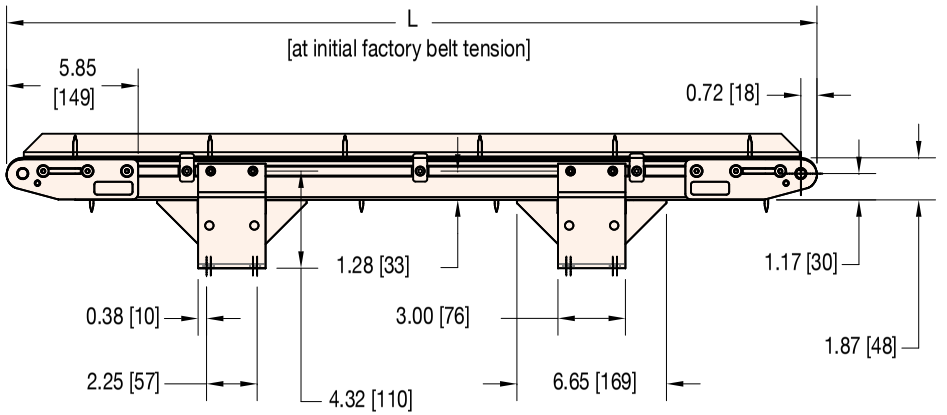
22 C T M W W - L L L L 1 A C P S S S S L - X T¹ T² T³ T⁴

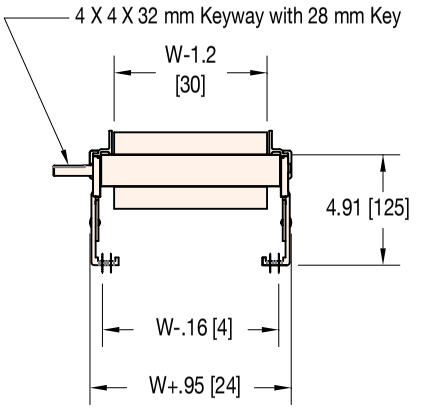
- **Conveyor Tail Options X** (if required) *See Drive Shaft Position Chart on next page
  - **A or B** = Drive Shaft (T¹ only) **C or D** = Drive Shaft (T² only)
  - **O** = No Shaft **K** = Keyed Auxiliary Shaft
  - **S** = Stub Shaft **M** = Mag Location (T³ or T⁴ only)
- **Belt Type:** **L** = Low Friction Belt, **H** = Standard Belt
- **Cleat Spacing:** **SS.SS in inches**
- **Profile Type**
- **Cleat Type**
- **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
  - **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
- **Conveyor Length Reference:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language:** **M** = US, **U** = Europe

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

Order gearmotor mounting packages and gearmotors separately, see pages 47-64
For support stands and accessories, see page 76-89





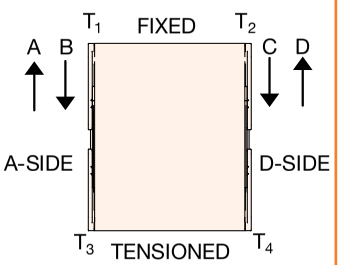


W = Conveyor Belt Width **Dim** = in (mm)

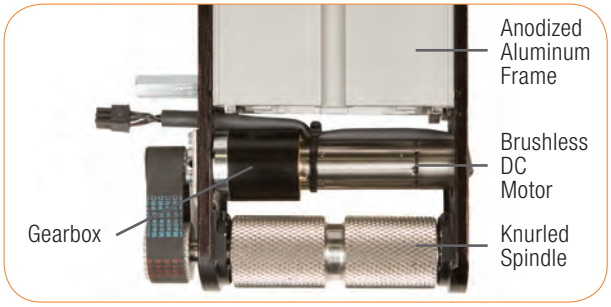
STANDARD SIZES														
Conveyor Width Reference	02	03	04	05	06	08	10	12	14	16	18	20	22	24
Conveyor Belt Width (W)	1.75" (44mm)	2.75" (70mm)	3.75" (95mm)	5" (127mm)	6" (152mm)	8" (203mm)	10" (254mm)	12" (305mm)	14" (356mm)	16" (406mm)	18" (457mm)	20" (508mm)	22" (559mm)	24" (610mm)
Conveyor Length Reference	0150		0001 increments **up to...**										1800	
Conveyor Length (L)	1.5' (457mm)		0.12" (3mm) increments **up to...**										18' (5,486mm)	

NOTE: Lengths 13' to 18' available in widths 6" to 24" only.
NOTE: Conveyors longer than 12' (3,658 mm) will be constructed using two equal length frames.

DRIVE SHAFT POSITION



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



Specifications

- Conveyor Load Capacity (non-accumulated, distributed load):
  - 1.7 to 17 ft/min – Up to 25 lbs (11.3 kg)
  - 3 to 24 ft/min – Up to 25 lbs (11.3 kg)
  - 5 to 50 ft/min – Up to 25 lbs (11.3 kg)
  - 7 to 70 ft/min – Up to 12 lbs (5.4 kg)
- Belt Speeds: Variable Speed, (4) Speed Options
  - 1.7 to 17 ft/min (0.5 to 5 m/min)
  - 3 to 24 ft/min (0.9 to 7 m/min)
  - 5 to 50 ft/min (1.5 to 15 m/min)
  - 7 to 70 ft/min (2 to 21 m/min)
- Belt Widths: 2" (51 mm) to 24" (610 mm)
- Conveyor Lengths: 18" (457 mm) to 8' (2,438 mm)
- V-groove bedplate with guided belt provides belt tracking, even under demanding side load applications
  - Cam tracking standard on Non V-Guided belt conveyors
- Indexing Capable – Up to 30 indexes per minute
- iDrive Controls
  - Integrated Forward/Off/Reverse switch and variable speed pot
  - Flying leads remote start/stop with integrated direction switch and speed pot.
  - Power supply available

2200 Series Flat Belt iDrive Conveyor

22 E D M W W - L L L L 1 0 A P P P P B B - F D C P S

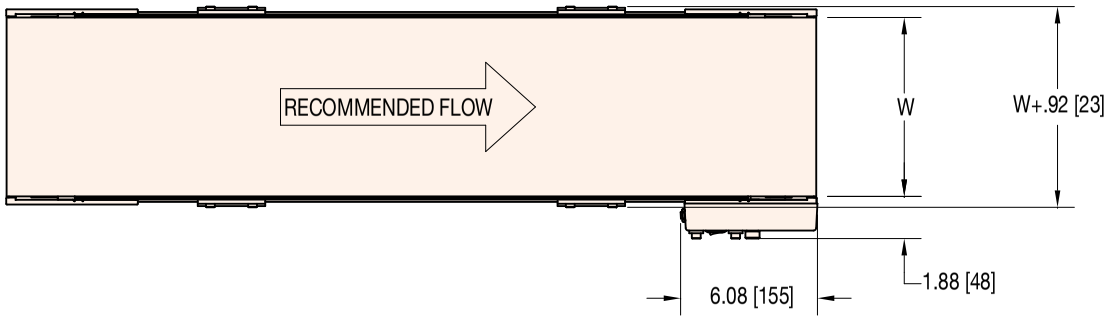
- **Speed Range:** **A** = 7-70 FPM, **B** = 5-50 FPM, **C** = 3-24 FPM, **D** = 1.7-17 FPM
- **Power Supply:** **P** = Power Supply Included, **N** = No Power Supply
- **Control Type:** **M** = Mounted Full Control, **Q** = Remote Start/Stop w/6' cord, **R** = Remote Start/Stop w/30' cord
- **Integrated Frame Drive**
- **Belt Type**
- **Profile (D side)**
- **Profile (A side)**
- **Controls/Flow/Drive Shaft Position:** **A, B, C or D**
- **Idler Tail Type:** **0** = Standard 1.25", **3** = Nose Bar 5/16", **5** = Nose Bar 5/8"
- **V-Guide & Mounting Bracket Options:**
  - **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
- **Conveyor Length Reference:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language:** **M** = US, **U** = Europe

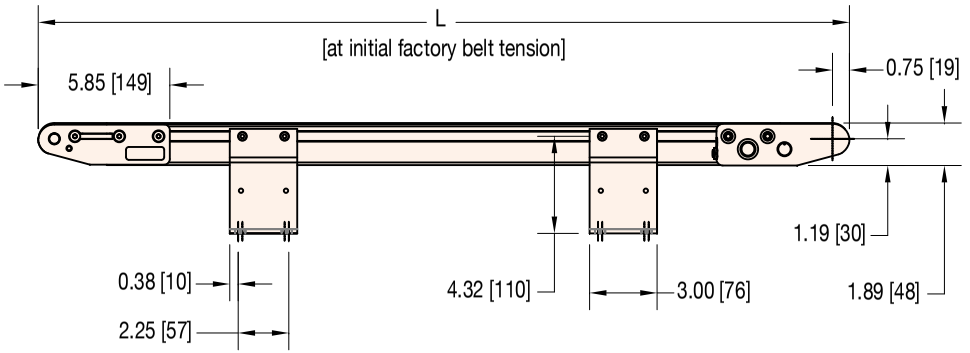
2200 Series Cleated Belt iDrive Conveyor

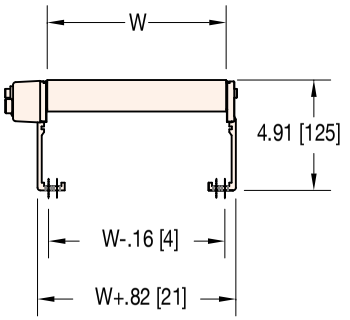
22 C T M W W - L L L L 1 A C P S S S S L - F D C P S

- **Speed Range:** **A** = 7-70 FPM, **B** = 5-50 FPM, **C** = 3-24 FPM, **D** = 1.7-17 FPM
- **Power Supply:** **P** = Power Supply Included, **N** = No Power Supply
- **Control Type:** **M** = Mounted Full Control, **Q** = Remote Start/Stop w/6' cord, **R** = Remote Start/Stop w/30' cord
- **Integrated Frame Drive**
- **Belt Type:** **L** = Low Friction Belt, **H** = Standard Belt
- **Cleat Spacing:** SS.SS in inches
- **Profile Type**
- **Cleat Type**
- **Controls/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
  - **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
- **Conveyor Length Reference:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language:** **M** = US, **U** = Europe

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

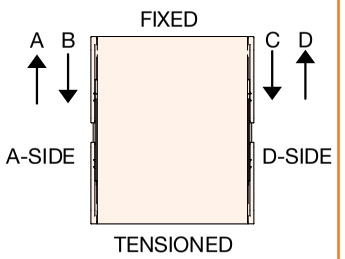






W = Conveyor Belt Width **Dim** = in (mm)

DRIVE SHAFT POSITION



STANDARD SIZES														
Conveyor Width Reference	02	03	04	05	06	08	10	12	14	16	18	20	22	24
Conveyor Belt Width (W)	1.75" (44mm)	2.75" (70mm)	3.75" (95mm)	5" (127mm)	6" (152mm)	8" (203mm)	10" (254mm)	12" (305mm)	14" (356mm)	16" (406mm)	18" (457mm)	20" (508mm)	22" (559mm)	24" (610mm)
Conveyor Length Reference	0150		0001 increments **up to...**										0800	
Conveyor Length (L)	1.5' (457mm)		0.12" (3mm) increments **up to...**										8' (2,438mm)	

NOTE: Duty cycle not continuous rated.
NOTE: Conveyors longer than 12' (3,658 mm) will be constructed using two equal length frames.

2200 SERIES

Z-FRAME FLAT BELT END DRIVE

LPZ

Specifications

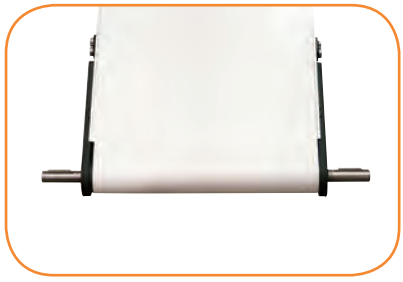
- Loads up to 80 lbs* (36 kg)
- Belt speeds up to 250 ft/min (76 m/min)
- Belt widths: 1.75" (44 mm) to 24" (610 mm)
- Conveyor lengths: 24" (610 mm) to 18' (5,486 mm)
- Fixed angle: 5˚, 10˚, 15˚, and 20˚
- 1.25" (32 mm) diameter drive and idler pulleys turn approximately 4.2" (107 mm) of belt per revolution
- V-groove bedplate with guided belt provides positive belt tracking, even under demanding side load applications

Configurations

Noseover

OPTIONAL:
5/8" High Speed Nose Bar Transfer Tail

Available at non-driven end. V-guide supported. Speeds up to 200 ft/min (61 m/min)



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

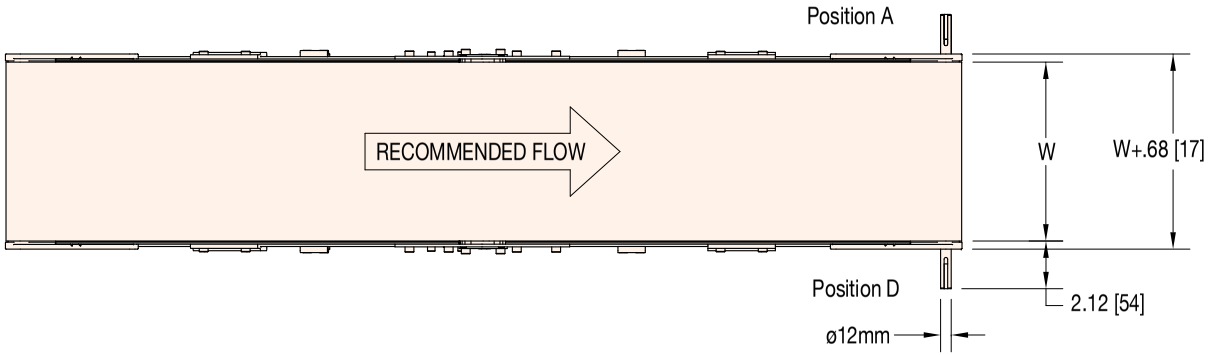
2200 Series Z-Frame Flat Belt End Drive Conveyor

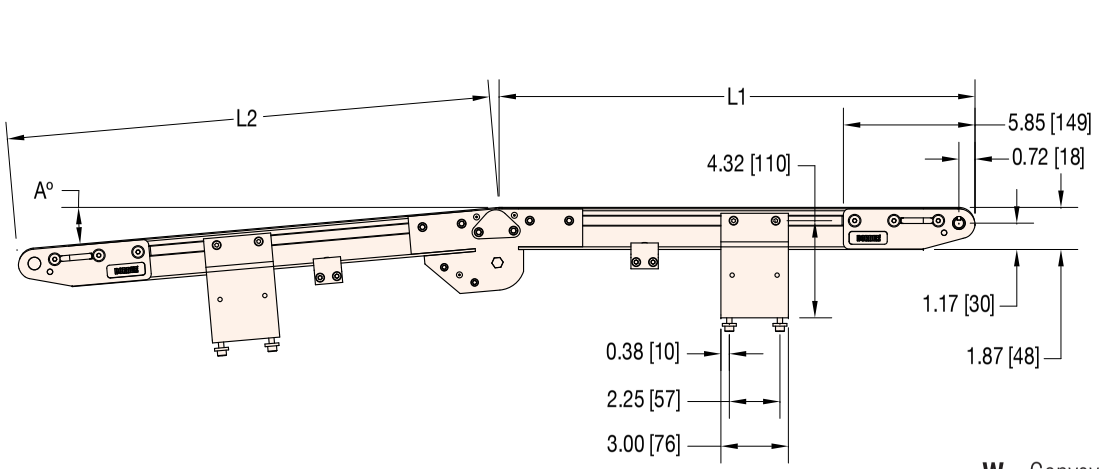
22 E D M W W - L L L L - L L L L A A E 1 0 A P P B B - X T¹ T² T³ T⁴

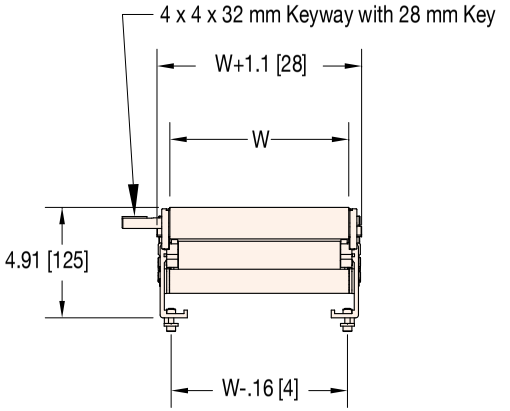
- **Conveyor Tail Options X** (if required) *See Drive Shaft Position Chart on next page
  - **A or B** = Drive Shaft (T¹ only)
  - **C or D** = Drive Shaft (T² only)
  - **0** = No Shaft
  - **K** = Keyed Auxiliary Shaft
  - **S** = Stub Shaft
  - **M** = Mag Location (T³ or T⁴ only)
- **Belt Type**
- **Profile**
- **Flow/Drive Shaft Position: A, B, C or D**
- **Idler Tail Type: 0** = Standard 1.25", **5** = Nose Bar 5/8"
- **V-Guide & Mounting Bracket Options:**
  - **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
- **Belt Direction: E** = Incline **D** = Decline
- **Angle: 05** = 5°, **10** = 10°, **15** = 15°, **20** = 20°
- **Incline Section Length Reference:** LL.LL in feet
- **Horizontal Section Length Reference:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language: M** = US, **U** = Europe

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

Order gearmotor mounting packages and gearmotors separately, see pages 47-64
For support stands and accessories, see page 76-89



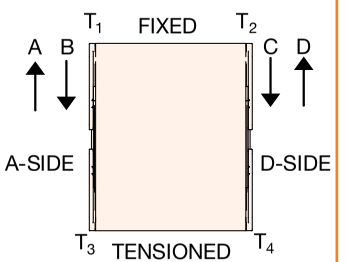




W = Conveyor Belt Width **Dim** = in (mm)
Note: Belt direction is not reversible

STANDARD SIZES														
Conveyor Width Reference	02	03	04	05	06	08	10	12	14	16	18	20	22	24
Conveyor Belt Width (W)	1.75" (44mm)	2.75" (70mm)	3.75" (95mm)	5" (127mm)	6" (152mm)	8" (203mm)	10" (254mm)	12" (305mm)	14" (356mm)	16" (406mm)	18" (457mm)	20" (508mm)	22" (559mm)	24" (610mm)
Conveyor Length Reference	0200			0001 increments **up to…**									1000	
Section Length (L1 or L2)	2' (610mm)			0.12" (3mm) increments **up to…**									10' (3048mm)	
L1 + L2 Maximum Conveyor Length	12' (3658mm)			18' (5486mm)										

DRIVE SHAFT POSITION



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

LPZ

Specifications

- Loads up to 80 lbs* (36 kg)
- Belt speeds up to 250 ft/min (76 m/min)
- Belt widths: 6" (44 mm) to 24" (610 mm)
- Conveyor lengths: 24" (610 mm) to 18' (5,486 mm)
- Fixed angle: 30˚, 45˚, and 60˚
- Cleats available from 0.24" (6 mm) to 2.36" (60 mm) high
- 1.25" (32 mm) diameter drive and idler pulleys turn approximately 4.2" (107 mm) of belt per revolution
- V-groove bedplate with guided belt provides positive belt tracking, even under demanding side load applications

Configurations

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

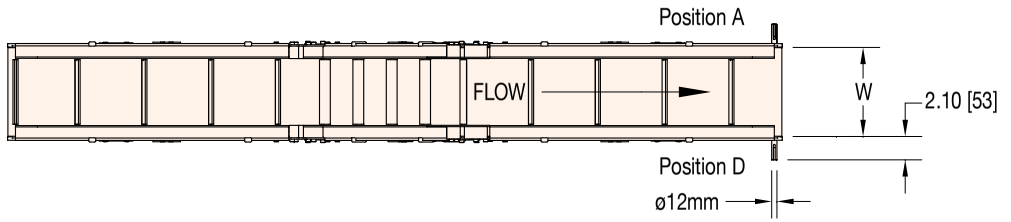
2200 Series Z-Frame Cleated Belt End Drive Conveyor

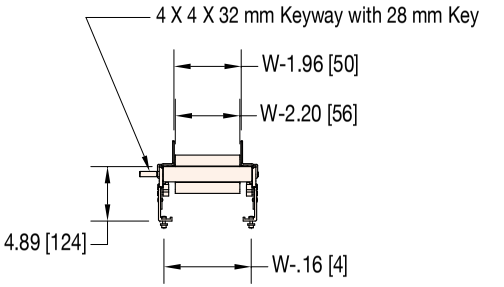
22 C T M W W - L L L L - L L L L - L L L L A A E 1 A C P S S S S - X T¹ T² T³ T⁴

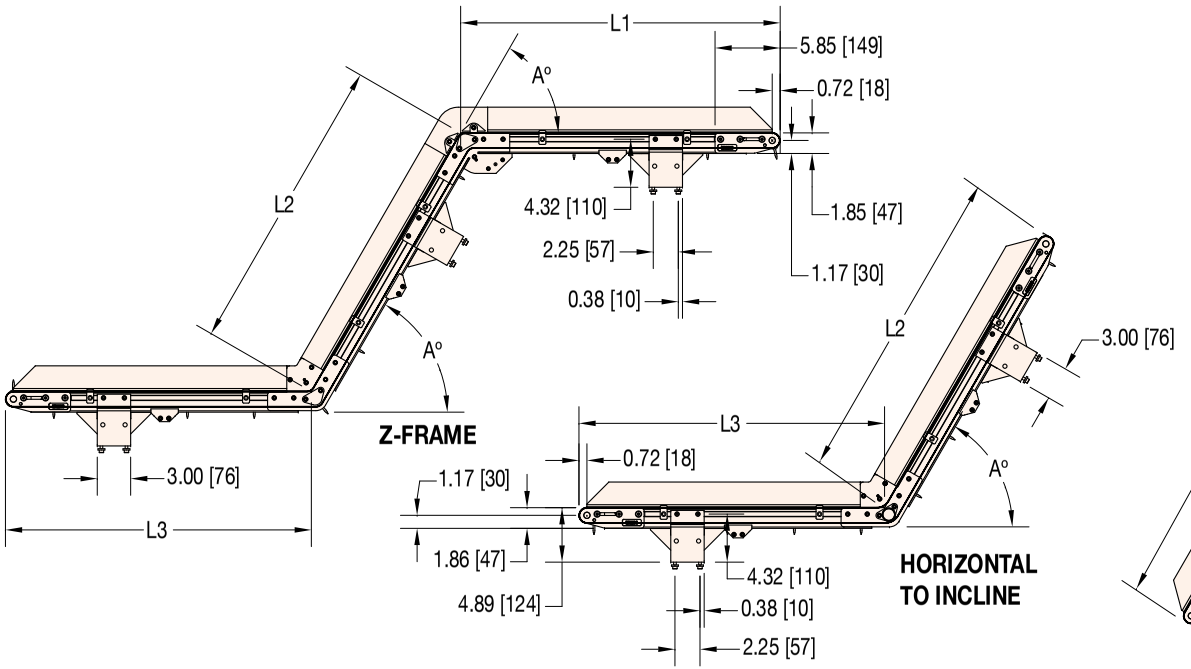
- **Conveyor Tail Options X** (if required) *See Drive Shaft Position Chart on next page
  - **A or B** = Drive Shaft (T¹ only)
  - **C or D** = Drive Shaft (T² only)
  - **O** = No Shaft
  - **K** = Keyed Auxiliary Shaft
  - **S** = Stub Shaft
  - **M** = Mag Location (T³ or T⁴ only)
- **Cleat Spacing:** SS.SS in inches
- **Profile Type**
- **Cleat Type**
- **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
  - **2** = V-Guided Belt, includes 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
- **Belt Direction: E** = Incline **D** = Decline
- **Angle: 30** = 30°, **45** = 45°, **60** = 60°
- **L3 Section Length Reference:** LL.LL in feet
- **L2 Section Length Reference:** LL.LL in feet
- **L1 Section Length Reference:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language: M** = US, **U** = Europe

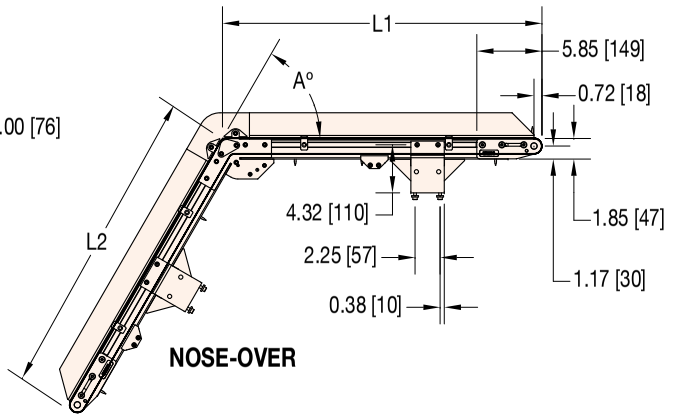
* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.

Order gearmotor mounting packages and gearmotors separately, see pages 47-64
For support stands and accessories, see page 76-89







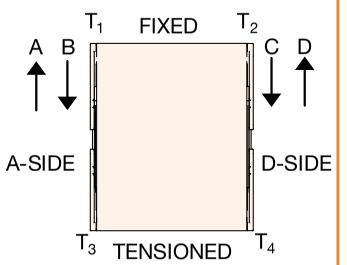


W = Conveyor Belt Width **Dim** = in (mm)
Note: Belt direction is not reversible

STANDARD SIZES										
Conveyor Width Reference	06	08	10	12	14	16	18	20	22	24
Conveyor Belt Width (W)*	6" (152mm)	8" (203mm)	10" (254mm)	12" (305mm)	14" (356mm)	16" (406mm)	18" (457mm)	20" (508mm)	22" (559mm)	24" (610mm)
Pocket Width	4" (102mm)	6" (152mm)	8" (203mm)	10" (254mm)	12" (305mm)	14" (356mm)	16" (406mm)	18" (457mm)	20" (508mm)	22" (559mm)
Conveyor Length Reference	0200		0001 increments **up to...**						1000	
Section Length (L1, L2, or L3)	2' (610mm)		0.12" (3mm) increments **up to...**						10' (3048mm)	
L1 + L2 + L3 Maximum Conveyor Length	18' (5486mm)									

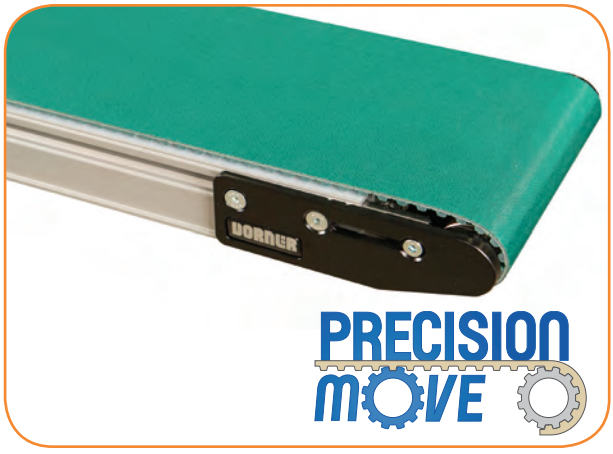
***Note:** 30 deg knuckles available for 6" - 16" belt widths only

DRIVE SHAFT POSITION



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

2200 SERIES PRECISION MOVE FLAT & CLEATED BELT END DRIVE



Specifications

- Loads up to 200 lbs* (91 kg)
- Belt speeds up to 370 ft/min (113 m/min)
- Belt widths: 1" (25 mm) to 24" (610 mm)
- Conveyor lengths: 18" (457 mm) to 30' (9,144 mm)
- 1.5" (38 mm) pitch diameter drive pulley turns approximately 4.7" (121 mm) of belt per revolution
- T10 profile cogged belt with 12 tooth drive pulley
- Conveyor mechanical accuracy ± 0.02"
- Conveyor package w/servo motor index accuracy ± 0.04"
- 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

22 PM M WW - LLLL 1 A PP PP BB - X T¹ T² T³ T⁴

- **Conveyor Tail Options X** (if required)
  - **A or B** = Drive Shaft (T¹ only) **C or D** = Drive Shaft (T² only) **S** = Stub Shaft
  - **0** = No Shaft **K** = Keyed Auxiliary Shaft
- **Belt Type**
- **Profile (D side)**
- **Profile (A side)**
- **Flow/Drive Shaft Position: A, B, C or D**
- **Return Roller & 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:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language: M** = US, **U** = Europe

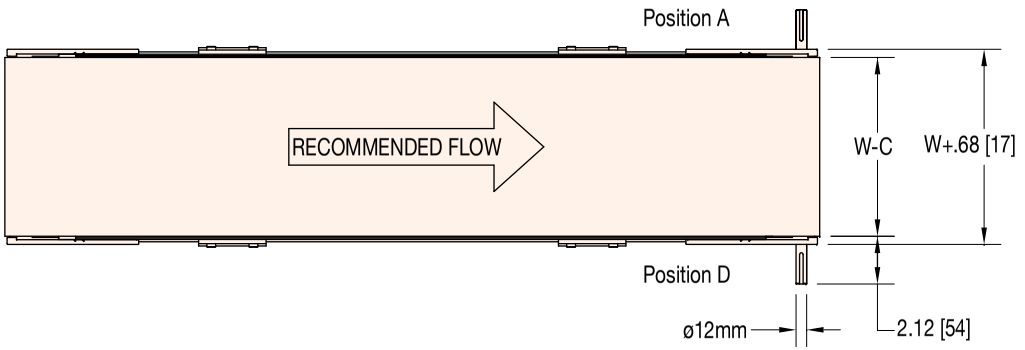
2200 Series Precision Move Cleated Belt End Drive Conveyor

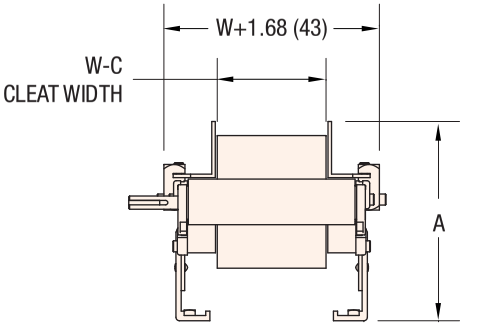
22 PM M WW - LLLL 1 A PP A 3 SSSS - X T¹ T² T³ T⁴

- **Conveyor Tail Options X** (if required) *See Drive Shaft Position Chart on next page
  - **A or B** = Drive Shaft (T¹ only) **C or D** = Drive Shaft (T² only) **S** = Stub Shaft
  - **0** = No Shaft **K** = Keyed Auxiliary Shaft
- **Cleat Spacing:** SS.SS in inches
- **Base Belt: 3** = High Friction, **1** = Low Friction
- **Cleat Height: A** = .75", **B** = 1.4", **C** = 2"
- **Profile: 01** = Lowside, **02** = 1" cleated, **03** = 2" cleated
- **Flow/Drive Shaft Position: A, B, C or D**
- **Return Roller & 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:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language: M** = US, **U** = Europe

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

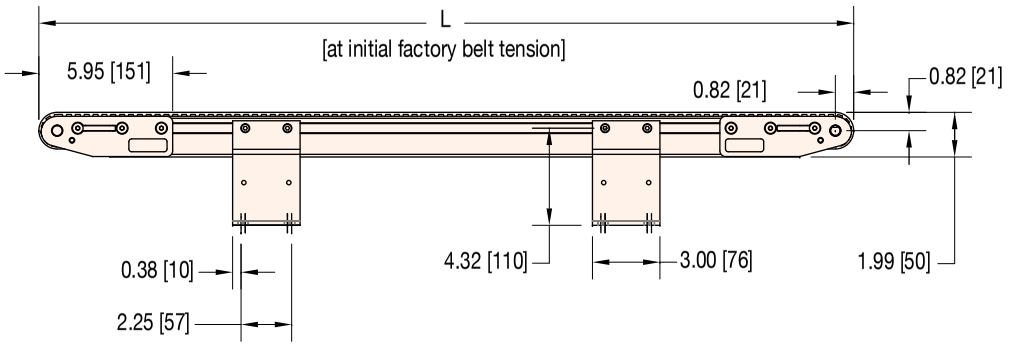
Order gearmotor mounting packages and gearmotors separately, see pages 47-64
For support stands and accessories, see page 76-89

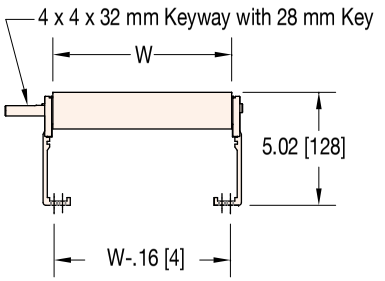




CLEATED BELT

A = 6.10 (155) for 1" HIGH SIDES
7.10 (180) for 2" HIGH SIDES
C = 1.12 (29) for conveyors up to 8" widths
2.12 (54) for conveyors in 12" - 24" widths



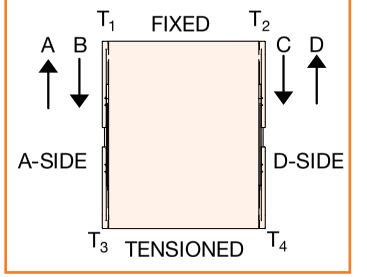


W = Conveyor Belt Width **Dim** = in (mm)

STANDARD SIZES									
Conveyor Width Reference	01	02	03	04	06	08	12	18	24
Conveyor Belt Width (W)	1" (25mm)	1.75" (45mm)	2.75" (70mm)	3.75" (95mm)	6.0" (152mm)	8.0" (203mm)	12.0" (305mm)	18.0" (457mm)	24.0" (607mm)
Conveyor Length Reference	0150		0001 increments **up to...**					3000	
Conveyor Length	1.5' (457mm)		0.1" (2.54mm) increments **up to...**					30' (9,144mm)	

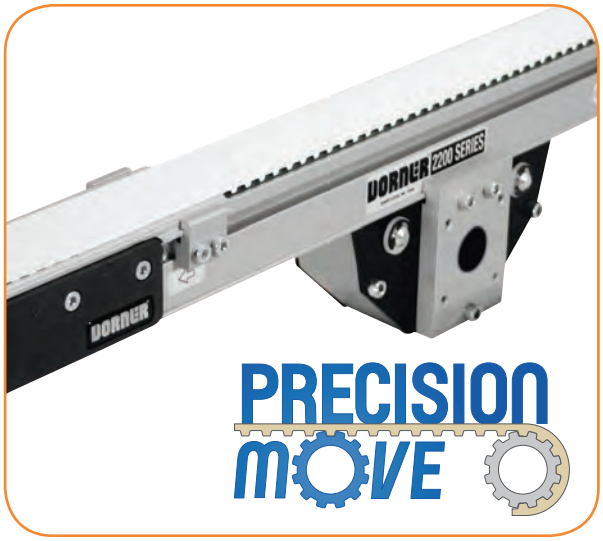
NOTE: Actual conveyor length may need to be adjusted to match belt pitch.
Conveyors longer than 12.01' to 18.00' will be constructed using two equal length frame sections.
Conveyors 18.01' to 27.00' in length will be constructed using three equal length frame sections.
Conveyors 27.01' to 30.00' in legnth will be constructed using four equal length frame sections.

DRIVE SHAFT POSITION



2200 SERIES

PRECISION MOVE FLAT BELT MID DRIVE



Specifications

- Loads up to 200 lbs* (91 kg)
- Belt speeds up to 370 ft/min (113 m/min)
- Belt widths: 1" (25 mm) to 24" (610 mm)
- Conveyor lengths: 18" (457 mm) to 30' (9,144 mm)
- 2" (51 mm) pitch diameter drive pulley turns approximately 6.3" (160 mm) of belt per revolution
- T10 profile cogged belt with 16 tooth drive pulley
- Conveyor mechanical accuracy ± 0.02"
- Drive shaft options:
  - 12 mm diameter integral drive shaft
  - 16 tooth 0.5" 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

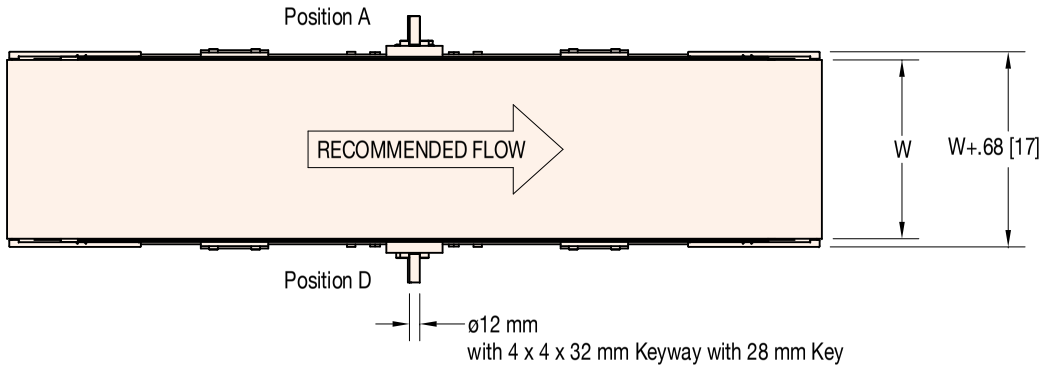
2200 Series Precision Move Flat Belt Mid Drive Conveyor

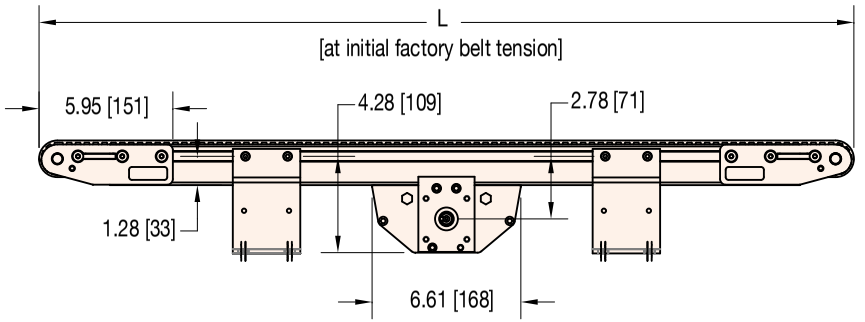
22 PD M WW - LLLL 1 A PP PP BB - X T^1 T^2 T^3 T^4

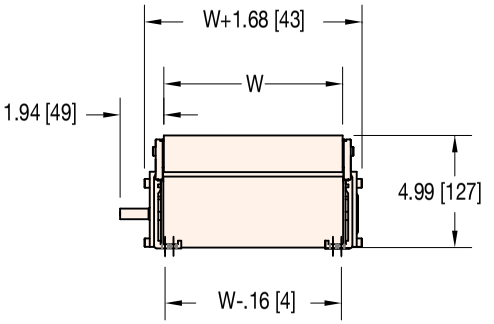
- **Conveyor Tail Options X** (if required) *See Drive Shaft Position Chart on next page
  - **0** = No Shaft
  - **K** = Keyed Auxiliary Shaft
  - **S** = Stub Shaft
- **Belt Type**
- **Profile (D side)**
- **Profile (A side)**
- **Mid Drive Shaft Position:** **A** = A side, **D** = D side, **E** = 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:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language:** **M** = US, **U** = Europe

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

Order gearmotor mounting packages and gearmotors separately, see pages 47-64
For support stands and accessories, see page 76-89





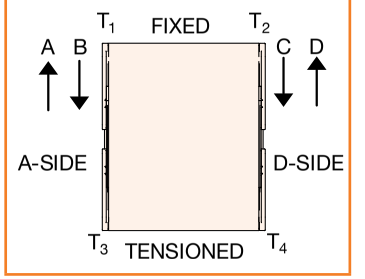


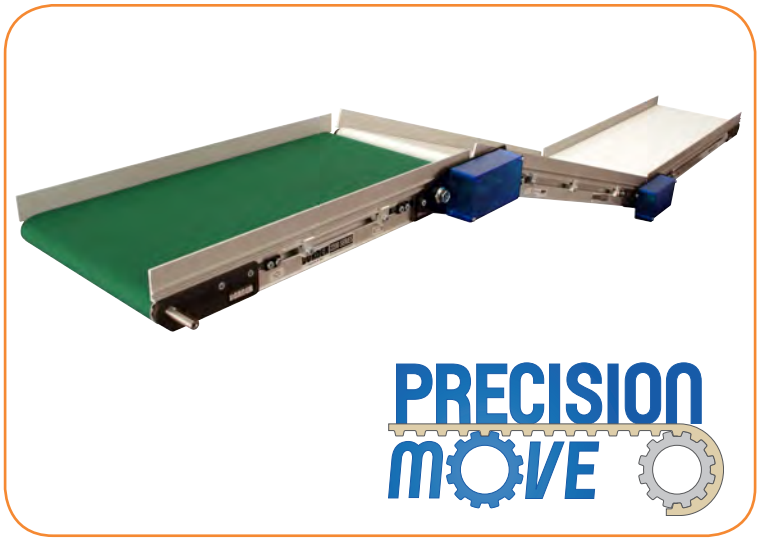
W = Conveyor Belt Width **Dim** = in (mm)

STANDARD SIZES									
Conveyor Width Reference	01	02	03	04	06	08	12	18	24
Conveyor Belt Width (W)	1" (25mm)	1.75" (45mm)	2.75" (70mm)	3.75" (95mm)	6.0" (152mm)	8.0" (203mm)	12.0" (305mm)	18.0" (457mm)	24.0" (607mm)
Conveyor Length Reference	0150		0001 increments **up to...**					3000	
Conveyor Length	1.5' (457mm)		0.1" (2.54mm) increments **up to...**					30' (9,144mm)	

NOTE: Actual conveyor length may need to be adjusted to match belt pitch.
Conveyors longer than 12.01' to 18.00' will be constructed using two equal length frame sections.
Conveyors 18.01' to 27.00' in legnth will be constructed using three equal length frame sections.
Conveyors 27.01' to 30.00' in legnth will be constructed using four equal length frame sections.

DRIVE SHAFT POSITION





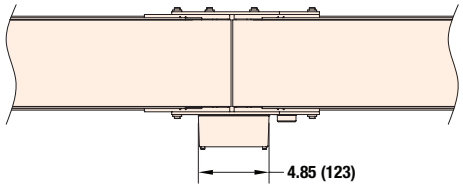
Specifications

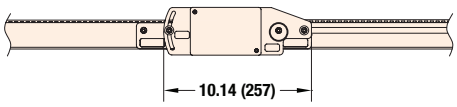
- Link multiple conveyors with 1 drive
- Adjustable angle from 0° to 25°
- Variety of timing belt ratios available
  - 1:1, 1.27:1, 1.75:1, 2:1 can be used to speed or slow down the conveyor
- Maximum number of conveyors = 3
- Pull or close gaps between product
- Change belt types on each conveyor
- 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

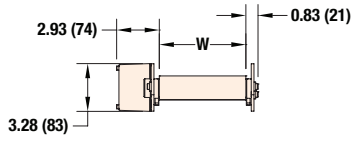
STANDARD FEATURE:
Slave Drive Kit

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

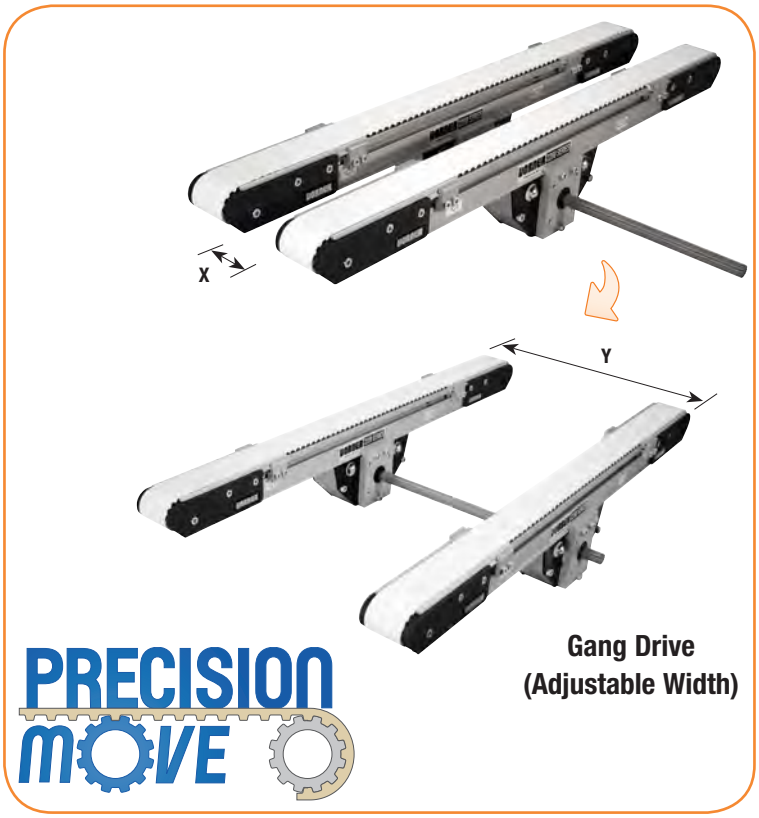






Dim = in (mm)

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

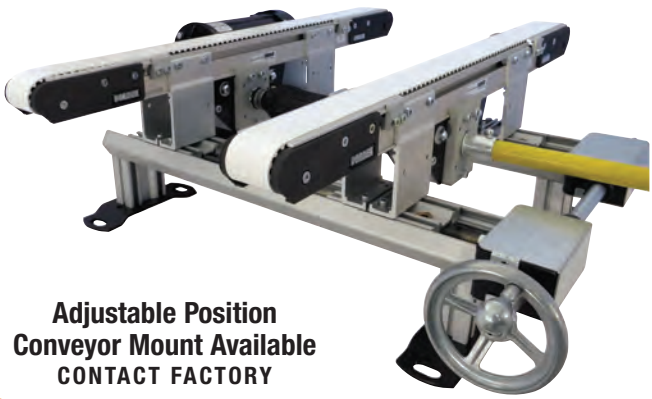


Gang Drive (Adjustable Width)

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) = 4" (101 mm) belt to belt (with std. guarding)
- Minimum width (x) = 1.75" (45 mm) belt to belt without guarding (end user responsible for point of installation guarding)
- Maximum width (y) = 48" (1,219 mm) belt to belt
- Maximum total torque = 80 in-lbs
- Compatible with side mount gearmotor package
- Requires ½" diameter 16 tooth spline drive shaft

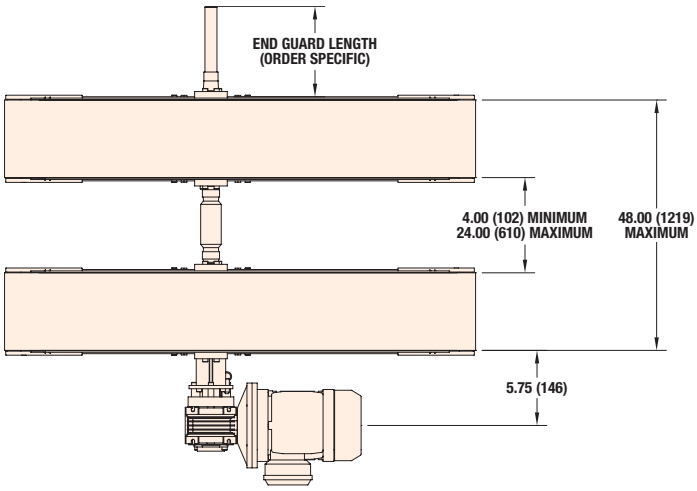


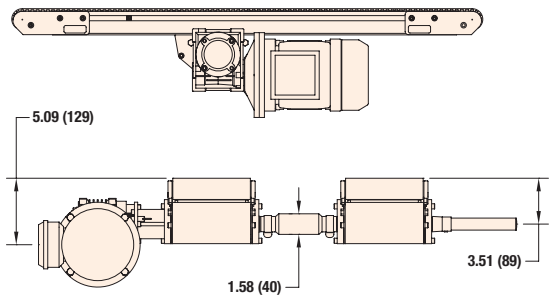
Adjustable Position Conveyor Mount Available
CONTACT FACTORY

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 = 80 in-lbs

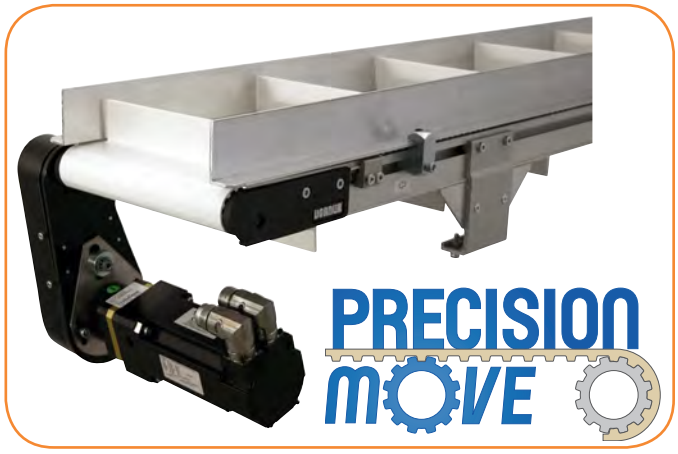


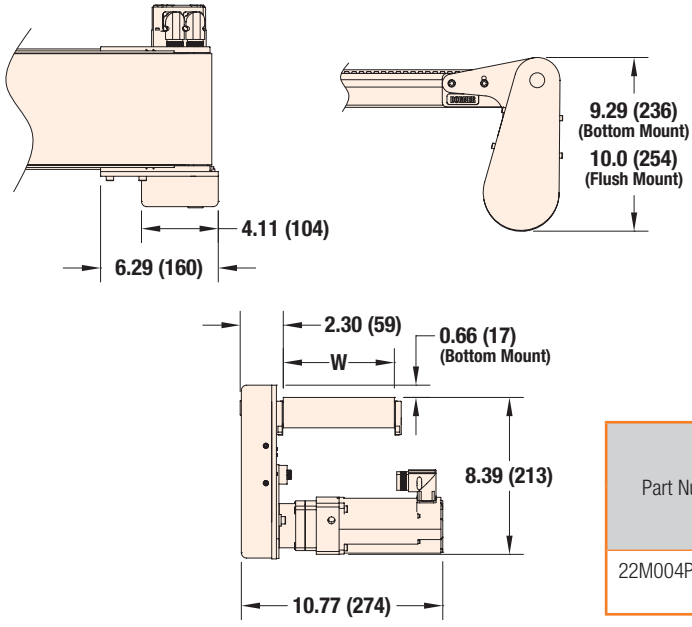


Refer to page 55 for belt speed options.

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

Precision Move Servo Gearmotor





Specifications

- Standard bottom and flush mount bottom drive configurations
- Indexes per minute rating = 100 per minute
- Conveyor/Drive Package Index accuracy = ± 0.040

Motor:

- Kollmorgen AKM Series Motor
- Brushless DC Servo motor with encoder
- 80 mm Frame
- 1.02 kW
- Up to 640 VDC input
- Up to 2.62 amps
- Quick disconnect power and communication fittings
- UL, CE, RoHS Compliant

Gearbox:

- Inline Planetary Reducer
- 4:1 Ratio
- 93% efficient
- 13 arc-minute backlash
- 20,000 hr rated
- RoHS compliant

Part Number	Controller Voltage	Max Belt Speed (Ft/min)		Min Belt Speed (Ft/min)	Torque (in-lb)	RPM
		Bottom Mount	Flush Mount			
22M004PR2B1KW	115V input 230V input	166 276	253 420	10 10	79 79	325 625

Precision Move Servo Bottom and Flush Mount Package

Specifications

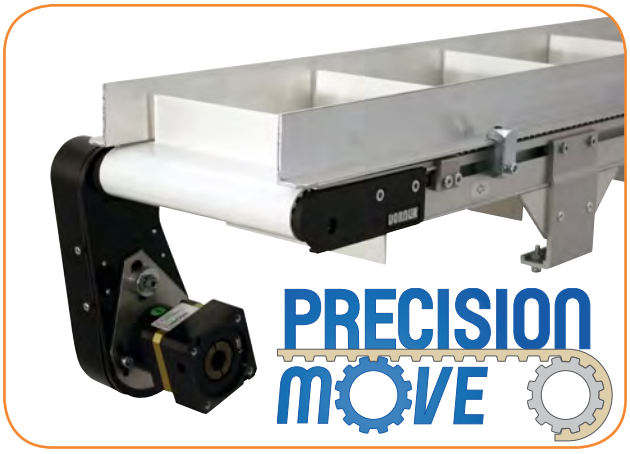
- Capable of standard bottom mount position and flush mount for wide product handling
- Includes rack and pinion timing belt tension system allowing reversing capability
- Includes high strength timing belt drive pulleys

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

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

Dim = in (mm)

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



Precision Move Servo Gearhead Only

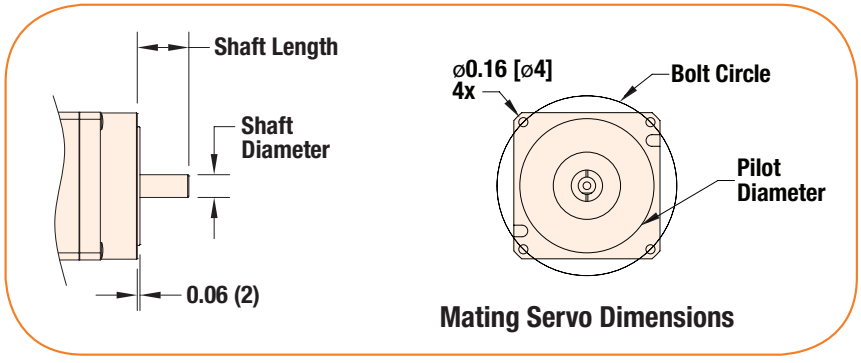
Specifications

- 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

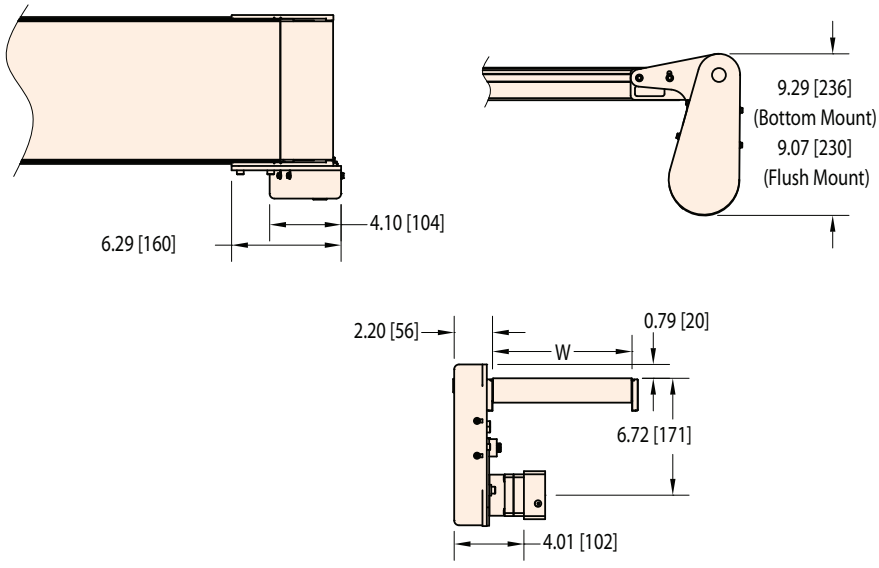
Gear Reducer for Customer Specified Motor

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)

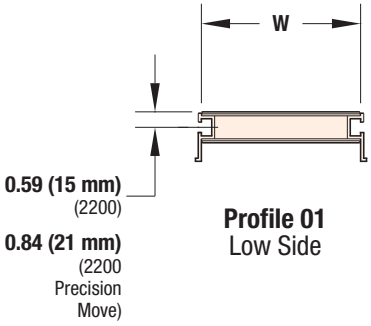
Dim: in (mm)
NOTE: These are generalized guidelines for mating adapters. Consult DTools or customer service to identify proper adapter for given motor.



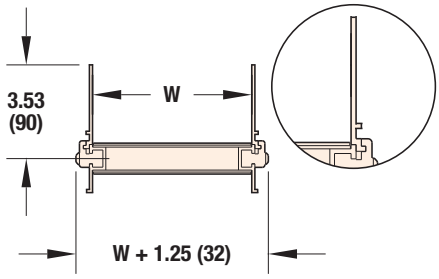
Mating Servo Dimensions



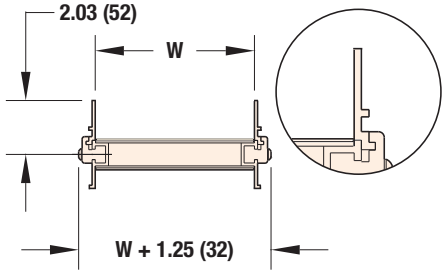
Due to the wide variety of drive set ups and applications, point of installation guarding is the responsibility of the end user.



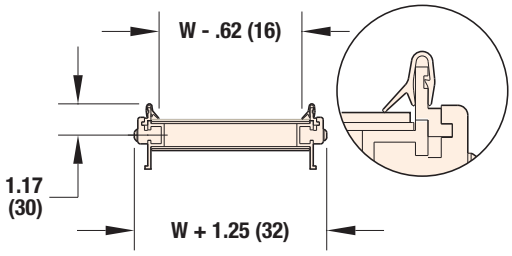
Profile 01
Low Side



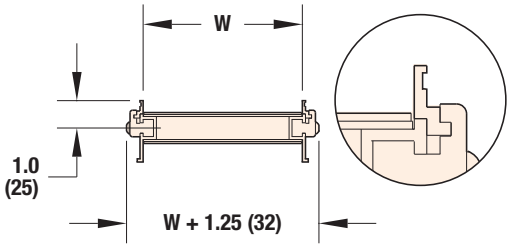
Profile 04
3" (76 mm) Aluminum Side



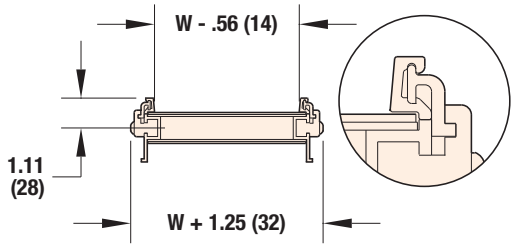
Profile 05
1.5" (38 mm) Aluminum Side



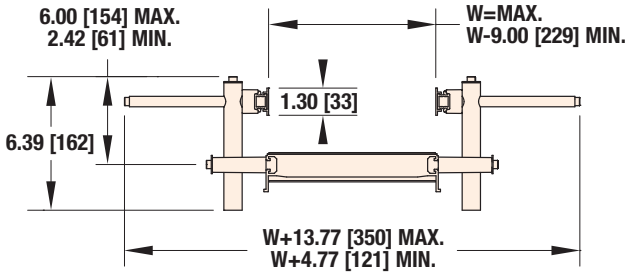
Profile 07*
Low to Side Wiper
(Not available on Precision Move)



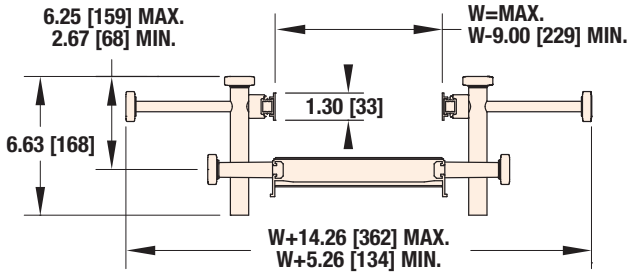
Profile 09
0.5" (13 mm) Aluminum Side



Profile 10
0.5" (13 mm) Extruded Plastic
(Do not use with belt #64)
(Not available on Precision Move)



Profile 13
Adjustable Guiding
1.3" (33 mm) HDPE Face

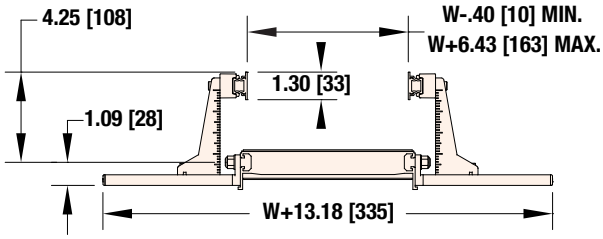


Profile 14
Tool-less Adjustable Guiding
1.3" (33 mm) HDPE Face

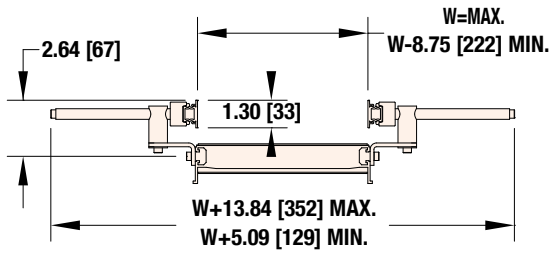
** = Not available on Gravity Roller Conveyors and do not use with high friction belts*

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

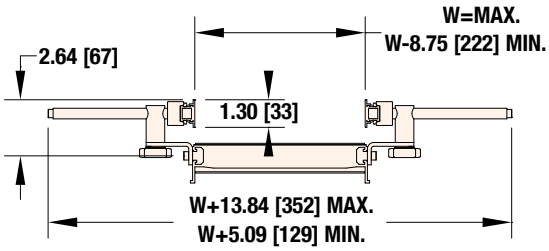
Due to the wide variety of drive set ups and applications, point of installation guarding is the responsibility of the end user.



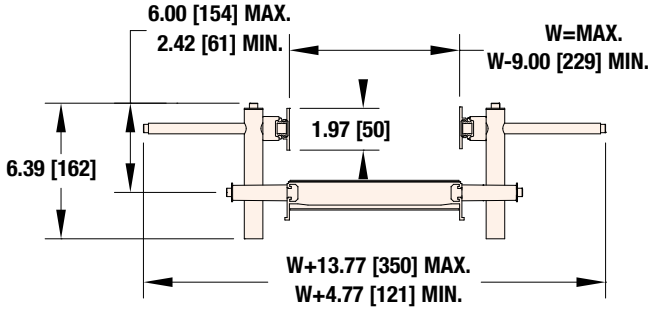
Profile 16
Outboard Adjustable Guiding
1.3" (33 mm) HDPE Face



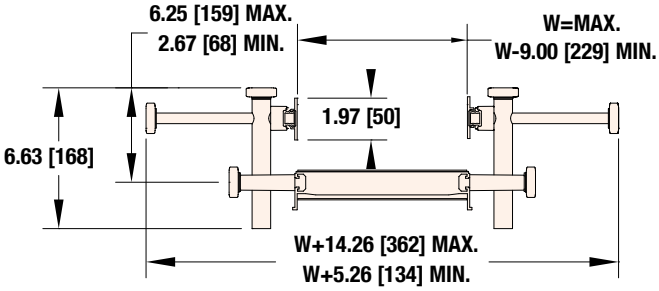
Profile 19
Horizontal Adjustable Guiding
1.3" (33 mm) HDPE Face



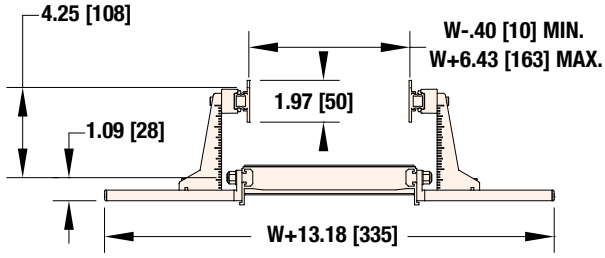
Profile 20
Tool-less Horizontal Adjustable Guiding
1.3" (33 mm) HDPE Face



Profile 33
Adjustable Guiding
2" (51 mm) HDPE Face

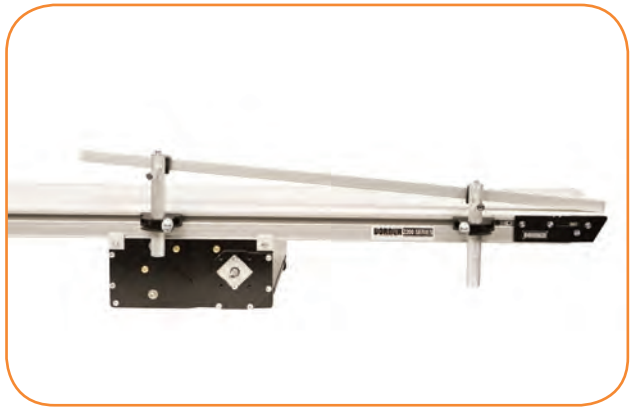


Profile 34
Tool-less Adjustable Guiding
2" (51 mm) HDPE Face



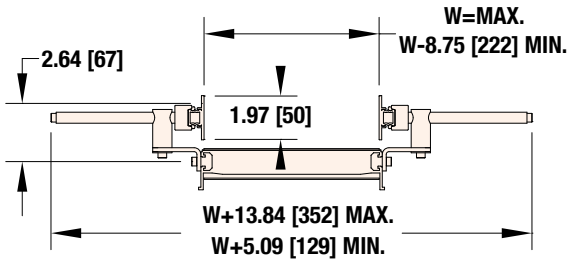
Profile 36
Outboard Adjustable Guiding
2" (51 mm) HDPE Face

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

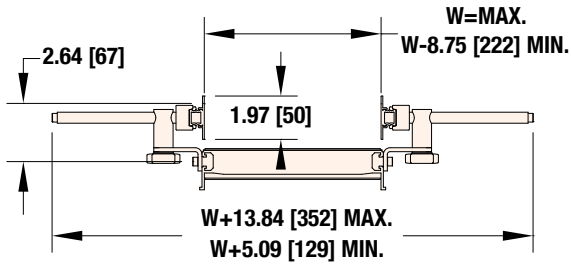


Profile 13 Flat Belt - Adjustable Guiding

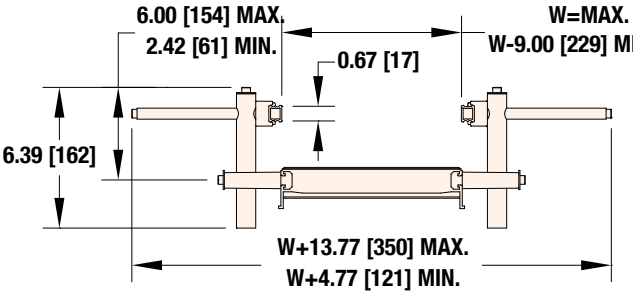
Due to the wide variety of drive set ups and applications, point of installation guarding is the responsibility of the end user.



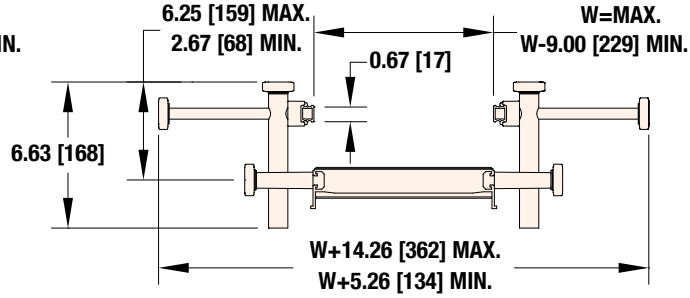
Profile 39
Horizontal Adjustable Guiding
2" (51 mm) HDPE Face



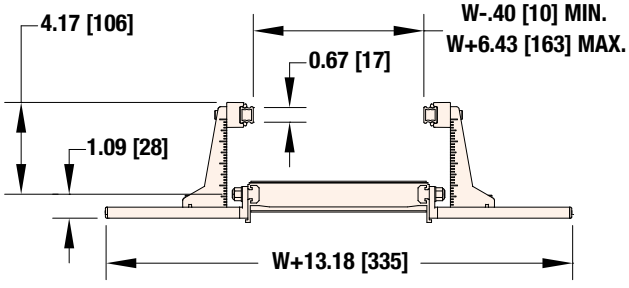
Profile 40
Tool-less Horizontal Adjustable Guiding
2" (51 mm) HDPE Face



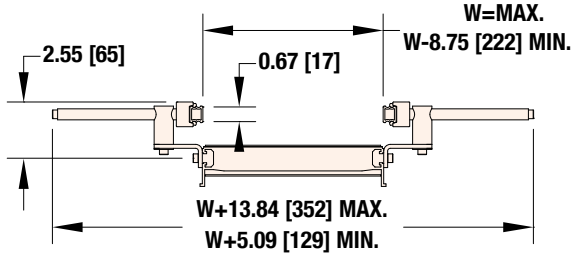
Profile 43
Adjustable Guiding
Aluminum Face



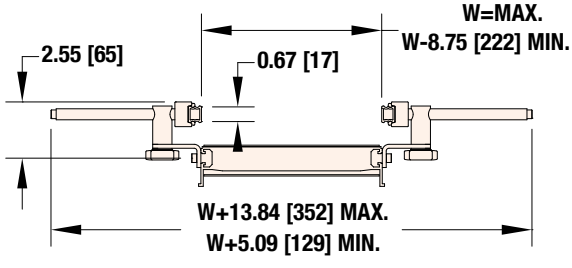
Profile 44
Tool-less Adjustable Guiding
Aluminum Face



Profile 46
Outboard Adjustable Guiding
Aluminum Face



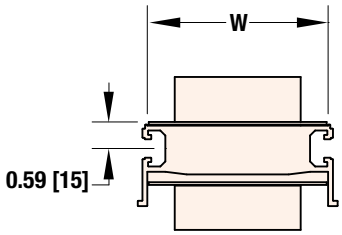
Profile 49
Horizontal Adjustable Guiding
Aluminum Face



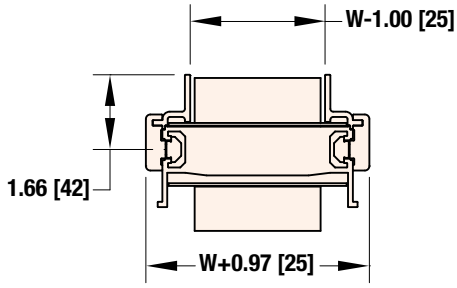
Profile 50
Tool-less Horizontal Adjustable Guiding
Aluminum Face

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

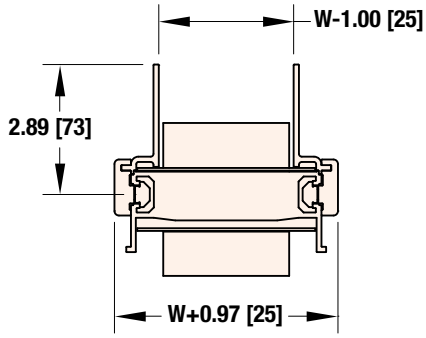
Due to the wide variety of drive set ups and applications, point of installation guarding is the responsibility of the end user.



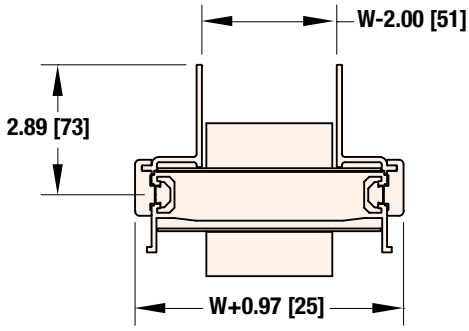
Cleated Profile 0
Low Side Cleated



Cleated Profile 2
1" (25 mm) Aluminum Side



Cleated Profile 3
2.5" (64 mm) Aluminum Side



Cleated LPZ Profile 3
2.5" (64 mm) Aluminum Side

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

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-Guideable	5/16" Nose Bar	5/8" 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			0.067" (1.7)	Urethane	212˚F (100˚C)	Low	x	x		Good	Packaging, clean room and inspection
02	**A2**	**2A**	General Purpose	x			0.071" (1.8)	Urethane	212˚F (100˚C)	Med	x	x		Good	Most versatile belt offering
03	**A3**	**3A**	FDA High Friction	x			0.067" (1.7)	Urethane	212˚F (100˚C)	High	x	x		Good	Packaging, clean room and inspection
05	**A5**	**5A**	Accumulation	x		x	0.047" (1.2)	Urethane	212˚F (100˚C)	V-Low	x	x		Good	Accumulation of products
06	**A6**	**6A**	Electrically Conductive	x			0.063" (1.6)	Urethane	176˚F (80˚C)	V-Low		x	x	Good	Electronics Handling
08	**A8**	**8A**	High Friction	x			0.083" (2.1)	PVC	158˚F (70˚C)	V-High		x		Poor	Conveys up to 35˚ inclines*
09			iDrive General Purpose	x		x	0.055 (1.4)	Urethane	212˚F (100˚C)	High	x			Good	Lower No Load Torque

Dim = in (mm)

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

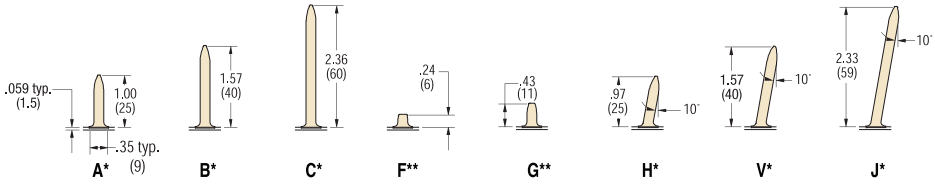
Specialty belt material is not stocked at Dorner and needs to be custom ordered for your special conveyor needs.

Belt Type - Finger Splice	Belt Type - Plastic Clipper	Belt Type - Metal Clipper	Belt Specifications	V-Guideable	5/16" Nose Bar	5/8" 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	x	0.03 (0.9)	Urethane	212˚F (100˚C)	Low	x	x		Good	5/16" nosebar, high friction
50			Heat Resistant				0.05 (1.3)	Silicone	356˚F (180˚C)	Low		x		Good	
53			Translucent		x	x	0.02 (0.5)	Urethane	212˚F (100˚C)	V-Low	x			Good	Back lit inspection and very small product transfer
54	F4	4F	FDA Sealed Edge	x			0.06 (1.6)	Urethane	176˚F (80˚C)	Low	x	x		Good	Packaging, clean room and inspection
55	F5	5F	FDA Sealed Edge	x			0.06 (1.6)	Urethane	176˚F (80˚C)	High	x	x		Good	Packaging, clean room and inspection
56		6F	Cut Resistant	x			0.08 (2.1)	Urethane	212˚F (100˚C)	Med.		x		Good	Oily product release, metal stamping
57		7F	Cut Resistant	x			0.10 (2.5)	Nitrile	176˚F (80˚C)	Med.		x		Poor	Felt-like, dry metal stamping, glass and ceramic
58		8F	Cut Resistant				0.06 (1.5)	Urethane	176˚F (80˚C)	Low		x		Good	Cross-linked surface, gold colored
59	F9	9F	Color Contrasting	x			0.06 (1.5)	PVC	158˚F (70˚C)	Med.		x		Poor	Black colored, hides overspray from ink jet
60	G0	0G	Color Contrasting	x		x	0.05 (1.3)	Urethane	212˚F (100˚C)	Low	x	x		Good	Green colored
61	G1	1G	Color Contrasting	x		x	0.05 (1.3)	Urethane	212˚F (100˚C)	Low	x			Good	Blue colored
63		3G	Electrically Conductive	x			0.05 (1.2)	Urethane	176˚F (80˚C)	Low		x	x	Good	Static conductive, electronics handling
64		4G	High Friction	x			0.17 (4.4)	PVC	194˚F (90˚C)	V-High	x	x		Poor	Dark Green colored, rough top surface, product cushioning, incline/decline apps
66		6G	Chemical Resistant	x			0.07 (1.7)	Polyester	212˚F (100˚C)	Med.	x	x		V-Good	Good cut resistance, metal stamping apps
67		7G	Low Friction Cleated (Do not use with Z-Frame)	x		x	0.06 (1.6)	Polyester	212˚F (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			0.06 (1.5)	Urethane	176˚F (80˚C)	Low	x	x		Good	Urethane enclosed for added sanitary protection
69	G9		FDA Encased**	x			0.09 (2.2)	Urethane	212˚F (100˚C)	Med.	x	x		Good	Urethane enclosed for added sanitary protection
71			FDA High Release	x			0.06 (1.6)	Urethane	212˚F (100˚C)	Low	x			Good	High release cover
72			Nose bar	x		x	0.05 (1.2)	Urethane	212˚F (100˚C)	Med.	x	x		Good	5/8" Nosebar, medium friction
73			Nose bar Low friction		x	x	0.03 (0.9)	Urethane	212˚F (100˚C)	Low	x	x		Good	5/16" nosebar, low friction
75			Black Urethane	x			0.06 (1.5)	Urethane	176˚F (80˚C)	High		x		Good	Black Color, urethane material
76			Black Nose bar	x	x	x	0.05 (1.2)	Urethane	176˚F (80˚C)	Med.		x		Good	Black Color, 5/8" nosebar
77			High Friction, green	x			0.09 (2.2)	Urethane	212˚F (100˚C)	High		x		Good	Green color, high friction, urethane
78			Chemical, Polyolefin, HF				0.05 (1.4)	Polyolefin	158˚F (70˚C)	High	x			V-Good	Chemical resistant, food grade
79			Chemical, Polyolefin, LF				0.05 (1.3)	Polyolefin	158˚F (70˚C)	Med.	x	x		V-Good	Chemical resistant, food grade
80			High Friction, silicone	x		x	0.04 (1)	Silicone	176˚F (80˚C)	High	x			Good	Silicone material, high friction
81			Low Friction, silicone	x		x	0.04 (1)	Silicone	212˚F (100˚C)	Med.	x			Good	Silicone material, low to medium friction

Dim = in (mm)
Note: Clipper Splices not available on Z-Frame Series Conveyors.
Note: Conveyors wider than 40" (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 2" (51 mm) widths

Cleated Belt Profiles



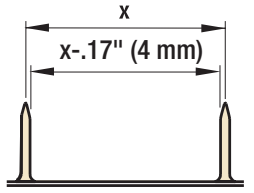
Cleated Belt Selection Guide

Cleat Type	Base Belt	Belt Thickness	Surface Material	Color	Coefficient of Friction	V-Guideable	Maximum Part Temperature	FDA Approved	Chemical Resistance
A,B,C,F,G,H,V,J	Standard Base Belt	.055 (1.4)	Urethane	White	High	X	212°F (100°C)	Yes	Good
A,B,C,F,G,H,V,J	Low Friction Base Belt	0.06 (1.5)	Urethane	Natural	Low	X	212°F (100°C)	Yes	Good
A,B,C	Wide Cleated Base	0.06 (1.5)	Urethane	White	Medium	X	212°F (100°C)	Yes	Good

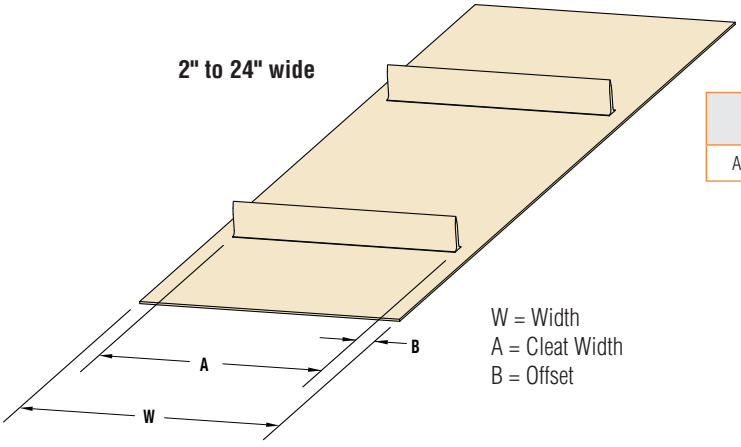
Cleated Belt Spacing

- Minimum cleat spacing = 1.13" (29 mm) - Cleat Selection could impact the minimum spacing. Contact the factory for details.

*Maximum cleat spacing for 18" and wider conveyors = 20" (508 mm)
**Maximum cleat spacing for 7' and longer conveyors = 20" (508 mm)
18" and wider conveyors are limited to 7' long



Tolerance ± .08" (2 mm)



W = Width
A = Cleat Width
B = Offset

Cleat Type	Cleat Width (A)	Offset (B)
A,B,C,F, G,H,V,J	W-1.20" (30 mm)	0.60" (15 mm)

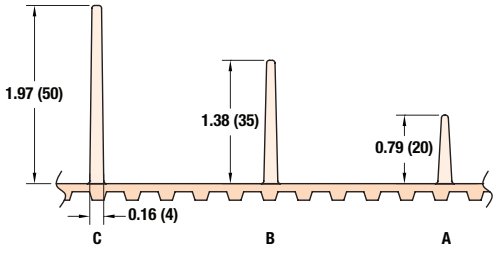
Precision Move Belting

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	0.175 (4.5)	Urethane with nylon top	Carcass	Green	195˚F (91˚C)	V-Low	N/A		Good	24 (610)
3P	High Friction	10 mm	0.175 (4.5)	Urethane	Smooth	White	195˚F (91˚C)	High	85A	x	Good	24 (610)
2T	High Strength	10 mm	0.180 (4.6)	Urethane with Kevlar cords	Smooth	Natural	160˚F (71˚C)	Med	88A		Good	6 (152)

Dim = in (mm)

Precision Move Cleat Profiles

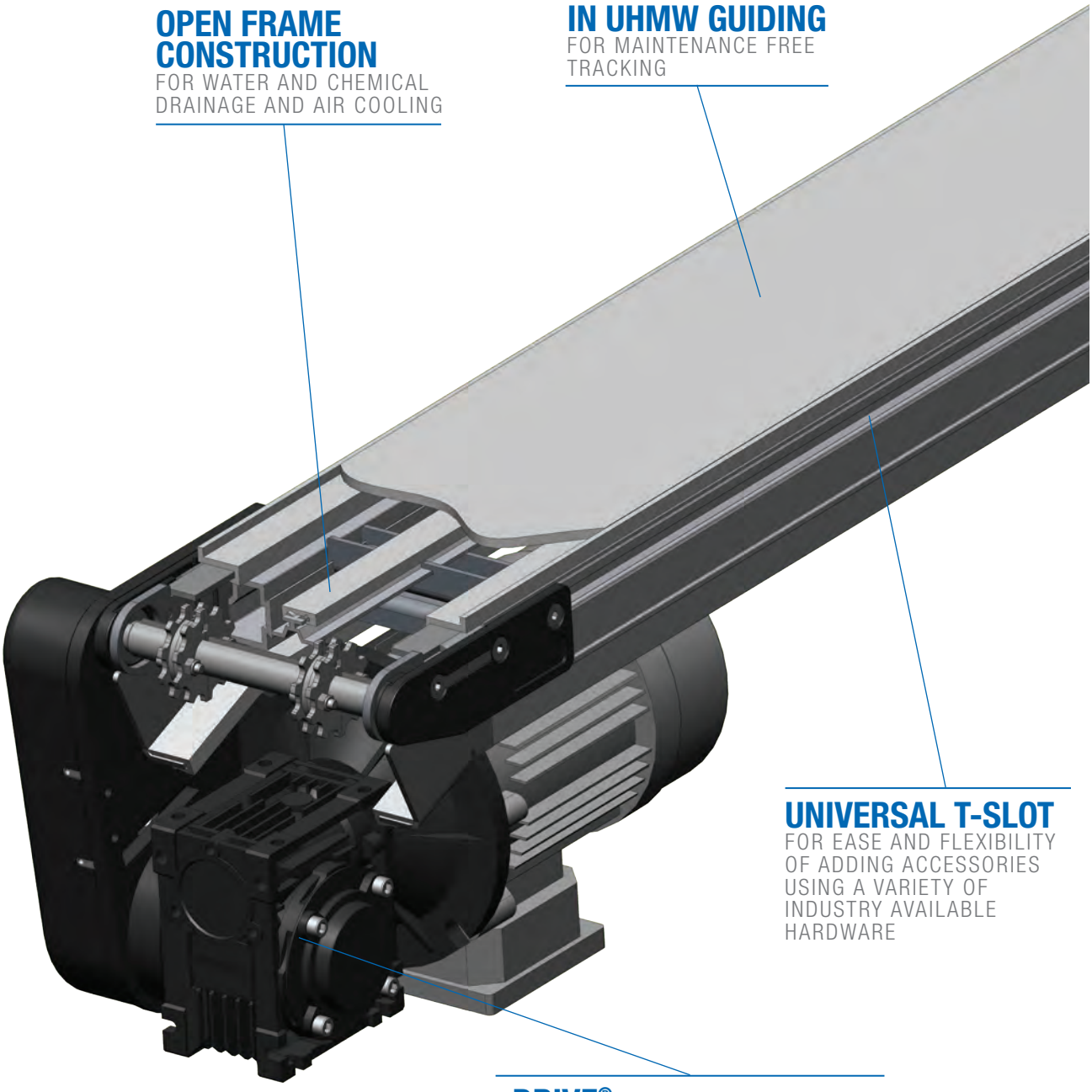


Specifications

- Base Belt Material: Belt 3P, 0.175" (4.5 mm) thick, high friction FDA approved urethane, 195°F (91°C) maximum part temperature
- Cleat spacing in 10 mm increments
- Cleats are centered over tooth
- Minimum cleat spacing is approximately 1.97" (50 mm) Consult Factory.

OPEN FRAME CONSTRUCTION
FOR WATER AND CHEMICAL DRAINAGE AND AIR COOLING

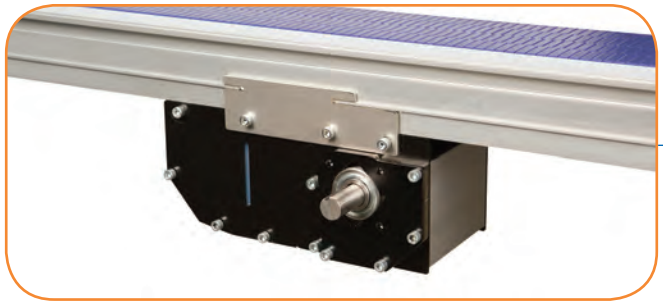
ALL BELTS FULLY CONTAINED IN UHMW GUIDING
FOR MAINTENANCE FREE TRACKING



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

eDRIVE®
LOW INERTIA ROTOR ALUMINUM BODY MOTORS PROVIDE LOWER TEMPERATURES IN SMALLER PACKAGE

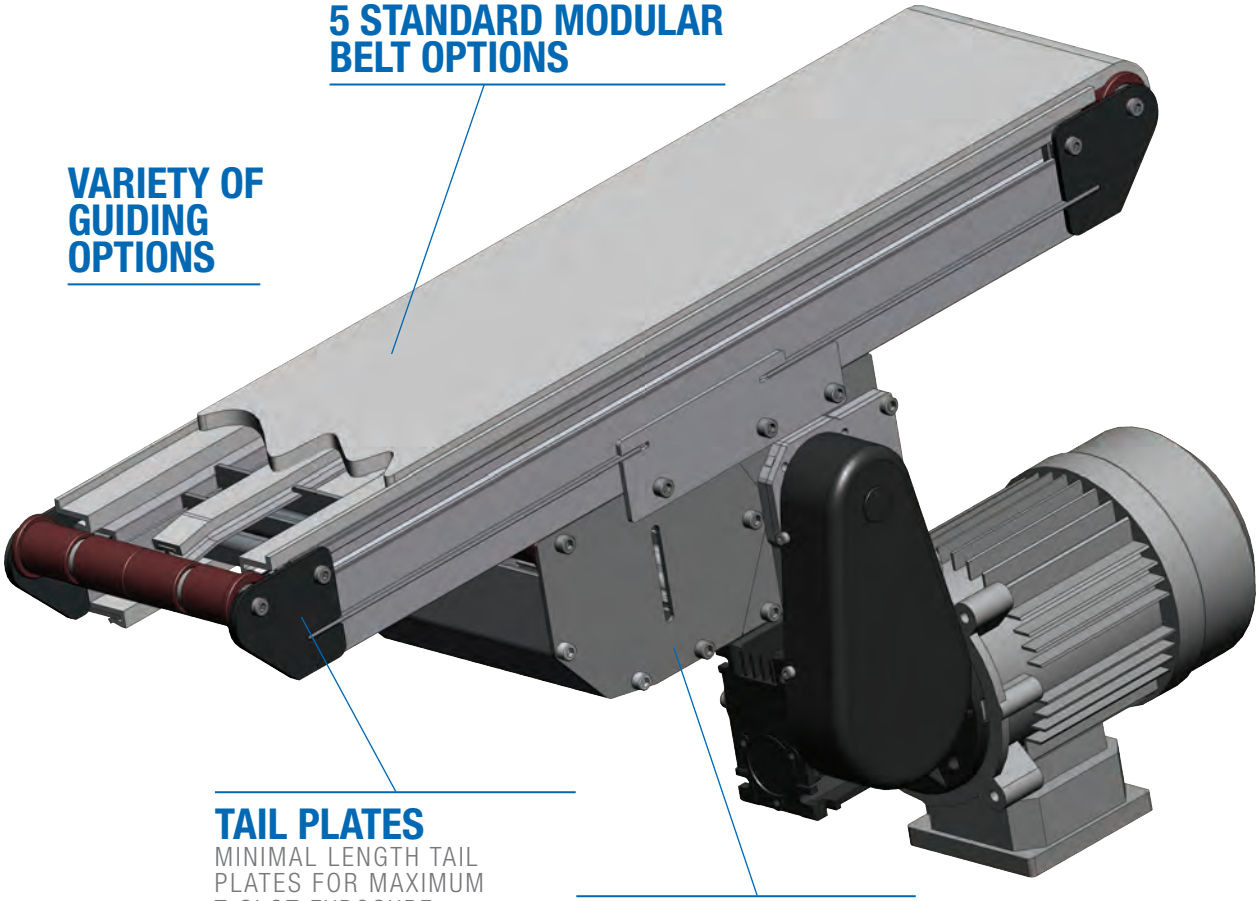
UNIVERSAL DRIVE
SINGLE PART NUMBER MOTOR/MOUNT/DRIVE PACKAGE COVERS ALL SPEED, LOAD AND MOUNTING POSITIONS FOR END DRIVE CONVEYORS



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

5 STANDARD MODULAR BELT OPTIONS

VARIETY OF GUIDING OPTIONS

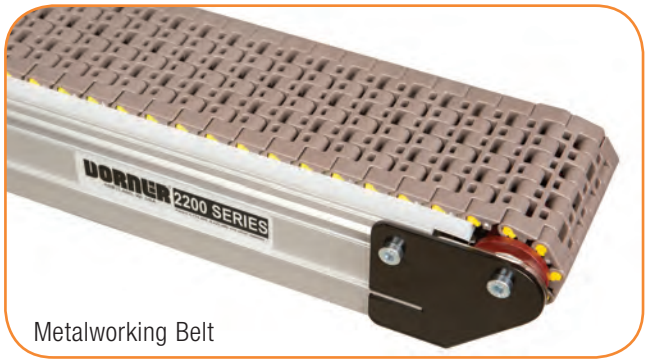


TAIL PLATES
MINIMAL LENGTH TAIL PLATES FOR MAXIMUM T-SLOT EXPOSURE

SPLIT BOX DESIGN
ALLOWS BELT REPLACEMENT WITHOUT REMOVING MOTOR FROM CONVEYOR

0.31" NOSEBAR TAIL OPTION
FOR SMALL PART TRANSFERS

Micropitch Belt



Metalworking Belt

Specifications

- Loads up to 150 lbs* (68 kg)
- Belt speeds up to 250 ft/min (76 m/min)
- Belt widths: 3" (76 mm) to 24" (610 mm)**
- Conveyor lengths: 18" (457 mm) to 30' (9,144 mm)
- Belt options:

  Micropitch (General Purpose) Belts
  - 0.33" (8 mm) micropitch modular belt
  - 1.70" (43.2 mm) pitch diameter 17 tooth drive pulley turns approximately 5.35" (136 mm) of belt per revolution

  Metalworking Belts
  - 0.60" (15 mm) pitch modular belt
  - 1.88" (47.8 mm) pitch diameter 10 tooth drive pulley turns approximately 5.91" (150 mm) of belt per revolution
- 12 mm diameter integral drive shaft
- Fully encapsulated in frame belt return

STANDARD FEATURE: OPEN FRAME DESIGN

for water and chemical drainage and air cooling

OPTIONAL: 0.31" Nose Bar Transfer

Belt Speed up to 175 ft/min (53.3 m/min) (Micropitch Modular Belt only)

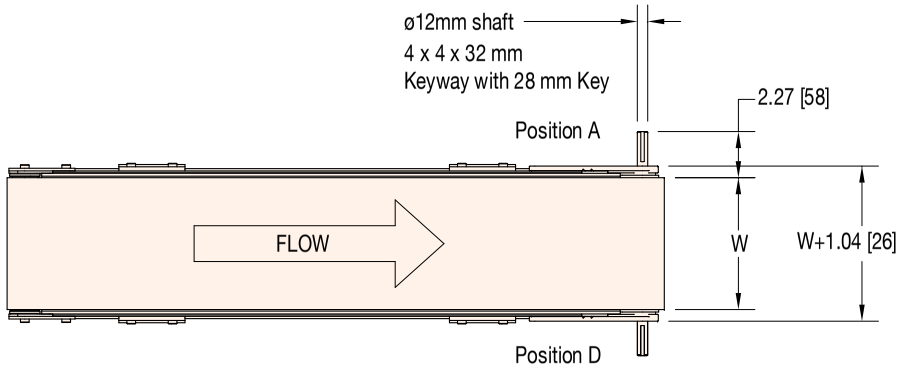
2200 Series Modular Belt End Drive Conveyor

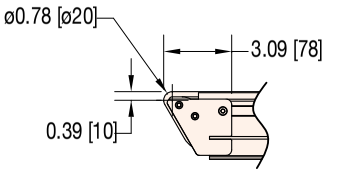
22 MT E M W W - L L L L 1 1 A P P P P B B - X T¹ T² T³ T⁴

- **Conveyor Tail Options X** (if required) *See Drive Shaft Position Chart on next page
  - **A** = Drive Shaft (T^1 only)
  - **D** = Drive Shaft (T^2 only)
  - **0** = No Shaft
  - **K** = Keyed Auxiliary Shaft
  - **S** = Stub Shaft
- **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:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language: M** = US, **U** = Europe

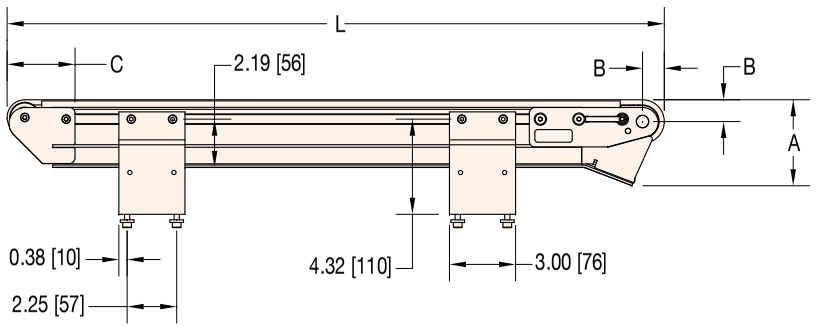
* Conveyor load capacity depends on conveyor size, incline, motor position, accumulated loads and other factors.
** Belt selection limits width options

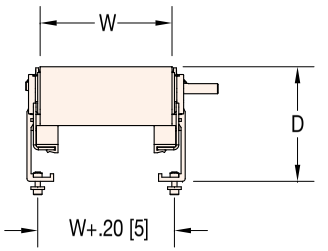
Order gearmotor mounting packages and gearmotors separately, see pages 47-64
For support stands and accessories, see page 76-89





OPTIONAL NOSE BAR TRANSFER





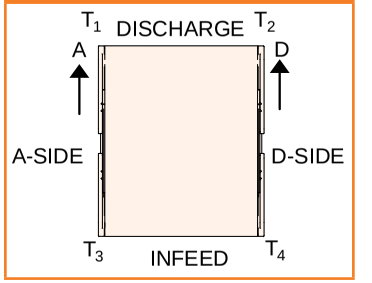
A=3.90 [99] FOR MICROPITCH BELT
4.00 [102] FOR METALWORKING BELT
B=.99 [25] FOR MICROPITCH BELT
1.09 [28] FOR METALWORKING BELT
C=3.08 [78] FOR MICROPITCH BELT
3.18 [81] FOR METALWORKING BELT
D=5.20 [132] FOR MICROPITCH BELT
5.32 [135] FOR METALWORKING BELT

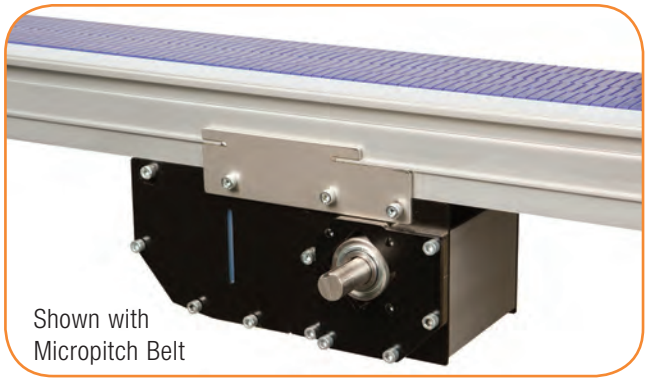
W = Conveyor Belt Width **Dim** = in (mm)

Standard Micropitch Sizes					
Conveyor Width Reference	04	08	12	18	24
Conveyor Belt Width (W)	4" (102mm)	8" (203mm)	12" (305mm)	18" (457mm)	24" (610mm)
Conveyor Length Reference	0150	0001 increments **up to...**		3000	
Conveyor Length (L)	1.5' (457mm)	0.1" (3mm) increments **up to...**		30' (9144mm)	

Standard Metalworking Sizes						
Conveyor Width Reference	03	06	09	12	18	24
Conveyor Belt Width (W)	3" (76mm)	6" (152mm)	9" (229mm)	12" (305mm)	18" (457mm)	24" (610mm)
Conveyor Length Reference	0150		0001 increments **up to...**		3000	
Conveyor Length (L)	1.5' (457mm)		0.1" (3mm) increments **up to...**		30' (9144mm)	

DRIVE SHAFT POSITION





Shown with
Micropitch Belt

Specifications

- Loads up to 150 lbs* (68 kg)
- Belt speeds up to 250 ft/min (76 m/min)
- Belt widths: 3" (76 mm) to 24" (610 mm)**
- Conveyor lengths: 32" (813 mm) to 30' (9,144 mm)
- Belt options:

  Micropitch (General Purpose) Belts
  - 0.33" (8 mm) micropitch modular belt
  - 1.70" (43.2 mm) pitch diameter 17 tooth drive pulley turns approximately 5.35" (136 mm) of belt per revolution

  Metalworking Belts
  - 0.60" (15 mm) pitch modular belt
  - 1.88" (47.8 mm) pitch diameter 10 tooth drive pulley turns approximately 5.91" (150 mm) of belt per revolution
- 3/4" diameter integral drive shaft
- Fully encapsulated in frame belt return

STANDARD FEATURE:
OPEN FRAME DESIGN

for water and chemical drainage
and air cooling

OPTIONAL: 0.31" Nose Bar Transfer

Belt Speed up to 175 ft/min (53.3 m/min)
(Micropitch Modular Belt only)

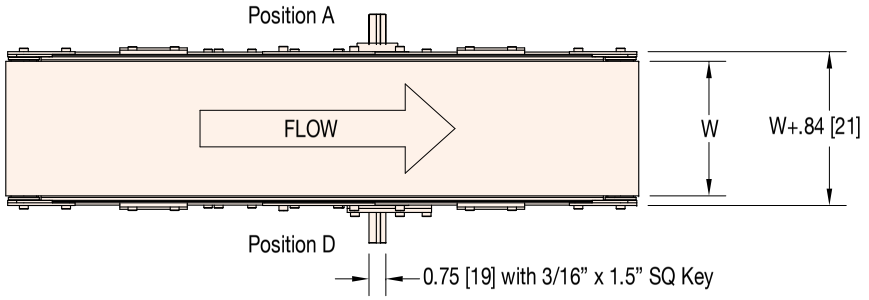
2200 Series Modular Belt Center Drive Conveyor

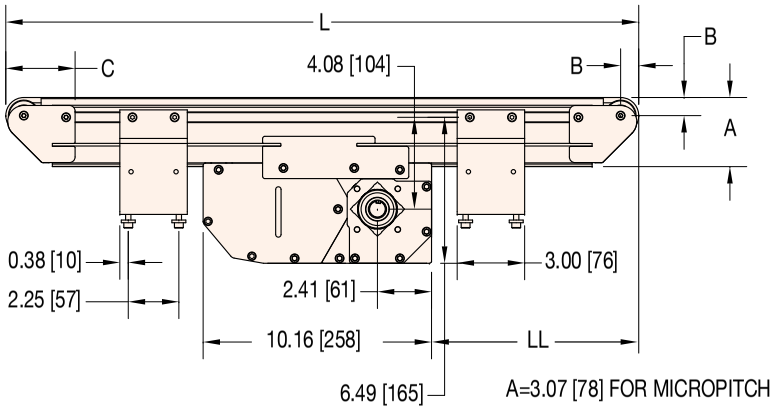
22 MT D M WW - LLLL 1 1 1 A PP PP BB - LL X T¹ T² T³ T⁴

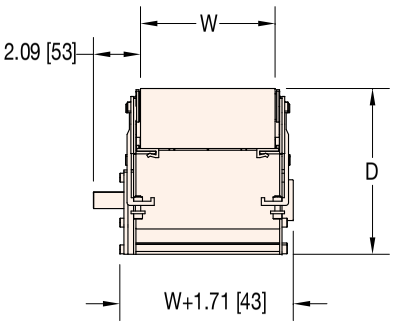
- **Conveyor Tail Options X** (if required) *See Drive Shaft Position Chart on next page
  - **0** = No Shaft **K** = Keyed Auxiliary Shaft **S** = Stub Shaft
- **Legnth from Discharge End to Drive Module** (LL in inches)
- **Belt Type**
- **Profile (D side)**
- **Profile (A side)**
- **Drive Shaft Position: 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:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language: M** = US, **U** = Europe

* 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 47-64
For support stands and accessories, see page 76-89







A=3.07 [78] FOR MICROPITCH BELT
3.17 [81] FOR METALWORKING BELT
B=.81 [20] FOR MICROPITCH BELT
.91 [23] FOR METALWORKING BELT

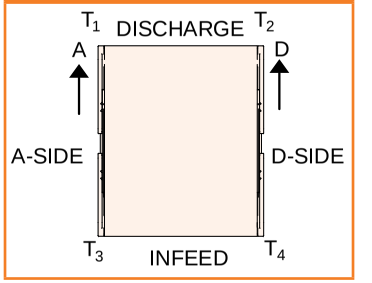
C=3.08 [78] FOR MICROPITCH BELT
3.18 [81] FOR METALWORKING BELT
D=7.37 [187] FOR MICROPITCH BELT
7.49 [190] FOR METALWORKING BELT

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

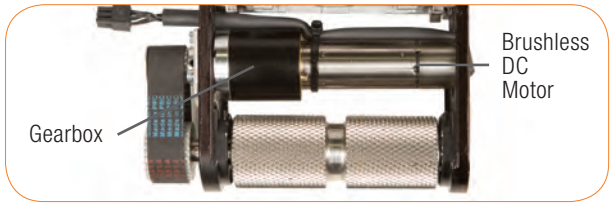
Standard Micropitch Sizes					
Conveyor Width Reference	04	08	12	18	24
Conveyor Belt Width (W)	4" (102mm)	8" (203mm)	12" (305mm)	18" (457mm)	24" (610mm)
Conveyor Length Reference	0267	0001 increments **up to...**			3000
Conveyor Length (L)	2.67' (813mm)	0.1" (3mm) increments **up to...**			30' (9144mm)

Standard Metalworking Sizes						
Conveyor Width Reference	03	06	09	12	18	24
Conveyor Belt Width (W)	3" (76mm)	6" (152mm)	9" (229mm)	12" (305mm)	18" (457mm)	24" (610mm)
Conveyor Length Reference	0267		0001 increments **up to...**		3000	
Conveyor Length (L)	2.67" (813mm)		0.1" (3mm) increments **up to...**		30' (9144mm)	

DRIVE SHAFT POSITION



Shown with Micropitch Belt



Specifications

- Conveyor Load Capacity (non-accumulated, evenly distributed)
  - 2 to 20 ft/min up to 75lbs
  - 3 to 30 ft/min up to 50 lbs
  - 6 to 60 ft/min up to 30 lbs
  - 9 to 90 ft/min up to 20 lbs
- Belt speeds: Variable Speed (4) Speed Options
  - 2 to 20 ft/min (0.6 to 6.1 m/min)
  - 3 to 30 ft/min (0.9 to 9 m/min)
  - 6 to 60 ft/min (1.8 to 18 m/min)
  - 9 to 90 ft/min (2.7 to 27 m/min)
- Belt widths: 3" (76 mm) to 24" (610 mm)**
- Conveyor lengths: 18" (457 mm) to 10' (3,048 mm)
- Indexing capable – Up to 30 indexes per minute
- Belt options:
  Micropitch (General Purpose) Belts
  - 0.33" (8 mm) micropitch modular belt
  - 1.70" (43.2 mm) pitch diameter 17 tooth drive pulley turns approximately 5.35" (136 mm) of belt per revolution

  Metalworking Belts
  - 0.60" (15 mm) pitch modular belt
  - 1.88" (47.8 mm) pitch diameter 10 tooth drive pulley turns approximately 5.91" (150 mm) of belt per revolution
- Fully encapsulated in frame belt return

STANDARD FEATURE: OPEN FRAME DESIGN

for water and chemical drainage and air cooling

OPTIONAL: 0.31" Nose Bar Transfer

Belt Speed up to 175 ft/min (53.3 m/min)

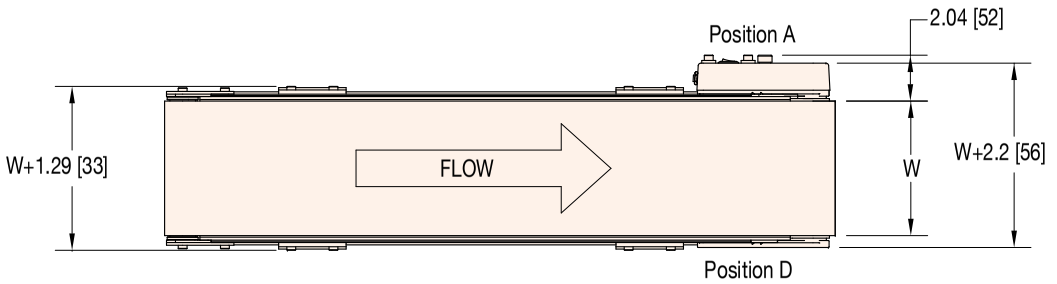
(Micropitch Modular Belt only)

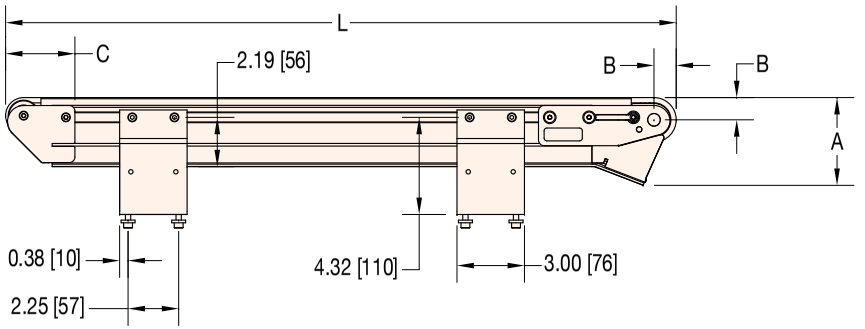
2200 Series Modular Belt iDrive Conveyor

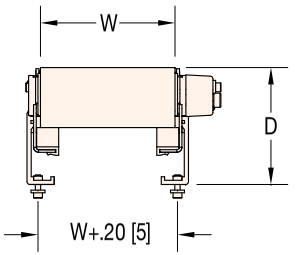
22 MT E M WW - LLLL 1 1 A PP PP BB - FD C P S

- **Speed Range:** **A** = 7-70 FPM, **B** = 5-50 FPM, **C** = 3-24 FPM, **D** = 1.7-17 FPM
- **Power Supply:** **P** = Power Supply Included, **N** = No power supply
- **Control Type:** **M** = Mounted Full Control, **Q** = Remote Start/Stop w/6' cord, **R** = Remote Start/Stop w/30' cord
- **Integrated Frame Drive**
- **Belt Type**
- **Profile (D side)**
- **Profile (A side)**
- **Flow/Drive Shaft Position:** **A or D** *See Drive Shaft Position Chart on next page
- **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:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language:** **M** = US, **U** = Europe

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







A=3.90 [99] FOR MICROPITCH BELT
4.00 [102] FOR METALWORKING BELT
B=.99 [25] FOR MICROPITCH BELT
1.09 [28] FOR METALWORKING BELT

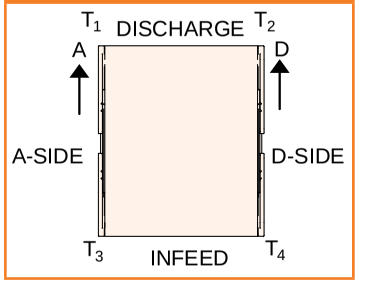
C=3.08 [78] FOR MICROPITCH BELT
3.18 [81] FOR METALWORKING BELT
D=5.20 [132] FOR MICROPITCH BELT
5.32 [135] FOR METALWORKING BELT

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

Standard Micropitch Sizes					
Conveyor Width Reference	04	08	12	18	24
Conveyor Belt Width (W)	4" (102mm)	8" (203mm)	12" (305mm)	18" (457mm)	24" (610mm)
Conveyor Length Reference	0150	0001 increments **up to...**		1000	
Conveyor Length (L)	1.5' (457mm)	0.1" (3mm) increments **up to...**		10' (3048mm)	

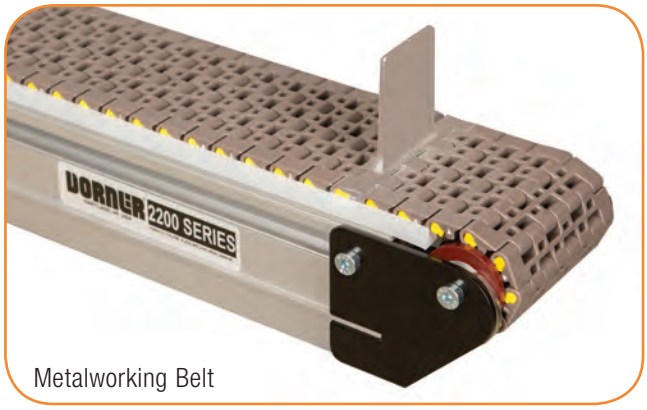
Standard Metalworking Sizes						
Conveyor Width Reference	03	06	09	12	18	24
Conveyor Belt Width (W)	3" (76mm)	6" (152mm)	9" (229mm)	12" (305mm)	18" (457mm)	24" (610mm)
Conveyor Length Reference	0150		0001 increments **up to...**		1000	
Conveyor Length (L)	1.5' (457mm)		0.1" (3mm) increments **up to...**		10' (3048mm)	

DRIVE SHAFT POSITION



2200 SERIES

MODULAR CLEATED BELT END DRIVE



Metalworking Belt

Specifications

- Loads up to 150 lbs* (68 kg)
- Belt speeds up to 250 ft/min (76 m/min)
- Belt widths: 3" (76 mm) to 24" (610 mm)**
- Conveyor lengths: 18" (457 mm) to 30' (9,144 mm)
- Belt options:

  Metalworking Belt
  - 1.88" (47.8 mm) pitch diameter 10 tooth drive pulley turns approximately 5.91" (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

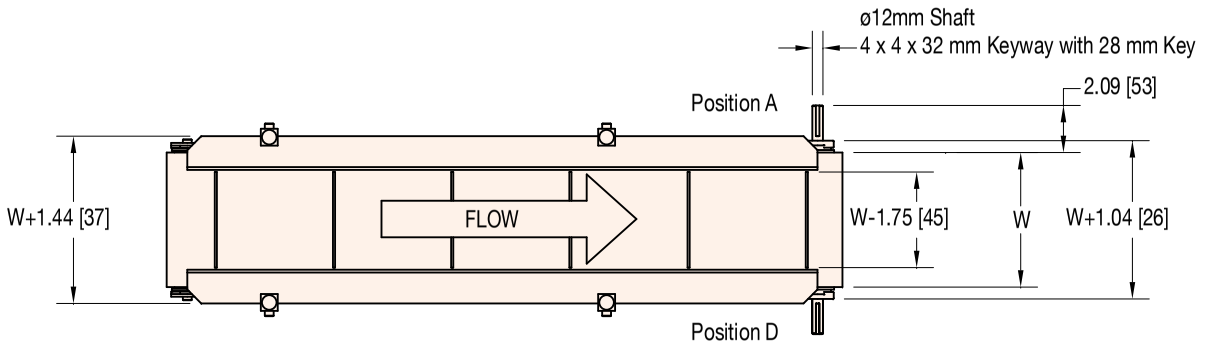
2200 Series Modular Cleated Belt Conveyor

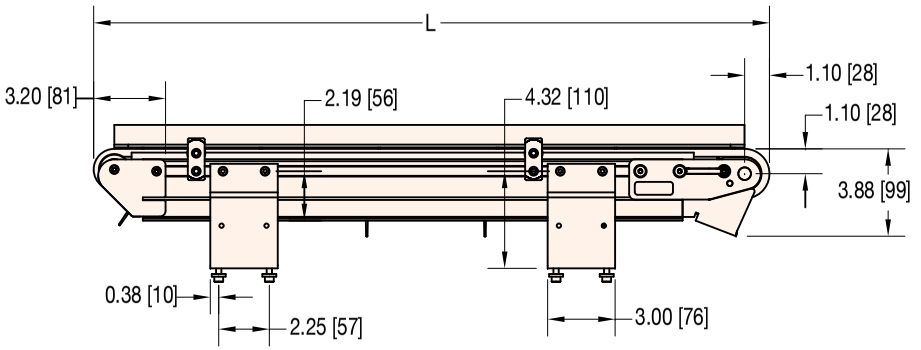
22 MT C M WW - LLLL 1 A P A BB SSSS - X T^1 T^2 T^3 T^4

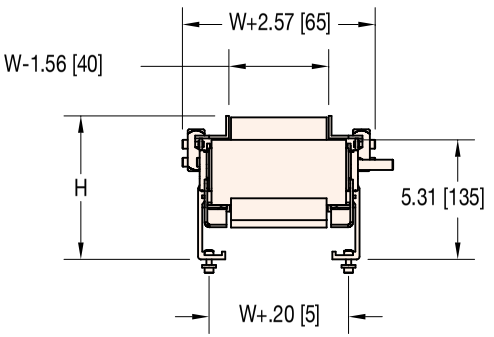
- **Conveyor Tail Options X** (if required) *See Drive Shaft Position Chart on next page
  - **A** = Drive Shaft (T^1 only)
  - **C** = Drive Shaft (T^2 only)
  - **O** = No Shaft
  - **K** = Keyed Auxiliary Shaft
  - **S** = Stub Shaft
  - **M** = Mag Location (T^3 or T^4 only)
- **Cleat Spacing: SS.SS in inches**
- **Belt Type**
- **Cleat Height**
- **Profile: 1** = Lowside, **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:** LL.LL in feet
- **Conveyor Width Reference**
- **Documentation Language: M** = US, **U** = Europe

* 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 47-64
For support stands and accessories, see page 76-89





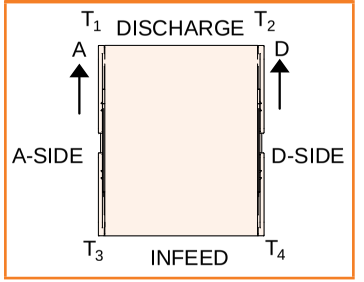


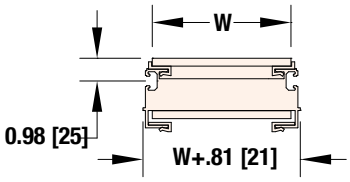
H=6.38 [162] FOR 1" TALL CLEATED PROFILE
H=7.38 [188] FOR 2" TALL CLEATED PROFILE

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

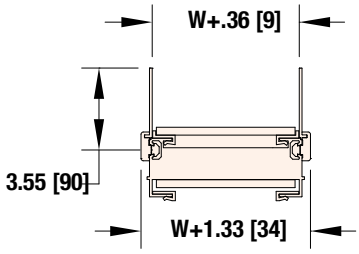
Standard Metalworking Sizes						
Conveyor Width Reference	03	06	09	12	18	24
Conveyor Belt Width (W)	3" (76mm)	6" (152mm)	9" (229mm)	12" (305mm)	18" (457mm)	24" (610mm)
Conveyor Length Reference	0150		0001 increments **up to...**		3000	
Conveyor Length (L)	1.5' (457mm)		0.1" (3mm) increments **up to...**		30' (9144mm)	

DRIVE SHAFT POSITION

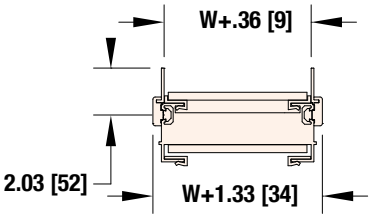




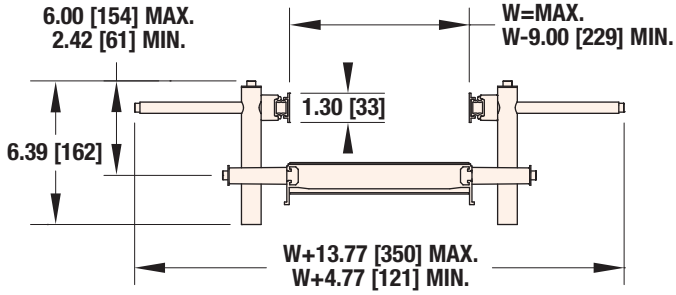
Profile 01
Low Side



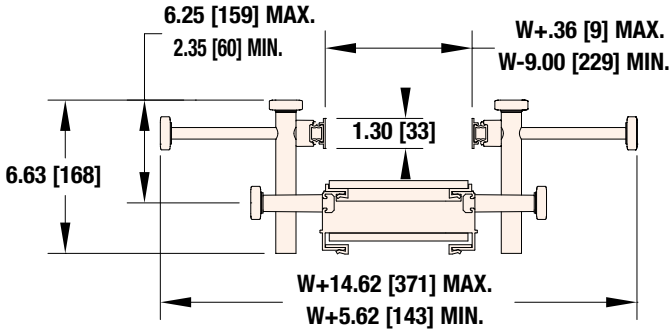
Profile 04
3" (76 mm) Aluminum Side



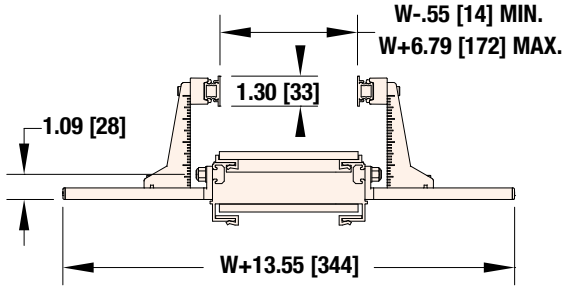
Profile 05
1.5" (38 mm) Aluminum Side



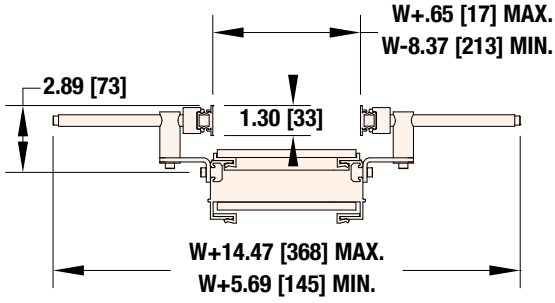
Profile 13
Adjustable Guiding
1.3" (33 mm) HDPE Face



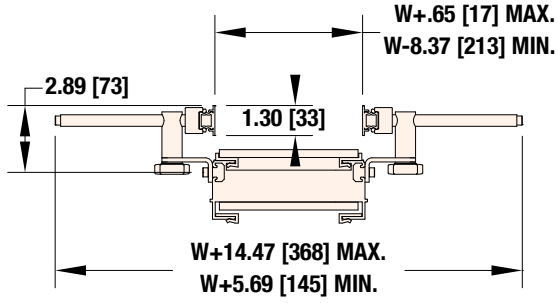
Profile 14
Tool-less Adjustable Guiding
1.3" (33 mm) HDPE Face



Profile 16
Outboard Adjustable Guiding
1.3" (33 mm) HDPE Face



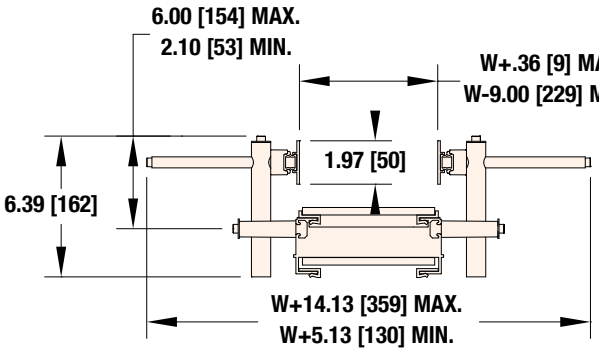
Profile 19
Horizontal Adjustable Guiding
1.3" (33 mm) HDPE Face



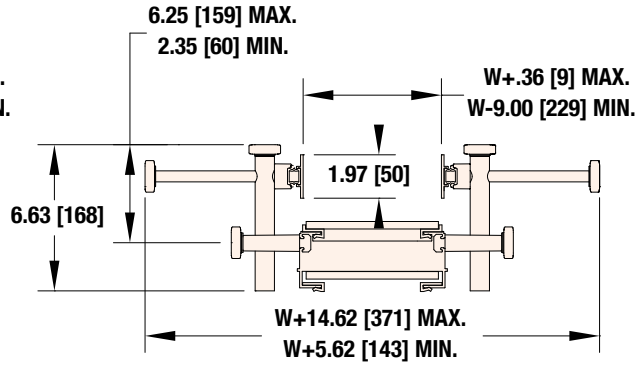
Profile 20
Tool-less Horizontal Adjustable Guiding
1.3" (33 mm) HDPE Face

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

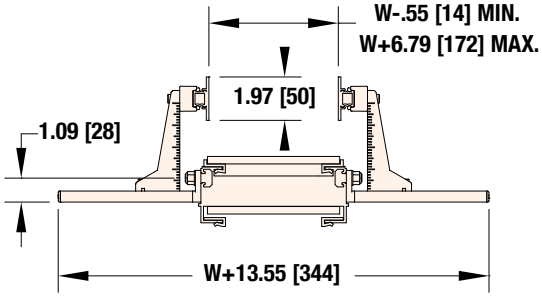
Due to the wide variety of drive set ups and applications, point of installation guarding is the responsibility of the end user.



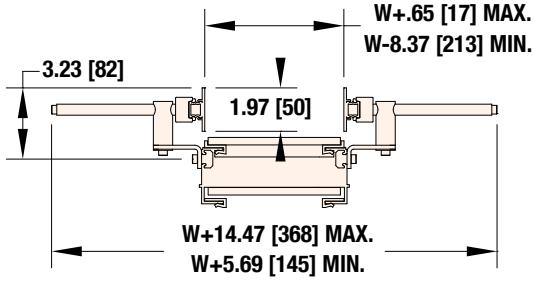
Profile 33
Adjustable Guiding
2" (51 mm) HDPE Face



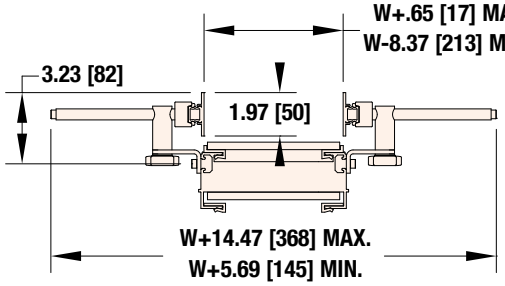
Profile 34
Tool-less Adjustable Guiding
2" (51 mm) HDPE Face



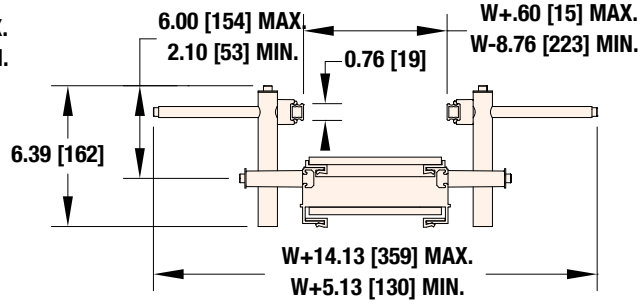
Profile 36
Outboard Adjustable Guiding
2" (51mm) HDPE Face



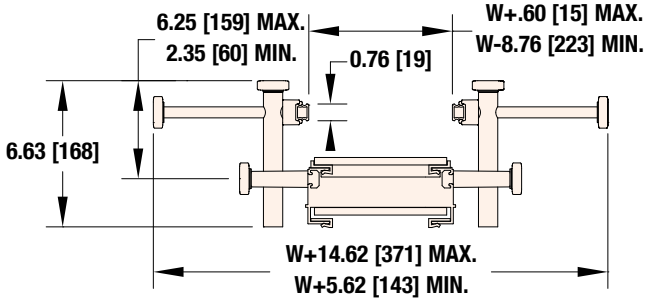
Profile 39
Horizontal Adjustable Guiding
2" (51 mm) HDPE Face



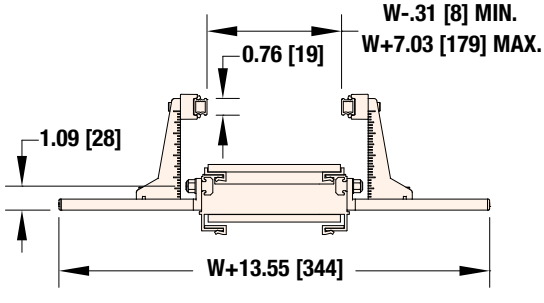
Profile 40
Tool-less Horizontal Adjustable Guiding
22" (51 mm) HDPE Face



Profile 43
Adjustable Guiding
Aluminum Face



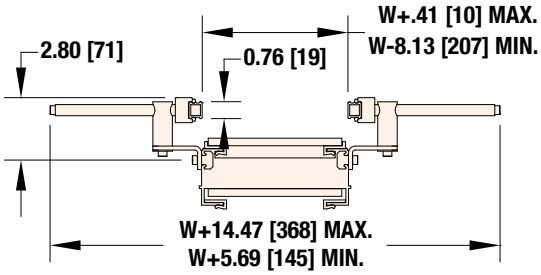
Profile 44
Tool-less Adjustable Guiding
Aluminum Face



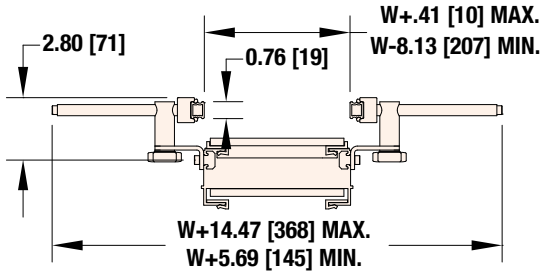
Profile 46
Outboard Adjustable Guiding
Aluminum Face

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

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



Profile 49
Horizontal Adjustable Guiding
Aluminum Face



Profile 50
Tool-less Horizontal Adjustable Guiding
Aluminum Face

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	0.32 (8.1)	0.236 (6)	Acetal	Blue	200 deg F (93 deg C)	0.25	X	X		Good
30	Metalworking Accumulation, Open Mesh	26%	0.59 (15)	0.34 (8.7)	Acetal	Brown	180 deg F (82 deg C)	0.22	X		X	Good
31	Metalworking Chemical Resistant, Open Mesh	26%	0.59 (15)	0.34 (8.7)	Polypropylene	White	220 deg F (104 deg C)	0.33	X		X	Excellent
40	Metalworking Accumulation, Closed Mesh	N/A	0.59 (15)	0.34 (8.7)	Acetal	Brown	180 deg F (82 deg C)	0.22	X		X	Good
41	Metalworking Chemical Resistant, Closed Mesh	N/A	0.59 (15)	0.34 (8.7)	Polypropylene	White	220 deg F (104 deg C)	0.33	X		X	Excellent

Note: White belt is available, contact factory for details. Dim = in (mm)

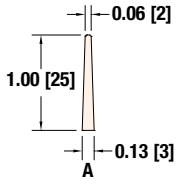
Specialty Modular Belt Selection Guide

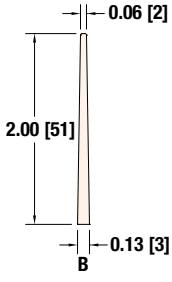
Belt Type	Description	Percent Open	Tooth Pitch	Thickness	Material	Color	Maximum Part Temperature	Coefficient of Friction	FDA Approved	Nose Bar	Cleated	Chemical Resistance
02	Micropitch, Open Mesh	34%	0.32 (8.1)	0.236 (6)	Acetal	Blue	200 deg F (93 deg C)	0.3	X	X		Good
32	Metalworking Heat Resistant, Open Mesh	26%	0.59 (15)	0.34 (8.7)	Nylon	Black	375 deg F (190 deg C)	0.3				Good
42	Metalworking Heat Resistant, Closed Mesh	N/A	0.59 (15)	0.34 (8.7)	Nylon	Black	375 deg F (190 deg C)	0.3				Good

Note: White belt is available, contact factory for details. Dim = in (mm)

Cleated Belt Profiles

- Metalworking belt conveyors only.
See page 42 & 43 for more details.





Gearmotors Mounting Package & Gearmotor Selection Steps

Step 1: Select a **Gearmotor Mounting Package.** For End Drive conveyors, select a side, bottom, top, flush or bolster drive mount (pages 448-55). If a Center Drive or Mid Drive conveyor is being outfitted, refer to the Center Drive section on pages 56-57. Be sure to note if it is for a **90˚** or **Parallel Shaft Gearmotor.**

Step 2: Using **Belt Speed and Load** Requirements, determine the required **Gearmotor Type** (Light, Heavy or Standard) for your application using the chart below.

Step 3: Find the appropriate set of Belt Speed Charts (pages 51, 52, 54, 55, 57 and 58) for the Mounting Package you selected and choose between the **Fixed** or **Variable Speed** chart.

Step 4: Go down the first column of the Belt Speed Chart and locate the required **Belt Speed** for your application. If the desired belt speed is not listed, round up to the next higher speed.
(Dorner offers much more than just the belt speeds listed in the tables, contact the factory for complete details)

Step 5: From the row containing your required **Belt Speed,** check to be sure that speed is available for the **Mount Package** you chose. (End Drive Only - Top, Bottom or Side)

Step 6: Use the Drive / Driven Pulley Kit combination to complete your Mounting Package Part Number

Step 7: Note the **RPM from Gearmotor,** it will be needed to select the correct Gearmotor from the Gearmotor Chart.

Step 8: Reference the **Gearmotor Chart #** to locate a compatible Gearmotor Chart on pages 59-64. Be sure to select a Gearmotor Chart to match your **Gearmotor Type** (Light, Standard or Heavy) and your **Mounting Package** while meeting your electrical requirements.
(Red = Parallel Shaft or Blue = 90˚)

Step 9: Using the **RPM from Gearmotor** (Step 6), locate the **Part Number** for your Gearmotor from the Gearmotor Table.

GEARMOTOR TYPE: Light Load / Standard Load / Heavy Load	Conveyor Load - Lbs (Kg)											
Belt Speed - Ft/min (m/min)	10 (4.5)	20 (9.1)	30 (13.6)	40 (18.2)	50 (22.7)	60 (27.3)	70 (31.8)	80 (36.4)	90 (40.9)	100 (45.5)	110 (50)	120 (54.5)
0-15 (0-4.6)												
16-30 (4.9-9.1)												
31-45 (9.5-13.7)												
46-60 (14-18.3)												
61-75 (18.6-22.9)												
76-90 (23.2-27.4)												
91-110 (27.7-33.5)												
111-130 (33.8-39.6)												
131-150 (39.9-45.7)												
151-175 (46-53.4)												
176-200 (53.7-61)												
201-225 (61.3-68.6)												
226-250 (68.9-76.2)												
251-275 (76.5-83.8)												

Gearmotor Mounting Package Selection Guide

Use this guide as a reference when selecting Gearmotor Mounting Packages

MOUNT PACKAGE	APPLICATION: Wet Products / Environments	3" (76) and taller products	Manual / Automated Assembly	Table top mounting	Tight machine interface	Aesthetics	Driving multiple conveyors	Clearance at discharge	Operator Ergonomics	Test and Inspect	Metal Forming
Side Mount Package	X	X		X				X			
Top Mount Package	X			X				X			
Bottom Mount Package		X	X			X			X	X	
Center Drive Conveyor					X			X	X		
Flush Mount								X	X		
Bolster Mount Package							X				X
Common Drive Package							X				

Specifications

- Complete package including motor, mount package, and controller
- Compatible with all 2200 Series End Drive Conveyors including Belted, Modular Belt, and Precision Move
- 21 unique mounting positions including 12 outboard positions and 9 inboard positions
- Belt speed = Variable 5-230 ft/min (1.5 to 70.1 m/min)
- Load Capacity:
  - Up to 80 lbs for belt speeds to 150 ft/min
  - Up to 40 lbs for belt speeds to 230 ft/min

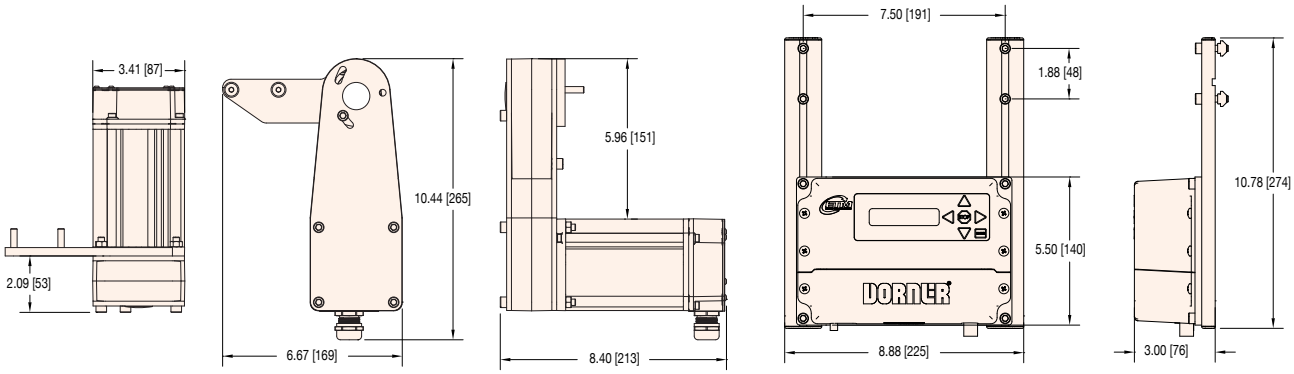
Motor:

- Transverse Flux Motor technology
  - Small form factor motor eliminates gearbox
  - High torque at low speeds
- Provides constant output torque from 10 to 300 rpm
- 300 Watt
- Totally Enclosed Non-ventilated
- IP 54
- 89% efficient
- CE Certified
- UL Listed
- RoHS Compliant

STANDARD FEATURE:
Mounts in Multiple Positions

Variable Speed Controller:

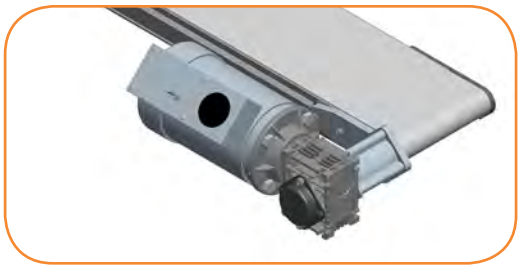
- Nema 1 / IP 20 Enclosure
- Input Voltage
- 115V, 1 Phase, 60 Hz
- 200-240V, 1 or 3 Phase, 47 to 63 Hz
- Includes membrane keypad for start/stop and speed control
- Multi-setting parameter menu
- Discrete I/O control capable
- Includes digital readout for speed and parameter setting
- 115 V , 1 Phase unit includes power cord
- 200-240 V units, input power wiring by others
- CE Certified (EMI Filter by others)
- UL Listed
- RoHS Compliant

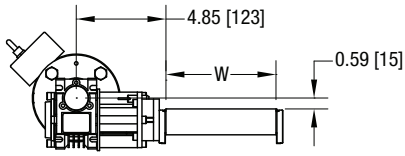


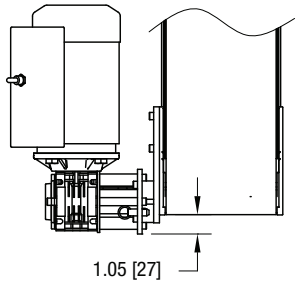
Part Number	Input voltage	Input phase	Input Hz	Peak Input Amps	Motor Power	Motor Face	Reversing	Motor RPM*	In-Lbs	N-m
22UM1 22UM2	115 208/230	1 1 or 3	47-63 47-63	10 5	0.5 Hp (3.7 Kw) 0.5 Hp (3.7 Kw)	NEMA 100 NEMA 100	Yes Yes	10 - 300/500 10 - 300/500	49/44 49/44	5.5/4.9 5.5/4.9

Dim = in (mm)

Side Mount Package, 90° Gearmotor



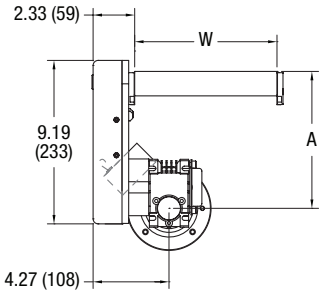


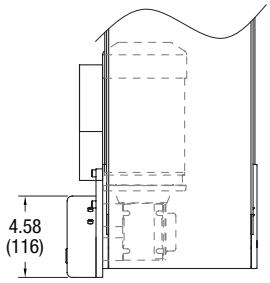


- Includes gearmotor mounting bracket, coupling, coupling guard and mounting hardware

Bottom Mount Package, 90° Gearmotor

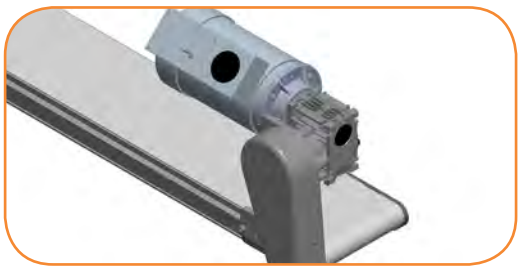
A: Standard Load Flat Belt = 5.43 (138)
Standard Load Cleated Belt = 7.89 (198)

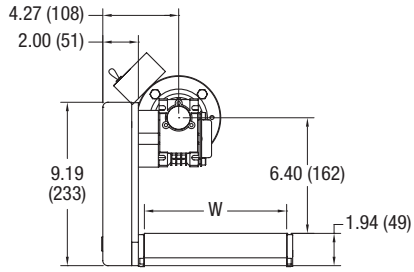


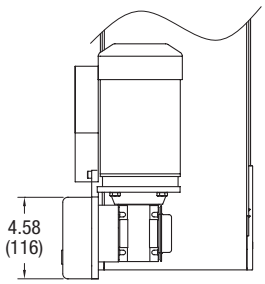


- Includes gearmotor mounting bracket, timing belt and pulleys, guard cover and mounting hardware

Top Mount Package, 90° Gearmotor

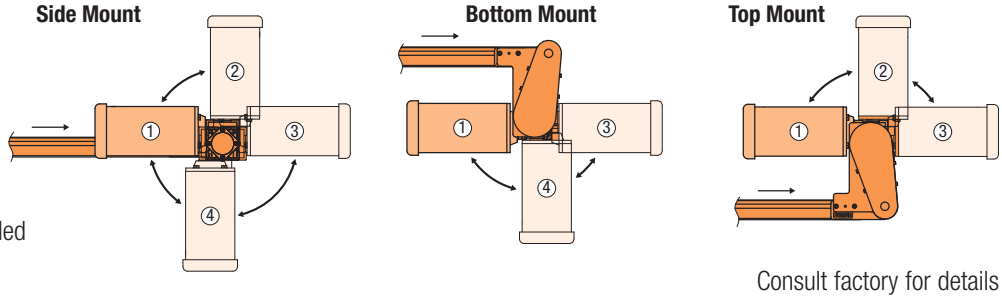






- Includes gearmotor mounting bracket, timing belt and pulleys, guard cover and mounting hardware

90° Gearmotor Location Options



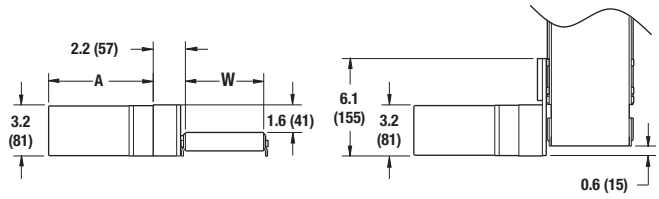
Note: Position 1 recommended

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** = in (mm)

For ordering information, see page 55

Side Mount Package, Parallel Shaft Gearmotor

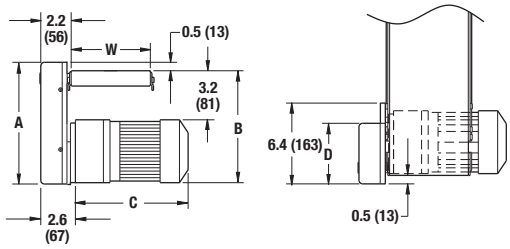


A: Light Load, Fixed Speed and VFD Variable Speed = 4.6 (117)
Light Load, DC Variable = 6.7 (170)
Light Load CE Fixed Speed = 7.2 (183)

Light load gearmotors only

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

Bottom Mount Package, Parallel Shaft Gearmotor

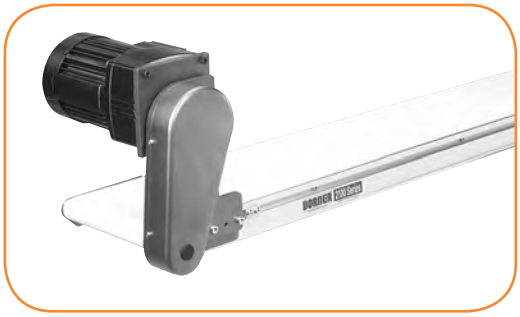


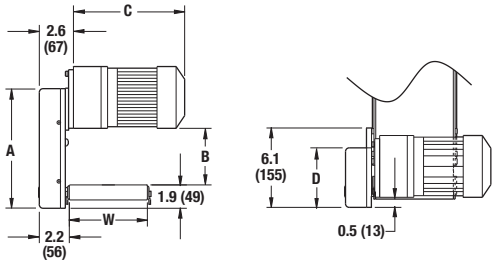
A: Light Load Flat Belt = 6.9 (175)
Light Load Cleated Belt = 8.9 (226)
Standard Load Flat Belt = 9.2 (234)
Standard Load Cleated Belt = 9.2 (234)
B: Light Load Flat Belt = 6.2 (158)
Light Load Cleated Belt = 8.3 (211)
Standard Load Flat Belt = 8.5 (216)
Standard Load Cleated Belt = 10.3 (262)

C: Light Load, Fixed Speed and VFD Variable Speed = 4.6 (117)
Light Load, DC Variable Speed = 6.7 (170)
Standard Load = 10.5 (267)
D: Light Load Flat Belt = 6.1 (155)
Light Load Cleated Belt = 5.6 (142)
Standard Load Flat Belt = 4.6 (116)
Standard Load Cleated Belt = 4.6 (116)

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

Top Mount Package, Parallel Shaft Gearmotor





A: Light Load = 8.9 (226)
Standard Load = 9.2 (234)

B: Light Load = 3.9 (100)
Standard Load = 3.8 (96)

C: Light Load, Fixed Speed and VFD Variable Speed = 4.6 (117)
Light Load, DC Variable Speed = 6.7 (170)
Standard Load = 10.5 (267)
D: Light Load = 5.6 (142)
Standard Load = 4.6 (116)

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

Note: Conveyor and gearmotor are not included in the mounting package and must be ordered separately. **W** = Conveyor Belt Width **Dim** = in (mm)

For ordering information, see page 55

End 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									
ft/min	m/min	ft/min	m/min	ft/min	m/min	ft/min	m/min		Top & Bottom	Side	Drive Pulley	Driven Pulley	Light Load	Standard Load	Heavy Load
2	0.6	2.3	0.7	2.6	0.8	2.9	0.9	10	x		22	32		5	
3	0.9	3.5	1.1	3.9	1.2	4.3	1.3	10	x		28	28		5	
5	1.5	5.8	1.8	6.5	2.0	7.2	2.2	10	x		44	22		5	
6	1.8	6.9	2.1	7.8	2.4	8.6	2.6	29	x		19	32		4	12, 13
10	3.1	12	3.5	13.0	4.0	14.3	4.4	29	x	x	28	28		4, 5	12, 13
13	4.0	15	4.6	17	5.2	19	5.7	42	x		28	32	1		
15	4.6	17	5.3	20	5.9	21	6.5	42	x	x	28	28	1		
15	4.6	17	5.3	20	5.9	21	6.5	43	x	x	28	28		4, 19	12, 13
16	4.9	18	5.6	21	6.3	23	7.0	29	x		44	28		4, 5	12, 13
21	6.4	24	7.4	27	8.3	30	9.2	42	x		32	22	1		
24	7.3	28	8.4	31	9.5	34	10.5	43	x		44	28		4	12, 13
29	8.8	33	10.2	38	11.5	41	12.6	42	x		44	22	1		
30	9.2	35	10.5	39	11.9	43	13.1	86	x	x	28	28		4, 5	12, 13
35	10.7	40	12.3	46	13.9	50	15.3	100	x	x	28	28	1	19	
48	14.6	55	16.8	62	19.0	69	20.9	86	x		44	28		4, 5	12, 13
55	16.8	63	19.3	72	21.8	79	24.0	100	x		44	28	1		
61	18.6	70	21.4	79	24.2	87	26.6	173	x	x	28	28		4, 5	12, 13
95	29.0	109	33.3	124	37.7	136	41.4	173	x		44	28		4, 5	12, 13
104	31.7	120	36.5	135	41.2	149	45.4	173	x		48	28		4, 5	12, 13
121	36.9	139	42.4	157	48.0	173	52.8	345	x	x	28	28		4, 5	12, 13
138	42.1	159	48.4	179	54.7	197	60.2	345	x		32	28		4, 5	12, 13
176	53.7	202	61.7	229	69.8	252	76.8	345	x		32	22		4, 5	12, 13
208	63.4	239	73.0	270	82.5			345	x		48	28		4, 5	12, 13
242	73.8	278	84.9					345	x		44	22		4, 5	12, 13
264	80.5	304	92.6					345	x		48	22		4, 5	12, 13
CE Gearmotor RPM at 50 Hz.															
5	1.5	5.8	1.8	6.5	2.0	7.2	2.2	23*	x		19	32		6	
8	2.4	9.2	2.8	10.4	3.2	11.4	3.5	23*	x	x	28	28		6	
12	3.7	13.8	4.2	15.6	4.8	17.2	5.2	35*	x	x	28	28		6	
19	5.8	22	6.7	25	7.5	27	8.3	35*	x		44	28			
21	6.4	24	7.4	27	8.3	30	9.2	41*	x		32	22	2		
25	7.6	29	8.8	33	9.9	36	10.9	70*	x	x	28	28		6	
39	11.9	45	13.7	51	15.5	56	17.0	70*	x		44	28		6	
49	14.9	56	17.2	64	19.4	70	21.4	140*	x	x	28	28		6	
50	15.3	58	17.5	65	19.8	72	21.8	144*	x	x	28	28	2		
77	23.5	89	27.0	100	30.5	110	33.6	140*	x		44	28		6	
96	29.3	110	33.7	125	38.1	137	41.9	280*	x	x	28	28		6	
112	34.2	129	39.3	146	44.4	160	48.8	280*	x		32	28		6	
143	43.6	164	50.2	186	56.7	204	62.4	280*	x		32	22		6	
169	51.5	194	59.3	220	67.0	242	73.7	280*	x		48	28		6	
197	60.1	227	69.1	256	78.1			280*	x		44	22		6	
214	65.3	246	75.1					280*	x		48	22		6	
268	81.7	308	94.0					280*	x		60	22		6	

Cleated Belts operate at maximum 280 ft/min (86 m/min)
Red = Parallel Shaft, Blue = 90˚

Other speeds available. See www.dorner.com and run the DTools program for a full list of belt speeds.

Refer to the Gearmotor Selection Steps on page 47 for instructions on using Belt Speed Charts

End Drive Belt Speed

Variable 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									
Ft/min	m/min	ft/min	m/min	ft/min	m/min	ft/min	m/min		Top & Bottom	Side	Drive Pulley	Driven Pulley	Light Load	Standard Load	Heavy Load
0.4 - 3.4	0.1 - 1	0.5 - 3.9	0.1 - 1.2	0.5 - 4.4	0.2 - 1.3	0.6 - 4.9	0.2 - 1.5	14	x		22	32		10	
0.6 - 5	0.2 - 1.5	0.7 - 5.8	0.2 - 1.8	0.8 - 6.5	0.2 - 2	0.9 - 7.2	0.3 - 2.2	14	x		28	28		10	
0.6 - 6	0.2 - 1.8	0.7 - 6.9	0.2 - 2.1	0.8 - 7.8	0.2 - 2.4	0.9 - 8.6	0.3 - 2.6	29	x		19	32		8	15, 16
1 - 10	0.3 - 3.1	1.2 - 11.5	0.4 - 3.5	1.3 - 13	0.4 - 4	1.4 - 14.3	0.4 - 4.4	29	x		28	28		8, 11	15, 16
1.8 - 14	0.5 - 4.3	2 - 16	0.6 - 4.9	2 - 18	0.7 - 5.6	2.6 - 20	0.8 - 6.1	42	x	x	28	28	3	7, 10, 20	14
1.5 - 15	0.5 - 4.6	2 - 17	0.5 - 5.3	2 - 20	0.6 - 5.9	2.1 - 21	0.7 - 6.5	43	x		28	28		9	15, 16
2.6 - 22	0.8 - 6.7	3 - 25	0.9 - 7.7	3 - 29	1 - 8.7	3.7 - 31	1.1 - 9.6	63	x	x	28	28		8	14
2.8 - 23	0.9 - 7	3 - 26	1 - 8	4 - 30	1.1 - 9.1	4 - 33	1.2 - 10	42	x		44	28	3	8	14
3.5 - 29	1.1 - 9	4 - 33	1.2 - 10	5 - 38	1.4 - 11.5	5 - 41	1.5 - 12.6	83	x		28	28		11	
3 - 30	0.9 - 9	3 - 35	1.1 - 11	4 - 39	1.2 - 11.9	4.3 - 43	1.3 - 13.1	86	x		28	28		8, 11	15, 16
5.3 - 44	1.6 - 13	6 - 51	1.9 - 15	7 - 57	2.1 - 17.4	7.6 - 63	2.3 - 19.2	125	x	x	28	28		7, 10, 20	14
6 - 49	1.8 - 15	7 - 56	2.1 - 17	8 - 64	2.4 - 19.4	8.6 - 70	2.6 - 21.4	139	x	x	28	28	3		
6 - 60	1.8 - 18	7 - 69	2.1 - 21	8 - 78	2.4 - 23.8	8.6 - 86	2.6 - 26.2	173	x		28	28		8, 11	15, 16
9 - 77	2.7 - 23	10 - 89	3.2 - 27	12 - 100	3.6 - 30.5	12.9 - 110	3.9 - 33.6	139	x		44	28	3		
10 - 88	3.1 - 27	12 - 101	3.5 - 31	13 - 114	4 - 34.9	14.3 - 126	4.4 - 38.4	250	x	x	28	28		7, 10	14
10 - 104	3.1 - 32	12 - 120	3.5 - 36	13 - 135	4 - 41.2	14.3 - 149	4.4 - 45.4	173	x		48	28		8, 11	15, 16
12 - 121	3.7 - 37	14 - 139	4.2 - 42	16 - 157	4.8 - 48	17.2 - 173	5.2 - 52.8	345	x		28	28		8, 11	15, 16
17 - 138	5.2 - 42	20 - 159	6 - 48	22 - 179	6.7 - 54.7	24.3 - 197	7.4 - 60.2	250	x		44	28		7, 10	14
21 - 176	6.4 - 54	24 - 202	7.4 - 62	27 - 229	8.3 - 69.8	30 - 252	9.2 - 76.8	500	x	x	28	28		7, 10	14
26 - 264	7.9 - 81	30 - 304	9.1 - 93					345	x		48	22		8, 11	15, 16
33 - 276	10.1 - 84	38 - 317	11.6 - 97					500	x		44	28		7, 10	14
CE Gearmotor															
2.4 - 6	0.7 - 1.8	2.8 - 6.9	0.8 - 2.1	3.1 - 7.8	1 - 2.4	3.4 - 8.6	1 - 2.6	39	x		19	32		9	
4.1 - 10	1.3 - 3.1	4.7 - 11.5	1.4 - 3.5	5.3 - 13	1.6 - 4	5.9 - 14.3	1.8 - 4.4	29	x	x	28	28		9	
6 - 15	1.8 - 4.6	6.9 - 17.3	2.1 - 5.3	7.8 - 19.5	2.4 - 5.9	8.6 - 21.5	2.6 - 6.5	44	x	x	28	28		9	
12 - 31	3.7 - 9.5	14 - 36	4.2 - 10.9	16 - 40	4.8 - 12	17 - 44	5 - 14	88	x	x	28	28		9	
25 - 62	7.6 - 18.9	29 - 71	8.8 - 21.7	33 - 81	9.9 - 25	36 - 89	11 - 27	176	x	x	28	28		9	
39 - 97	12 - 30	45 - 112	14 - 34	51 - 126	15.5 - 38	56 - 139	17 - 42	176	x		44	28		9	
49 - 124	15 - 38	56 - 143	17 - 43	64 - 161	19.4 - 49	70 - 177	21 - 54	353	x	x	28	28		9	
77 - 195	23 - 59	89 - 224	27 - 68	100 - 254	30.5 - 77	110 - 279	34 - 85	353	x		44	28		9	
107 - 270	33 - 82	123 - 311	38 - 95					353	x		48	22		9	

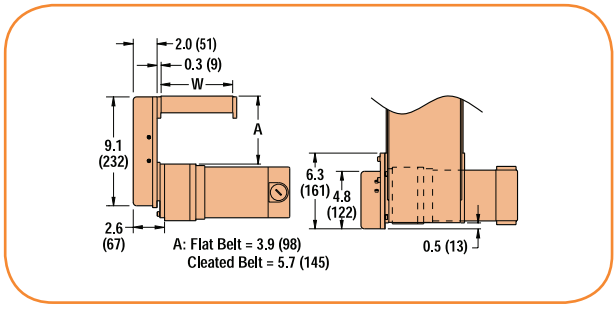
Note: Nose Bar transfers operate at maximum 77 ft/min (23.5 m/min) belt speed
Red = Parallel Shaft, Blue = 90˚
Other speeds available. See www.dorner.com and run the DTools program for a full list of belt speeds.

Refer to the Gearmotor Selection Steps on page 47 for instructions on using Belt Speed Charts

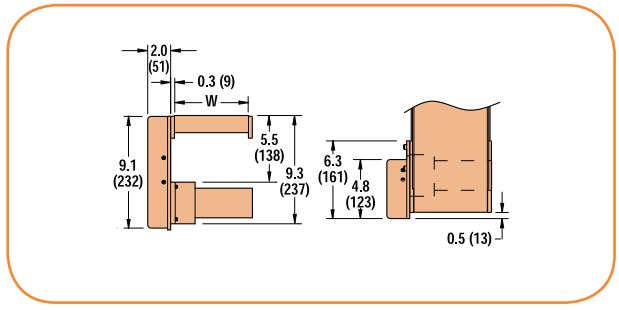
Product Applications/Uses:

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

Flush Bottom Mount Package, Parallel Shaft Gearmotor

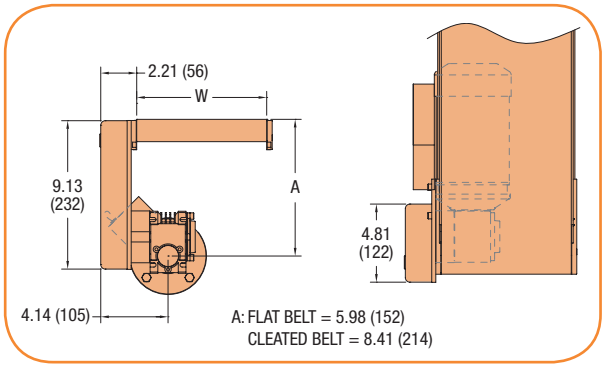


Standard Load

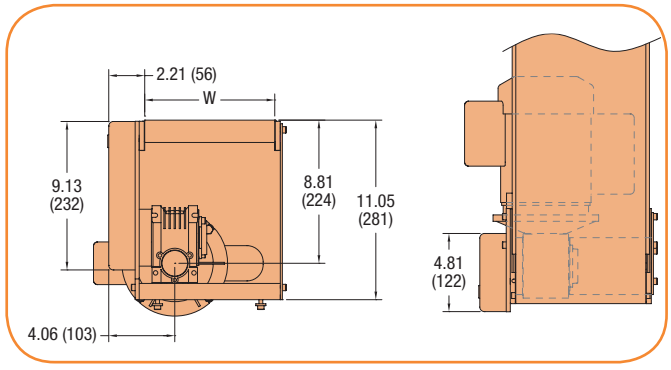


Light Load

Flush Bottom Mount Package, Parallel Shaft Gearmotor



Standard Load



Heavy Load

Refer to the Gearmotor Selection Steps on page 47 for instructions on using Belt Speed Charts

Flush Bottom Belt Speed

Fixed Speed

2200 Belt		2200 Precision Move		2200 Modular Belt: Micropitch Belts 01 and 02		2200 Modular Belt: Metalworking Belts 30 thru 42		RPM From Gearmotor	Pulley Kit		Gearmotor Chart		
ft/min	m/min	ft/min	m/min	ft/min	m/min	ft/min	m/min		Drive Pulley	Driven Pulley	Light Load	Standard Load	Heavy Load
5.9	1.8	6.8	2.1	7.7	2.3	8.4	2.6	10	28	16		5	
10.1	3.1	12	3.7	13.1	4.0	14.4	4.4	10	48	16		5	
18	5.5	21	6.4	23	7.1	26	7.9	29	28	16		4, 5	12, 13
28	8.5	32	9.8	36	11.1	40	12.2	29	44	16		4, 5	12, 13
25	7.6	29	8.8	33	9.9	36	10.9	42	28	16	1		
40	12.2	46	14	52	16	57	17.4	42	44	16	1		
41	12.5	47	14.3	53	16.3	59	17.9	43	44	16		4, 19	12, 13
55	16.8	63	19.2	72	21.8	79	24.0	58	44	16		5	
83	25.3	95	29.0	108	32.9	119	36.2	86	44	16		4, 5	12, 13
106	32.3	122	37.2	138	42.0	152	46.2	173	28	16	1	4, 5	12, 13
167	50.9	192	58.6	217	66.2	239	72.8	173	44	16		4, 5	12, 13
212	64.7	244	74.4					345	28	16	1	4, 5	12, 13
CE Gearmotor RPM at 50 Hz.													
14	4.3	16	4.9	18	5.6	18	5.6	23	28	16		6	
23	7.0	26	8.1	30	9.1	30	9.1	23	44	16		6	
34	10.4	39	11.9	44	13.5	44	13.5	35	44	16		6	
25	7.6	29	8.8	33	9.9	33	9.9	41	28	16	2		
39	11.9	45	13.7	51	15.5	51	15.5	41	44	16	2		
43	13.1	49	15.1	56	17.0	56	17.0	70	28	16		6	
67	20.4	77	23.5	87	26.6	87	26.6	70	44	16		6	
86	26.2	99	30.2	112	34.1	112	34.1	140	28	16		6	
135	41.2	155	47.4	176	53.5	176	53.5	140	44	16		6	
172	52.5	198	60.3	224	68.2	224	68.2	280	28	16		6	
270	82.4	311	94.7					280	44	16		6	

Variable Speed

2200 Belt		2200 Precision Move		2200 Modular Belt: Micropitch Belts 01 and 02		2200 Modular Belt: Metalworking Belts 30 thru 42		RPM From Gearmotor	Pulley Kit		Gearmotor Chart		
ft/min	m/min	ft/min	m/min	ft/min	m/min	ft/min	m/min		Drive Pulley	Driven Pulley	Light Load	Standard Load	Heavy Load
1.6 - 13	0.5 - 4	1.8 - 15	0.6 - 4.6	2 - 17	1 - 5	2 - 19	1 - 6	14	44	16		10	
2.8 - 28	0.9 - 8.5	3.2 - 32.2	1 - 9.8	4 - 36	1 - 11	4 - 40	1 - 12	29	44	16		8, 11	15, 16
3.1 - 26	1 - 8	4 - 30	1 - 9	4 - 34	1 - 10	4 - 37	1 - 11	42	28	16	3	7, 10	14
4.8 - 40	1 - 12	6 - 46	2 - 14	6 - 52	2 - 16	7 - 57	2 - 17	42	44	16	3	7, 10	14
4.2 - 42	1 - 13	5 - 48	1 - 15	5 - 55	2 - 17	6 - 60	2 - 18	43	44	16		8, 20	15, 16
7 - 60	2 - 18	8 - 69	2 - 21	9 - 78	3 - 24	10 - 86	3 - 26	63	44	16		7	14
10 - 81	3 - 25	12 - 93	4 - 28	13 - 105	4 - 32	14 - 116	4 - 35	83	44	16		10	
8 - 83	2 - 25	9 - 95	3 - 29	10 - 108	3 - 33	11 - 119	3 - 36	86	44	16		8, 11	15, 16
14 - 121	4 - 37	16 - 139	5 - 42	18 - 157	6 - 48	20 - 173	6 - 53	125	44	16		7, 10	14
10 - 85	3 - 26	12 - 98	4 - 30	13 - 111	4 - 34	14 - 122	4 - 37	139	28	16	3		
17 - 177	5 - 54	20 - 204	6 - 62	22 - 230	7 - 70	24 - 253	7 - 77	173	44	16		8, 11	15, 16
21 - 212	6 - 65	24 - 244	7 - 74					345	28	16		8, 11	15, 16
29 - 241	9 - 74	33 - 277	10 - 85					250	44	16		7, 10	14
CE Gearmotor													
7 - 18	2.1 - 5.5	8.1 - 20.7	2.5 - 6.3	9 - 23	3 - 7	10 - 26	3 - 8	29	28	16		9	
11 - 28	3.4 - 8.5	12.7 - 32.2	3.9 - 9.8	14 - 36	4 - 11	16 - 40	5 - 12	29	44	16		6	
17 - 43	5 - 13	20 - 49	6 - 15	22 - 56	7 - 17	24 - 61	7 - 19	44	44	16		6	
34 - 85	10 - 26	39 - 98	12 - 30	44 - 111	13 - 34	49 - 122	15 - 37	88	44	16		9	
43 - 108	13 - 33	49 - 124	15 - 38	56 - 140	17 - 43	61 - 154	19 - 47	176	28	16		9	
68 - 170	21 - 52	78 - 196	24 - 60	88 - 221	27 - 67	97 - 243	30 - 74	176	44	16		6	
86 - 216	26 - 66	99 - 248	30 - 76					353	28	16		6	

Red = Parallel Shaft, Blue = 90°

Refer to the Gearmotor Selection Steps on page 47 for instructions on using Belt Speed Charts

Other speeds available. See www.dorner.com and run the DTools program for a full list of belt speeds.

Gang Mid Drive Belt Speed Charts

Fixed Speed

2200 Precision Move		RPM From Gearmotor	Gearmotor Chart	
Ft/min	m/min		Standard Load	Heavy Load
15	4.6	29	4	12
23	7.0	43	4	12
45	13.7	86	4	12
91	27.8	173	4	12
181	55.2	345	4	12
CE Gearmotor RPM at 50 Hz.				
12	3.7	23	6	
18	5.5	35	6	
37	11.3	70	6	
73	22.3	140	6	
147	44.8	280	6	

Variable Speed

2200 Precision Move		RPM From Gearmotor	Gearmotor Chart	
Ft/min	m/min		Standard Load	Heavy Load
2 - 15	0.6 - 4.6	29	8	15
3 - 22	0.9 - 6.7	42	7	14
3 - 23	0.9 - 7	43	8	15
4 - 33	1.2 - 10.1	63	7	14
5 - 45	1.5 - 13.7	86	8	15
7 - 66	2.1 - 20.1	125	7	14
9 - 91	2.7 - 27.8	173	8	15
13 - 131	4 - 40	250	7	14
18 - 181	5.5 - 55.2	345	8	15
26 - 262	7.9 - 79.9	500	7	14
CE RPM from CE/50 Hz gearmotors VFD drive at 63 Max. Hz. output				
6 - 15	1.8 - 4.6	29	9	
9 - 23	2.7 - 7	44	9	
19 - 47	5.8 - 14.3	88	9	
37 - 92	11.3 - 28.1	176	9	
74 - 185	22.6 - 56.4	353	9	

Red = Parallel Shaft, Blue = 90˚

2200 Series Bottom, Top & Flush Mount End Drive Mounting Package

22 M B P S 06 A - 2828

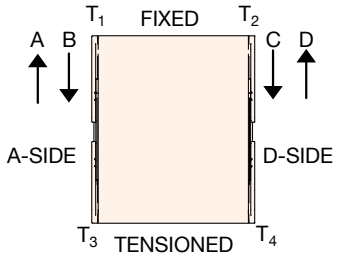
- **Drive / Driven Pulley Combination** (Top and Bottom mounts only)
- **Belt Style:** "**-**" = Flat Belt or add Cleat Type: **A, B, C, F, G, H, J, V**
- **Gearmotor Mounting Position: A, B, C, D**
- **Conveyor Width Reference**
- **Gearmotor Type: L, V, S, H, K** or **W**
- **Gearmotor Output Shaft: P** = Parallel Shaft or **E** = eDrive® 90°
- **Mount Style: B** = Bottom Mount **T** = Top Mount **F** = Flush Bottom Mount
- **Documentation Language: M** = US, **U** = Europe

2200 Series Side Mount End Drive Motor Mounting Package

22 M S E S A T

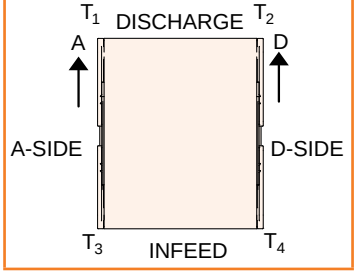
- **T** = High Torque (not available for L or V)
- **Position: A, B, C or D**
- **Gearmotor Type: L, V, S, H, K or W**
- **Gearmotor Output Shaft:** **P** = Parallel Shaft **E** = eDrive® 90°
- **Mount Style: S** = Side
- **Documentation Language:** **M** = US, **U** = Europe

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%.

MODULAR BELT DRIVE SHAFT POSITION



2200 Precision Move Gang Drive Side Mounting Package

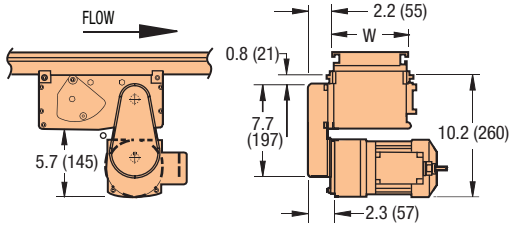
22 M G E S - W W O G G A

- **Position: A or D**
- **End Guard Length:** (02 to 20)
- **Conveyor Quantity: D** = Double **T** = Triple
- **Distance Between Outer Conveyor Edges** (05 to 99)
- **Load Type: S** = Standard **H** = Heavy **K** = Standard VFD
- **Shaft Type: E** = eDrive®
- **Documentation Language: M** = US, **U** = Europe

For Universal Drive, see page 48

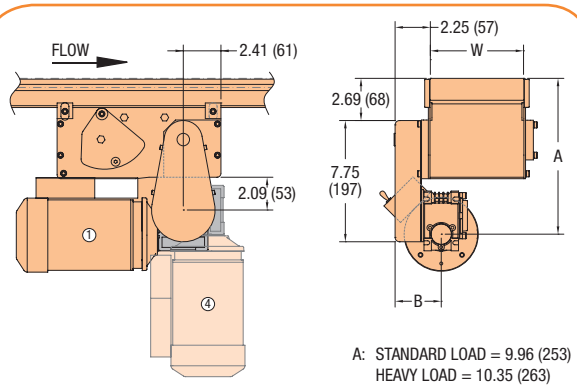
Center Drive

TYPE 1 - Vertical Mount



Shown in "D" Position

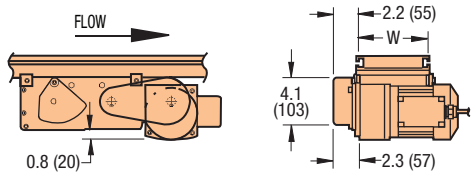
Parallel Shaft Gearmotor



Shown in "D" Position

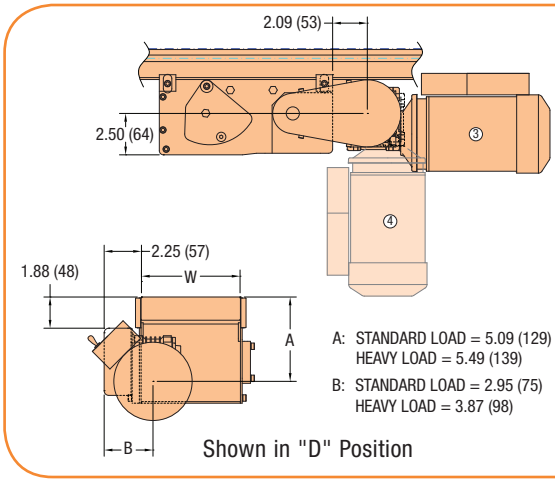
90° Gearmotor

TYPE 2 - Horizontal Mount



Shown in "D" Position

Parallel Shaft Gearmotor



Shown in "D" Position

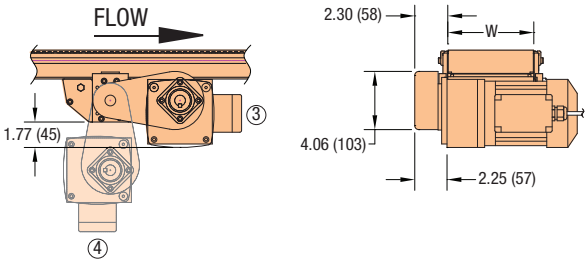
90° Gearmotor

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.

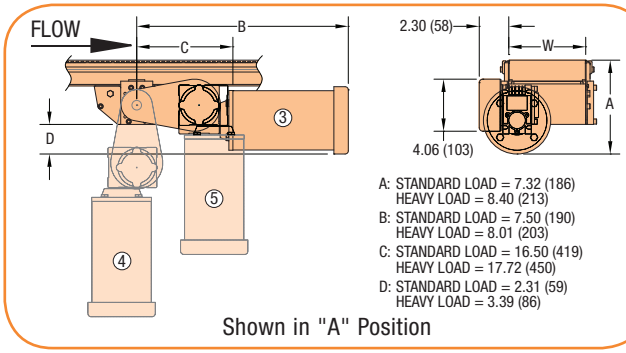
* Gearmotor not included in mounting package, see page 47 for gearmotor ordering information. **Dim** = in (mm)

Mid Drive



Shown in "A" Position

Parallel Shaft Gearmotor



Shown in "A" Position

90° Gearmotor

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

For ordering information, see page 57 & 58
Refer to the Gearmotor Selection Steps on page 47 for instructions on using Belt Speed Charts

Center & Mid Drive Belt Speed

Fixed Speed

2200 Belt		2200 Precision Move		2200 Modular Belt				RPM From Gearmotor	Side Drive	Pulley Kit		Gearmotor Chart	
				Micropitch Belts 01 and 02		Metalworking Belts 30 thru 42							
ft/min	m/min	ft/min	m/min	ft/min	m/min	ft/min	m/min			Drive Pulley	Driven Pulley	Standard Load	Heavy Load
2	0.6	3.1	0.9	2.6	0.8	2.9	0.9	10		22	32	5	
3	0.9	4.6	1.4	3.9	1.2	4.3	1.3	10	x	32	32	5	
6	1.8	9.2	2.8	7.8	2.4	8.6	2.6	29		19	32	4	11, 12
10	3.1	15.3	4.7	13.0	4.0	14.3	4.4	29	x	32	32	4, 5	11, 12
15	4.6	23	7.0	20	5.9	21	6.5	43	x	32	32	4, 19	11, 12
20	6.1	31	9.3	26	7.9	29	8.7	58	x	32	32	5	
23	7.0	35	10.7	30	9.1	33	10.0	43		48	32	4	11, 12
30	9.2	46	14.0	39	11.9	43	13.1	86	x	32	32	4, 5	11, 12
61	18.6	93	28.5	79	24.2	87	26.6	173	x	32	32	4, 5	11, 12
91	27.8	139	42.5	118	36.1	130	39.7	173		48	32	4, 5	11, 12
121	36.9	185	56.5	157	48.0	173	52.8	345	x	32	32	4, 5	11, 12
154	47.0	236	71.9	200	61.1	220	67.2	345		28	22	4, 5	11, 12
181	55.2	277	84.5	235	71.8	259	78.9	345		48	28	4, 5	11, 12
208	63.4	318	97.1					345		48	28	4, 5	11, 12
264	80.5	404	123.2					345		48	22	4, 5	11, 12
CE Gearmotor RPM at 50 Hz.													
5	1.5	7.7	2.3	6.5	2.0	7.2	2.2	23		19	32	6	
8	2.4	12.2	3.7	10.4	3.2	11.4	3.5	23	x	32	32	6	
12	3.7	18.4	5.6	15.6	4.8	17.2	5.2	35	x	32	32	6	
18	5.5	27.5	8.4	23	7.1	26	7.9	35		48	32	6	
25	7.6	38	11.7	33	9.9	36	10.9	70	x	32	32	6	
37	11.3	57	17.3	48	14.7	53	16.1	70		48	32	6	
49	14.9	75	22.9	64	19.4	70	21.4	140	x	32	32	6	
74	22.6	113	34.5	96	29.3	106	32.3	140		48	32	6	
98	29.9	150	45.7	127	38.9	140	42.7	280	x	32	32	6	
148	45.1	226	69.1	192	58.7	212	64.6	280		48	32	6	
169	51.5	259	78.9	220	67.0	242	73.7	280		48	28	6	
214	65.3	327	99.9					280		48	22	6	
248	75.6	379	115.7					280		48	19	6	

Note: Nose Bar transfers operate at maximum 77 ft/min (23.5 m/min) belt speed
Red = Parallel Shaft, Blue = 90˚

2200 Series Belted & Modular Belt Center Drive Mounting Package

22 M 2 P S 06 A - 3232

- **Drive / Driven Pulley Combination** (Type 1 & 2 only)
- **"-"** = Belted, **C** = Modular Belt
- **Gearmotor Mounting Position: A** or **D**
- **Conveyor Width Reference**
- **Gearmotor Type: S, H** or **W**
- **Gearmotor Output Shaft: P** = Parallel Shaft or **E** = eDrive®
- **Mount Style:**
  1 = Type 1, Vertical Mount **2** = Type 2, Horizontal Mount **S** = Side
- **Documentation Language: M** = US, **U** = Europe

2200 Belted and Precision Move Mid Drive Mounting Package

22 M 6 P E S A - 2828

- **Pulley Kit** (Drive/Driven) (Bottom only)
- **Position: A or D**
- **Load Type: S** = Standard **H** = Heavy **K** = Standard VFD
- **Shaft Type: E** = eDrive® **P** = Parallel **W** = SEW
- **Position: B** = Bottom **S** = Side
- **Documentation Language: M** = US, **U** = Europe

Center & Mid Drive Belt Speed

Variable Speed

2200 Belt		2200 Precision Move		2200 Modular Belt				RPM From Gearmotor	Side Drive	Pulley Kit		Gearmotor Chart	
				Microptich Belts 01 and 02		Metalworking Belts 30 thru 42							
ft/min	m/min	ft/min	m/min	ft/min	m/min	ft/min	m/min			Drive Pulley	Driven Pulley	Standard Load	Heavy Load
0.4 - 3.4	0.1 - 1	0.6 - 5.2	0.2 - 1.6	Ft/min	M/min	0.6 - 4.9	0.2 - 1.5	14		22	32	10	
0.6 - 4.9	0.2 - 1.5	0.9 - 7.5	0.3 - 2.3	0.5 - 4.4	0.2 - 1.3	0.9 - 7	0.3 - 2.1	14	x	32	32	10	
0.7 - 6	0.2 - 1.8	1.1 - 9.2	0.3 - 2.8	0.8 - 6.4	0.2 - 1.9	1 - 8.6	0.3 - 2.6	29		19	32	8	15, 16
1 - 9	0.3 - 2.7	1.5 - 13.8	0.5 - 4.2	0.9 - 7.8	0.3 - 2.4	1.4 - 12.9	0.4 - 3.9	42		19	32	7, 10	14
1.2 - 10	0.4 - 3.1	1.8 - 15.3	0.6 - 4.7	1.3 - 11.7	0.4 - 3.6	1.7 - 14.3	0.5 - 4.4	29	x	32	32	8, 11	15, 16
1.8 - 15	0.5 - 4.6	2.8 - 23	0.8 - 7	1.6 - 13	0.5 - 4	3 - 21	1 - 7	42	x	32	32	7, 10	14
1.8 - 15	0.5 - 4.6	2.8 - 23	0.8 - 7	2 - 20	1 - 6	3 - 21	1 - 7	43	x	32	32	8, 20	15, 16
2.6 - 22	0.8 - 6.7	4 - 33.7	1.2 - 10.3	2 - 20	1 - 6	4 - 31	1 - 10	63	x	32	32	7	14
3.5 - 29	1.1 - 9	5 - 44	2 - 14	3 - 29	1 - 9	5 - 41	2 - 13	83	x	32	32	10	
3.6 - 30	1.1 - 9	6 - 46	2 - 14	5 - 38	1 - 11	5 - 43	2 - 13	86	x	32	32	8, 11	15, 16
5.3 - 44	1.6 - 13	8 - 67	2 - 21	5 - 39	1 - 12	8 - 63	2 - 19	125	x	32	32	7, 10	14
7 - 61	2.1 - 19	11 - 93	3 - 28	7 - 57	2 - 17	10 - 87	3 - 27	173	x	32	32	8, 11	15, 16
10 - 88	3.1 - 27	15 - 135	5 - 41	9 - 79	3 - 24	14 - 126	4 - 38	250	x	32	32	7, 10	14
12 - 104	3.7 - 32	18 - 159	6 - 49	13 - 114	4 - 35	17 - 149	5 - 45	173		48	28	8, 11	15, 16
14 - 121	4.3 - 37	21 - 185	7 - 56	16 - 135	5 - 41	20 - 173	6 - 53	345	x	32	32	8, 11	15, 16
18 - 150	5.5 - 46	28 - 230	8 - 70	18 - 157	6 - 48	26 - 215	8 - 65	250		48	28	7, 10	14
21 - 176	6.4 - 54	32 - 269	10 - 82	23 - 195	7 - 59	30 - 252	9 - 77	500	x	32	32	7, 10	14
23 - 190	7 - 58	35 - 291	11 - 89	27 - 229	8 - 70			345		44	28	8, 11	15, 16
27 - 224	8.2 - 68	41 - 343	13 - 105	30 - 247	9 - 75			500		28	22	7, 10	14
29 - 242	8.8 - 74	44 - 370	14 - 113					345		44	22	8, 11	15, 16
31 - 255	9.5 - 78	47 - 390	14 - 119					500		32	22	7, 10	14
CE gearmotors, VFD drive at 63 max. Hz. output.													
2.4 - 6	0.7 - 1.8	3.7 - 9.2	1.1 - 2.8	3.1 - 7.8	1 - 2.4	3.4 - 8.6	1 - 2.6	29		19	32	9	
4.1 - 10	1.3 - 3.1	6.3 - 15.3	1.9 - 4.7	5.3 - 13	1.6 - 4	5.9 - 14.3	1.8 - 4.4	29	x	32	32	9	
6 - 16	1.8 - 4.9	9.2 - 24.5	2.8 - 7.5	8 - 21	2.4 - 6.3	8.6 - 22.9	2.6 - 7	44	x	32	32	9	
12 - 31	3.7 - 9	18 - 47	6 - 14	16 - 40	5 - 12	17 - 44	5 - 14	88	x	32	32	9	
24 - 62	7.3 - 19	37 - 95	11 - 29	31 - 81	10 - 25	34 - 89	10 - 27	176	x	32	32	9	
37 - 93	11.3 - 28	57 - 142	17 - 43	48 - 121	15 - 37	53 - 133	16 - 41	176		48	32	9	
49 - 124	14.9 - 38	75 - 190	23 - 58	64 - 161	19 - 49	70 - 177	21 - 54	353	x	32	32	9	
74 - 186	22.6 - 57	113 - 285	35 - 87	96 - 242	29 - 74	106 - 266	32 - 81	355		48	32	9	
98 - 248	29.9 - 76	150 - 379	46 - 116					353		44	22	9	

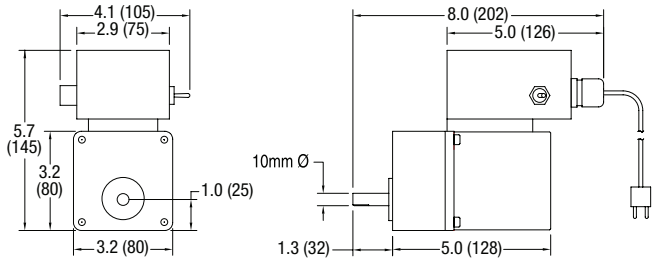
Note: Nose Bar transfers operate at maximum 77 ft/min (23.5 m/min) belt speed
Red = Parallel Shaft, Blue = 90˚

Refer to the Gearmotor Selection Steps on page 47 for instructions on using Belt Speed Charts

Light Load, Fixed Speed

Chart 1 Parallel Shaft

- Sealed gearmotor
- Totally enclosed, non-ventilated
- Includes switch, cord and overload protection on 1 Phase unit
- 115V, 1 Phase
- 230V, 3 Phase
- Non-reversing
- 60 Hz



Regulatory Approvals

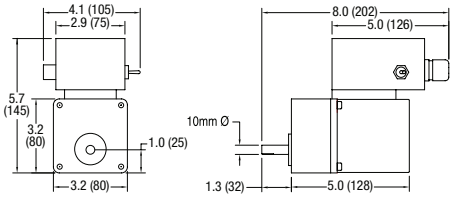
Part Number	RPM	Gearmotor Type	Hp	kW	1 Phase			3 Phase			Starter Chart
					FLA	in.-lbs.	Nm	FLA	in.-lbs.	Nm	
62M036PL4(vp)F(N)	42	L	0.03	0.025	0.46	26	2.9	0.22	37	4.2	H
62M015PL4(vp)F(N)	100	L	0.03	0.025	0.46	12	1.4	0.22	16.8	1.9	H

(vp) = Voltage and Phase 11 = 115V, 1 phase 23 = 230V, 3 phase (n) = Reversing capability **N** = No reversing switch **R** = With reversing switch

Light Load, Variable Speed

Chart 18 Parallel Shaft VFD Rated

- VFD Variable Speed
- 230V, 3 Phase, 10 to 60 Hz
- Totally enclosed, non-ventilated
- Order controller separately, see page 65-67

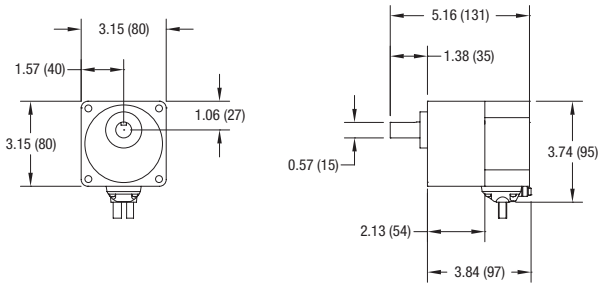


Regulatory Approvals

Part Number	MAX RPM	MIN RPM	Gearmotor Type	Hp	kW	FLA	in.-lbs.	Nm	Vari - Speed Control Chart
62M036PL423EN	42	7	L	0.03	0.025	0.22	37	4.2	E
62M015PL423EN	100	17	L	0.03	0.025	0.22	16.8	1.9	E

Chart 25 Parallel Shaft Brushless DC

- Closed loop brushless DC with hall effect feedback
- Sealed gearbox
- IP65 totally enclosed non-ventilated motor
- 100 to 3000 rpm motor
- Includes motor cord with quick disconnect
- Order controller separately, see page 65-67



Regulatory Approvals

Part Number	MAX RPM	MIN RPM	Gearmotor Type	Hp	kW	FLA	in.-lbs.	Nm	Vari-Speed Control Chart
62M050PLBDDENB	60	2	A	0.083	0.06	see control	70	7.7	F
62M020PLBDDENB	150	5	A	0.083	0.06	see control	25	2.8	F
62M015PLBDDENB	200	7	A	0.083	0.06	see control	18	2	F

FLA = Full Load Amperes

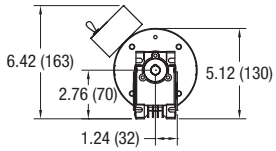
Some motors and gear reducers may normally operate hot to the touch. Consult factory for specific operating temperatures. **Note: Dim** = in (mm)

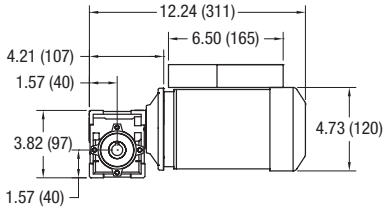
Standard Load, Fixed Speed

Chart 4 — 90°

- Sealed gearmotor
- NEMA 42 CZ C Face
- Totally enclosed, fan cooled
- 115V 1 phase includes switch, cord and overload protection
- 208-230/460 Volts, 3 phase wiring by others
- 60 Hz
- Order 3 phase starter separately, see page 68

eDrive®





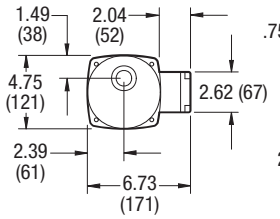
Regulatory Approvals

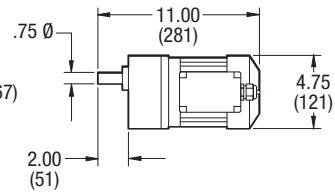
Part Number	RPM	Gearmotor Type	1 Phase			3 Phase			in.-lbs.	Nm	3 Phase Starter Chart
			Hp	kW	FLA	Hp	kW	FLA			
62M060ES4(vp)FN	29	S	0.25	0.19	3.1	0.38	0.29	1.9 / 0.95	226	25.5	M
62M040ES4(vp)FN	43	S	0.25	0.19	3.1	0.38	0.29	1.9 / 0.95	237	26.8	M
62M020ES4(vp)FN	86	S	0.25	0.19	3.1	0.38	0.29	1.9 / 0.95	142	16.0	M
62M010ES4(vp)FN	173	S	0.25	0.19	3.1	0.38	0.29	1.9 / 0.95	78	8.8	M
62M005ES4(vp)FN	345	S	0.25	0.19	3.1	0.38	0.29	1.9 / 0.95	41	4.6	M

(vp) = Voltage and Phase 11 = 115V, 1 phase 23 = 208 - 230 / 460V, 3 phase

Chart 5 — Parallel Shaft

- Sealed gearmotor
- Totally enclosed, fan cooled
- 115V 1 phase includes switch, cord and overload protection
- 230/460 Volts, 3 phase wiring by others
- 60 Hz
- Order 3 phase starter separately, see page 68





Regulatory Approvals

Part Number	RPM	Gearmotor Type	1 Phase				3 Phase				Nm	3 Phase Starter Chart
			Hp	kW	FLA	in.-lbs.	Hp	kW	FLA	in.-lbs.		
62M180PS4(vp)F(n)	10	S	0.17	0.13	1.9	341	0.17	0.13	1.0 / 0.5	341	38.5	L
62M060PS4(vp)F(n)	29	S	0.17	0.13	1.9	270	0.17	0.13	1.0 / 0.5	270	30.5	L
62M030PS4(vp)F(n)	58	S	0.17	0.13	1.9	135	0.38	0.28	1.9 / 0.95	250	15.3	M
62M020PS4(vp)F(n)	86	S	0.17	0.13	1.9	90	0.38	0.28	1.9 / 0.95	167	10.2	M
62M010PS4(vp)F(n)	173	S	0.17	0.13	1.9	45	0.38	0.28	1.9 / 0.95	115	5.1	M
62M005PS4(vp)F(n)	345	S	0.17	0.13	1.9	25	0.38	0.28	1.9 / 0.95	58	2.8	M

(vp) = Voltage and Phase 11 = 115V, 1 phase 23 = 230/460V, 3 phase
(n) = Reversing Capability N = No reversing switch R = With reversing switch (115V, 1 phase only)

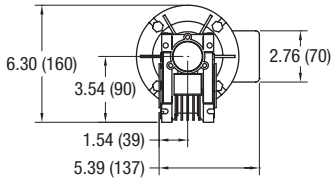
FLA = Full Load Amperes
Some motors and gear reducers may normally operate hot to the touch. Consult factory for specific operating temperatures. **Note: Dim** = in (mm)

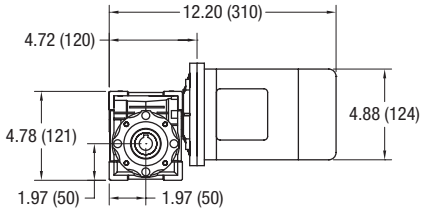
Standard Load, Fixed Speed (continued)

Chart 6 — CE 90°

- Sealed gearmotor
- IEC 63 B5 C Face
- IP 55 protection rating
- Totally enclosed, fan cooled
- Non-reversing
- 50 Hz
- Order starter separately, see page 68

eDrive®





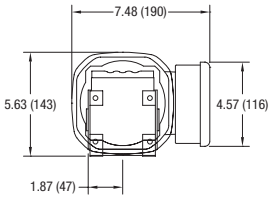
Part Number	RPM	Gearmotor Type	1Ph		3 Ph		Nm	Starter Chart
			kW	FLA	kW	FLA		
62Z060ES4(vp)FN	23	S	0.18	1.6	0.25	1.56/0.9	26.4	I
62Z040ES4(vp)FN	35	S	0.18	1.6	0.25	1.56/0.9	28.9	I
62Z020ES4(vp)FN	70	S	0.18	1.6	0.25	1.56/0.9	19.4	I
62Z010ES4(vp)FN	140	S	0.18	1.6	0.25	1.56/0.9	10.7	I
62Z005ES4(vp)FN	280	S	0.18	1.6	0.25	1.56/0.9	5.6	I

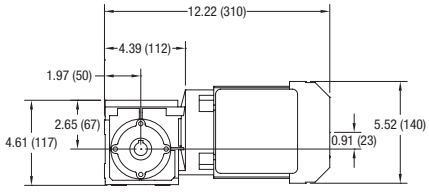
(vp) = Voltage and Phase 21 = 230V, 1 phase
23 = 230V, 3 phase 43 = 400V, 3 phase

CE **Note:** When buying a gearmotor only without the starter, the customer must supply their own on/off switch and motor overload protection to comply with the CE Safety Directive.

Chart 19 — 90° SEW

- SEW WA20 Gearmotor
- Bottom, Center and Side mount packages available
- 230 / 460 V 3 Phase
- VFD Compatible with constant torque from 10 to 60 Hz
- Sealed gear head, totally enclosed fan cooled motor





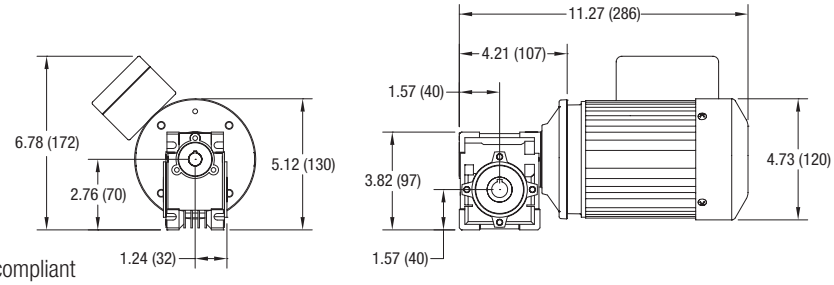
Part Number	RPM	Gearmotor Type	Hp	kW	FLA	in-lbs	Nm	3 Phase Starter Chart
22M039WS423EN	46	W	0.25	0.19	0.89 / 0.44	203	22.9	L
22M017WS423EN	109	W	0.33	0.25	1.24 / 0.62	159	18.0	L
22M008WS423EN	219	W	0.50	0.37	1.84 / 0.92	132	14.9	M

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

Standard Load, Variable Speed

Chart 28 — 90° VFD Rated

- Variable frequency drive, 10 to 60 Hz
- Sealed gearbox
- Nema 42CZ C face
- Totally enclosed non-ventilated motor
- 230/460Volts, 3 Phase
- Order controller separately
- UL and CSA Listed, RoHS compliant



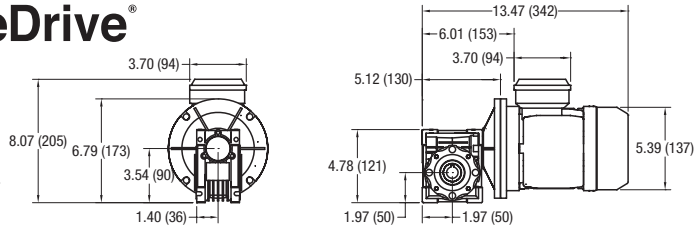
Regulatory Approvals

Part Number	MAX RPM	MIN RPM	Gearmotor Type	Hp	kW	FLA	in-lbs	Nm	Vari - Speed Control Chart
62M060ES423EN	29	5	S	0.38	0.28	1.9 / 0.95	226	25.5	D and E
62M040ES423EN	43	7	S	0.38	0.28	1.9 / 0.95	237	86.8	D and E
62M020ES423EN	86	14	S	0.38	0.28	1.9 / 0.95	142	16.0	D and E
62M010ES423EN	173	29	S	0.38	0.28	1.9 / 0.95	78	8.8	D and E
62M005ES423EN	345	58	S	0.38	0.28	1.9 / 0.95	41	4.6	D and E

Chart 8 — 90° VFD Rated

eDrive®

- Variable frequency drive, 6 - 60 Hz
- Sealed gearmotor
- NEMA 56C C Face
- Totally enclosed, fan cooled
- 208-230/460 Volts, 3 phase
- Order controller separately, see page 65-67



Regulatory Approvals

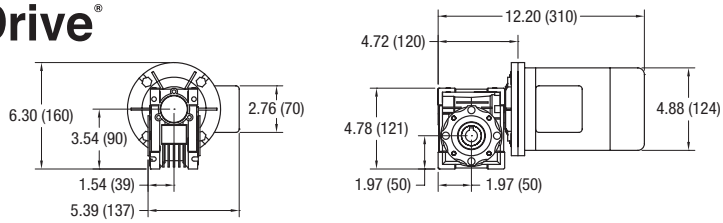
Part Number	MAX RPM	MIN RPM	Gearmotor Type	Hp	kW	FLA	in.-lbs.	Nm*	Vari-Speed Control Chart
32M060EL423EN	29	3	K	0.5**	0.37	1.76-1.71 / 1.14	226	25.5	D and E
32M040EL423EN	43	4	K	0.5**	0.37	1.76-1.71 / 1.14	237	86.8	D and E
32M020EL423EN	86	9	K	0.5**	0.37	1.76-1.71 / 1.14	142	16.0	D and E
32M010EL423EN	173	17	K	0.5**	0.37	1.76-1.71 / 1.14	78	8.8	D and E
32M005EL423EN	345	35	K	0.5**	0.37	1.76-1.71 / 1.14	41	4.6	D and E

* = At 60 Hz ** = Motor de-rated to 0.25 Hp for full torque throughout speed range.

Chart 9 — CE 90°

eDrive®

- Variable frequency drive, 25-63 Hz
- Sealed gearmotor
- IEC 63 B5 C Face
- IP 55 protection rating
- Totally enclosed, fan cooled
- 230/400 Volts, 3 phase
- Order controller separately, see page 65-67



Part Number	MAX RPM	MIN RPM	Gearmotor Type	3 Ph kW	3 Ph FLA	Nm*	Vari-Speed Control Chart
62Z060ES423EN	29	12	S	0.25	1.56 / 0.9	26.4	B
62Z040ES423EN	44	18	S	0.25	1.56 / 0.9	28.9	B
62Z020ES423EN	88	35	S	0.25	1.56 / 0.9	19.4	B
62Z010ES423EN	176	70	S	0.25	1.56 / 0.9	10.7	B
62Z005ES423EN	353	140	S	0.25	1.56 / 0.9	5.6	B

* = At 50 Hz

CE **Note:** When buying a gearmotor only without the starter, the customer must supply their own on/off switch and motor overload protection to comply with the CE Safety Directive.

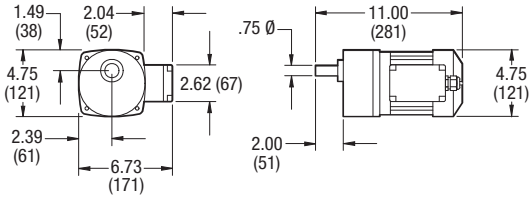
FLA = Full Load Amperes

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

Standard Load, Variable Speed (continued)

Chart 11 Parallel Shaft VFD Rated

- Variable frequency drive, 10 to 60 Hz
- Sealed gearmotor
- Totally enclosed, fan cooled
- 230/460 Volts / 3 Phase, VFD duty
- Order controller separately, see page 65-67

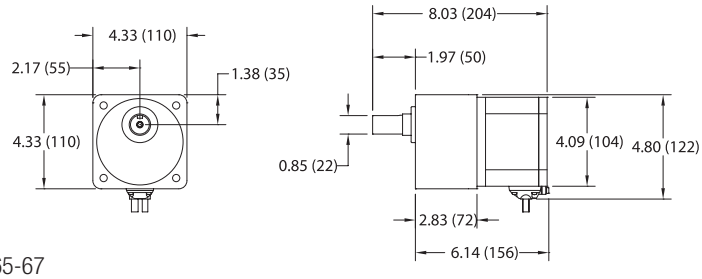


Regulatory Approvals

Part Number	MAX RPM	MIN RPM	Gearmotor Type	Hp	kW	FLA	in.-lbs.	Nm	Vari - Speed Control Chart
62M180PS423EN	10	2	S	0.17	0.13	1.0 / 0.5	341	38.5	D and E
62M060PS423EN	29	5	S	0.17	0.13	1.0 / 0.5	270	30.5	D and E
62M030PS423EN	58	10	S	0.38	0.28	1.9 / 0.95	250	28.3	D and E
62M020PS423EN	86	14	S	0.38	0.28	1.9 / 0.95	167	18.9	D and E
62M010PS423EN	173	29	S	0.38	0.28	1.9 / 0.95	115	13.0	D and E
62M005PS423EN	345	58	S	0.38	0.28	1.9 / 0.95	58	6.5	D and E

Chart 26 Parallel Shaft Brushless DC

- Closed loop brushless DC with hall effect feedback
- Sealed gearbox
- IP65 totally enclosed non-ventilated motor
- 100 to 3000 rpm motor
- Includes motor cord with quick disconnect
- Order controller separately, see page 65-67



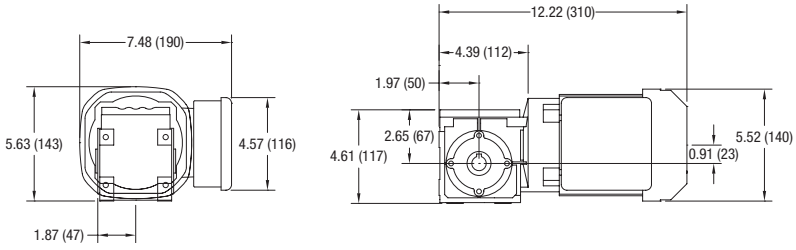
Regulatory Approvals

RoHS

Part Number	MAX RPM	MIN RPM	Gearmotor Type	Hp	kW	FLA	in.-lbs.	Nm	Vari-Speed Control Chart
62M050PSBDDENB	60	2	A	0.25	0.2	see control	230	25.7	F
62M020PSBDDENB	150	5	A	0.25	0.2	see control	88	9.7	F
62M010PSBDDENB	200	10	A	0.25	0.2	see control	38	4.2	F

Chart 20 90° SEW

- SEW WA20 Gearmotor
- Bottom, Center and Side mount packages available
- 230 / 460 V 3 Phase
- VFD Compatible with constant torque from 10 to 60 Hz
- Sealed gear head, totally enclosed fan cooled motor



Part Number	MAX RPM	MIN RPM	Gearmotor Type	Hp	kW	FLA	in-lbs	Nm	Vari - Speed Control Chart
22M039WS423EN	46	8	W	0.25	0.19	0.89 / 0.44	203	22.9	D and E
22M017WS423EN	109	18	W	0.33	0.25	1.24 / 0.62	159	18.0	D and E
22M008WS423EN	219	37	W	0.50	0.37	1.84 / 0.92	132	14.9	D and E

FLA = Full Load Amperes

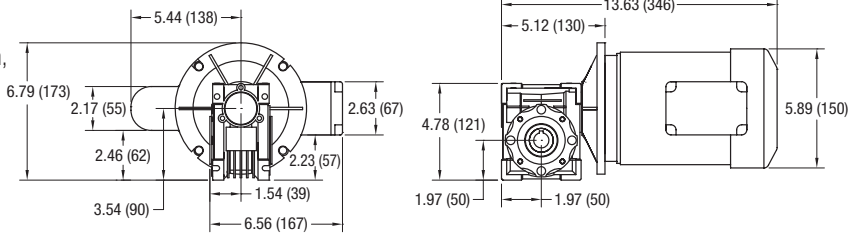
Some motors and gear reducers may normally operate hot to the touch. Consult factory for specific operating temperatures. **Note: Dim** = in (mm)

Heavy Load, Fixed Speed

Chart 12 90°

- Sealed gearmotor
- NEMA 56 C Face
- Totally enclosed, fan cooled
- 115V 1 phase includes switch, cord and overload protection
- 208-230/460 Volts, 3 phase wiring by others
- 60 Hz
- Order 3 phase starter separately, see page 68

eDrive®



Regulatory Approvals

Part Number	RPM	Gearmotor Type	1 Phase			3 Phase			in.-lbs.	Nm	3 Phase Starter Chart
			Hp	kW	FLA	Hp	kW	FLA			
32M060ES4(vp)FN	29	H	0.5	0.37	5.7	0.5	0.37	1.76-1.71 / 1.14	226	25.5	M
32M040ES4(vp)FN	43	H	0.5	0.37	5.7	0.5	0.37	1.76-1.71 / 1.14	247	27.9	M
32M020ES4(vp)FN	86	H	0.5	0.37	5.7	0.5	0.37	1.76-1.71 / 1.14	248	27.9	M
32M010ES4(vp)FN	173	H	0.5	0.37	5.7	0.5	0.37	1.76-1.71 / 1.14	156	17.6	M
32M005ES4(vp)FN	345	H	0.5	0.37	5.7	0.5	0.37	1.76-1.71 / 1.14	81	9.1	M
32M005ES223FN	672	H	–	–	–	0.75	0.55	2.15 / 1.37	33	3.7	M

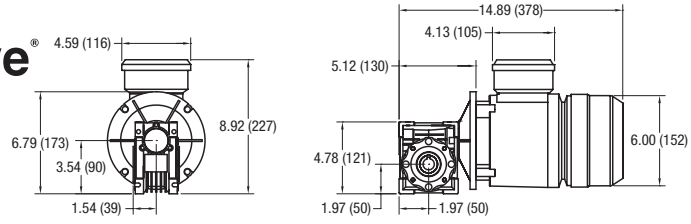
(vp) = Voltage and Phase 11 = 115V, 1 phase 23 = 208 - 230 / 460V, 3 phase

Heavy Load, Variable Speed

Chart 15 90° VFD Rated

- Variable frequency drive, 6 - 60 Hz
- Sealed gearmotor
- NEMA 56 C Face
- Totally enclosed, fan cooled
- 230/460 Volts, 3 Phase
- Order controller separately, see page 65-67

eDrive®



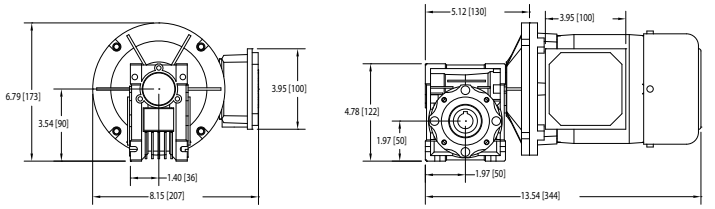
Regulatory Approvals

Part Number	MAX RPM	MIN RPM	Gearmotor Type	3 Ph Hp	3 Ph kW	3 Ph FLA	in.-lbs.*	Nm*
32M060ES423EN	29	3	H	0.75**	0.55	2.6 / 1.3	226	25.5
32M040ES423EN	43	4	H	0.75**	0.55	2.6 / 1.3	247	27.9
32M020ES423EN	86	9	H	0.75**	0.55	2.6 / 1.3	248	27.9
32M010ES423EN	173	17	H	0.75**	0.55	2.6 / 1.3	156	17.6
32M005ES423EN	345	35	H	0.75**	0.55	2.6 / 1.3	81	9.1
32M005ES223EN	672	67	H	0.75**	0.55	2.15 / 1.37	33	3.2

* = At 60 Hz ** = Motor de-rated to 0.5 Hp (2.2 / 1.1 amp) for full torque throughout speed range

Chart 29 90° VFD Rated

- Variable frequency drive, 6 - 60 Hz
- Sealed gearmotor
- NEMA 56 C Face
- Totally enclosed, fan cooled
- 575 Volts, 3 Phase



Regulatory Approvals

Part Number	MAX RPM	MIN RPM	Gearmotor Type	3 Ph Hp	3 Ph kW	3 Ph FLA	in.-lbs.*	Vari- Speed Control Chart
32M060ES453EN	29	3	H	0.5	0.37	256	28.9	Customer Supplied
32M040ES453EN	43	4	H	0.5	0.37	247	27.9	Customer Supplied
32M020ES453EN	86	9	H	0.5	0.37	248	28	Customer Supplied
32M010ES453EN	173	17	H	0.5	0.37	156	17.6	Customer Supplied
32M005ES453EN	345	34	H	0.5	0.37	81	9.1	Customer Supplied

* = At 60 Hz

FLA = Full Load Amperes

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

Control Product Family

Universal Motor Control

(see page 48)

A breakthrough in conveyor drive technology; a single part number covers all speeds, loads, and mounting positions for 2200 End Drive Conveyors

Basic VFD Control

(see page 67)

Simple on/off, direction, and speed control right at the side of the conveyor

Full Feature VFD Control

(see page 66)

All the features of a Basic VFD with options to control remotely from a Dorner accessory, discrete I/O, or using a variety of industrial network protocols

Full Feature VFD with Accessory

(see page 66, 71-72)

Full feature control with M12 Accessory port for a variety of applications

Brushless DC Control

(see page 67)

Provides a compact alternative to other solutions while providing indexing capabilities of 60 indexes per minute with accuracy less than 1/16"

Servo Motor Control

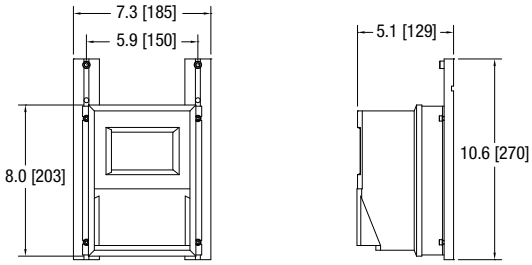
(see page 69-70)

Provides programmable move profiles and indexing control up to 100 per minute at accuracies of 0.040"

Variable Speed Controllers

Chart B — VFD Controller, Full CE Compliance

- VFD control
- IP 65 enclosure
- EMC filter
- Variable speed
- Mounting hardware
- Line cord and motor cord
- Motor cord only on 460V



Regulatory Approvals

CE

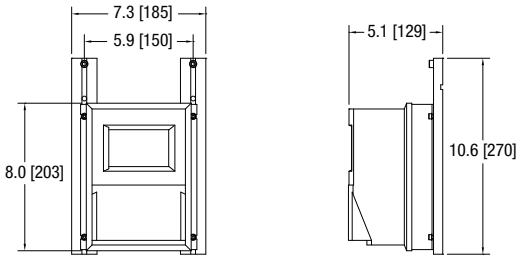
c UL us

Part Number	Input Volts	Input Phase	Input Hz	Output Volts	Output Phase	Max Kw*	Max Amps	Reversing
62UV2121(O)	230	1	50	230	3	0.75	4.2	Yes
62UV4341(O)	400	3	50	400	3	0.75	2.1	Yes
62UV2127(O)	230	1	50	230	3	1.50	6.8	Yes
62UV4347 (O)	400	3	50	400	3	1.50	3.4	Yes

(O) = Optional M12 Accessory Port No Option = No Accessory Port E = M12 Port wired for End Stop Photo Eye Application I = M12 port wired for Index Photo Eye Application
Note: E or I options will work with Dorner Control Stop or Jog Button Accessories

Chart D — Full Feature VFD Controller

- Full feature VFD control
- NEMA 4 enclosure
- Digital display
- Keypad with Start/Stop, Forward/Reverse and speed variations
- Includes cord to motor
- Power to controller by others
- 62MV1122 includes line cord to controller
- Mounting hardware



Regulatory Approvals

CE

c UL us

Part Number	Input Volts	Input Phase	Input Hz	Output Volts	Output Phase	Max Hp	Output Amps*	Reversing
32MV1122(O)	115	1	60	230	3	0.5	2.2	Yes
32MV2122(O)	230	1	60	230	3	0.5	2.2	Yes
32MV1121(O)	115	1	60	230	3	1.0	4.0	Yes
32MV2121(O)	230	1	60	230	3	1.0	4.0	Yes
32MV2127(O)	230	1	60	230	3	2.0	6.8	Yes
32MV2322(O)	230	3	60	230	3	0.5	2.2	Yes
32MV2327(O)	230	3	60	230	3	2.0	6.8	Yes
32MV4341(O)	460	3	60	460	3	1.0	2.0	Yes
32MV4347(O)	460	3	60	460	3	2.0	3.4	Yes

In order for this drive to meet full CE requirements for European application a separate CE approve RFI filter must be installed. Product shown in chart B above have this filter pre-installed and are recommended for use in the European Union.

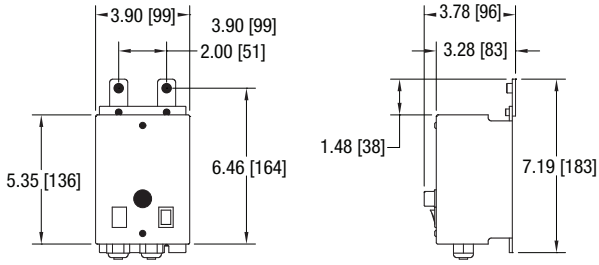
(O) = Optional M12 Accessory Port No Option = No Accessory Port E = M12 Port wired for End Stop Photo Eye Application I = M12 port wired for Index Photo Eye Application
Note: E or I options will work with Dorner Control Stop or Jog Button Accessories

* = See FLA from motor charts **Note: Dim** = in (mm)

Variable Speed Controllers (continued)

Chart E — Basic VFD Controller

- Variable frequency drive
- Aluminum backplate with plastic enclosure
- Lighted on / off switch
- Speed potentiometer
- Forward / Stop / Reverse switch (22MV1122BR)
- Includes motor cord and power cord
- Includes mounting brackets and hardware
- UL listed and RoHS compliant

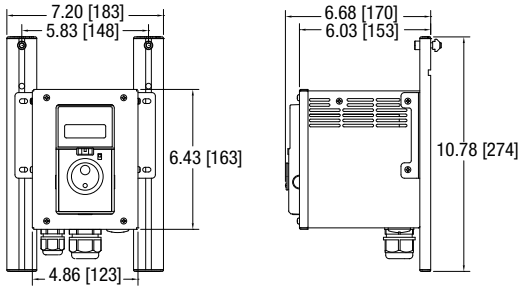


Regulatory Approvals

Part Number	Input Volts	Input Phase	Input Hz	Output Volts	Output Phase	Max Hp*	Max Amps	Reversing
22MV1122B	115	1	60	230	3	0.5	2.4	No
22MV1122BR	115	1	60	230	3	0.5	2.4	Yes
22MV1106B	115	1	60	230	3	0.125	0.6	No
22MV1106BR	115	1	60	230	3	0.125	0.6	Yes

Chart F — Brushless DC Controller

- Closed loop brushless DC with hall effect feedback
- Nema 1 plastic enclosure
- Digital keypad and display
- Programmable speed, acceleration and deceleration
- Remote on / off and speed capable with wire access hole in enclosure provided
- Includes motor cord with quick disconnect and power cord (single phase only)
- Includes mounting brackets and hardware



Regulatory Approvals

Part Number	Input Volts	Input Phase	Input Hz	Max Input Amps	Output	Max Watts	Reversing
63MBD11B60B	115	1	60	4.5	BDC	60	Yes
63MBD23B60B	230	3	60	1.5	BDC	60	Yes
63MBD11B200B	115	1	60	8.8	BDC	200	Yes
63MBD23B200B	230	3	60	3.4	BDC	200	Yes

* = See FLA from motor charts **Note: Dim** = in (mm)

Manual Motor Starters

Manual motor starts are manual electronic disconnects that provide motor overload protection and are required by the National Electric Code (NEC) for safe motor operation.

- IP 55 Enclosure
- Push button Start / Stop
- Includes mounting hardware

Regulatory Approvals

Illustration **A**

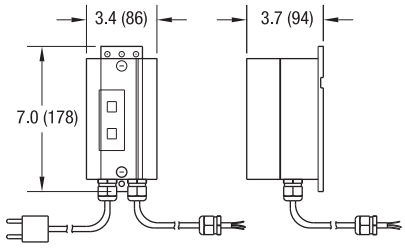


Illustration **B**

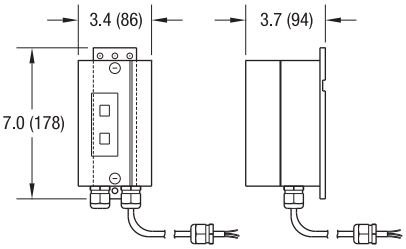


Chart H CE

- 230V, 1 phase includes cord, plug & starter
- 230/400 Volts, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together
- 50 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62UM21H	230	1	0.25 - 0.4	A
62UM23H	230	3	0.16 - 0.25	B
62UM43H	400	3	0.1 - 0.16	B

Chart I 230/400V 50Hz to 2.5 amp

- 230 Volts, 1 phase includes cord, plug and starter
- 230/400 Volts, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together
- 50 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62UM21T	230	1	1.6 - 2.5	A
62UM23T	230	3	1.0 - 1.6	B
62UM43T	400	3	0.63 - 1.0	B

Chart L 230/460V 60 Hz to 1.6 amp

- 230/460 Volts, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together
- 60 Hz

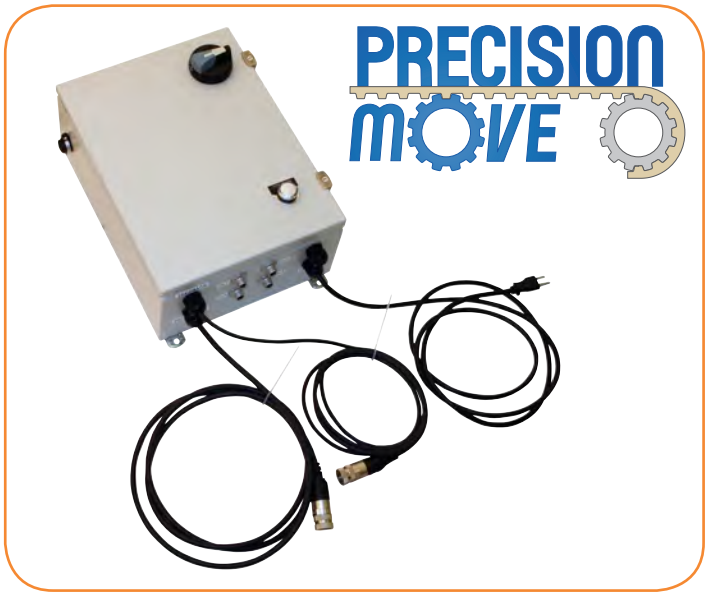
Part Number	In Volts	In Phase	Amp Range	Illustration
62MM23L	230	3	1.0 - 1.6	B
62MM43L	460	3	0.4 - .63	B

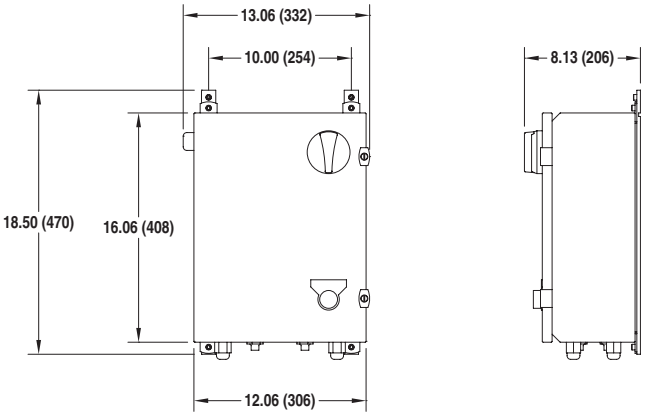
Chart M 230/460V 60Hz to 2.5 amp

- 230/460 Volts, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together
- 60 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62MM23M	208 - 230	3	1.6 - 2.5	B
62MM43M	460	3	1.0 - 1.6	B

CE **Note:** When buying a gearmotor only without the starter, the customer must supply their own on/off switch and motor overload protection to comply with NEC and CE safety directive.

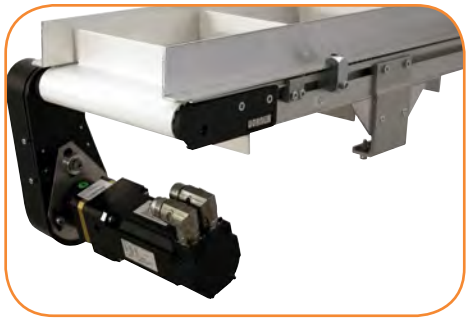




Specifications

- Quick disconnect cables compatible with Dorner Servo Gearmotors
- Graphical user interface and icons make programming easy
- Spreadsheet-like position programming
- Real time performance feedback software
- Click of a button auto-tuning and wizard tuning per application
- Multiple homing options
- Kollmorgen AKD Series Control
- 1100 watts capacity
- (2) Input voltage options:
  - 115 Volt Single Phase input
  - 230 Volt Single Phase input
- UL listed, CE marked and RoHS compliant drive and components
- UL Labeled Controller Package
- Housed in a Nema 12 enclosure
- Includes high voltage fusing and low voltage power supply
- Quick disconnect motor cabling
- Quick disconnect sensor locations

Compatible Servo Motors Available



See pages 20 - 25 for more information.

Gearmotor Compatibility

Part Number	Controller Voltage	Max Belt Speed (Ft/min)		Min Belt Speed (Ft/min)	Torque (in-lb)	RPM
		Bottom Mount	Flush Mount			
22M004PR2B1KW	115V input 230V input	166 276	253 420	10 10	79 79	325 625

Model	Part Number	Input Volts	Input Phase	Input Hz	Cont. Amps	Peak Amps	Cont. Watts
115V Stand Alone*	75M-S1-11-3	115	1	60	3	9	1100
115V External Control	75M-S2-11-3	115	1	60	3	9	1100
230V Stand Alone*	75M-S1-21-3	230	1	60	3	9	1100
230V External Control	75M-S2-21-3	230	1	60	3	9	1100

** Note: For Stand Alone Control Applications, Enable / Index Kit (75M-EN-1) is recommended. See page 81 for details.*

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 Accuracy and Repeatability Chart see page 106

(2) Servo Control Methods

Stand Alone Control:

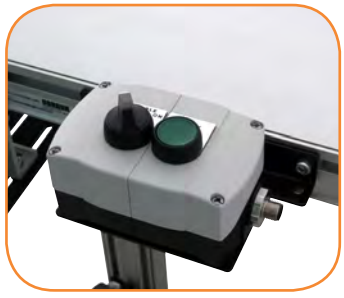
Servo Package is self-contained and the control signal is provided by a connected sensor or push button.

Programming PC with Temporary Ethernet Cable

Controller

Optional Emergency Stop

Servo Motor



Enable / Index Kit

External Control:

Servo control signal is controlled by an external source such as a PLC or PC.

Programming PC with Temporary Ethernet Cable

Controller

External Control Signal

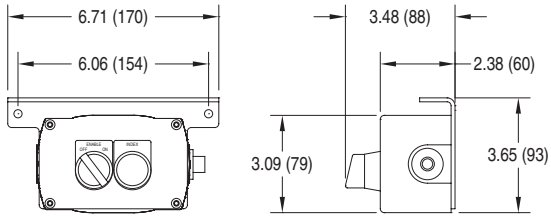
Servo Motor

Optional Emergency Stop

Stand Alone Servo Control – Enable / Index Kit

Specifications

- For use with stand alone servo motor controls
- Contains servo enable on/off and index initiate button
- Quick disconnect cable fittings
- Includes mounting bracket and hardware

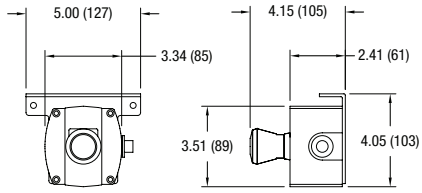


Part Number	75M-EN-1

Servo Control – Emergency Stop Kit

Specifications

- For use with both stand alone and external control servos motor controls
- Plastic Nema 12 Enclosure
- Quick disconnect cable fittings
- Horizontal or vertical mount
- Includes mounting bracket and hardware

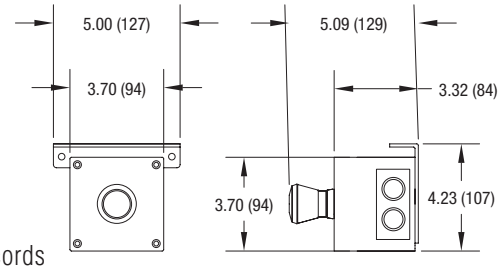


Part Number	Description
75M-ES-2	Non-Lighted E-Stop Kit

In-Line Cord Emergency Stop Kit

Specifications

- Push to stop/pull to start push button
- Plastic Nema 12 enclosure
- 115V single phase
- 1/2 hp (0.37 kW) and smaller motors
- Includes power and outlet cords
- Mounting for 2200/3200 and Support Stands
- Horizontal or vertical mount



Part Number	75M-ES-1

Photo Eye Kits

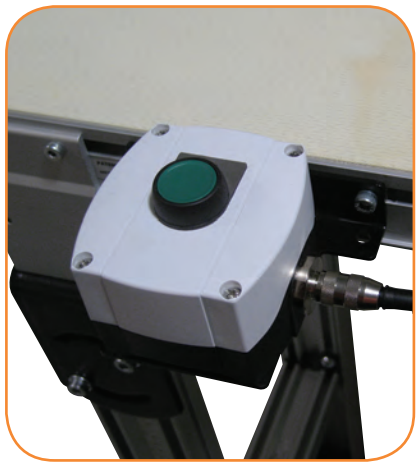
Specifications

- 24V DC Retro Reflective Sensor
- Quick disconnect plug
- Includes reflector and mounting
- Fully adjustable mount for 2200/3200 Series conveyors
- 2" and 5" adjustment height ranges

Part Number	Description
75M-PE-1	2" Height Adjustment
75M-PE-2	5" Height Adjustment
75M-PM-1	2" Height Adjustment, Bracket Only, Retroreflective
75M-PM-2	5" Height Adjustment, Bracket Only, Retroreflective
75M-PM-3	2" Height Adjustment, Bracket Only, Through Beam
75M-PM-4	5" Height Adjustment, Bracket Only, Through Beam
75M-PM-5	2" Height Adjustment, Bracket Only, Convergence
75M-PM-6	5" Height Adjustment, Bracket Only, Convergence

Not compatible with Brushless DC Controllers

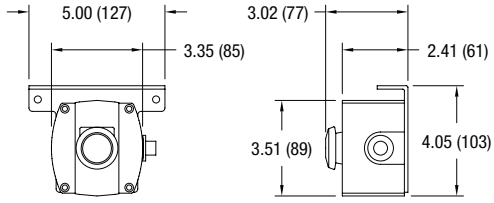
Jog Push Button Kit



Specifications

- Momentary contact push button
- Plastic Nema 12 enclosure
- Quick disconnect receptacle
- Mounting for 2200/3200 and Support Stands
- Horizontal or vertical mount

Part Number	75M-JG-1



Horizontal Mount

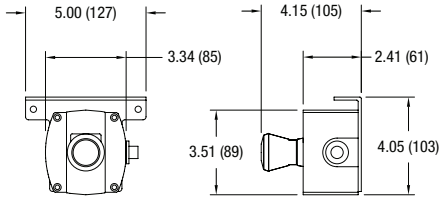
Not compatible with Brushless DC Controllers

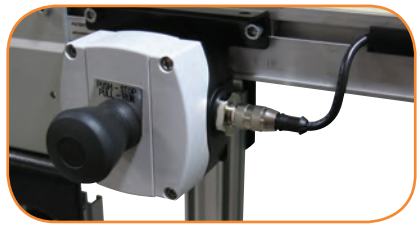
Control Stop Kit

Specifications

- Push to stop/pull to start maintained push button
- Plastic Nema 12 enclosure
- Quick disconnect receptacle
- Mounting for 2200/3200 and Support Stands
- Horizontal or vertical mount

Part Number	75M-CS-1





Horizontal Mount

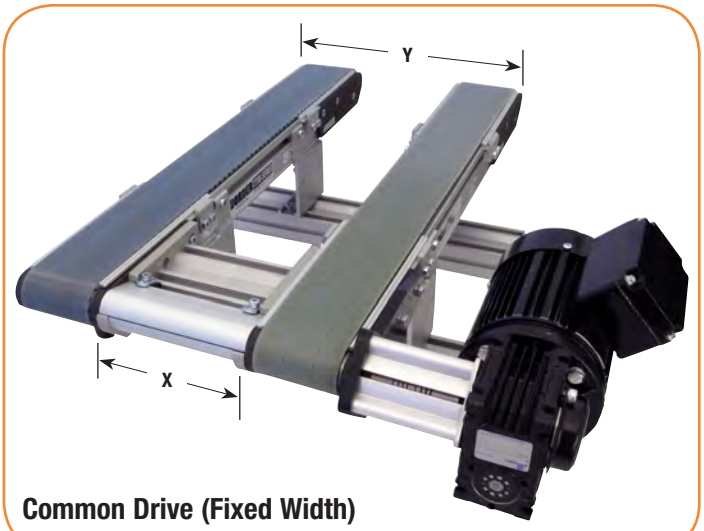
Not compatible with Brushless DC Controllers

Linking Cable Kits (for VFD Indexers)

Specifications

- Quick disconnect cable for all control devices
- 2 meter and 5 meter lengths
- Includes mounting hardware for T-slots

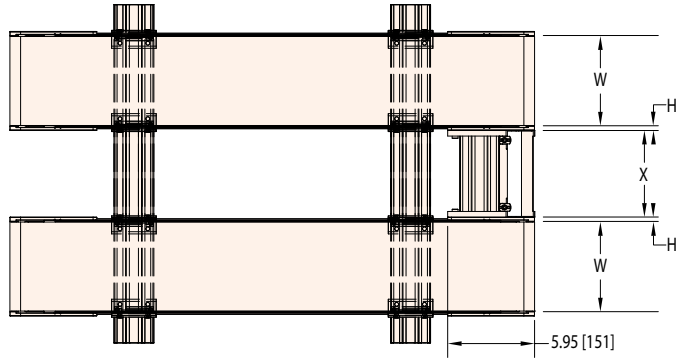
Part Number	Description
75M-LC-1	6 ft (1.83 m) cable
75M-LC-2	15 ft (4.57 m) cable



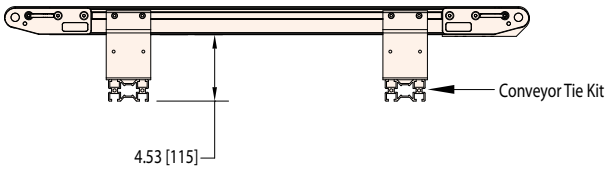
Common Drive (Fixed Width)

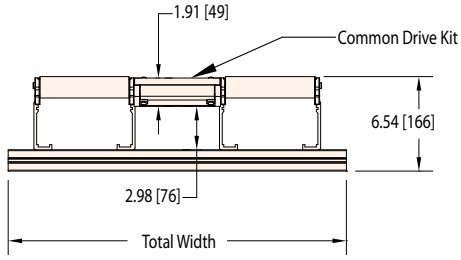
Specifications

- Parts can be wider than conveyor
- Conveyors can be different widths & lengths
- Minimum width (x) = 2" (51 mm)
- Maximum width (x) = 36" (914 mm) belt to belt
- Maximum number of conveyors = 3
- Maximum total torque = 100 in-lbs
- 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 = .34
- Precision Move = .34
- Modular Belt = .52





2200 Series Common Drive Kit

22CDMK GGGGG

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 WW - Y

Number of Conveyors: 1 to **6**

Total Width: 02 to **48**

Kit Includes:
- Conveyor mounting brackets
- Support extrusion

Note: Dim = in (mm)

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

Specifications

- Loads up to 80 lbs/ft* (119 kg/m)
- Conveyor widths: 6" (152 mm), 12" (305 mm), 18" (457 mm) and 24" (610 mm)
- Conveyor lengths: 2' (610 mm) to 12' (3,658 mm) in 6" (152 mm) increments
- Single piece frame lengths to 12' long
- Rollers: 1" (25 mm) diameter rollers on 1.2" (31 mm), 2.4" (61 mm) or 3.6" (91 mm) centers
- Roller Material: Anodized aluminum tube with steel ball bearing
- Side T-slot fits Dorner drop in hardware
- T-slot fits standard M6 square nuts

OPTIONAL: End Stop

(See page 86 for more details)

Load Capacity

Length	Max. Load**	# of Support Stands
2' (610)	80 lbs/ft* (36 kg)	2
3' (914)	80 lbs/ft* (36 kg)	2
4' (1,219)	40 lbs/ft* (18 kg)	2
5' (1,524)	20 lbs/ft* (9 kg)	2
6' (1,829)	10 lbs/ft* (4.5 kg)	2
7' (2,134)	80 lbs/ft* (36 kg)	3
8' (2,438)	40 lbs/ft* (18 kg)	3
9' (2,743)	40 lbs/ft* (18 kg)	3
10' (3,048)	20 lbs/ft* (9 kg)	3
11' (3,353)	20 lbs/ft* (9 kg)	3
12' (3,658)	10 lbs/ft* (4.5 kg)	3

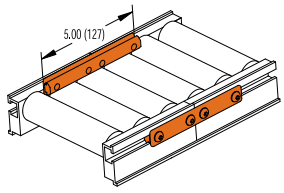
Dim = in (mm)
* Adding Supports increases capacity to 80lbs/ft.
** Evenly distributed loads

Roller Quantity

Length	Roller Centers		
	1.2 (31)	2.4 (61)	3.6 (91)
2' (610)	20	10	6
3' (914)	30	15	10
4' (1,219)	40	20	13
5' (1,524)	50	25	16
6' (1,829)	60	30	20
7' (2,134)	70	35	23
8' (2,438)	80	40	26
9' (2,743)	90	45	30
10' (3,048)	100	50	33
11' (3,353)	110	55	36
12' (3,658)	120	60	40

Dim = in (mm)
It is recommended that 3 rollers be in contact with the product at all times.

Connecting Assembly



- Includes: Connecting Plates, T-Bars and Attaching Hardware

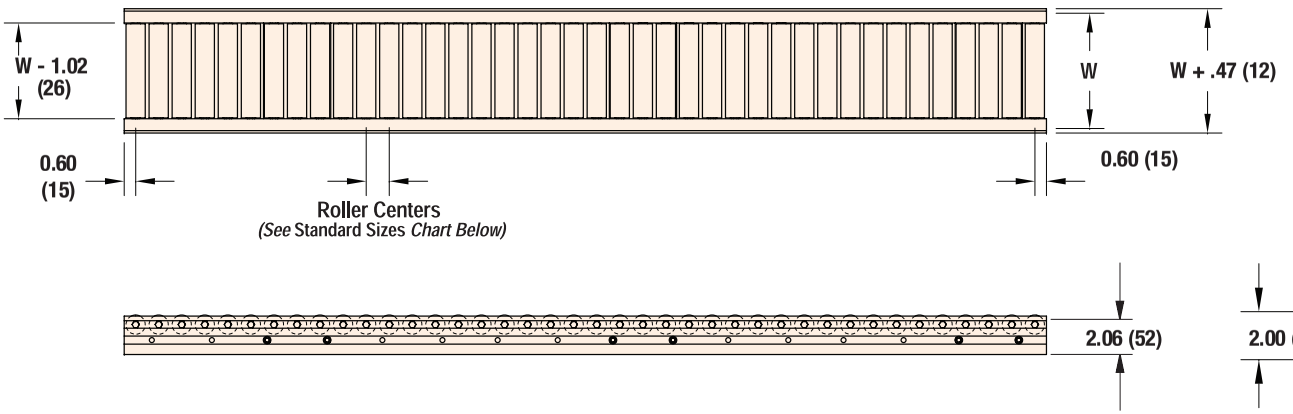
Part Number	Description
202596M	Model 2260

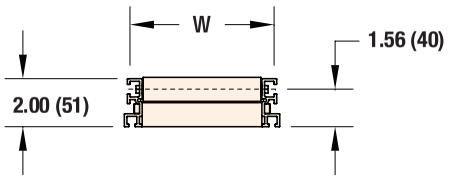
For support stands and accessories, see pages 76-81.

2200 Series Gravity Roller

2260 M 06 - 0450 01 / 12

- 12 — **Roller Center Reference**
- 01 — **Select Profile**
- 0450 — **Conveyor Length Reference** **LLLL** = Length Reference
- 06 — **Conveyor Width Reference**
- M — **Documentation Language: M** = English





All conveyors are shipped with a roller at each end. Depending on roller centers, one odd roller space may occur. All frames are punched for rollers .60" (15 mm) from each end on 1.2" (31 mm) centers.

STANDARD SIZES				
Conveyor Width Reference	06	12	18	24
Conveyor Roller Width (W)	6" (152mm)	12" (305mm)	18" (457mm)	24" (610mm)
Conveyor Length Reference	0200	0050 increments **up to...**		1200
Conveyor Length (L)	2' (610mm)	6" (152mm) increments **up to...**		12' (3,658mm)
Roller Center Reference	12	24		36
Roller Centers	1.2" (31mm)	2.4" (61mm)		3.6" (91mm)

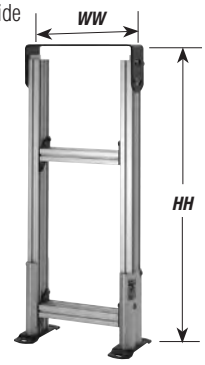
W = Conveyor Belt Width **Dim** = in (mm)

Fixed Height Supports Stands

Fixed Foot Model			
Stand Width (WW)	12" (305 mm)	2" (51 mm) increments **up to…**	48" (1,219 mm)
Part # Reference	12	in 02 increments **up to…**	48
Stand Height (HH)* Belt	15" - 19" (381 - 483 mm)	in 1" (25 mm) increments **up to…**	95" - 99" (2,413 - 2,515 mm)
Part # Reference Belt	1519	in 0101 increments **up to…**	9599

Swivel Locking Caster Model			
Stand Width (WW)	12" (305 mm)	2" (51 mm) increments **up to…**	48" (1,219 mm)
Part # Reference	12	in 02 increments **up to…**	48
Stand Height (HH)* Belt	20" - 24" (508 - 610 mm)	in 1" (25 mm) increments **up to…**	68" - 72" (1,727 - 1,829 mm)
Part # Reference Belt	2024	in 0101 increments **up to…**	6872

- 4" (102 mm) Height Adjustment
- Provides most access to outside T-Slots
- Includes height indicator
- Full width is top plate on 12" wide stands only

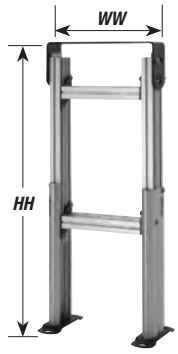


* Dependent on stand width, stands over 42" (1,067 mm) may include outriggers (see page 81)

Adjustable Height Supports Stands

Fixed Foot Model											
Stand Width (WW)	12" (305 mm)			2" (51 mm) increments **up to…**						48" (1,219 mm)	
Part # Reference	12			in 02 increments **up to…**						48	
Stand Height (HH) Belt	12" - 13" (305-330mm)	13" - 15" (330-381mm)	14" - 17" (356-432mm)	16" - 21" (406-660mm)	19" - 26" (483-686mm)	24" - 36" (610-914mm)	30" - 48" (762-1,219mm)	42" - 60"* (1,067-1,524mm)	54" - 72"* (1,372-1,829mm)	66" - 84"* (1,676-2,134mm)	78" - 96"* (1,981-2,438mm)
Part # Reference Belt	1213	1315	1417	1621	1926	2436	3048	4260	5472	6684	7896

Swivel Locking Caster Model									
Stand Width (WW)	12" (305 mm)			2" (51 mm) increments **up to…**			48" (1,219 mm)		
Part # Reference	12			in 02 increments **up to…**			48		
Stand Height (HH) Belt	17" - 18" (432-457mm)	18" - 20" (457-508mm)	19" - 22" (483-559mm)	21" - 26" (533-660mm)	24" - 31" (610-787mm)	29" - 41" (737-1,041mm)	35" - 53" (762-1,346mm)	47" - 65"* (1,194-1,651mm)	59" - 77"* (1,499-1,956mm)
Part # Reference Belt	1718	1820	1922	2126	2431	2941	3553	4765	5977



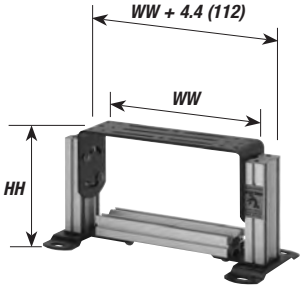
- Up to 18" height adjustment range
- Includes height indicator
- Full width is top plate on 12" wide stands only

* Dependent on stand width, stands over 42" (1,067 mm) may include outriggers (see page 81)

Short Support Stands

Fixed Foot Model			
Stand Width (WW)	12" (305 mm)	2" (51 mm) increments **up to…**	48" (1,219 mm)
Part # Reference	12	in 02 increments **up to…**	48
Stand Height (HH)* Belt	06" - 08" (152 - 203 mm)	in 1" (25 mm) increments **up to…**	12" - 14" (305 - 356 mm)
Part # Reference Belt	0608	in 0101 increments **up to…**	1214
Swivel Locking Caster Model			
Stand Width (WW)	12" (305 mm)	2" (51 mm) increments **up to…**	48" (1,219 mm)
Part # Reference	12	in 02 increments **up to…**	48
Stand Height (HH)* Belt	11" - 13" (279 - 330 mm)	in 1" (25 mm) increments **up to…**	17" - 19" (305 - 483 mm)
Part # Reference Belt	1113	in 0101 increments **up to…**	1719

- For top belt heights below 20"
- Full width is top plate on 12" wide stands only



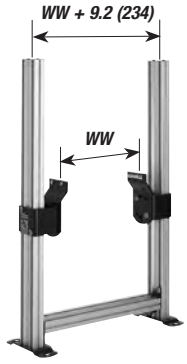
Note: Due to the wide variety of conveyor and stand options along with possible configurations, stability of the final setup is the responsibility of the end user.

For ordering information, see page 77

Fully Adjustable Support Stands

Fixed Foot Model							
Stand Width (WW)	1.75" (44 mm)	2.75" (70 mm)	3.75" (95 mm)	5" (44 mm)	6" (152 mm)	2" (51 mm) increments **up to…**	48" (1,219 mm)
Part # Reference	02	03	04	05	06	in 02 increments **up to…**	48
Top of Belt Range	7-19" (179-483 mm)		12-31" (305-787 mm)		12-43" (305-1,097 mm)	12-55" (305-1,397 mm)	12-67" (305-1,702 mm)
Stand Height Reference	0719		1231		1243	1255	1267
Swivel Locking Caster Model							
Stand Width (WW)	1.75" (44 mm)	2.75" (70 mm)	3.75" (95 mm)	5" (44 mm)	6" (152 mm)	2" (51 mm) increments **up to…**	48" (1,219 mm)
Part # Reference	02	03	04	05	06	in 02 increments **up to…**	48
Top of Belt Range	12-19" (305-483 mm)		17-31" (432-787 mm)		17-43" (432-1,097 mm)	17-55" (432-1,397 mm)	17-67" (432-1,702 mm)
Stand Height Reference	1219		1731		1743	1755	1767

- Provides maximum height adjustment range
- Conveyor is located between stand legs



Quick Adjust Stands

Fixed Foot Model			
Stand Width (WW)*	12" (305 mm)	2" (5 1mm) increments **up to…**	36" (914 mm)
Part # Reference	12	in 02 increments **up to…**	36
Stand Height (HH)* Belt	24" - 30" (610 - 762 mm)	in 1" (25 mm) increments **up to…**	66" - 72" (1,676 - 1,829 mm)
Part # Reference Belt	2430	in 0101 increments **up to…**	6672
Swivel Locking Caster Model			
Stand Width (WW)*	12" (305 mm)	2" (51 mm) increments **up to…**	36" (914 mm)
Part # Reference	12	in 02 increments **up to…**	36
Stand Height (HH)* Belt	27" - 33" (686 - 838 mm)	in 1" (25 mm) increments **up to…**	60" - 66" (1,524 - 1,676 mm)
Part # Reference Belt	2733	in 0101 increments **up to…**	6066

* Under 12" wide use full top plate option

- Metric fasteners
- +/- 3" (76 mm) Height Adjustment
- Allows for Quick Height Adjustment
- Tool-less lock and adjustment handles

Fixed Foot Model

Swivel Locking Caster Model

2200 Series Support Stands

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

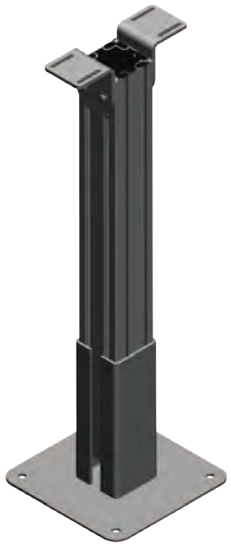
- **Feet or Casters:** **F** = fixed foot pad **C** = total lock swivel caster
- **Height Reference**
- **Width Reference**
- **Stand Type:**
  - **LH** = short stand **FH** = fixed height **FA** = fully adjustable
  - **FT** = tall fixed* **AT** = tall adjustable*
  - **QA** = quick adjust **AH** = adjustable height
- **Documentation Language:** **M** = US

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.

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.

Support Post Stands



Specifications

- ± 2" height adjustment
- Compatible with 2" – 12" wide conveyors
- Top of Belt Heights:
  - Minimum = 20" (508 mm)
  - Maximum = 97" (2,464 mm)
  - Available in 1" (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

320 0 P M WW - LH UH

- **Tallest Height to Top of Bracket** (in inches)
- **Lowest Height to Top of Bracket** (in inches)
- **Width Reference**
- **Documentation Language:** **M** = US
- **Width Range:** **0** = 3" to 5", **4** = 6" to 8", **5** = 10" to 12"

Cantilever Stand Mount (Belted Conveyor Only)

Specifications

- Widths: 2" (51 mm) to 24" (610 mm) available in 1" increments
- Conveyors up to 6" wide are supported with a single cantilever bracket only
- Conveyors 8" and wider include a pivoting outboard support post
- Mounts the conveyor from one side only for quick maintenance of the conveyor belt
- Compatible with the 2200 and 3200 Series Conveyors
- (2) Models
  - Table Top Bracket
  - Support Stand Mount Bracket

2200 Series Cantilever Stand Mount

39MCB WW - T

- **Mount Type:** **T** = Table Top Mount **S** = Support Stand Mount
- **Belt Width:** **02** to **24**

Easy Access for Quick Belt Removal

6" and narrower

8" and wider

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
2' - 9'	2
9.01' - 18'	3
18.01' - 27'	4
27.01' - 30'	5

Required Return Roller Quantity Chart

Max feet between return rollers

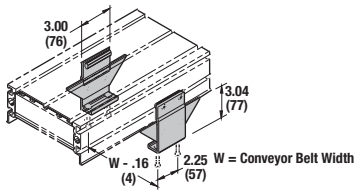
Conveyor Width	1.75"	2.75"	3.75"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
Flat Belt	8.75	8.5	7.5	7.25	7	6.75	6.5	6	5.75	5.5	5.5	5	4.75	4.5
Cleated Belt	5.75	5.5	5.25	5	4.75	4.5	4.25	4	3.75	3.5	3.5	3.25	3	3

Quantity of return rollers required = whole number result of: $\frac{\text{conveyor length in feet}}{\text{max distance between return rollers}}$

Example: 2200 flat belt 8" wide x 14' long $\frac{14'}{6.75}$ =2.07 **2 return rollers required**

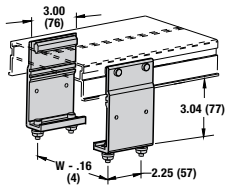
Mounting Brackets

Cleated Stand Mounting Bracket



Part Number	Description
240838	Cleated Belt Conveyor
203718	Cleated Modular Belt Conveyor

Flat Belt Stand Mounting Bracket

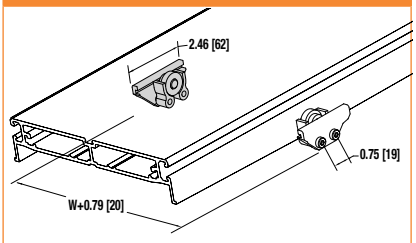


Part Number	Description
240839	Belted Conveyor
203719	Modular Belt Conveyor

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

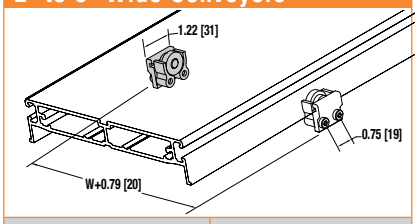
Return Rollers (Belted Conveyors Only)

Cleated Belt Return Roller



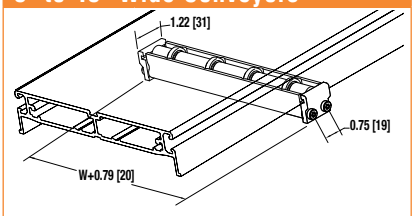
Part Number	Description
206521	Return Roller for Cleated Belt Conveyors

Flat Belt Return Roller for 2" to 6" Wide Conveyors



Part Number	Description
206522	Return Roller for 2" - 6" (44 mm - 152 mm) wide Flat Belt Conveyors

Flat Belt Return Roller for 8" to 48" Wide Conveyors



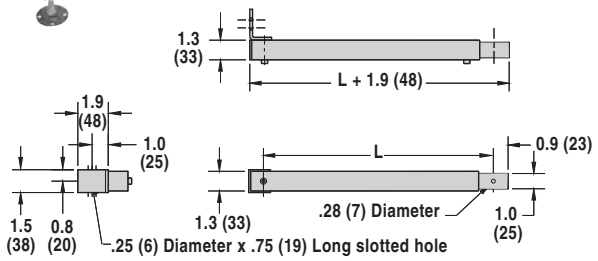
Part Number	Description
206523-WW	Return Roller for 8" (203 mm) to 48" (1,219 mm) wide Flat Belt Conveyors

Note: Dim = in (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.

Stand Accessories

Adjustable Tie Bracket



Dim = in (mm)

- Compatible with steel and aluminum support stands
- Secure critical stand and conveyor locations
- Length (L) adjusts + 0", - 11.25" (286 mm)
- Includes metric mounting hardware

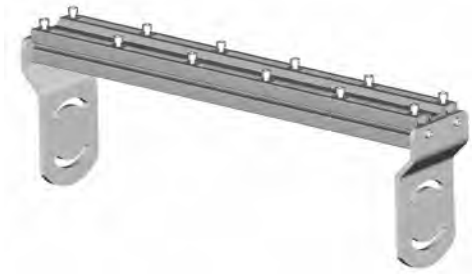
Part Number	Description
27M400-02	Adjustable Tie Bracket, 2' (610 mm)
27M400-03	Adjustable Tie Bracket, 3' (914 mm)
27M400-04	Adjustable Tie Bracket, 4' (1,219 mm)
27M400-05	Adjustable Tie Bracket, 5' (1,524 mm)
27M400-06	Adjustable Tie Bracket, 6' (1,829 mm)

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 72" (1829 mm) tall
- One brace per stand for conveyors up to 24" wide (610 mm)
- Two braces per stand for conveyors over 24" wide (610 mm)

Part Number	Description
39MB-TS	for two-legged H style stands up to 30" tall (762 mm)
39MB-TT	for two-legged H style stands over 30" tall (762 mm)

Common Mount Kit



- Stand accessory for mounting multiple conveyors in parallel to one stand
- Adds 2.179" (55 mm) to stand height
- Adds 2.79" (71 mm) to overall stand width

2200 Series: Common Mount Kit

39MCM WW - #

Number of Conveyors

Width Stand

Example: 39MCM-244

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

Tall Support Stand Outriggers

Outriggers

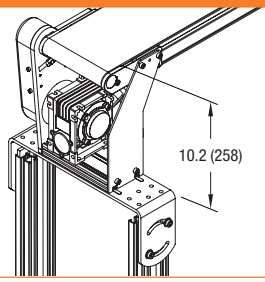
Tall Stands are the Fixed Height and Adjustable Height Stands as shown with additional outrigger support for added stability. These outriggers are required when the height of the stand exceeds 3.5x its width, and they add 16" to stand width. Tall stands over 6' tall include diagonal bracing.

Fine Adjustment Kit

- Provides fine height adjustment via a threaded bolt
- For use with Fixed Height Stands

Part Number	710028

Bottom Mount Stand Bracket



*Not compatible with Modular Belt Conveyors

- Bolts to 90˚ standard load gearmotor
- Includes metric mounting hardware
- Provides a 10.2" (258) T.O.B. Height

Part Number	Description
202306-02	"L" Bracket only for 2" to 5" wide conveyors
202306-WW	Bracket Assembly, 06 and wider 2200 conveyors

Adjustable Lane Guiding (2200 Belted Conveyors only)

Specifications

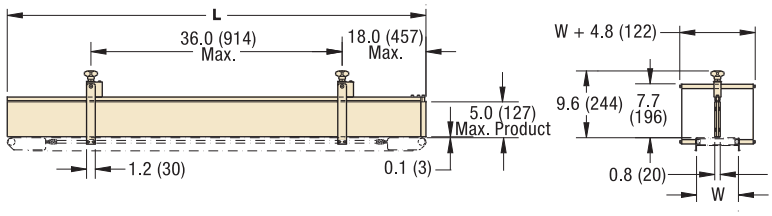
- UHMW guide surface on an anodized aluminum mounting rail
- Painted Steel mounting hardware
- Available in standard 1' (305 mm) increments or can be ordered to any length
- 5" (127 mm) maximum, 0.25" (7 mm) minimum part height
- 0.25" (6 mm) minimum lane width
- Package includes one lane guide, mounting hardware and adjusting knobs
- For conveyors up to 24" (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

27M GGG - WW LL

- LL – **Conveyor Length Reference**
- WW – **Conveyor Width Reference**
- GGG – **Guide Type:**
  - **500** = 2200 Package (Belted)
  - **502** = Additional Lane Guide

Example: 27M500-0620



Important: Exceeding 5" (127 mm) product height will produce a pinch point.

Side Tables

Specifications

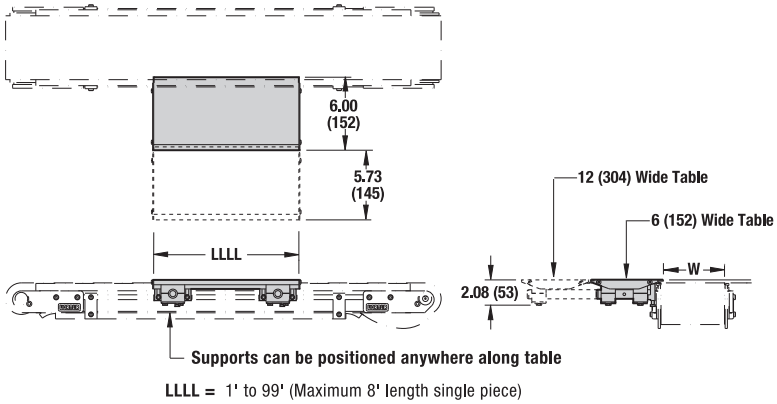
- Provides a 6" (152 mm) or 12" (305 mm) wide working surface
- Adjusts in/out and up/down (0.25" max above bedplate) for product transfer on/off conveyor belts
- Can be positioned anywhere along the conveyor
- Anodized aluminum work surface
- Max load: 5 lbs/ft (6 kg/m), use Adjustable Tie Brackets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

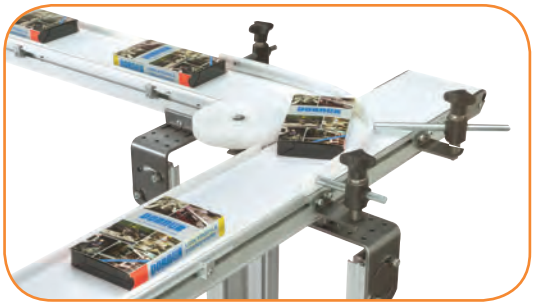
- LLLL – **Table Length** (ex. 0200 = 2')
- TTT – **Table Width: 06 =** 6" **12 =** 12"
- **Conveyor / Table Type:**
  - **601** = one side
  - **602** = two sides

Example: 27M601-060200



LLLL = 1' to 99' (Maximum 8' length single piece)

90° Adjustable Transfer (2200 Belted Conveyor Only)



Specifications

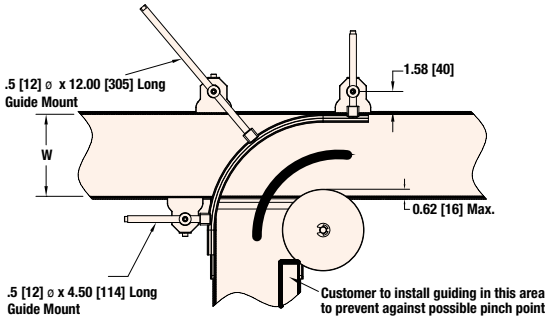
- For conveyors up to 12" (305 mm) wide
- Requires low side conveyors
- 0.25" (6 mm) minimum part thickness
- Hard coat anodized transfer plate
- Painted steel mounting hardware
- 48" (1,219 mm) long UHMW outside turn guide, customer can trim to fit
- Maximum recommended part weight is 20 lbs (9 kg) at 50 ft/min (15 m/min) belt speed – Consult factory regarding applications for higher product weights or faster belt speeds.
- 0.88" (22 mm) minimum product size for 2200 Series
- Package includes outside turn guide, guide wheel, adjustable mounting hardware and extruded aluminum transfer plate
- Pre-engineered guided turns adjust to a variety of products
- Accepts standard Dorner bolt-on profiles outside of transfer area
- Place adjusting rods where required
- Easily adjusts for quick product change-over

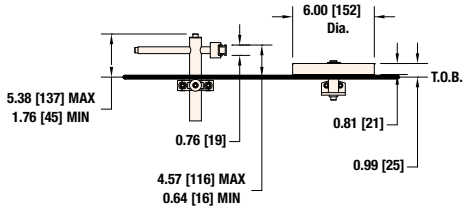
Part Number	Description
206524-WW*	2200 Series 90º Adjustable Transfer

*WW = Width in inches

Note: Due to the wide variety of drive setups and applications point of installation guarding is the responsibility of the end user.

Important: Do not use with 03, 08, 55, 62, or 64 High Friction Belts on Infeed conveyor





Pulley Transfer Plate (2200 Belted Conveyor Only)

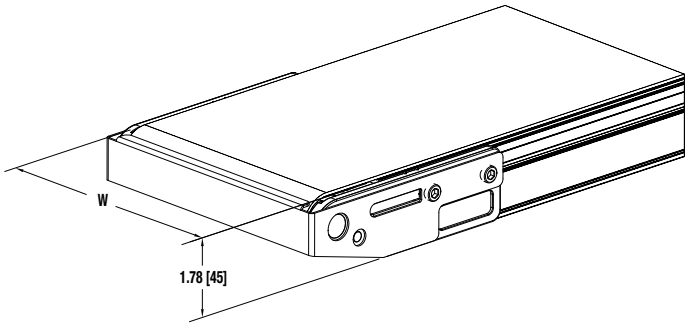
Specifications

- 0.88" (22 mm) diameter minimum product transfer
- 300 series stainless steel transfer plate

Part Number	Description
207218-WW	2200 Series Pulley Transfer Plate

WW = Conveyor Width Reference

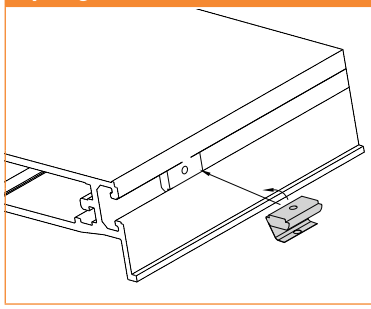
Not compatible with clipper splice or high friction belts
Not compatible with cleated belt conveyors



Note: Dim = in (mm)

T-Slot Hardware Accessories

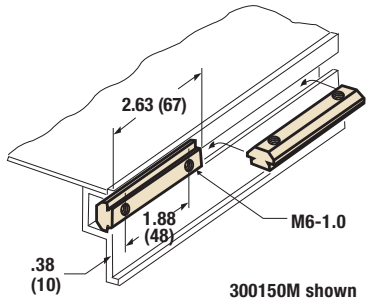
Spring T-Nut



- 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

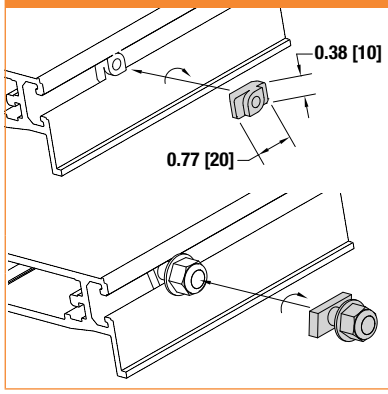
T-Bars



- Mounts in T-slots to attach heavy accessories

Part Number	Description
639971M	M6 x 1.0, T-bar, 1 hole, 0.75" long
202390M	M8 x 1.25, T-bar, 1 hole, 0.63" long
643874M	M6 x 1.0, T-bar, 2 hole, 0.75" centers, 1.5" long
200626M	M6 x 1.0, T-bar, 2 hole, 0.875" centers, 1.62" long
200830M	M6 x 1.0, T-bar, 2 hole, 1.0" centers, 1.75" long
639717M	M6 x 1.0, T-bar, 2 hole, 1.25" centers, 2" long
300150M	M6 x 1.0, T-bar, 2 hole, 1.875" centers, 2.52" long
300536M	M6 x 1.0, T-bar, 2 hole, 2.125" centers, 2.88" long
639971	1/4 x 20, T-bar, 1 hole, 0.75" long
300150	1/4 x 20, T-bar, 2 hole, 1.875" centers, 2.62" long

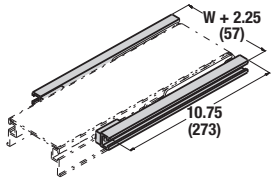
T-Bolts & T-Nuts



- Mounts in T-slots to attach heavy 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

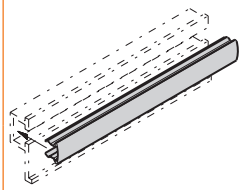
T-Slot Extenders



- 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

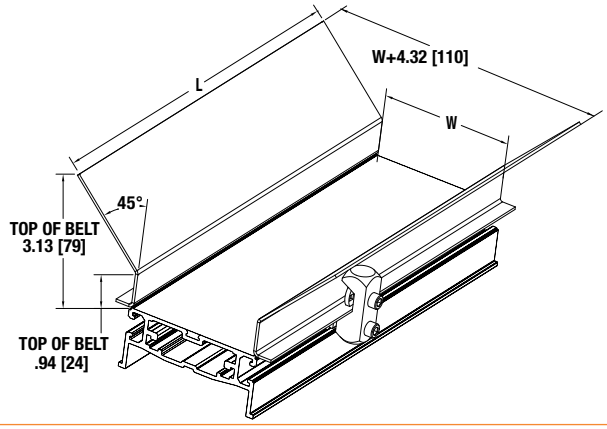
Part Number	Description
645656P	T-Slot Cover, Per 1' (305 mm) of length

Note: Dim = in (mm)

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

Side Guides (2200 Belted Conveyor Only)

Flared Side Guide

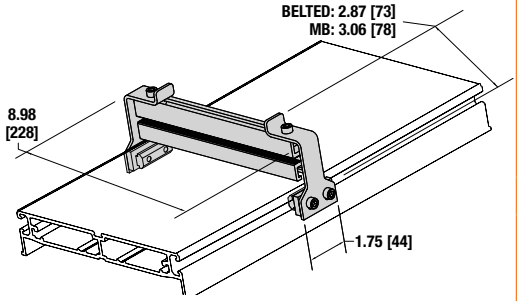


- Guides parts onto conveyor belt surface
- Includes metric mounting hardware

Part Number	Description
280802M	2' (610 mm) Flared Side
280803M	3' (914 mm) Flared Side
280804M	4' (1,219 mm) Flared Side
280805M	5' (1,524 mm) Flared Side
280806M	6' (1,829 mm) Flared Side

Stops

Adjustable Stop*



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

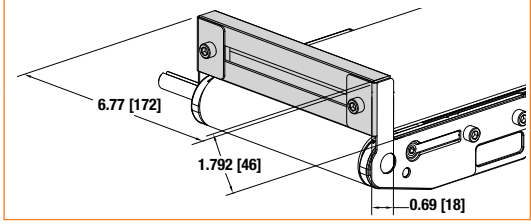
Part Number	Description
207133-WW	Adjustable Stop: Belted
207137-WW	Adjustable Stop: Modular Belt and Precision Move

WW = Conveyor Width Reference

* Not compatible with high friction belts

* Not compatible with cleated belt conveyors

End Stop*

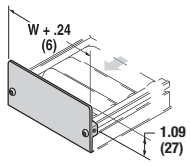


- Anodized aluminum stop
- Includes tail plates and mounting hardware

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

Note: No Gang Drive or cleated belt options

Roller Conveyor End Stop



- Includes metric mounting hardware

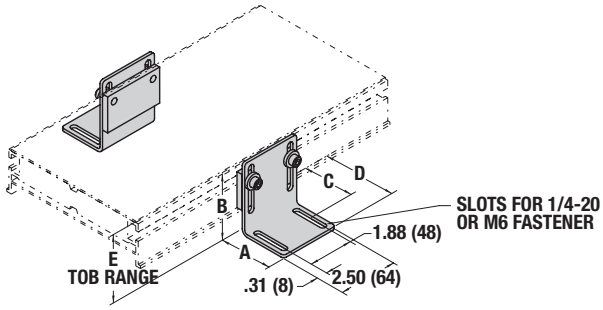
Part Number	Description
202668-WW	Roller End Stop

Note: Dim = in (mm)

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

Brackets

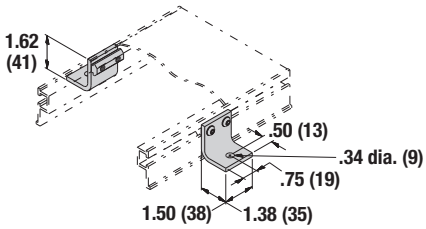
Adjustable Height Bracket ‡



- Provides height adjustment
- (2) Height Ranges
- Includes mounting hardware

Part Number	Description	A	B	C	D	E
201557	2" x 3" Bracket	2 (51)	3 (76)	1.4 (36)	2.4 (61)	3.83 (97) to 5.33 (135)
201558	3" x 5" Bracket	3 (76)	5 (127)	2 (51)	3.4 (86)	5.23 (133) to 7.23 (184)

Table Top Mounting Bracket ‡

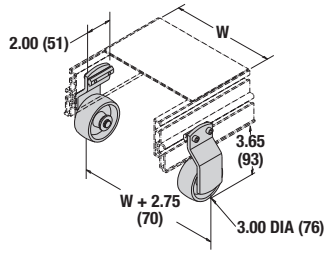


- Includes metric mounting hardware

Part Number	Description
200349M	Table top bracket

‡ = If the discharge end of conveyor is mounted over a table or similar structure, the customer must provide guiding to prevent against possible pinch point.

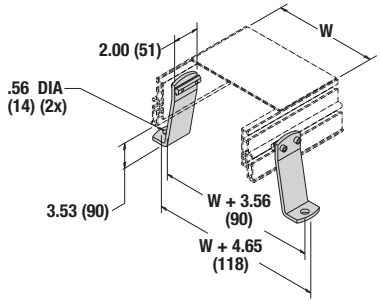
Frame Mount Casters (2200 Belted Conveyor Only)



- Includes metric mounting hardware

Part Number	Description
390207	Frame mount casters, pair

Floor Mount Brackets



- Includes metric mounting hardware

Part Number	Description
390217	Floor mount brackets, pair

WW = Conveyor Width Reference

Note: Dim = in (mm)

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

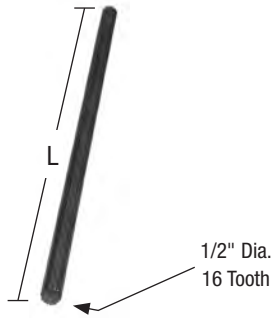
Drive Shaft Accessories

Clear Cover

- Fits 2200 light load top mount and standard and heavy load top and bottom mount packages

Part Number	Description
689499M	Clear cover, ordered separately

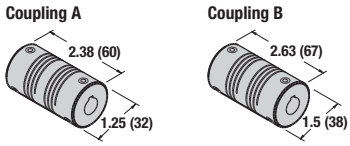
Spline Shaft



- Compatible with Precision Move Gang Mid Drive

Part Number	Description
202432-04800	½" diameter x 16 tooth x 4' long Spline Shaft

Flexible Coupling



- (A) Includes SAE set screws, (B) metric set screws

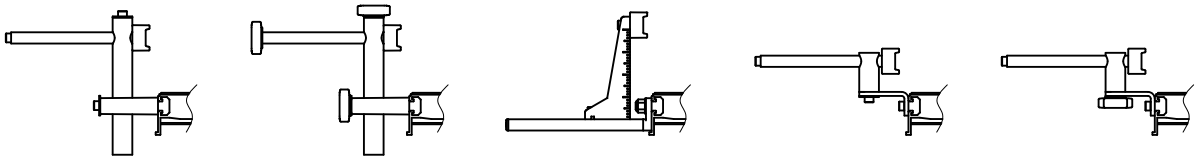
Part Number	Description	Coupling
23M29	Flexible Coupling, 12 mm bore x 0.38" hex	A
23M31	Flexible Coupling, 12 mm bore x 12 mm bore	B

Note: Dim = in (mm)

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

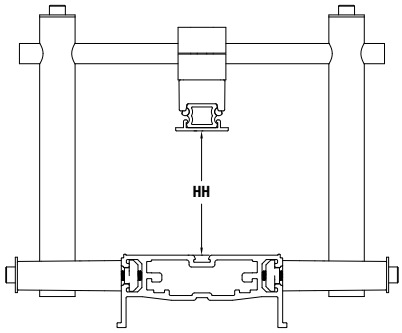


Profile 13 **Profile 14** **Profile 16** **Profile 19** **Profile 20**

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)
206193	Outboard guide mount assembly (Profiles 16, 36 & 46)
207150	Belted horizontal only guide mount assembly (Profiles 19, 39 & 49)
207151	Belted tool-less horizontal only guide mount assembly (Profiles 20, 40 & 50)

Note: Order guide extrusion separately

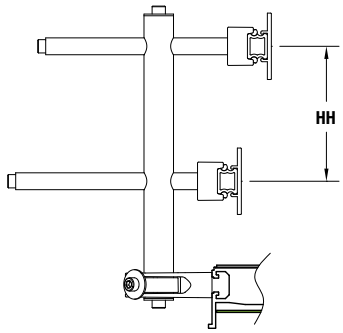
Overhead Guide Mounting Bracket



Part Number	Description
206185-WW03	Adjustable 0-3" Overhead Guide Mount Bracket
206185-WW05	Adjustable 0-5" Overhead Guide Mount Bracket
206185-WW08	Adjustable 0-8" Overhead Guide Mount Bracket

Note: Order guide extrusion separately

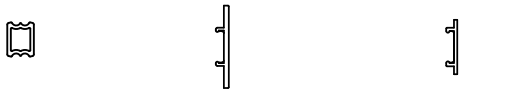
Dual Guide Mounting Bracket



Part Number	Description
206176-02	Dual Guide Bracket, 2" Between Guides
206176-03	Dual Guide Bracket, 3" Between Guides
206176-04	Dual Guide Bracket, 4" Between Guides

Note: Order guide extrusion separately

Adjustable Guide Rail Extrusion



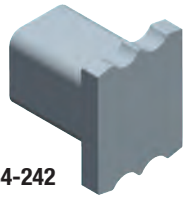
Aluminum Extrusion **50 mm HDPE Extrusion** **33 mm HDPE Extrusion**

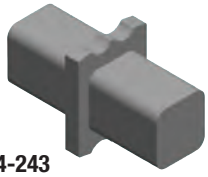
Part Number	Description
GTB13A04	Adjustable guide aluminum extrusion, 4' long
GTB13A08	Adjustable guide aluminum extrusion, 8' long
GTB13B04	Adjustable guide 1.3" (33 mm) HDPE Cover, 4' long
GTB13B08	Adjustable guide 1.3" (33 mm) HDPE Cover, 8' long
GTB13C04	Adjustable guide 2" (51 mm) HDPE Cover, 4' long
GTB13C08	Adjustable guide 2" (51 mm) HDPE Cover, 8' long
GTB13P04	Adjustable guide HDPE extrusion, 4' long
GTB13P08	Adjustable guide HDPE extrusion, 8' long

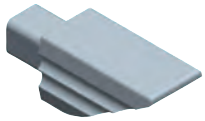
Note: Order guide mount brackets separately

Guide Mounts (continued)

Adjustable Guide Rail Accessories


834-242


834-243

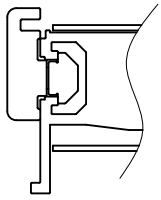

834-244


834-245

Part Number	Description
834-242	End cap for aluminum guide extrusion, 10 pack
834-243	Plastic plug connecting piece for aluminum guide extrusion, 10 pack
834-244	Lead in for aluminum guide extrusions, 10 pack
834-245	Aluminum connection piece for aluminum guide extrusion, 10 pack

Note: Order guide extrusion separately

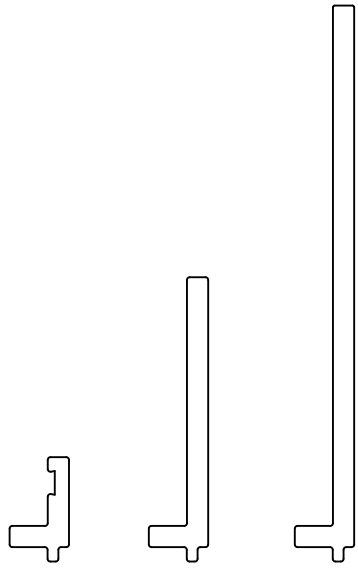
Bolt on Guide Clip Assembly



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	0.5" Aluminum High Side guide extrusion 4' long.
GTB09A08	0.5" Aluminum High Side guide extrusion 8' long.
GTB05A04	1.5" Aluminum High Side guide extrusion 4' long.
GTB05A08	1.5" Aluminum High Side guide extrusion 8' long.
GTB04A04	3.0" Aluminum High Side guide extrusion 4' long.
GTB04A08	3.0" Aluminum High Side guide extrusion 8' long.

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.

CE	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).
RoHS	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.
	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.
c US	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.
	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.
c UL US	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.

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.

2200 Series Belted Conveyor

2200 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.

Legend:
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

Salts	Acetal POM	Polypropylene	Polyamide PA	UHMW-PE	Aluminum
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
Organic Compounds	**Acetal POM**	**Polypropylene**	**Polyamide PA**	**UHMW-PE**	**Aluminum**
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
Gases	**Acetal POM**	**Polypropylene**	**Polyamide PA**	**UHMW-PE**	**Aluminum**
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
Other	**Acetal POM**	**Polypropylene**	**Polyamide PA**	**UHMW-PE**	**Aluminum**
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)
Chemicals					
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

Resistance to Materials: Belting *(continued)*

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

Materials	Urethane	PVC (non FDA)	Silicone	Polyester	Urethane (hard)
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
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

Resistance to Materials: Belting *(continued)*

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

Materials	Urethane	PVC (non FDA)	Silicone	Polyester	Urethane (hard)
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
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

Resistance to Materials: Belting *(continued)*

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

Materials	Urethane	PVC (non FDA)	Silicone	Polyester	Urethane (hard)
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
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

Resistance to Materials: Belting *(continued)*

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

Materials	Urethane	PVC (non FDA)	Silicone	Polyester	Urethane (hard)
Products					
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
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.

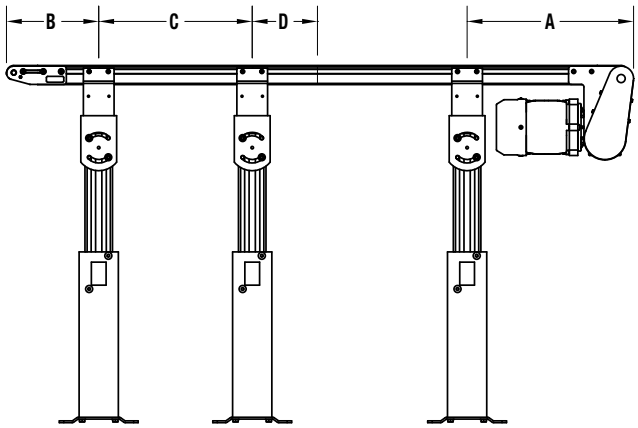
All gearmotors used on the 2200 series conveyor are sealed and may be mounted in any position. Changing gear oil lubrication may be needed over the life of the gearbox. Please check the appropriate gearmotor manual for instructions.

Support Stand Locations:

Support Stand Locations		
Symbol	**Description**	**Value, inches (mm)**
A*	Maximum distance back at drive end	18"
B	Maximum distance back at idler end	24"
C	Maximum distance between supports	96"
D**	Maximum distance away from frame split	12"

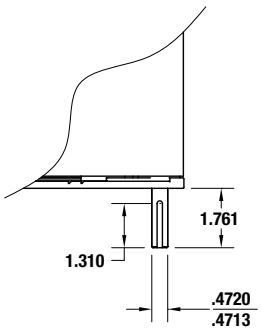
***Note:** For heavy load mount packages stand location must be mounted directly under gearmotor.

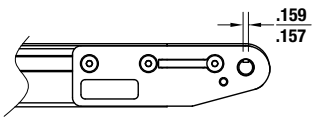
****Note:** Mounting offset frame split requires tie kit 206519



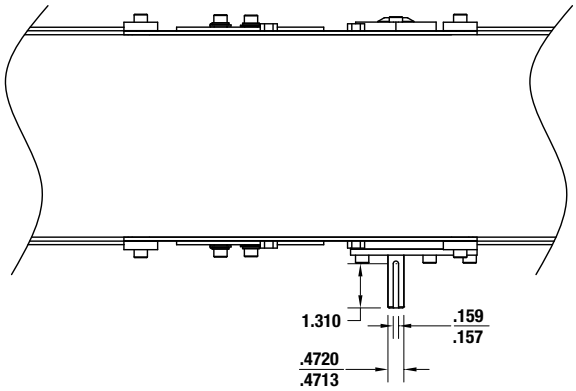
Conveyor Drive Shaft Tolerances:

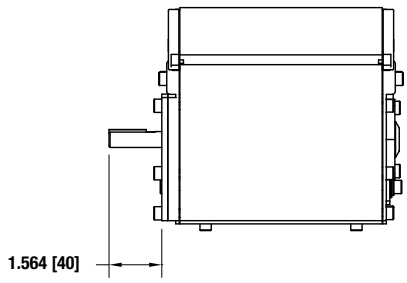
End Drive, Belted and Modular Belt:





Center Drive:



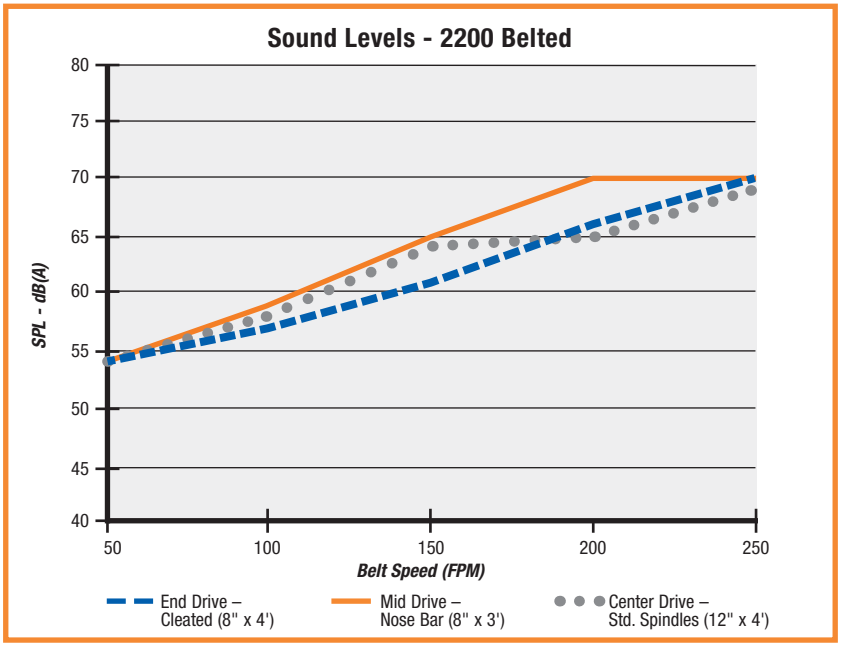


Conveyor Noise Level (Decibel Ratings)

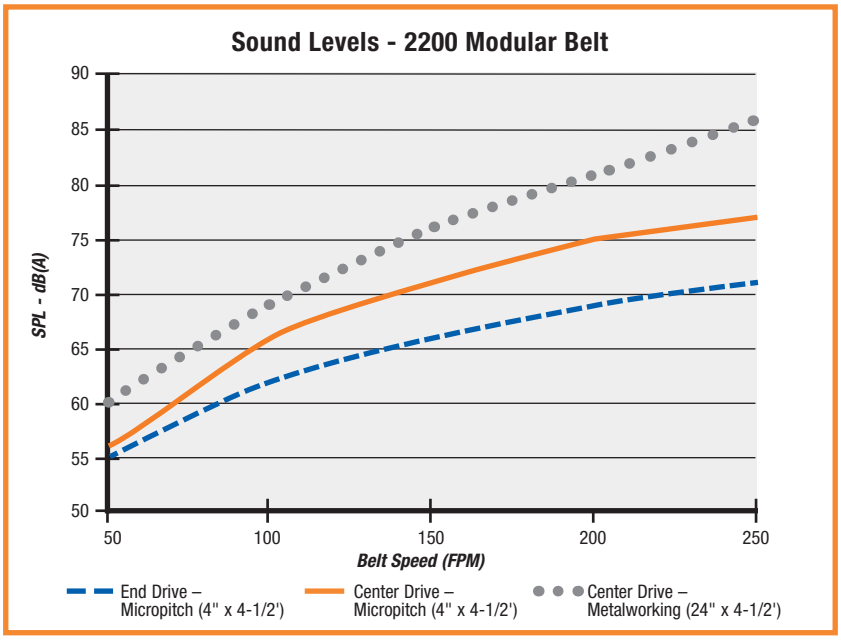
The actual noise level generated by the conveyor depends on several factors; the installation configuration, the product running on the conveyor, the surrounding equipment, the conveyor options and belt speed. The noise level generated by the conveyor is typically less than the general noise level of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

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.

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

2200 Series End Drive Belted Conveyor		
Belt Width	**Direction 1, Pulling the Belt**	**Direction 2, Pushing the Belt**
2" wide	30 lbs	15 lbs
3" wide	35 lbs	18 lbs
4" wide	42 lbs	21 lbs
5" wide	50 lbs	25 lbs
6" wide	60 lbs	30 lbs
8" wide	70 lbs	35 lbs
10" to 24" wide	80 lbs	40 lbs

2200 Series Belted Center Drive Conveyor		
Belt Width	**Direction 1, Pulling the Belt**	**Direction 2, Pushing the Belt**
2" wide	40 lbs	13 lbs
3" wide	50 lbs	17 lbs
4" wide	60 lbs	20 lbs
5" wide	75 lbs	25 lbs
6" wide	90 lbs	30 lbs
8" wide	105 lbs	35 lbs
10" to 24" wide	120 lbs	40 lbs

2200 Series Mid Drive Belted Conveyor	
Belt Width	**Direction 1, Pulling the Belt**
2" wide	30 lbs
3" wide	35 lbs
4" wide	42 lbs
5" wide	50 lbs
6" wide	60 lbs
8" wide	70 lbs
10" to 24" wide	80 lbs

2200 Series Modular Belt End and Center Drive Conveyor	
Belt Width	**Direction 1, Pulling the Belt**
3" wide	80 lbs
4" wide	80 lbs
6" wide	100 lbs
8" wide	100 lbs
12" wide	150 lbs
18" wide	150 lbs
24" wide	150 lbs

2200 Series Precision Move End and Mid Drive Conveyor	
Belt Width	**Direction 1, Pulling the Belt**
1" wide	200 lbs
2" wide	200 lbs
3" wide	200 lbs
4" wide	200 lbs
6" wide	200 lbs
8" wide	200 lbs
12" wide	200 lbs
18" wide	200 lbs
24" wide	200 lbs

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.

Belted Conveyor

Belted Conveyor No Load Torque			
Belt Width	**End Drive (in-lbs)**	**Mid Drive (in-lbs)**	**Center Drive (in-lbs)**
2" wide	4	7	9
3" wide	5	8	10
4" wide	6	9	11
5" wide	7	10	12
6" wide	8	12	15
8" wide	10	15	20
10" wide	12	18	23
12" wide	14	20	25
14" wide	15	21	27
16" wide	16	22	28
18" wide	17	24	30
20" wide	18	25	32
22" wide	19	26	33
24" wide	20	28	35

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 (ft)

W = conveyor width (in)

Micropitch no load torque (in-lbs) = (L)*2*(W/12)*1.3 lb/sq ft)*(0.3 COF)*(0.31 in pitch)*0.858

Metalworking no load torque (in-lbs) = (L)*2*(W/12)*1.3 lb/sq ft)*(0.3 COF)*(0.59 in pitch)*0.94

Example: 2200 Series Modular Belt 8” wide x 10’ long

Micropitch no load torque (in-lbs) = (10)*2*(8/12)*1.3 lb/sq ft)*(0.3 COF)*(0.31 in pitch)*0.858 = 1.38

Metalworking no load torque (in-lbs) = (10)*2*(8/12)*1.3 lb/sq ft)*(0.3 COF)*(0.59 in pitch)*0.94 = 2.88

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

Calculating Conveyor Belt Speed

2200 Series Belted Conveyors:

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

- Drive roller diameter
  - 1.25" (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

$$\text{Belt Speed (ft/min)} = (\text{Drive roller diameter}/12)*(3.14)*(\text{RPM of gearmotor})*\frac{(\text{Teeth at gearmotor})}{(\text{Teeth at drive roller})}$$

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.

Belt Speed (ft/min) = (1.25/12)*(3.14)*(86)*(44/28)

Belt speed (ft/min) = 44.2 ft/min

2200 Series Modular Belt Conveyors:

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

- Drive sprocket pitch diameter
  - 1.71" (43.4 mm) for Belts 01 and 02
  - 1.88" (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

$$\text{Belt Speed (ft/min)} = (\text{Drive pitch diameter}/12)*(3.14)*(\text{RPM of gearmotor})*\frac{(\text{Teeth at gearmotor})}{(\text{Teeth at drive roller})}$$

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.

Belt Speed (ft/min) = (1.88/12)*(3.14)*(86)*(44/28)

Belt speed (ft/min) = 66 ft/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 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

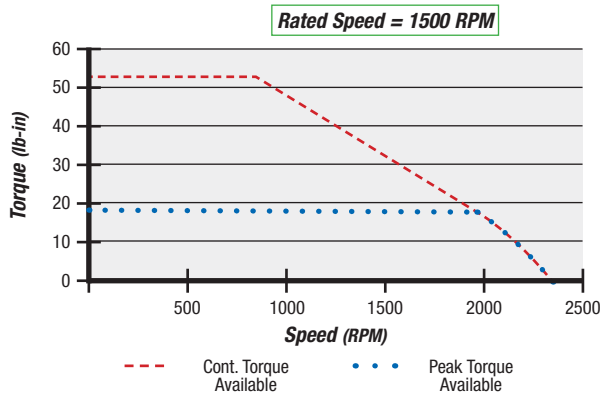
Start / Stop Factor

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.

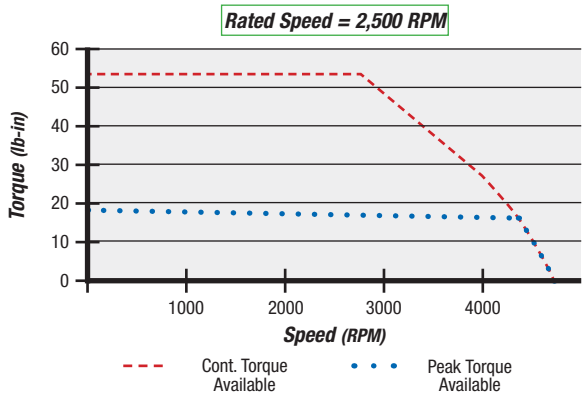
Application Condition	Start / Stop Factor
Continuous Run or 1 start/stop per hour	1.0
Maximum 10 starts/stop per hour	0.83
Maximum 30 starts/stop per hour	0.70
Greater than 30 starts/stop per hour	0.62

Servo Motor / Control Torque Curves

Motor Only with 115V Control



Motor Only with 230V Control



Servo Performance Data

Accuracy:

- 2200 Series: Index consistency = ±0.040"

Maximum Speed (Velocity):

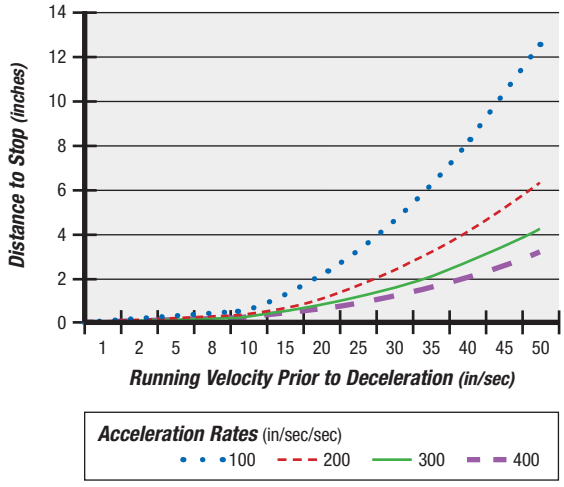
- 2200 Series: 300 ft/min = 60 in/sec

Maximum Acceleration Rate: 200 in/sec/sec

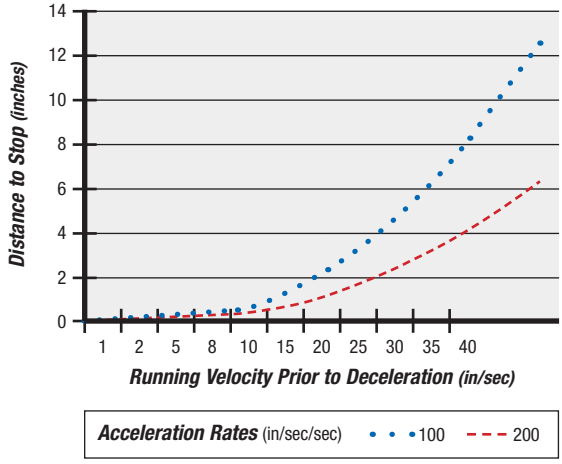
Maximum Deceleration Rate: 400 in/sec/sec

Maximum Index Rate: 100 indexes per minute (0.6 sec total cycle; 0.2 sec accel, 0.2 sec dwell, 0.2 sec decel)

Minimum Distance for Slow Down / Deceleration



Minimum Distance for Speed Up / Acceleration



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.

2200 SERIES

2200 Series Conveyors are best for:

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

Sizes & Measurements

- 1" - 24" (widths)
- 18" - 30' (lengths)

Loads & Speeds

- Up to 150 lbs
- Up to 400 fpm

Conveyor Configurations

Straight

Z-Frame

Horizontal to Incline

Nose-Over

At Dorner we make it our mission to provide you with a system that you can depend on to move your product from point A to point B with precision and speed. It's that commitment and history of proven excellence that has made the Dorner Brand a recognized leader in precision conveyors for nearly 50 years. With our complete line of customizable conveyor systems we have the perfect solution for you!

1X Series

The 1X Series Line is designed for small part handling and transfers where space is a premium.

1X Series Family:

- Flat Belt

- Aluminum Frame
- Widths to 10"
- Loads to 15 lbs
- Speeds up to 80 fpm

2X Series

The 2X Series Line is engineered for small to medium sized parts, precision applications and flexible layouts.

2X Series Family:

- Flat Belt
- Cleated Belt
- Modular Belt
- Precision Move
- SmartFlex®

- Aluminum Frame
- Widths to 24"
- Loads to 200 lbs
- Speeds up to 400 fpm
- Curves
- Z-Frame Elevators

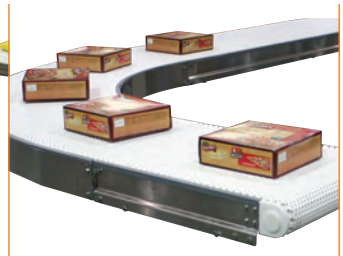
3X Series

The 3X Series Line is designed for medium to heavy sized parts, precision applications, bulk handling and flexible layouts.

3X Series Family:

- Flat Belt
- Cleated Belt
- Modular Belt
- Flexible Chain
- Precision Move

- Aluminum Frame
- Widths to 60"
- Loads to 1000 lbs
- Speeds up to 600 fpm
- Curves
- Z-Frame Elevators



7X Series

The 7X Series Stainless Steel Line is engineered for small to heavy product requiring various levels of sanitary design and flexible layouts.

7X Series Family:
AquaPruf® + AquaGard®

- Flat Belt
- Cleated Belt
- Modular Belt
- Flexible Chain
- Vertical Belt Technology

- Stainless Steel Frame
- Widths to 52"
- Loads to 750 lbs
- Speeds up to 400 fpm
- Curves
- Z-Frame Elevators

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