



# AquaGard<sup>®</sup> LP Sanitary End Drive Conveyors

Installation, Maintenance & Parts Manual



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(6

**Original Instructions** 

**Record Conveyor Serial Number Here** 

851-967-EU Rev. A

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AquaGard® LP Sanitary End Drive Conveyors

# Introduction

### **A** CAUTION

Some illustrations may show guards removed. DO NOT operate equipment without guards.

Upon receipt of shipment:

- Compare shipment with packing slip. Contact factory regarding discrepancies.
- Inspect packages for shipping damage. Contact carrier regarding damage. Accessories may be shipped loose.
- See accessory instructions for installation.

The Dorner Limited Warranty applies.

Dorner reserves the right to make changes at any time without notice or obligation.

Dorner has convenient, pre-configured kits of Critical Service Parts for all conveyor products. These time saving kits are easy to order, designed for fast installation, and guarantee you will have what you need when you need it. Recommended Critical Service Parts and Kits are marked in the Service Parts section of this manual with the Key Service Parts symbol  $\square$ .

# Warnings – General Safety



# **Product Description**

Refer to (Figure 1) for typical conveyor components.

1	Conveyor
2	Gearmotor
3	Controller
4	Belt (Cleated Belt Shown)
5	Support Stands

- 6 End Drive
- 7 Idler End
- 8 Guides



Figure 1

# Specifications

### Models

#### Flat Belt Conveyor



#### **Cleated Belt Conveyor**



See "Engineering" Manual for details.

# **Specifications**

#### **Conveyor Supports:**

#### Maximum Distances:

- 1 = Support Stand on Drive End = 188 mm (7.4")
- 2 = Support Stand on Idler End = 156 mm (6.1")
- 3 = Between Support Stands = 1400 mm (55.1")\*\*
  - \*\* For conveyors longer than 2998 mm (118"), install support at frame joint.



### **Specifications**

Conveyor Width Reference ( <u>WWW</u> )	070, 095, 152, 203, 254, 305, 406, 457
Conveyor Belt Width	70 mm (2.75"), 95 mm (3.75"), 152 mm (6"), 203 mm (8"), 254 mm (10"), 305 mm (12"), 406 mm (16"), 457 mm (18")
Maximum Conveyor Load (See NOTE Below)	22.7 kg (50 lbs.)
Belt Travel	102 mm (4.0") per revolution of pulley
Maximum Belt Speed	75 m/minute (246 ft/minute)
Conveyor Length Reference (LLLLL)	00500 – 05485 in 00005 increments
Conveyor Length	500 mm (20") – 5485 mm (216") in 5 mm (.20") increments

#### NOTE

Maximum conveyor loads are based on:

- Non-accumulating product
- Product moving toward gearmotor
- · Conveyor being mounted horizontally
- Conveyor being located in a dry environment
- Conveyor equipped with standard belt only

### **Fastener Torque Specifications**

	Hex Head			Set Screw
	Hex Size	Torque	Hex Size	Torque
M3 x 0.5	5.5 mm	0.9 Nm (8 in lbs)	2 mm	0.2 Nm (1.7 in lbs)
M4 x 0.7	7 mm	2.3 Nm (20 in lbs)	2 mm	0.7 Nm (6 in lbs)
M5 x 0.8	8 mm	4.6 Nm (40 in lbs)	2.5 mm	1.5 Nm (13 in lbs)
M6 x 1.0	10 mm	7.8 Nm (69 in lbs)	3 mm	2.5 Nm (22 in lbs)
M8 x 1.25	13 mm	19.0 Nm (169 in lbs)	4 mm	6.0 Nm (53 in lbs)
M10 x 1.5	16 mm	38.0 Nm (335 in lbs)	5 mm	12.0 Nm (106 in lbs)

Dorner recommends FDA approved grease on all threaded stainless steel fasteners.

### NOTE

Dorner recommends cleaning all the "food zones" prior to placing conveyor into service. Insure adequate access is provided for cleaning and servicing equipment so that the required level of hygiene can be maintained.

### NOTE

Conveyor MUST be mounted straight, flat, and level within confines of conveyor. Use a level (Figure 3, item 1) during setup.



Figure 3

### **Required Tools**

- 8 mm wrench
- 10 mm wrench
- 13 mm wrench
- Level
- Torque wrench

# Recommended Installation Sequence

- Assemble conveyor (if required)
- Attach stands/mounting brackets to conveyor (see "Stand Installation" on page 11)
- Install gearmotor mounting package (see Gearmotor Mounting Packages manual 851-968)
- Attach return rollers (see "Belt Returns" on page 12)
- Attach guides/accessories (see "Service Parts" section starting on page 29)

## Conveyors Up to 2998 mm (118")

No assembly is required. Install stands/mounting brackets and return rollers. Refer to "Attaching Conveyor to Stands or Mounting Brackets" on page 11 and "Return Rollers" on page 12.

# Conveyors Longer than 2998 mm (118")

#### **Connecting Components**

Typical connecting components (Figure 4).

- 1 Conveyor frame
- 2 Conveyor frame extension
- 3 Connector Strips (2x)
- 4 Screws (4x)
- 5 Screws (8x)



Figure 4

 Install frame connecting bar (Figure 5, item 1) on conveyor frame (Figure 5, item 2) with two shorter screws (Figure 5, item 3) and one long screw (Figure 5, item 4). Do not tighten screws.



Figure 5

2. Repeat step on the opposite side of conveyor frame.

Install conveyor frame extension (Figure 6, item 1) on frame connecting bar with two short screws (Figure 6, item 2) and one long screw (Figure 6, item 3). Install three screws on opposite side.



#### Figure 6

4. Tighten the six screws on each side.

### **Belt Installation**

1. Loosen belt fastener (Figure 7) or tool-less fastener (Figure 8) on both sides of conveyor.



Figure 7



Figure 8

2. Rotate idler tail up (Figure 9).



Figure 9



3. Orient belt so splice outer fingers (Figure 10, item 1) point in the direction of belt travel as identified by the conveyor directional label (Figure 10, item 2).



Figure 10

4. Install belt (Figure 11, item 1) on conveyor.



Figure 11

5. Lower idler end (Figure 11, item 2).

### **A** CAUTION

Pinch point occurs when rotating idler end. Use caution.

- 6. Tension conveyor belt, if required. See "Conveyor Belt Tensioning" on page 21.
- 7. Track conveyor belt, if required. See "Conveyor Belt Tracking" on page 21.

# Table Top Mounting Bracket Installation

Typical table top mounting bracket components (Figure 12).

- 1 Mounting Bracket (x2)
- 2 Spacer (x4) (conveyor frame mount)
- 3 Carriage Bolt (x4) (conveyor frame mount)
- 4 Nut (x8)
- 5 Screw (x4)
- 6 Screw (x4) (conveyor tail mount)



#### Figure 12

1. Drive End: Install carriage bolt (Figure 13, item 1) through square hole in conveyor frame on each side.



Figure 13

 Drive End: Install table top mounting bracket (Figure 14, item 1) with carriage bolt, spacer, and nut (Figure 14, item 2), and screw (Figure 14, item 3) on each side.



Figure 14

 Idler End: Install table top mounting bracket (Figure 15, item 1) with two screws (Figure 15, item 2) on each side.



Figure 15

4. Center (if applicable): Attach table top mounting bracket (Figure 16, item 1) to the conveyor frame with two spacers (Figure 16, item 2) and two carriage bolts and nuts (Figure 16, item 3) on each side.



Figure 16

### **Stand Installation**

#### NOTE

For detailed assembly instructions, please see support stands manual 851-969.

Typical stand components (Figure 17).

- 1 Conveyor Frame
- 2 Stand
- 3 Bracket
- 4 Carriage Bolt (x4) (conveyor frame mount)
- 5 Spacer (x4) (conveyor frame mount)
- 6 Nut (x4) (conveyor frame mount)
- 7 Screw (x4) (conveyor tail mount)



- 1. Position the stands on a flat, level surface.
- 2. Attach the stands to the frame:
- Idler End: Attach stand to the conveyor frame with two screws (Figure 18, item 1) on each side.



Figure 18

#### AquaGard® LP Sanitary End Drive Conveyors

• Center (if applicable): Attach stand to the conveyor frame with two spacers (Figure 19, item 1) and two carriage bolts and nuts (Figure 19, item 2) on each side.



Figure 19

• Drive End: Attach stand to the conveyor frame with one spacer (Figure 20, item 1) using a carriage bolt and nut (Figure 20, item 2), and a screw (Figure 20, item 3) on each side.



Figure 20

3. Tighten screws.

### **Belt Returns**

# Cleated Belt and Flat Belt Returns 70 mm - 152 mm Wide

Typical cleated return components (Figure 21).

- 1 Clip Bracket
- 2 Shaft Bracket
- 3 Carriage Bolt
- 4 Stub Shaft
- 5 Puck
- 6 Spacer
- 7 Nut



Figure 21

1. Install carriage bolt (Figure 22, item 1) through square hole in conveyor frame.



Figure 22

2. Install shaft bracket (Figure 23, item 1) onto carriage bolt.



Figure 23

3. Install clip bracket (Figure 24, item 1) onto shaft bracket (Figure 24, item 2) and carriage bolt. Secure with nut (Figure 24, item 3). Leave assembly loose. Do not tighten at this time. Repeat on opposite side of conveyor.



Figure 24

4. Assemble spacer tube (Figure 25, item 1) and roller (Figure 25, item 2) onto shaft (Figure 25, item 3).



Figure 25

### NOTE

Note orientation of components and notch (Figure 25, item 4) on shaft before installing assembly. Notch will be facing down to attach into retainer plate on conveyor.

5. Raise clip bracket (Figure 26, item 1) from shaft bracket (Figure 26, item 2) on conveyor.



Figure 26

- 6. Install roller assembly (Figure 26, item 3) onto shaft bracket (Figure 26, item 2) on both sides of conveyor.
- 7. Make certain notch (Figure 27, item 1) in shaft is inserted into shaft bracket (Figure 27, item 2), and lower clip bracket (Figure 27, item 3) over shaft and shaft bracket.



Figure 278. Tighten nut (Figure 28, item 1).

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#### Figure 28

9. Repeat steps to install roller assembly on opposite side of conveyor.

#### Flat Belt Returns over 152 mm Wide

Typical flat return components (Figure 29).

- 1 Clip Bracket
- 2 Shaft Bracket
- 3 Carriage Bolt
- 4 Shaft
- 5 End Spacer Tube
- 6 Spacer Tube
- 7 Puck
- 8 Nut



Figure 29

1. Install carriage bolt (Figure 30, item 1) through square hole in conveyor frame.





2. Install shaft bracket (Figure 31, item 1) onto carriage bolt.





3. Install clip bracket (Figure 32, item 1) onto shaft bracket (Figure 32, item 2) and carriage bolt. Secure with nut (Figure 32, item 3). Leave assembly loose. Do not tighten at this time. Repeat on opposite side of conveyor.



Figure 32

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 Assemble spacer tubes (Figure 33, item 1), rollers (Figure 33, item 2), and end spacer tubes (Figure 33, item 3) onto shaft (Figure 33, item 4).



Figure 33

#### NOTE

Note orientation of components and notch (*Figure 34, item 1*) on shaft before installing assembly. Notch will be facing down to attach into retainer plate on conveyor.



Figure 34

5. Raise clip bracket (Figure 35, item 1) from shaft bracket (Figure 35, item 2) on conveyor.



- 6. Install roller assembly (Figure 35, item 3) onto shaft brackets (Figure 35, item 2) on both sides of conveyor.
- 7. Make certain notch (Figure 36, item 1) in shaft is inserted into shaft bracket (Figure 36, item 2), and lower clip bracket (Figure 36, item 3) over shaft and shaft bracket. Repeat on opposite side of conveyor.



*Figure 36* Tighten nut (**Figure 37**, item 1).



Figure 37

### **Guide Installation**

#### **Fixed Guides**

1. Install carriage bolt (Figure 38, item 1) through square hole (Figure 38, item 2) in conveyor frame, and install guide bracket (Figure 38, item 3).



Figure 38

2. Use a nut (Figure 39, item 1) to secure guide bracket with carriage bolt. Tighten nut.



Figure 39

3. Repeat for remaining guide brackets required for your conveyor size.

### NOTE

The guide location notch (Figure 40, item 1) on the high sides (Figure 40, item 2) must be positioned at the infeed end of the conveyor (Figure 40, item 3).



4. Install high sides (Figure 41, item 1) onto the guide brackets (Figure 41, item 2). Tighten screw (Figure 41, item 3) to secure.



#### Figure 41

 For conveyors over 2998 mm (118") long, connect guides (Figure 42, item 1) by installing connector plate(s) (Figure 42, item 2) onto studs (Figure 42, item 3) on guiding. Secure onto guide brackets (Figure 42, item 4).



Figure 42

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6. Install and tighten nut (Figure 43, item 1) on stud to secure.





7. Repeat on the opposite side of conveyor.

#### **Adjustable Guides**

1. Install carriage bolt (Figure 44, item 1) through square hole in frame, and install rail clamp (Figure 44, item 2) on to carriage bolt.



Figure 44

2. Install and tighten nut (Figure 45, item 1) onto carriage bolt to secure guide rail.



Figure 45

 Install guide rail (Figure 46, item 1) onto guide brackets (Figure 46, item 2). Tighten screw (Figure 46, item 3) to secure.



Figure 46

4. Loosen knob (Figure 47, item 1), and adjust the guide post (Figure 47, item 2) height, as needed. Tighten knob.



Figure 47

- 5. Loosen knob (Figure 47, item 3), and adjust the horizontal guide post (Figure 47, item 4) and guide rail, as needed. Tighten knob.
- 6. Repeat, as needed for remaining guiding brackets.

### **Drive Package Installation**

#### NOTE

For detailed assembly instructions, please see Gearmotor Mounting Packages manual 851-968.

### **Required Tools**

- 8 mm wrench
- 10 mm wrench
- 13 mm wrench
- Level
- Torque wrench

### Checklist

- · Keep critical service parts on hand. Refer to the "Service Parts" section starting on page 29 for recommendations.
- · Clean entire conveyor while disassembled
- · Replace any worn or damaged parts.

### Cleaning

### NOTE

Proper conveyor application, cleaning, and sanitation are the responsibility of the end user.

#### CAUTION A

Dorner recommends cleaning all the "food zones" prior to placing conveyor into service. Ensure adequate access is provided for cleaning and servicing equipment so that the required level of hygiene can be maintained.



Use Dorner Belt Cleaner. Mild soap and water may also be used. Do not soak the belt.

For /05 woven polyester and /06 black anti-static belts, use a bristled brush to improve cleaning.

### Lubrication

#### Conveyor Bearings

No lubrication is required. Replace bearings if worn.

#### **Return Rollers**

No lubrication is required. Replace rollers if worn.

### Maintaining the Conveyor Belt

### Troubleshooting

Inspect conveyor belt for:

- · Surface cuts or wear
- Stalling or slipping
- · Damage to V-guide
- Surface cuts and wear indicate:
- · Sharp or heavy parts impacting belt
- Jammed parts
- Improperly installed bottom wipers (if installed)
- · Accumulated dirt in wipers (if installed)
- Foreign material inside the conveyor
- Improperly positioned accessories
- Bolt-on guiding is pinching belt
- Stalling or slipping indicates:
- · Excessive load on belt
- Conveyor belt or drive timing belt are not properly tensioned
- Worn knurl or impacted dirt on drive pulley
- · Intermittent jamming or drive train problems

Damage to V-guide indicates:

- · Twisted or damaged conveyor frame
- · Dirt impacted on pulleys
- · Excessive or improper side loading

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### **Conveyor Belt Replacement**



1. Remove guides (Figure 48, item 1) when required. See "Guide Installation" on page 16.



Figure 48

 Loosen nut (Figure 49, item 1), raise clip bracket (Figure 49, item 2), and remove belt returns (Figure 49, item 3) from slotted holes (Figure 49, item 4) in shaft bracket. Repeat on both sides of conveyor frame, as needed.



3. Place temporary support stands (Figure 50, item 1) at both ends of the conveyor. Place an additional support stand under the drive motor, if equipped. See WARNING.



Figure 50



Figure 49

4. Remove drive package (Figure 51, item 1). See Gearmotor Mounting Packages manual 851-968 for details.



Figure 51

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5. Loosen two screws (Figure 52, item 1) securing end plate (Figure 52, item 2) onto conveyor. Repeat on opposite side.



Figure 52

 Rotate screw (Figure 53, item 1) counterclockwise to retract drive spindle assembly (Figure 53, item 2). Repeat on opposite side to approximately the same distance.



Figure 53

- 7. Repeat steps 6-7 on idler end of conveyor.
- 8. Rotate idler end (Figure 54, item 1) upward as shown.



Figure 54

## CAUTION

Pinch point occurs when rotating idler end. Use caution.

Ω

- 9. Remove two screws (Figure 54, item 2) securing the stand brackets from one side of the conveyor.
- 10. Remove screw (Figure 55, item 1), and screw and nut (Figure 55, item 2) from conveyor bracket.



Figure 55

- 11. Loosen nut (Figure 55, item 3) on lower screw.
- 12. Lower stand bracket (Figure 56, item 1).



Figure 56

13. Remove the belt (Figure 57, item 1) from the conveyor (Figure 57, item 2).



Figure 57

- 14. Repeat procedure for the opposite end of the conveyor to fully remove the belt.
- 15. Reinstall the belt. Refer to "Belt Installation" on page 9.
- 16. Reinstall belt returns.
- 17. If equipped, reinstall guiding.
- 18. Tension and track drive and conveyor if required. See "Conveyor Belt Tensioning" on page 21 and "Conveyor Belt Tracking" on page 21".

### **Conveyor Belt Tensioning**



conveyor belt and reduce bearing life.

1. On tension end of the conveyor, loosen two screws (Figure 58, item 1) on each side of conveyor.



Figure 58

- 2. Extend idler spindle assembly (Figure 58, item 2) by turning screw (Figure 58, item 3) clockwise on both sides of the conveyor to sufficiently tension belt to handle conveyor load.
- 3. Tighten four screws (Figure 58, item 1) to secure idler spindle assembly (Figure 58, item 2).

#### NOTE

If the maximum take-up stroke is achieved, replace the conveyor belt.

4. Verify proper tracking. If belt tracking is necessary, adjust either side of idler tail end (See "Conveyor Belt Tracking" on page 21.) Repeat adjusting tension on drive end, as needed.

### **Conveyor Belt Tracking**



1. On tension end of the conveyor, loosen two screws (Figure 59, item 1) on one side of conveyor.



Figure 59

- 2. Extend idler spindle assembly (Figure 59, item 2) by turning screw (Figure 59, item 3) clockwise to apply tension belt or counterclockwise to remove tension on belt.
- 3. Tighten two screws (Figure 59, item 1) to secure idler spindle assembly (Figure 59, item 2).

NOTE

If the maximum take-up stroke is achieved, replace the conveyor belt.

### **Pulley Replacement**



Remove conveyor belt to access pulley(s). See "Conveyor Belt Replacement" on page 19. Remove the desired pulley following instructions:

- A Drive Pulley
- B Idler Pulley

A – Drive Pulley



Handle drive shaft keyway with care. It may be sharp and could puncture the skin, causing serious injury.

- 1. Remove the gearmotor mounting package. See Gearmotor Mounting Packages manual 851-968 for details.
- 2. Remove two screws (Figure 60, item 1) and connecting strip (Figure 60, item 2) from side of conveyor opposite drive shaft.



Figure 60

3. Remove head plate (Figure 61, item 1) and drive pulley (Figure 61, item 2).



Figure 61



Figure 64



Figure 62

4. Install in reverse order of removal.

#### **B** – Idler Pulley

1. Loosen belt fastener (Figure 63) or tool-less fastener (Figure 64) on both sides of conveyor.



Figure 63



Figure 65



3. Remove locknut (Figure 66, item 1).



Figure 68

5. Install in reverse order of removal.

# Bearing Replacement for Drive or Idler Pulley

Figure 66

 Remove head plate (Figure 67, item 1) off of idler end stud (Figure 67, item 2), and remove from idler pulley (Figure 67, item 3) and cross support post (Figure 67, item 4).



Figure 67



#### **Bearing Removal**

#### IMPORTANT

Once removed, do not re-use bearings.

Place bearing removal tool (Figure 69, item 1) (part # 456063) below bearing (Figure 69, item 2) with lip (Figure 69, item 3) located in gap (Figure 69, item 4) between bearing and spindle hub (Figure 69, item 5) as shown.



Figure 69

2. Using a puller (Figure 70, item 1), remove and discard bearing.





#### **Bearing Installation**

- 1. Inspect bearing seating surface(s) for damage. Replace spindle if damaged.
- 2. Slide bearing (part # 240338) (Figure 71, item 1) onto spindle (Figure 71, item 2).



Figure 71

3. Slide sleeve (Figure 72, item 1) of tool (part # 456085) over bearing.



Figure 72

4. Place open end of pusher (Figure 73, item 1) into sleeve.



Figure 73

5. Using an arbor press or similar device, press bearing onto pulley shaft (Figure 74).



*Figure 74*6. Repeat steps 1 through 5 for each bearing.

### **Belt Return Maintenance**



# Cleated Belt and Flat Belt Returns 70 mm - 152 mm Wide

1. Loosen nut (Figure 75, item 1).



Figure 75

2. Raise clip bracket (Figure 76, item 1) from shaft bracket (Figure 76, item 2) on conveyor.



*Figure 76* Remove roller assembly (Figure 76, item 3) from shaft bracket (Figure 76, item 2).

4. Disassemble spacer tube (Figure 77, item 1) and roller (Figure 77, item 2) from shaft (Figure 77, item 3).



Figure 77

5. Replace damaged or worn parts.

#### NOTE

Note orientation of components and notch (Figure 77, item 4) on shaft before installing assembly. Notch will be facing down to attach into retainer plate on conveyor.

- 6. Install roller assembly (Figure 78, item 1) onto shaft bracket (Figure 78, item 2) on both sides of conveyor.
- 7. Make certain notch (Figure 78, item 3) in shaft is inserted into shaft bracket (Figure 78, item 2), and lower clip bracket (Figure 78, item 4) over shaft and shaft bracket.



Figure 78

8. Tighten nut (Figure 79, item 1).





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3.

#### Flat Belt Returns over 152 mm Wide

1. Loosen nut (Figure 80, item 1).



Figure 80

2. Raise clip bracket (Figure 81, item 1) from shaft bracket (Figure 81, item 2) on conveyor.



Figure 81

- 3. Remove roller assembly (Figure 81, item 3) from shaft brackets (Figure 81, item 2) on both sides of conveyor.
- Disassemble spacer tubes (Figure 82, item 1), rollers (Figure 82, item 2), and end spacer tubes (Figure 82, item 3) from shaft (Figure 82, item 4).



Figure 82

5. Replace damaged or worn parts.

#### NOTE

Note orientation of components and notch (Figure 83, item 1) on shaft before installing assembly. Notch will be facing down to attach into retainer plate on conveyor.



Figure 83

6. Raise clip bracket (Figure 84, item 1) from shaft bracket (Figure 84, item 2) on conveyor.



Figure 84

- 7. Install roller assembly (Figure 84, item 3) onto shaft brackets (Figure 84, item 2) on both sides of conveyor.
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8. Make certain notch (Figure 85, item 1) in shaft is inserted into shaft bracket (Figure 85, item 2), and lower clip bracket (Figure 85, item 3) over shaft and shaft bracket. Repeat on opposite side of conveyor.



Figure 85 Tighten nut (Figure 86, item 1).



Figure 86

### NOTE

For replacement parts other than those shown in this section, contact an authorized Dorner distributor or Dorner directly. Recommended Critical Service Parts and Kits are identified by the Key Service Parts symbol **Cal**. Dorner recommends keeping these parts on hand.

### End Drive Tail



3	530969	Head Plate, Left Hand
4	530970	Clamping Block
5	530971	Locknut Plate
6	960530MSS	Hex Head Cap Screw, M5-0.80 x 30 mm
7	960625MSS	Hex Head Cap Screw, M6-1.00 x 25 mm
8	980422MSS	Square Key, 4 mm x 22 mm

Bearing Kit

WWWW = Conveyor width reference in mm 0070, 0095, 0152,

See Specifications chart on page 7 for conveyor belt widths. Service parts can be obtained through your distributor or directly

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•---

531155

0203, 0254, 0305, 0406, & 0457

customerservice@dorner.com

from Dorner Mfg. Corp. (800) 397-8664 or

### Idler Tail



Item	Part Number	Description
1	530971	Locknut Plate
2	530973	Tip Up Plate, Right Hand
3	530974	Tip Up Plate, Left Hand
4	530982	Clamping Block
5	531487- <u>WWWW</u> -M	Idler Spindle Assembly
6	531147- <u>WWWW</u> -M	Round Shaft
7	531148-LH	Tension Headplate, Left Hand
8	531148-RH	Tension Headplate, Right Hand
9	807-3268	Handles for Tool-less Tip Up Tail only
10	960570MSS	Hex Head Cap Screw,
		M6-1.00 x 70 mm
11	960616MSSF	Flanged Hex Head Cap Screw,
		M6-1.00 x 16 mm

Item	Part Number	Description	
12	960625MSS	Hex Head Cap Screw,	
		M6-1.00 x 25 mm	
13	990612MSS	Lock Nut, M6-1.00	
14	531157- <u>WWWW</u> -M	Idler Tail Kit	
		(Includes items 2, 3, and 5)	
15	531155	Bearing Kit	
WWW\	WWWW = Conveyor width reference in mm 0070, 0095, 0152,		
0203, 0254, 0305, 0406, & 0457			
See Specifications chart on page 7 for conveyor belt widths.			
Service parts can be obtained through your distributor or directly			
from Dorner Mfg. Corp. (800) 397-8664 or			
customerservice@dorner.com			

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### Frame



Item	Part Number	Description
1	530978- <u>WWWW</u> -LLLLL-M	Frame Assembly for Single Piece Frame
2	531077- <u>WWWW-LLLLL</u> -M	Drive End Frame Assembly for Multi Piece Frame
3	531078- <u>WWWW</u> - <u>LLLLL</u> -M	Idler End Frame Assembly for Multi Piece Frame
4	531074	Connecting Bar for Multi Piece Frame only
5	960610MSS	Hex Head Cap Screw, M6- 1.00 x 10 mm for Multi Piece Frame only

Item	Part Number	Description	
6	960630MSS	Hex Head Cap Screw, M6- 1.00 x 30 mm for Multi Piece	
		Frame only	
-	WWWW =Conveyor width reference in mm 0070, 0095, 0152, 0203, 0254, 0305, 0406, & 0457		
LLLLL	LLLLL = Part length in mm.		
Examp	Example: Part length = 1000 mm LLLLL = 01000		
See Specifications chart on page 7 for conveyor belt widths and lengths.			
from D	Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com		

# 25 mm High Sides



Item	Part Number	Description	
1	531100	Mounting Block	
2	960510MSS	Hex Head Cap Screw, M5-0.80 x 10 mm	
3	900625MSS	Carriage Bolt, M6 x 25 mm	
4	990601MSS	Nut, M6	
5	531102-025- <u>LLLLL</u> -M-RH	25 mm High Side for Single Piece Guides, Right Hand	
6	531102-025- <u>LLLLL</u> -M-LH	25 mm High Side for Single Piece Guides, Left Hand	
7	531103-025- <u>LLLLL</u> -M-RH	25 mm High Side for Multi Piece Guides, Infeed, Right Hand	
8	531103-025- <u>LLLLL</u> -M-LH	25 mm High Side for Multi Piece Guides, Infeed, Left Hand	
9	531104-025- <u>LLLLL</u> -M-RH	25 mm High Side for Multi Piece Guides, Discharge, Right Hand	
10	531104-025- <u>LLLLL</u> -M-LH	25 mm High Side for Multi Piece Guides, Discharge, Left Hand	
11	516935	Guiding Connector Plate	
12			
LLLLL = Part length in mm.			
Example: Part length = 1000 mm LLLLL = 01000			
See Sp	See Specifications chart on page 7 for conveyor belt lengths.		
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com			

AquaGard® LP Sanitary End Drive Conveyors

# 75 mm High Sides



Item	Part Number	Description
1	531100	Mounting Block
2	960510MSS	Hex Head Cap Screw, M5-0.80 x 10 mm
3	900625MSS	Carriage Bolt, M6 x 25 mm
4	990601MSS	Nut, M6
5	531102-075- <u>LLLLL</u> -M-RH	75 mm High Side for Single Piece Guides, Right Hand
6	531102-075- <u>LLLLL</u> -M-LH	75 mm High Side for Single Piece Guides, Left Hand
7	531103-075- <u>LLLLL</u> -M-RH	75 mm High Side for Multi Piece Guides, Infeed, Right Hand
8	531103-075- <u>LLLLL</u> -M-LH	75 mm High Side for Multi Piece Guides, Infeed, Left Hand
9	531104-075- <u>LLLLL</u> -M-RH	75 mm High Side for Multi Piece Guides, Discharge, Right Hand
10	531104-075- <u>LLLLL</u> -M-LH	75 mm High Side for Multi Piece Guides, Discharge, Left Hand
11	516935	Guiding Connector Plate
12	990801MSS	Hex Nut, M8-1.25
LLLLL = Part length in mm.		
Example: Part length = 1000 mm LLLLL = 01000		
See Specifications chart on page 7 for conveyor belt lengths.		
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com		

# 152 mm High Sides



Item	Part Number	Description
1	531100	Mounting Block
2	960510MSS	Hex Head Cap Screw, M5-0.80 x 10 mm
3	900625MSS	Carriage Bolt, M6 x 25 mm
4	990601MSS	Nut, M6
5	531102-152- <u>LLLLL</u> -M-RH	152 mm High Side for Single Piece Guides, Right Hand
6	531102-152- <u>LLLLL</u> -M-LH	152 mm High Side for Single Piece Guides, Left Hand
7	531103-152- <u>LLLLL</u> -M-RH	152 mm High Side for Multi Piece Guides, Infeed, Right Hand
8	531103-152- <u>LLLLL</u> -M-LH	152 mm High Side for Multi Piece Guides, Infeed, Left Hand

Item	Part Number	Description	
9	531104-152- <u>LLLLL</u> -M-RH	152 mm High Side for Multi Piece Guides, Discharge,	
		Right Hand	
10	531104-152- <u>LLLLL</u> -M-LH	152 mm High Side for Multi Piece Guides, Discharge, Left Hand	
11	516935	Guiding Connector Plate	
12	990801MSS	Hex Nut, M8-1.25	
LLLLL = Part length in mm.			
Examp	Example: Part length = 1000 mm LLLLL = 01000		
See Specifications chart on page 7 for conveyor belt lengths.			
Service parts can be obtained through your distributor or directly			
from Dorner Mfg. Corp. (800) 397-8664 or			
customerservice@dorner.com			

# Fully Adjustable Guides



Item	Part Number	Description	
1	531145	Guide Bracket	
2	532300	Post	
3	532167- <u>LLLLL</u> -M	Round Guide Rail	
4	807-015	Rail Clamp	
5	807-1387	Cross Block	
6	900616MSS	Carriage Bolt, M6 x 16 mm	
7	960812MSS	Hex Head Cap Screw, M8-1.25 x 12 mm	
8	990601MSS	Nut, M6	
LLLLL = Part length in mm.			
Examp	Example: Part length = 1000 mm LLLLL = 01000		
See Specifications chart on page 7 for conveyor belt lengths.			
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com			

# Tool-Less Fully Adjustable Guides



Item	Part Number	Description	
1	531145	Guide Bracket	
2	532300	Post	
3	532167- <u>LLLLL</u> -M	Round Guide Rail	
4	807-015	Rail Clamp	
5	807-1470	Tool-less Cross Block	
6	900616MSS	Carriage Bolt, M6 x 16 mm	
7	960812MSS	Hex Head Cap Screw, M8-1.25 x 12 mm	
8	990601MSS	Nut, M6	
LLLLL = Part length in mm.			
Exam	Example: Part length = 1000 mm LLLLL = 01000		
See Specifications chart on page 7 for conveyor belt lengths.			
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com			

# 25 mm Cleated High Sides



Item	Part Number	Description
1	531100	Mounting Block
2	960510MSS	Hex Head Cap Screw, M5- 0.80 x 10 mm
3	900625MSS	Carriage Bolt, M6 x 25 mm
4	990601MSS	Nut, M6
5	531144-025- <u>LLLLL</u> -M-LH	25 mm Cleated High Side for Single Piece Guides, Left Hand
6	531144-025- <u>LLLLL</u> -M-RH	25 mm Cleated High Side for Single Piece Guides, Right Hand
7	531140-025- <u>LLLLL</u> -M-LH	25 mm Cleated High Side for Infeed section, Infeed, Left Hand
8	531140-025- <u>LLLLL</u> -M-RH	25 mm Cleated High Side for Infeed section, Infeed, Right Hand

531141-025- <u>LLLLL</u> -M-LH	25 mm Cleated High Side for Discharge section, Discharge, Left Hand	
531141-025- <u>LLLLL</u> -M-RH	25 mm Cleated High Side for Discharge section, Discharge, Right Hand	
516935	Guiding Connector Plate	
990801MSS	Hex Nut, M8-1.25	
LLLLL = Part length in mm.		
Example: Part length = 1000 mm LLLLL = 01000		
See Specifications chart on page 7 for conveyor belt lengths.		
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com		
	516935 990801MSS Part length in mm. e: Part length = 1000 mm <u>Ll</u> ecifications chart on page 7 parts can be obtained throu rner Mfg. Corp. (800) 397-8	

# 75 mm Cleated High Sides



Item	Part Number	Description
1	531100	Mounting Block
2	960510MSS	Hex Head Cap Screw, M5- 0.80 x 10 mm
3	900625MSS	Carriage Bolt, M6 x 25 mm
4	990601MSS	Nut, M6
5	531144-075- <u>LLLLL</u> -M-LH	75 mm Cleated High Side for Single Piece Guides, Left Hand
6	531144-075- <u>LLLLL</u> -M-RH	75 mm Cleated High Side for Single Piece Guides, Right Hand
7	531140-075- <u>LLLLL</u> -M-LH	75 mm Cleated High Side for Infeed section, Infeed, Left Hand
8	531140-075- <u>LLLLL</u> -M-RH	75 mm Cleated High Side for Infeed section, Infeed, Right Hand

Item	Part Number	Description
9	531141-075- <u>LLLLL</u> -M-LH	75 mm Cleated High Side for
		Discharge section,
		Discharge, Left Hand
10	531141-075- <u>LLLLL</u> -M-RH	75 mm Cleated High Side for
		Discharge section,
		Discharge, Right Hand
11	516935	Guiding Connector Plate
12	990801MSS	Hex Nut, M8-1.25
LLLLL = Part length in mm.		
Example: Part length = 1000 mm LLLLL = 01000		
See Specifications chart on page 7 for conveyor belt lengths.		
Service parts can be obtained through your distributor or directly		
from Dorner Mfg. Corp. (800) 397-8664 or		
customerservice@dorner.com		

# 152 mm Cleated High Sides



Item	Part Number	Description
1	531100	Mounting Block
2	960510MSS	Hex Head Cap Screw, M5- 0.80 x 10 mm
3	900625MSS	Carriage Bolt, M6 x 25 mm
4	990601MSS	Nut, M6
5	531144-152- <u>LLLLL</u> -M-LH	152 mm Cleated High Side for Single Piece Guides, Left Hand
6	531144-152- <u>LLLLL</u> -M-RH	152 mm Cleated High Side for Single Piece Guides, Right Hand
7	531140-152- <u>LLLLL</u> -M-LH	152 mm Cleated High Side for Infeed section, Infeed, Left Hand
8	531140-152- <u>LLLLL</u> -M-RH	152 mm Cleated High Side for Infeed section, Infeed, Right Hand

ltem	Part Number	Description
9	531141-152- <u>LLLLL</u> -M-LH	152 mm Cleated High Side for Discharge section, Discharge, Left Hand
10	531141-152- <u>LLLLL</u> -M-RH	152 mm Cleated High Side for Discharge section, Discharge, Right Hand
11	516935	Guiding Connector Plate
12	990801MSS	Hex Nut, M8-1.25
LLLLL = Part length in mm.		
Example: Part length = 1000 mm LLLLL = 01000		
See Specifications chart on page 7 for conveyor belt lengths.		
Service parts can be obtained through your distributor or directly		
from Dorner Mfg. Corp. (800) 397-8664 or		
customerservice@dorner.com		

# Return Rollers for Flat Belt Conveyors 70 mm - 152 mm & Cleated Belt Conveyors



Item	Part Number	Description
1	531065	Shaft Bracket
2	531066	Clip Bracket
3	531067	Stub Shaft
4	531069-0006	Spacer Tube
5	807-4103	Carriage Bolt, M6 x 16 mm
6	990601MSS	Nut, M6
7	FAFR-35	Roller
Service parts can be obtained through your distributor or directly		
from Dorner Mfg. Corp. (800) 397-8664 or		
customerservice@dorner.com		

## Return Rollers for Flat Belt Conveyors Over 152 mm Wide



Item	Part Number	Description					
1	531065	Shaft Bracket					
2	531066	Clip Bracket					
3	531069-0009	End Spacer Tube					
4	531069- <u>LLLLL</u> -M	Spacer Tube					
5	531070- <u>WWWW</u> -M	<u>W</u> -M Shaft					
6	807-4103	Carriage Bolt, M6 x 16 mm					
7	990601MSS	Nut, M6					
8	FAFR-35	Roller					
LLLLL	= Part length in mm.						
Exam	Example: Part length = 650 mm LLLLL = 00650						
<u>WWWW</u> = Conveyor width reference in mm 0070, 0095, 0152, 0203, 0254, 0305, 0406, & 0457							
See Specifications chart on page 7 for conveyor belt lengths and widths.							
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com							

## Table Top Mounting Brackets For Flat Belt Conveyors



Item	Part Number	Description					
1	531092	Spacer (conveyor frame mount)					
2	531149	Bracket					
3	900630MSS	Carriage Bolt, M6 x 30 mm (conveyor frame mount)					
4	960612MSS	Hex Head Cap Screw, M6-1.00 x 12 mm (conveyor tail mount)					
5	960616MSS	Hex Head Cap Screw, M6-1.00 x 16 mm					
6	990601MSS	Nut, M6 (conveyor frame mount)					
7	990601MSS	Nut, M6					
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com							

### Table Top Mounting Brackets For Cleated Belt Conveyors



Item	Part Number	Description					
1	531092	Spacer (conveyor frame mount)					
2	531117	Bracket					
3	900630MSS	Carriage Bolt, M6 x 30 mm (conveyor frame mount)					
4	960612MSS	Hex Head Cap Screw, M6-1.00 x 12 mm (conveyor tail mount)					
5	960616MSS	Hex Head Cap Screw, M6-1.00 x 16 mm					
6	990601MSS	Nut, M6 (conveyor frame mount)					
7	990601MSS	Nut, M6					
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com							

### **Configuring Conveyor Belt Part Number**



Figure 87

#### Flat Belt Part Number Configuration

Refer to model number on the conveyor frame (Figure 87). From the model number determine the conveyor width (<u>WWW</u>), length (<u>LLLLL</u>) and belt type (<u>BB</u>). Use data to configure belt part number as indicated below. \*Add "V" for v-guided belts or add "VG" for 06, 08, 57, 59, and 64 v-guided belt types.



#### **Cleated Belt Part Number Configuration**

Refer to model number on the conveyor frame (Figure 87). From the model number determine the conveyor width (<u>WWW</u>), length (<u>LLLLL</u>), cleat type (<u>B</u>) and cleat spacing (<u>SSSS</u>). Use data to configure belt part number as indicated below. \*Add "V" for v-guided belts.



# Notes

# **Return Policy**

Returns must have prior written factory authorization or they will not be accepted. Items that are returned to Dorner without authorization will not be credited nor returned to the original sender. When calling for authorization, please have the following information ready for the Dorner factory representative or your local distributor:

- 1. Name and address of customer.
- 2. Dorner part number(s) of item(s) being returned.
- 3. Reason for return.
- 4. Customer's original order number used when ordering the item(s).
- 5. Dorner or distributor invoice number. Include part serial number if available.

A representative will discuss action to be taken on the returned items and provide a Returned Materials Authorization (RMA) number for reference. RMA will automatically close 30 days after being issued. To get credit, items must be new and undamaged. There will be a return charge on all items returned for credit, where Dorner was not at fault. It is the customer's responsibility to prevent damage during return shipping. Damaged or modified items will not be accepted. The customer is responsible for return freight.

	Product Type								
Product Line	Standard Products							Engineered to order parts	
	Conveyors	Gearmotors & Mounting Packages	Support Stands	Accessories	Spare Parts (non-belt)	Spare Belts - Standard Flat Fabric	Spare Belts - Cleated & Spec. Fabric	Spare Belts - Plastic Chain	All equipment and parts
1100 Series									
2200 Series	30% return fee for all products except:								
3200 Series	50% return fee for conveyors with modular belt, cleated belt or speciality belts								
Pallet Systems									
FlexMove/SmartFlex						non-returnable			
GAL Series	All Electrical items are assigned original manufacturers return policy.							non-rei	
All Electrical								case-by-case	
7100 Series									
7200/7300 Series	1								
AquaGard 7350 Series Version 2	50% return fee for all products								
GES Series	1								
AquaGard 7350/7360 Series	non-returnable				•				
AquaPruf Series									

Returns will not be accepted after 60 days from original invoice date. The return charge covers inspection, cleaning, disassembly, disposal and reissuing of components to inventory. If a replacement is needed prior to evaluation of returned item, a purchase order must be issued. Credit (if any) is issued only after return and evaluation is complete.

Dorner has representatives throughout the world. Contact Dorner for the name of your local representative. Our Customer Service Team will gladly help with your questions on Dorner products.

For a copy of Dorner's Warranty, contact Dorner, an authorized sales channel or visit our website: www.dorner.com.

For replacement parts, contact an authorized Dorner Service Center or the factory.

# www.dorner.com





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