

6100 Series Bottom Mount Drive Package for Standard Load Parallel Shaft Sanitary Gearmotors





Table of Contents



Warnings – General Safety	2	Wiring	7
Introduction	2	Single-phase Motor Starter	7
Product Description	3	Three-phase Motor Starter	7
Specifications	3	VFD Controller	7
Installation	5	Preventative Maintenance & Adjustment	8
Required Tools	5	Required Tools	8
Mounting	5	Timing Belt Replacement	8
		Service Parts	9
		Return Policy	10

Warnings – General Safety

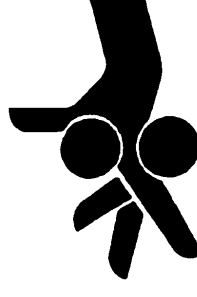

	WARNING	
<p>The safety alert symbol, black triangle with white exclamation, is used to alert you to potential personal injury hazards.</p>		



		WARNING
<p>Gearmotors may be HOT. DO NOT TOUCH Gearmotors.</p>		

		DANGER
<p>Climbing, sitting, walking or riding on conveyor will cause severe injury. KEEP OFF CONVEYORS.</p>		

		WARNING
<p>Exposed moving parts can cause severe injury. LOCK OUT POWER before removing guards or performing maintenance.</p>		

		DANGER
<p>Do NOT OPERATE CONVEYORS IN AN EXPLOSIVE ENVIRONMENT.</p>		

		WARNING
<p>Dorner cannot control the physical installation and application of conveyors. Taking protective measures is the responsibility of the user. When conveyors are used in conjunction with other equipment or as part of a multiple conveyor system, CHECK FOR POTENTIAL PINCH POINTS and other mechanical hazards before system start-up.</p>		

		DANGER
<p>Hazardous voltage will cause severe injury or death. LOCKOUT POWER BEFORE WIRING.</p>		

Introduction

IMPORTANT: 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.

Dorner 6100 Series conveyors are covered by patent number 5174435 and corresponding patents and patent applications in other countries.

Dorner's Limited Warranty applies.

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

Product Description

Refer to Figure 1 for typical components.

Typical Components	
A	Conveyor
B	Mounting Bracket
C	Gearmotor
D	Timing Belt Tensioner
E	Cover
F	Timing Belt
G	Drive Pulley
H	Driven Pulley
I	Motor Control

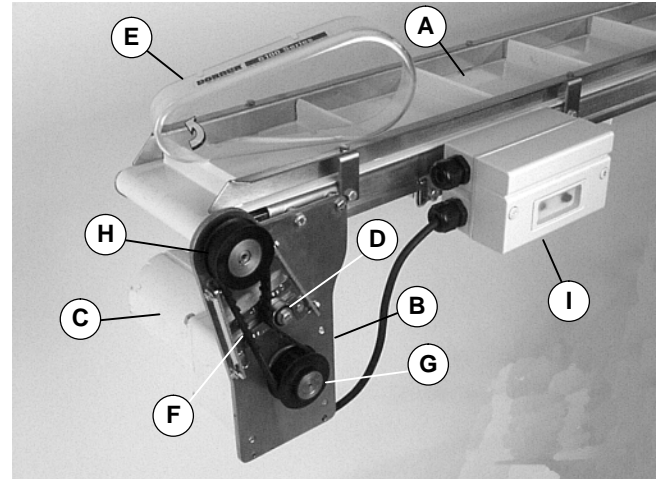


Figure 1

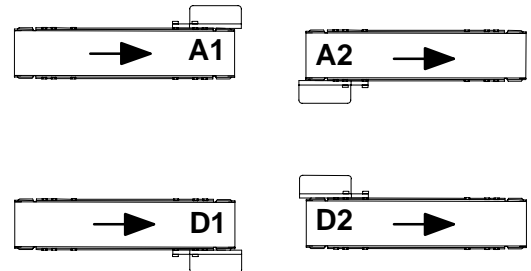
Specifications

Gearmotor Mounting Package Models:

Example:

6 M B P Y WW A1 - 3232

- Drive/Driven Pulleys (See tables 2 & 3)
- “-” = Flat Belt (or add cleat type)
- Mount Position = A1, A2, D1 or D2 (see detail to the right)
- Conveyor Width Reference*
- Gearmotor Type = Standard Load, Sanitary
- Output Shaft Type = Parallel Shaft
- Mount Style = Bottom Mount
- Language Code = U.S. English



* See “Ordering and Specifications” Catalog for details.

Table 1: Gearmotor Specifications

	Single-Phase	Three-Phase	VFD Variable Speed
Output Power	0.12 hp (0.09 kw)		
Input Voltage	115 Volts A.C.	230 Volts A.C.	230 Volts A.C.
Input Frequency	60 Hz	50/60 Hz	25 to 63 Hz
Full Load Amperes	1.5 Amperes	0.5 Amperes	
Gearmotor Ratios	9:1 and 30:1		
Protection Ratings	IP65 for Gearmotor, IP55 for Motor Starter		

Specifications

Table 2: Standard Load Fixed Speed Parallel Shaft 60 Hz Gearmotors

Gearmotors				Belt Speed		Drive Pulley	Driven Pulley
Part Number	RPM	In-lb	N-m	ft/min	M/min		
62M030PY4(vp)FN	50	77	8.7	10	3.0	22	32
62M030PY4(vp)FN	50	77	8.7	14	4.3	32	32
62M030PY4(vp)FN	50	77	8.7	21	6.4	32	22
62M030PY4(vp)FN	50	77	8.7	31	9.4	60	28
62M009PY4(vp)FN	167	26	2.8	47	14.3	32	32
62M009PY4(vp)FN	167	26	2.8	75	22.9	44	28
62M009PY4(vp)FN	167	26	2.8	102	31.1	60	28

(vp) = voltage and phase
 11 = 115 V, Single-phase
 23 = 230 V, Three-phase

Table 3: Standard Load Variable Speed Parallel Shaft VFD Gearmotors

Gearmotors				Belt Speed		Drive Pulley	Driven Pulley
Part Number	RPM*	In-lb	N-m	ft/min	M/min		
62M030PY423EN	50	109	12.3	1.6 – 10	0.5 – 3.0	22	32
62M030PY423EN	50	109	12.3	2.4 – 14	0.7 – 4.4	32	32
62M030PY423EN	50	109	12.3	3.5 – 21	1.1 – 6.3	32	22
62M030PY423EN	50	109	12.3	5.1 – 31	1.6 – 9.3	60	28
62M009PY423EN	167	37	4.2	8 – 47	2.4 – 14	32	32
62M009PY423EN	167	37	4.2	12 – 75	3.8 – 23	44	28
62M009PY423EN	167	37	4.2	17 – 102	5.2 – 31	60	28

* At 60 Hz

NOTE: For belt speed other than those listed, contact factory for details.

Required Tools

- Wrenches (for hexagon head fasteners)
7 mm & 10 mm
- 2.5 mm hex key wrench
- Straight edge
- Torque wrench

Mounting

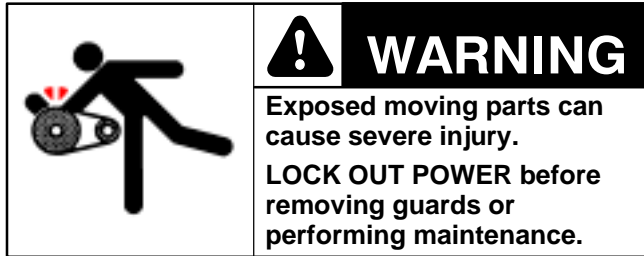


Illustration References

J	Bottom Mounting Plate Assembly
K	Drive Pulley
L	Driven Pulley
M	Key
N	M6 x 30 mm, Hexagon Head Screws (2 x)
O	Timing Belt
P	Cover
Q	Accessory Mounting Clips (2x)
R	M6 x 20 mm, Hexagon Head Screws (2x)
S	Typical Motor Starter

1. Typical components (Figure 2)

NOTE: Three-phase Motor Starter shown, Single-phase Starter or VFD Controller similar.

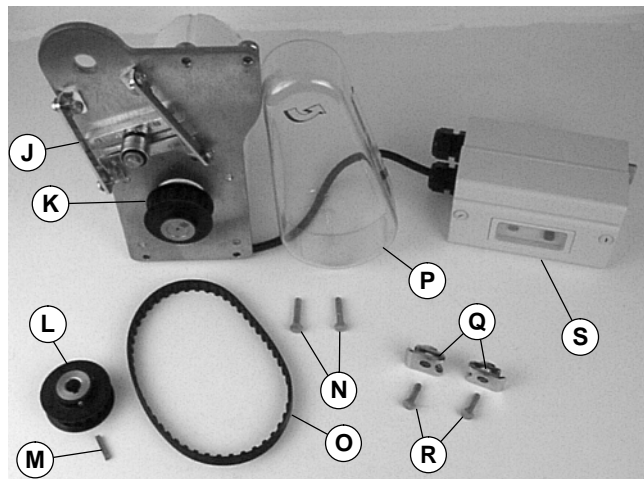


Figure 2

2. Locate drive output shaft (T of Figure 3) and remove two (2) screws (U).

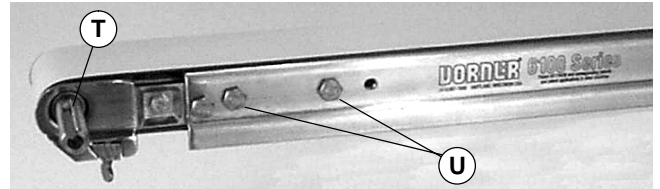


Figure 3

3. Attach bottom mounting plate assembly (J) with screws (N). Tighten to 92 in-lb (10.4 Nm).

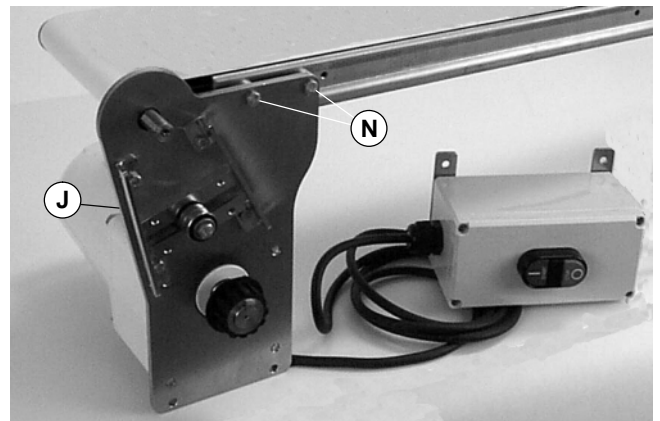


Figure 4



4. Install key (M of Figure 5).

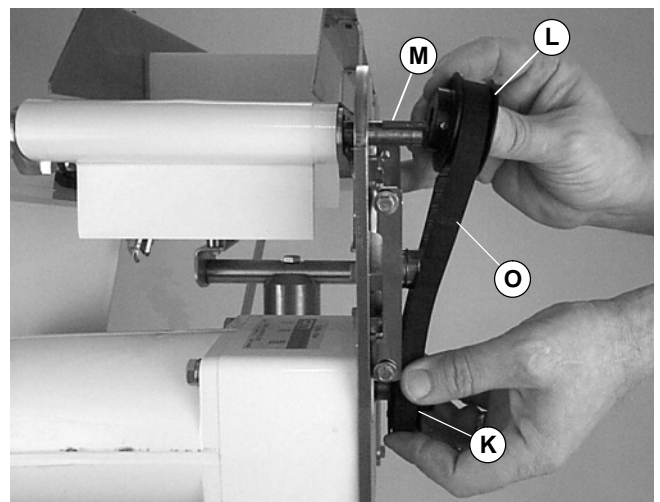


Figure 5

5. Wrap timing belt (O) around driven pulley (L) and drive pulley (K). Install driven pulley (L) onto conveyor shaft.

Installation

- Using a straight edge (V of Figure 6), align driven pulley (L) with drive pulley (K). Tighten driven pulley set screws (W).

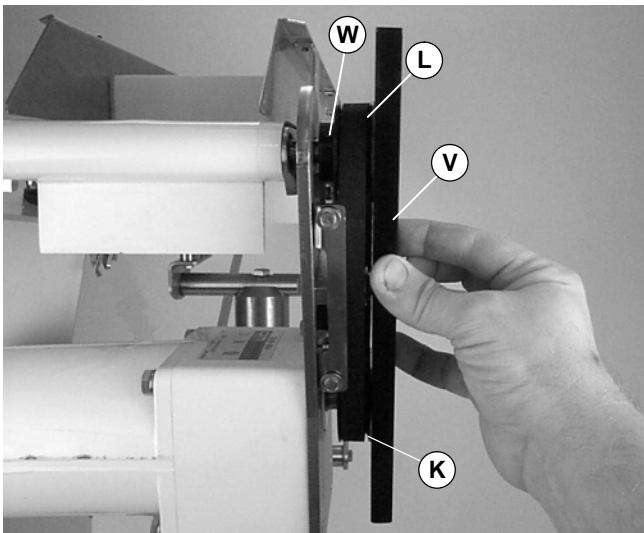


Figure 6

- Depending on conveyor belt travel (direction 1 or 2), locate timing belt tensioner (X of Figure 7) as shown. Tension timing belt to obtain 0.125" (3 mm) deflection for 1.0 lb (456 grams) of force at timing belt mid-point (Y). Tighten tensioner screw to 92 in-lb (10.4 Nm).

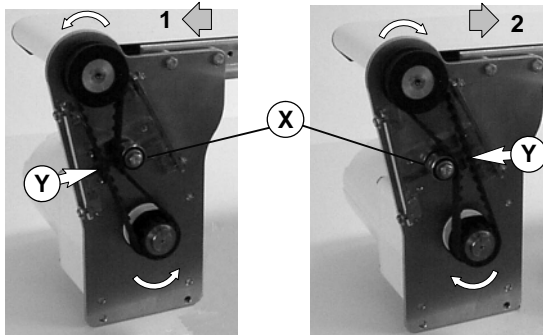


Figure 7

NOTE: Do not over-tighten screws (Z of Figure 8).

- Install cover (P of Figure 8) and tighten four (4) screws (Z) to 35 in-lb (4 Nm).

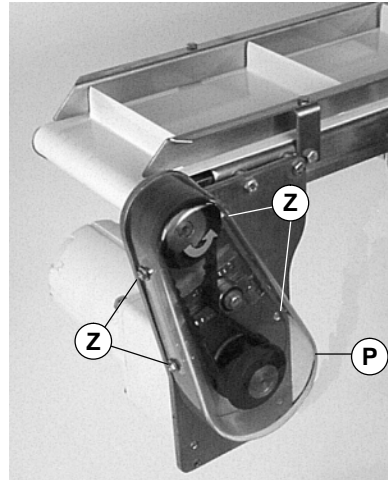


Figure 8

- Attach accessory mounting clips (Q of Figure 9) to conveyor.

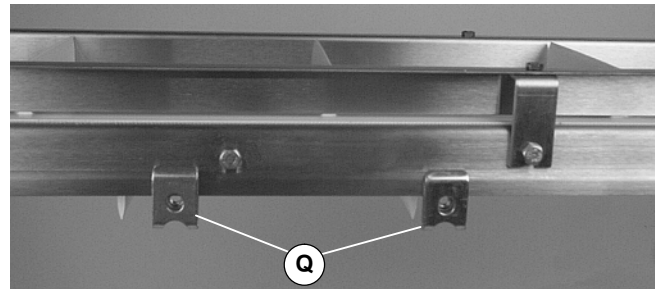


Figure 9

NOTE: Three-phase Motor Starter shown, Single-phase Starter similar. For VFD controller mounting, see accessory instructions.

- Attach motor starter (S of Figure 10) to clips with screws (R). Tighten to 92 in-lb (10.4 Nm).



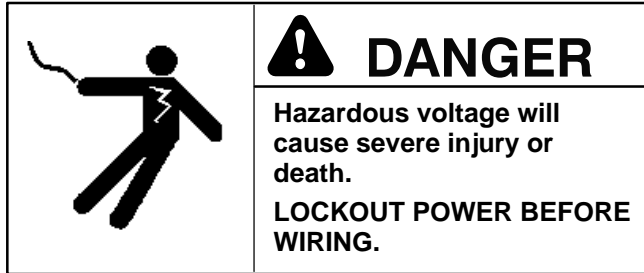
Figure 10

Wiring

Single-phase Motor Starter

NOTE: Power cord must be plugged into a GFI outlet. No additional wiring is required.

Three-phase Motor Starter



NOTE: 230 volt three-phase manual motor starters must be wired in accordance with applicable electrical codes.

1. Loosen cover screws (AA of Figure 11). Remove cover.

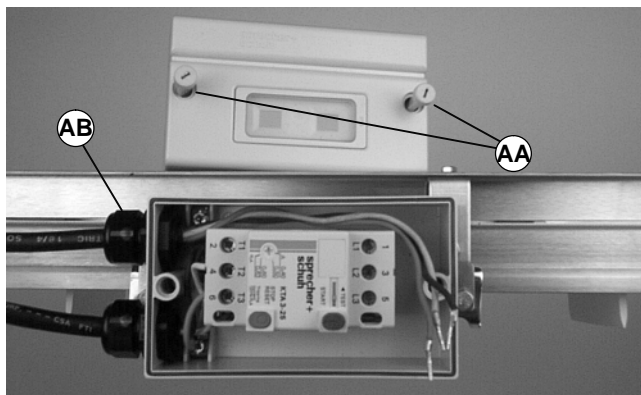


Figure 11

NOTE: Line cord must be 0.28" (7 mm) minimum to 0.47" (12 mm) maximum in diameter.

2. Insert line cord through grip (AB) and tighten nut.

3. For correct three-phase motor shaft rotation, connect line phase sequence L1, L2 & L3 to terminals as shown (Figure 12).

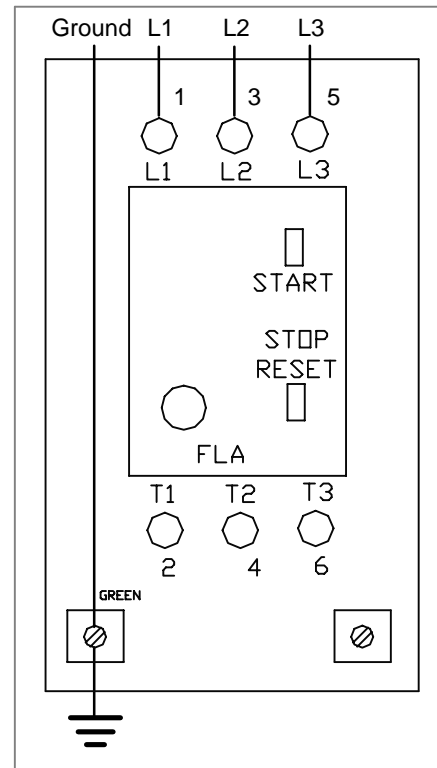


Figure 12



NOTE: The motor ground wire is also attached to left terminal marked \perp (Figure 12).

4. Attach ground wire to lower left terminal marked \perp (see Figure 12).
5. Replace starter cover and tighten screws (AA of Figure 11).

VFD Controllers

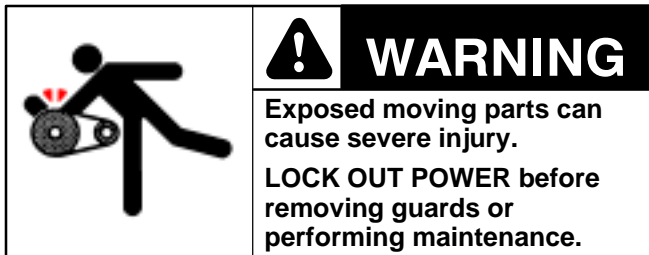
NOTE: Refer to VFD Controller Set-up, Operation & Maintenance Manual.

Preventive Maintenance & Adjustment

Required Tools

- Wrenches (for hexagon head fasteners)
7 mm & 10 mm
- 2.5 mm hex key wrench
- Torque wrench

Timing Belt Replacement



1. Loosen four (4) screws (Z of Figure 13) and remove cover (P).

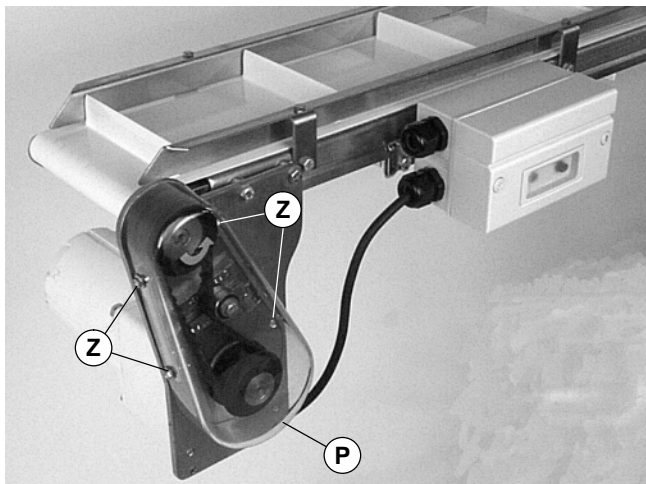


Figure 13

2. Loosen tensioner (X of Figures 14).

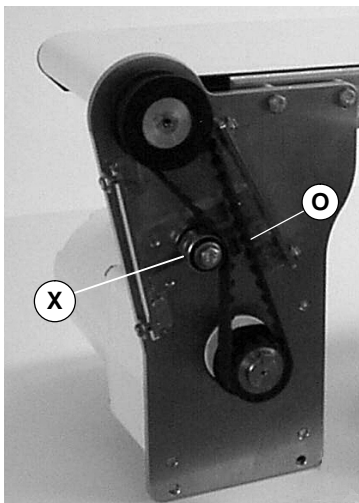


Figure 14

3. Remove timing belt (O).

NOTE: If timing belt does not slide over pulley flange, loosen driven pulley set screws (W of Figure 15) and remove pulley with belt. For re-installation, see steps 5 and 6 on pages 5 and 6.

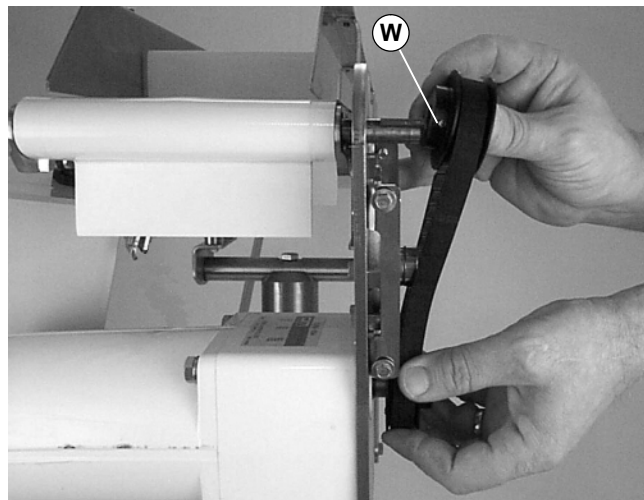


Figure 15

4. Install new timing belt.
5. Depending on conveyor belt travel (direction 1 or 2), locate timing belt tensioner (X of Figure 16) as shown. Tension timing belt to obtain 0.125" (3 mm) deflection for 1.0 lb (456 grams) of force at timing belt mid-point (Y). Tighten tensioner screw to 92 in-lb (10.4 Nm).

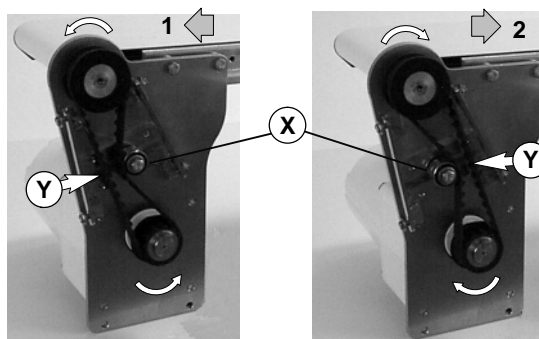


Figure 16

NOTE: Do not over-tighten screws (Z of Figure 13).

6. Replace cover (P of Figure 13) and tighten four (4) screws (Z) to 35 in-lb (4 Nm).

NOTE: For replacement parts other than those shown on this page, contact an authorized Dorner Service Center or the factory.

Item	Part Number	Part Description
1	62M009PY411	Gearmotor, 115V Single Phase, 9:1 Ratio
	62M030PY411	Gearmotor, 115V Single Phase, 30:1 Ratio
	62M009PY423	Gearmotor, 230V Three Phase, 9:1 Ratio
	62M030PY423	Gearmotor, 230V Three Phase, 30:1 Ratio
2	814-104	Timing Belt, 15mm W x 450mm L
	814-105	Timing Belt, 15mm W x 460mm L
	814-065	Timing Belt, 15mm W x 475mm L
	814-112	Timing Belt, 15mm W x 495mm L
	814-101	Timing Belt, 15mm W x 500mm L
	814-108	Timing Belt, 15mm W x 520mm L
	814-064	Timing Belt, 15mm W x 535mm L
	814-099	Timing Belt, 15mm W x 565mm L
3	802-123	Tensioner Bearings (2x required)
4	450365MP	Driven Pulley, 19 Tooth, 12mm bore
	450366MP	Driven Pulley, 22 Tooth, 12mm bore
	450367MP	Driven Pulley, 28 Tooth, 12mm bore
	450368MP	Driven Pulley, 32 Tooth, 12mm bore
5	980422MSS	Square Key 4 mm x 22 mm
6	450391M	Drive Pulley, 22 Tooth, 18mm bore
	450392M	Drive Pulley, 28 Tooth, 18mm bore
	450393M	Drive Pulley, 32 Tooth, 18mm bore
	450394M	Drive Pulley, 44 Tooth, 18mm bore
	450395M	Drive Pulley, 48 Tooth, 18mm bore
450396M	Drive Pulley, 60 Tooth, 18mm bore	
7	826-318	Key 6 mm Square x 25 mm

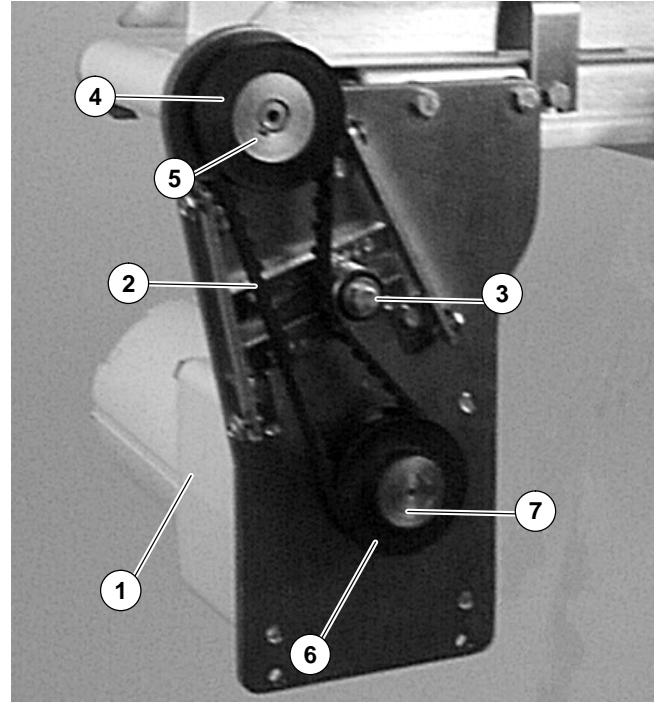


Figure 17

Return Policy

No returns will be accepted without prior written factory authorization. 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. 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.

A representative will discuss action to be taken on the Returned items and provide a Returned Goods Authorization Number to reference.

There will be a 15% restocking charge on all new items returned for credit where Dorner was not at fault. These will not be accepted after 60 days from original invoice date. The restocking charge covers inspection, cleaning, disassembly, and reissuing 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. Feel free to contact Dorner for the name of your local representative. Our technical sales and service staff will gladly help with your questions on Dorner products.

For a copy of Dorner's Limited Warranty, contact factory, distributor, service center or visit our website @ www.dorner.com

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

DORNER[®]

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