DORNER®

Installation, Maintenance & Parts Manual

2100, 2200, 4100, 6200 and MPB Series Bottom Mount Drive Package for Heavy Load 90° Industrial 60 Hz Gearmotors

Table of Contents

Warnings – General Safety

WARNING

The safety alert symbol, black triangle with white exclamation, is used to alert you to potential personal injury hazards.

DANGER

Climbing, sitting, walking or riding on conveyor will cause severe injury.

KEEP OFF CONVEYORS.

DANGER

Do NOT OPERATE CONVEYORS IN AN EXPLOSIVE ENVIRONMENT.

WARNING

Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

WARNING

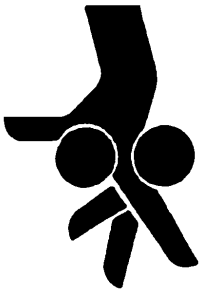
Gearmotors may be HOT.

DO NOT TOUCH Gearmotors.

WARNING

Exposed moving parts can cause severe injury.

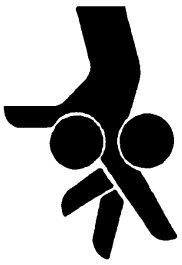
REPLACE ALL GUARDS BEFORE RUNNING CONVEYOR.



WARNING

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.



WARNING

MPB Series Conveyors are not reversible. Reversing creates pinch points which can cause severe injury.

DO NOT REVERSE MPB SERIES CONVEYORS.

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 2100 Series conveyors are covered by the following patent numbers: 5131529, 5174435, and corresponding patents and patent applications in other countries.

Dorner 2200 and MPB Series conveyors are covered by patent number 5174435 and corresponding patents and patent applications in other countries.

Dorner 4100 Series conveyors are covered by patent number 3923148 and corresponding patents and patent applications in other countries.

Dorner 6200 Series conveyors are covered by patent numbers: 6685009, 5174435, 6109427 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.

Dorner has convenient, pre–configured kits of Key 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. Key Parts and Kits are marked in the Service Parts section of this manual with the Performance Parts Kits logo .

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

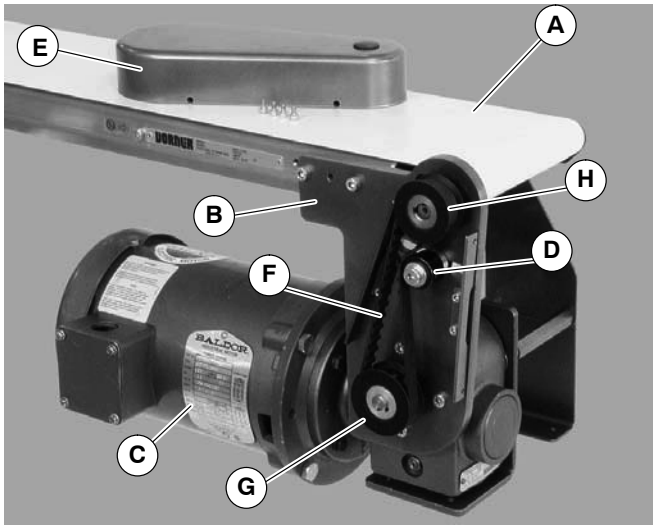


Figure 1

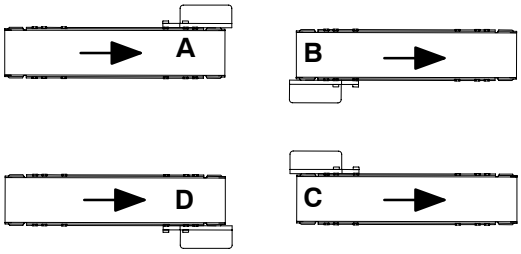
Specifications

Gearmotor Mounting Package Models:

Example:

2 M B H H WW A – 32 32

- **Driven Pulley (see Table 2 & 3)**
- **Drive Pulley (see Table 2 & 3)**
- **Belt Type (– = flat belt, A through J = cleated belt)**
- **Mount Position = A, B, C or D (see detail to the right)**
- **Conveyor Width Reference***
- **Gearmotor Type: H = Heavy Load, Industrial**
- **Output Shaft Type : H= 90° Industrial**
- **Mount Style : B= Bottom Mount**
- **Language Code: M = U.S. English**
- **2 = 2100 Series Conveyor**
  22 = 2200 Series Conveyor
  4 = 4100 Series Conveyor
  6 = 6200 Series Conveyor
  2P = MPB Series Conveyor



*** See "Ordering and Specifications" Catalog for details.**

Table 1: Gearmotor Specifications

	Single Phase	Three Phase	DC Variable Speed	VFD Variable Speed
Output Power	0.50 hp (0.37 kw)			
Input Voltage	115 VAC	208– 230 / 460 VAC	90 VDC	230 VAC
Input Frequency	60 Hz		N/A	10 – 60 Hz
Input Current	7.4 Amperes	2.1 – 2/ 1 Amperes	5.0 Amperes	1.6 Amperes
Motor RPM	1725		2500	1725
Gearmotor Ratios	5:1, 10:1, 20:1, 40:1, 60:1			
Frame Size	NEMA 56C			
Motor Type	Totally enclosed, Fan-cooled			

Specifications

Table 2: Belt Speeds for Heavy Load Fixed Speed 90° 60 Hz Gearmotors on 2100, 2200 (Gang Drive), 4100 and 6200 Series Conveyors

Belt Speed		Gearmotors					Drive Pulley	Driven Pulley
Ft/min	M/min	Part Number	Gear Ratio	RPM	In-lb	N-m		
6	1.7	32M060HS4(vp)F(n)	60:1	29	270	30.5	22	32
8	2.4	32M060HS4(vp)F(n)	60:1	29	270	30.5	32	32
12	3.7	32M060HS4(vp)F(n)	60:1	29	270	30.5	48	32
12	3.7	32M040HS4(vp)F(n)	40:1	43	247	27.9	32	32
18	5.5	32M040HS4(vp)F(n)	40:1	43	247	27.9	48	32
25	7.6	32M020HS4(vp)F(n)	20:1	86	90	10.2	32	32
37	11.3	32M020HS4(vp)F(n)	20:1	86	90	10.2	48	32
49	14.9	32M010HS4(vp)F(n)	10:1	173	45	5.1	32	32
74	22.6	32M010HS4(vp)F(n)	10:1	173	45	5.1	48	32
99	30.2	32M005HS4(vp)F(n)	5:1	345	25	2.8	32	32
148	45.1	32M005HS4(vp)F(n)	5:1	345	25	2.8	48	32
169	51.5	32M005HS4(vp)F(n)	5:1	345	25	2.8	48	28
197	60.0	32M005HS4(vp)F(n)	5:1	345	25	2.8	44	22
215	65.5	32M005HS4(vp)F(n)	5:1	345	25	2.8	48	22
249	75.9	32M005HS4(vp)F(n)	5:1	345	25	2.8	48	19

(vp) = voltage and phase:
11 = 115 V, 1-phase
23 = 230V, 3-phase

(n) = reversing capability:
N = no reversing switch
R = with reversing switch (115V, 1 phase only)

Table 3: Belt Speeds for Heavy Load Fixed Speed 90° 60 Hz Gearmotors on 2200 Series Conveyors (Excluding Gang Drive)

Belt Speed		Gearmotors *					Drive Pulley	Driven Pulley
Ft/min	M/min	Part Number	Gear Ratio	RPM	In-lb	N-m		
6	1.7	32M060HS4(vp)F(n)	60:1	29	270	30.5	19	32
10	3.0	32M060HS4(vp)F(n)	60:1	29	270	30.5	28	28
15	4.6	32M040HS4(vp)F(n)	40:1	43	247	27.9	28	28
16	4.9	32M060HS4(vp)F(n)	60:1	29	270	30.5	44	28
24	7.3	32M040HS4(vp)F(n)	40:1	43	247	27.9	44	28
30	9.1	32M020HS4(vp)F(n)	20:1	86	90	10.2	28	28
48	14.6	32M020HS4(vp)F(n)	20:1	86	90	10.2	44	28
61	18.6	32M010HS4(vp)F(n)	10:1	173	45	5.1	28	28
95	29.0	32M010HS4(vp)F(n)	10:1	173	45	5.1	44	28
104	31.7	32M010HS4(vp)F(n)	10:1	173	45	5.1	48	28
121	36.9	32M005HS4(vp)F(n)	5:1	345	25	2.8	28	28
138	42.1	32M005HS4(vp)F(n)	5:1	345	25	2.8	32	28
176	53.6	32M005HS4(vp)F(n)	5:1	345	25	2.8	32	22
208	63.4	32M005HS4(vp)F(n)	5:1	345	25	2.8	48	28
242	73.8	32M005HS4(vp)F(n)	5:1	345	25	2.8	44	22
264	80.5	32M005HS4(vp)F(n)	5:1	345	25	2.8	48	22

(vp) = voltage and phase:
11 = 115 V, 1-phase
23 = 230V, 3-phase

(n) = reversing capability:
N = no reversing switch
R = with reversing switch (115V, 1 phase only)

Table 4: Belt Speeds for Heavy Load Fixed Speed 90° 60 Hz Gearmotors on MPB Series Conveyors

Belt Speed		Gearmotors					Drive Pulley	Driven Pulley
Ft/min	M/min	Part Number	Gear Ratio	RPM	In-lb	N-m		
13	4.0	32M060HS4(vp)F(n)	60:1	29	270	30.5	22	32
20	6.0	32M060HS4(vp)F(n)	60:1	29	270	30.5	28	28
29	8.9	32M040HS4(vp)F(n)	40:1	43	247	27.9	28	28
44	13.4	32M040HS4(vp)F(n)	40:1	43	247	27.9	48	32
59	17.9	32M020HS4(vp)F(n)	20:1	86	90	10.2	28	28

(vp) = voltage and phase
11 = 115 V, 1-phase
23 = 230V, 3-phase

(n) = reversing capability
N = no reversing switch
R = with reversing switch (115V, 1 phase only)

Table 5: Belt Speeds for Heavy Load Variable Speed 90° VFD Gearmotors on 2100, 4100 and 6200 Series Conveyors

Belt Speed		Gearmotors					Drive Pulley	Driven Pulley
Ft/min	M/min	Part Number	Gear Ratio	RPM*	In-lb*	N-m*		
.6–5.6	.2–1.7	32M060HS423EN	60:1	29	226	35.5	22	32
.8–8.2	.3–2.5	32M060HS423EN	60:1	29	226	35.5	32	32
1.2–12	.4–3.8	32M040HS423EN	40:1	43	247	27.9	28	28
2.5–25	.8–7.5	32M020HS423EN	20:1	86	248	27.9	32	32
4.9–49	1.5–15	32M010HS423EN	10:1	173	156	17.6	32	32
9.9–99	3–30	32M005HS423EN	5:1	345	81	9.1	32	32
14–148	4.5–45	32M005HS423EN	5:1	345	81	9.1	48	32
19–197	6–60	32M005HS423EN	5:1	345	58	6.5	44	22
24–249	7.6–76	32M005HS423EN	5:1	345	58	6.5	48	19

***** At 60 Hz

Table 6: Belt Speeds for Heavy Load Variable Speed 90° VFD Gearmotors on 2200 Series Conveyors (Excluding Gang Drive)

Belt Speed		Gearmotors *					Drive Pulley	Driven Pulley
Ft/min	M/min	Part Number	Gear Ratio	RPM*	In-lb*	N-m*		
.6–6	.2–1.8	32M060HS423EN	60:1	29	270	30.5	19	32
1–10	.3–3.1	32M060HS423EN	60:1	29	270	30.5	28	28
1.5–15	.5–4.6	32M040HS423EN	40:1	43	247	27.9	28	28
3–30	.9–9.2	32M020HS423EN	20:1	86	167	18.9	28	28
6–60	1.8–18	32M010HS423EN	10:1	173	115	13	28	28
10–104	3.2–32	32M010HS423EN	10:1	173	115	13	48	28
12–121	3.7–37	32M005HS423EN	5:1	345	58	6.5	28	28
26–264	8.1–81	32M005HS423EN	5:1	345	58	6.5	48	22

***** At 60 Hz

Specifications

Table 7: Belt Speeds for Heavy Load Variable Speed 90° VFD Gearmotors on MPB Series Conveyors

Belt Speed		Gearmotors					Drive Pulley	Driven Pulley
Ft/min	M/min	Part Number	Gear Ratio	RPM*	In-lb*	N-m*		
1.3–13.4	.4–4.1	32M060HS423EN	60:1	29	270	30.5	22	32
2–19	.9–5.9	32M060HS423EN	60:1	29	270	30.5	28	28
2.9–29	.9–8.9	32M040HS423EN	40:1	43	247	27.9	28	28
5.9–59	1.8–18	32M020HS423EN	20:1	86	167	18.9	28	28
11–117	3.6–36	32M010HS423EN	10:1	173	115	13	28	28
17–175	5.4–54	32M010HS423EN	10:1	173	115	13	48	32
23–234	7.1–71	32M005HS423EN	5:1	345	58	6.5	28	28

* At 60 Hz

Table 8: Belt Speeds for Heavy Load Variable Speed 90° DC Gearmotors on 2100, 2200 (Gang Drive), 4100 and 6200 Series Conveyors

Belt Speed		Gearmotors					Drive Pulley	Driven Pulley
Ft/min	M/min	Part Number	Gear Ratio	RPM	In-lb	N-m		
1.0–8.2	.3–2.5	32M060PSD3DEN	60:1	42	270	30.5	22	32
1.4–12	.4–3.6	32M060PSD3DEN	60:1	42	270	30.5	32	32
2.1–18	.7–5.4	32M040PSD3DEN	40:1	63	215	24.3	32	32
4.3–36	1.3–11	32M020PSD3DEN	20:1	125	90	10.2	32	32
9–71	2.6–22	32M010PSD3DEN	10:1	250	72	8.1	32	32
17–143	5.2–43	32M005PSD3DEN	5:1	500	25	2.8	32	32
26–214	7.8–65	32M005PSD3DEN	5:1	500	25	2.8	48	32
29–245	9.0–75	32M005PSD3DEN	5:1	500	25	2.8	48	28

Table 9: Belt Speeds for Heavy Load Variable Speed 90° DC Gearmotors on 2200 Series Conveyors (Excluding Gang Drive)

Belt Speed		Gearmotors					Drive Pulley	Driven Pulley
Ft/min	M/min	Part Number	Gear Ratio	RPM	In-lb	N-m		
1.8–14	.5–4.5	32M060PSD3DEN	60:1	42	270	30.5	28	28
2.6–22	.8–6.7	32M040PSD3DEN	40:1	63	215	24.3	28	28
2.8–23	.8–7	32M060PSD3DEN	60:1	42	270	30.5	44	28
5.3–44	1.6–13	32M020PSD3DEN	20:1	125	90	10.2	28	28
10–88	3.2–27	32M010PSD3DEN	10:1	250	72	8.1	28	28
17–138	5–42	32M005PSD3DEN	5:1	500	25	2.8	44	28
21–176	6.4–54	32M005PSD3DEN	5:1	500	25	2.8	28	28
33–276	10–84	32M005PSD3DEN	5:1	500	25	2.8	44	28

Table 10: Belt Speeds for Heavy Load Variable Speed 90° DC Gearmotors on MPB Series Conveyors

Belt Speed		Gearmotors					Drive Pulley	Driven Pulley
Ft/min	M/min	Part Number	Gear Ratio	RPM	In-lb	N-m		
2.3–19	.7–5.9	32M060PSD3DEN	60:1	42	270	30.5	22	32
3.4–28	1–8.6	32M060PSD3DEN	60:1	42	270	30.5	28	28
5.1–42	1.6–12.9	32M040PSD3DEN	40:1	63	215	24.3	28	28
5.3–44	1.6–13	32M060PSD3DEN	60:1	42	270	30.5	44	28
10–85	3–26	32M020PSD3DEN	20:1	125	90	10.2	28	28
15–127	4.7–39	32M020PSD3DEN	20:1	125	90	10.2	48	32
20–170	6–52	32M010PSD3DEN	10:1	250	72	8.1	28	28
31–255	9–77	32M010PSD3DEN	10:1	250	72	8.1	48	32

* = Cleated and Sidewall Cleated belts opperate at a maximum of 150 Ft/min (45.7 m/min)

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

Required Tools

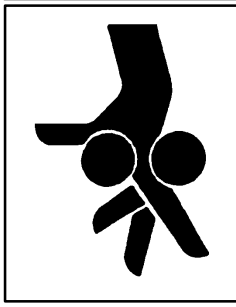
- Hex key wrenches:
  2 mm, 2.5 mm, 3 mm, 5 mm
- Torque wrench

Mounting

WARNING

Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.



WARNING

MPB Series Conveyors are not reversible. Reversing creates pinch points which can cause severe injury.

DO NOT REVERSE MPB SERIES CONVEYORS.

Installation Component List

I	Bottom Mount Assembly
J	Drive Pulley
K	Cover
L	M4 Socket Head Screws (4x)
M	Driven Pulley
N	Key
O	Timing Belt
P	M6 Socket Head Screws (2x)
Q	M6 Socket–Head Screws & Hard Washers (4x)
R	End Support Bracket
S	Hex Support Posts (2x)
T	Gearhead/Conveyor Support Plate
U	Support Plate Spacer
V	M6 Socket Head Screws (2x)
W	M6 Socket Head Screws (2x)

Installation

1. Typical components (Figure 2)

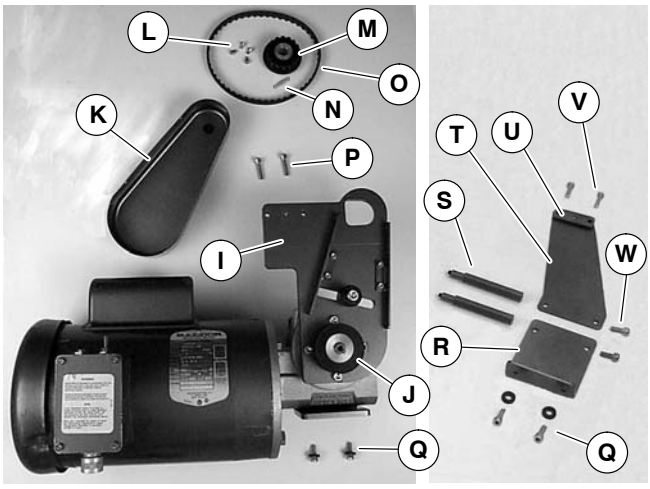


Figure 2

NOTE: 2100, 2200, MPB and 6200 2" & 3" (51mm & 76mm) and 4100 1" through 6" (25mm – 152mm) conveyors do not include parts R through W of Figure 2.

NOTE: Gearmotor may be operated in positions 1 & 3 (Figure 3).

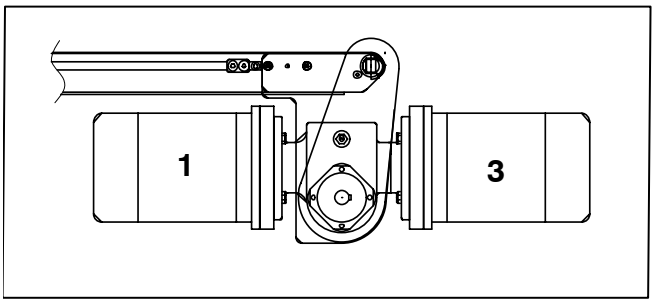


Figure 3

2. If required, change gearmotor position by removing four screws (X of Figure 4) from bottom mount assembly and two screws (Y of Figure 5) from gear reducer support. Rotate gearmotor to other position and install screws. Tighten screws to 103 in-lb (12 Nm).

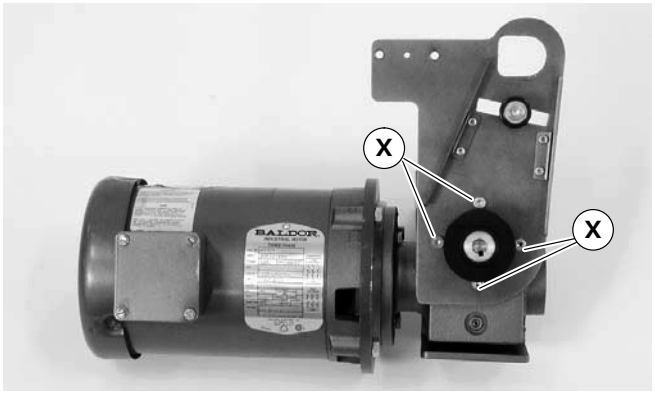


Figure 4

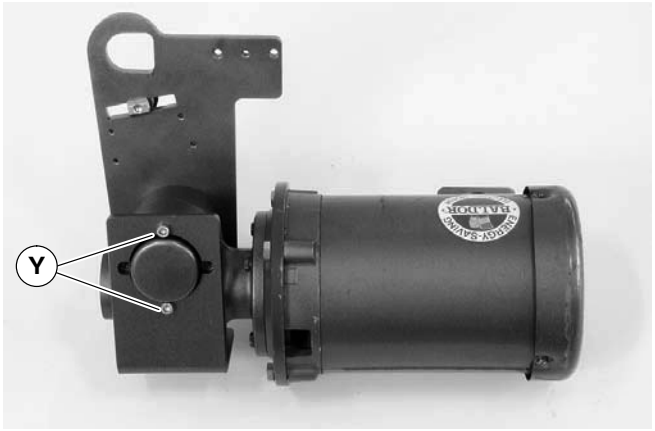


Figure 5

3. For your reference, the following figures show the attachment area of complete mounting packages for the various conveyor series.

Figure 6 – 2200 Series

Gearmotor bottom mount assembly is mounted to Head Plate

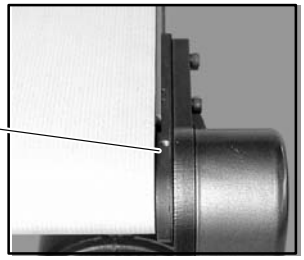


Figure 7 – 6200 Series

Gearmotor bottom mount assembly is mounted to Drive Spacer

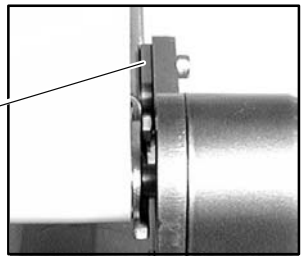


Figure 8 – 4100 Series

Gearmotor bottom mount assembly is mounted to Drive Adapter Plate

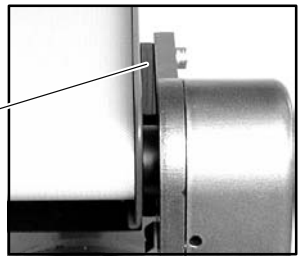


Figure 9 – 2100 Series

Gearmotor bottom mount assembly is mounted to Head Plate

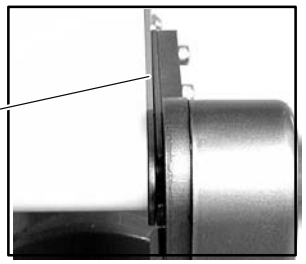
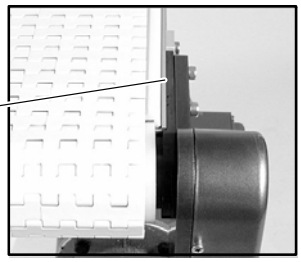


Figure 10 – MPB Series

Gearmotor bottom mount assembly is mounted to Head Plate



NOTE: 6200 conveyor shown, other Series similar.

4. Locate drive output shaft (Z of Figure 11) and remove two screws (AA).

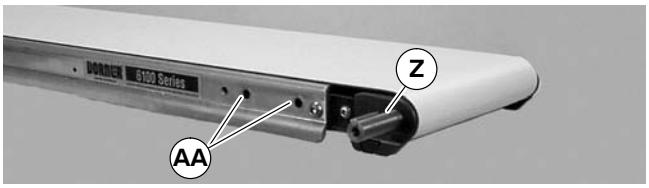


Figure 11

For 2100, 2200 and 6200 – 2" & 3" (51mm & 76mm) wide conveyors and 4100 – 1" through 6" (25mm – 152mm) wide conveyors:

5. Attach bottom mount assembly (I of Figure 12) with screws (P). Tighten to 80 in-lb (9 Nm). Proceed to step 10.

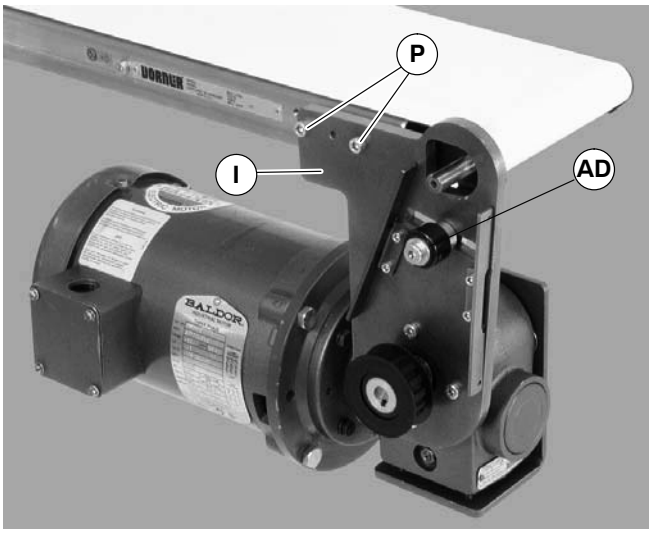


Figure 12

For 2100, 2200, 6200 and MPB – 4" (102mm) and wider conveyors and 4100 – 8" (203mm) and wider conveyors:

6. On side opposite drive output shaft, remove two screws (AB of Figure 13).

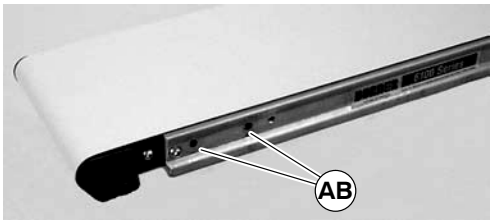


Figure 13

NOTE: Refer to Figures 6 through 10 while doing step 7.

7. Attach bottom mount assembly (I of Figure 12) with two screws (P). Tighten to 80 in-lb (9 Nm).

8. Install hex support posts (S of Figure 14). Tighten posts to 80 in-lb (9 Nm).

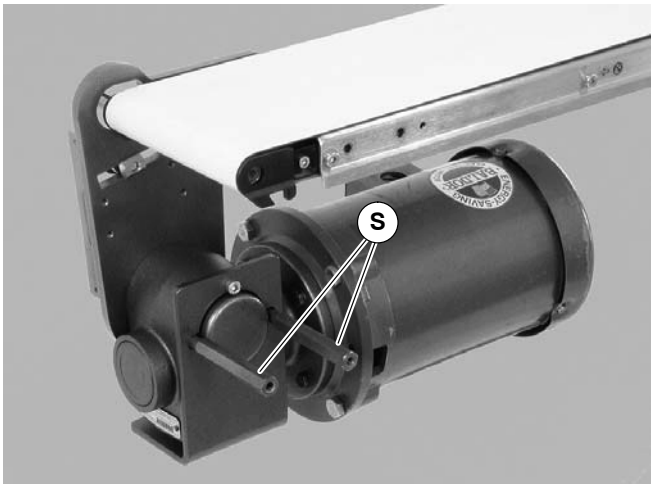


Figure 14

9. Install spacer (U of Figure 15) (2100 & 6200 Only) and gearhead/conveyor support plate (T) with screws (V). Install end support bracket (R) with screws (W). Tighten screws (V & W) to 80 in-lb (9 Nm).

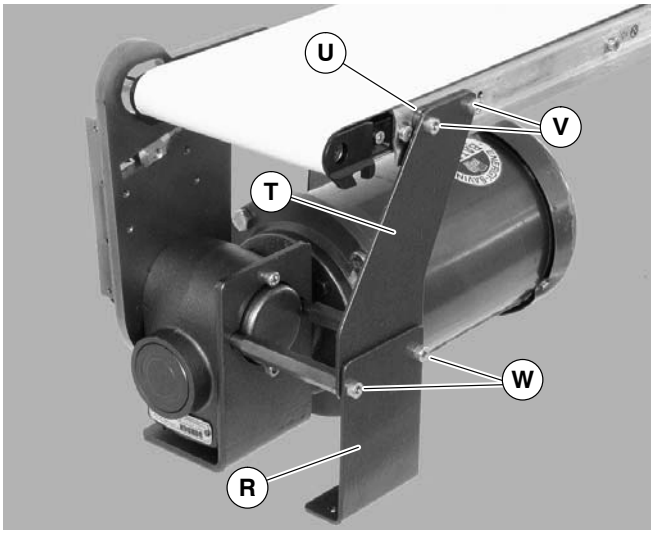
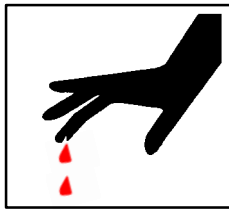


Figure 15



WARNING

Drive shaft keyway may be sharp.

HANDLE WITH CARE.

10. Install key (N of Figure 16).

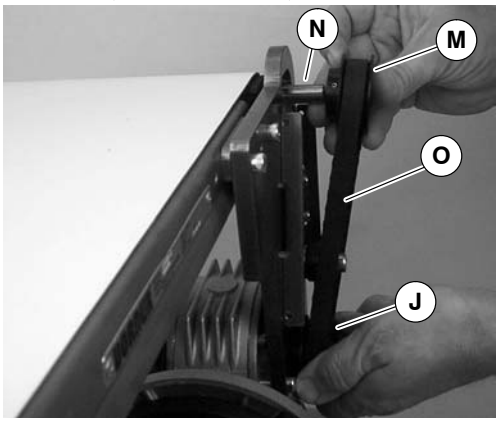


Figure 16

11. Wrap timing belt (O) around driven pulley (M) and drive pulley (J). Install driven pulley (M) onto conveyor shaft.

12. Remove cam bearing and spacer (AD of Figure 12). Place cam bearing and spacer (AD of Figure 17) next to driven pulley (M). Ensure flanges of driven pulley are aligned with cam bearing. Tighten driven pulley set screws (AA). This will allow for proper belt alignment while conveyor is in use. Install cam bearing and spacer (AD).

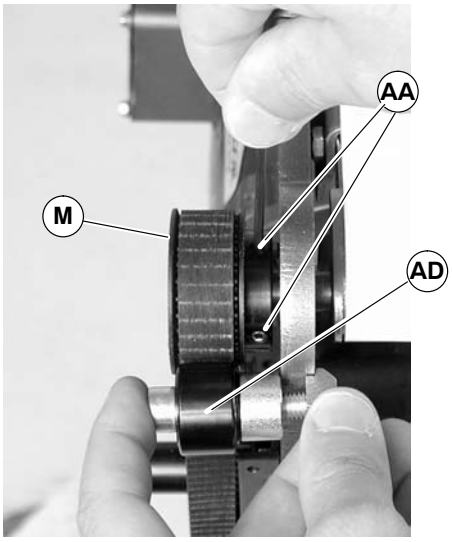


Figure 17

13. Depending on direction of conveyor belt travel (1 or 2 of Figure 18), position belt tensioner (AE) as shown. Tension belt to obtain 0.125¨ (3 mm) deflection for 1.0 lb (456 grams) of force at belt mid-point (AF). Tighten tensioner screw to 103 in-lb (12 Nm).

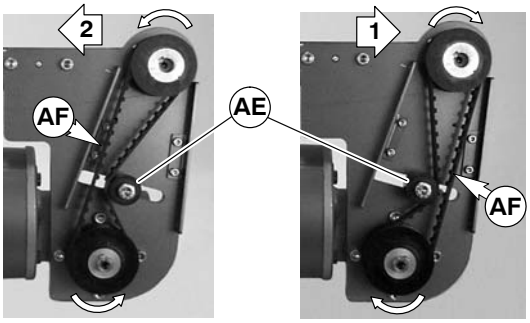


Figure 18

14. Install cover (K of Figure 19) with four screws (L). Tighten to 35 in-lb (4 Nm).

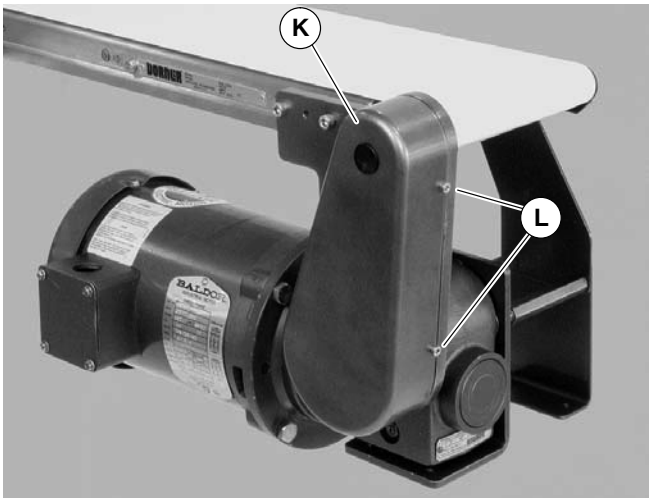


Figure 19

15. Mount assembly to support structure with four hard washers and screws (Q of Figure 20). Tighten to 80 in-lb (9 Nm).

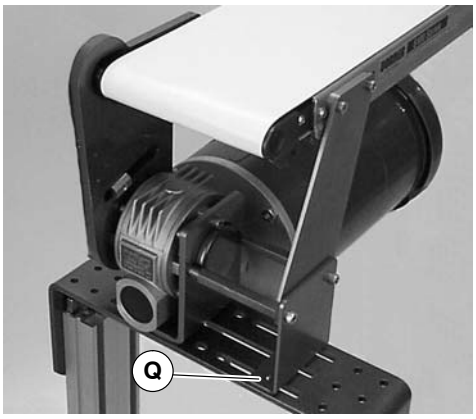


Figure 20

Required Tools

- Hex key wrenches:

  2 mm, 2.5 mm, 3 mm, 5 mm
- Adjustable wrench (for hexagon head screws)
- Torque wrench

Timing Belt Tensioning

WARNING

Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

1. Remove four (4) screws (L of Figure 19) and remove cover (K).
2. Loosen tensioner (AE of Figure 21).

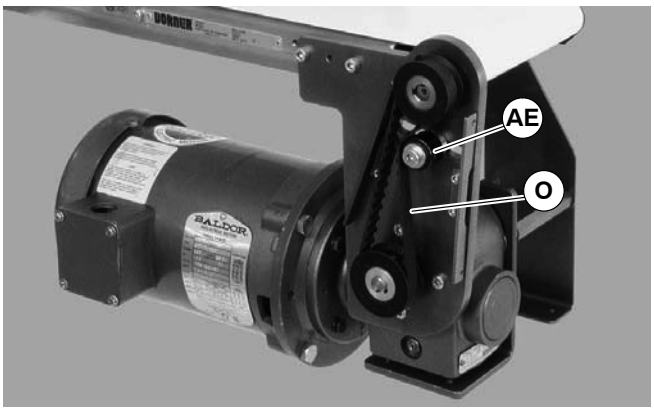


Figure 21

3. Depending on direction of conveyor belt travel (1 or 2 of Figure 18), position belt tensioner (AE) as shown. Tension belt to obtain 0.125¨ (3 mm) deflection for 1.0 lb (456 grams) of force at belt mid-point (AF). Tighten tensioner screw to 103 in-lb (12 Nm).
4. Install cover (K of Figure 19) with four (4) screws (L). Tighten to 35 in-lb (4 Nm).

Timing Belt Replacement

WARNING

Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

1. Remove four (4) screws (L of Figure 19) and remove cover (K).
2. Loosen tensioner (AE of Figure 21).
3. Remove timing belt (O of Figure 22).

NOTE: If timing belt does not slide over pulley flange, loosen driven pulley set screws (AG of Figure 22) and remove pulley with belt (O). For re-installation, see steps 11 and NO TAG on page 10.

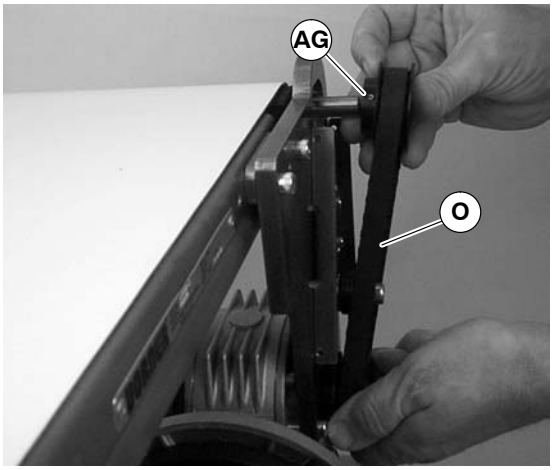


Figure 22

4. Install new timing belt.
5. Depending on direction of conveyor belt travel (1 or 2 of Figure 18), position belt tensioner (AE) as shown. Tension belt to obtain 0.125¨ (3 mm) deflection for 1.0 lb (456 grams) of force at belt mid-point (AF). Tighten tensioner screw to 103 in-lb (12 Nm).
6. Install cover (K of Figure 19) with four (4) screws (L). Tighten to 35 in-lb (4 Nm).

Drive or Driven Pulley Replacement

WARNING

Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

1. Complete steps 1 through 3 of "Timing Belt Replacement" section on page 12.
2. Loosen set screws and remove drive or driven pulley.

NOTE: If drive pulley (J of Figure 23) is replaced, wrap timing belt around drive pulley and complete step 3.

3. Complete steps 11 through 14 of "Installation" section on page 10.

Gear Reducer Replacement

WARNING

Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

1. Remove four (4) screws (L of Figure 19) and remove cover (K).
2. Loosen tensioner (AE of Figure 21).
3. Loosen drive pulley set screws (AG of Figure 23). Remove drive pulley (J) and timing belt (O).

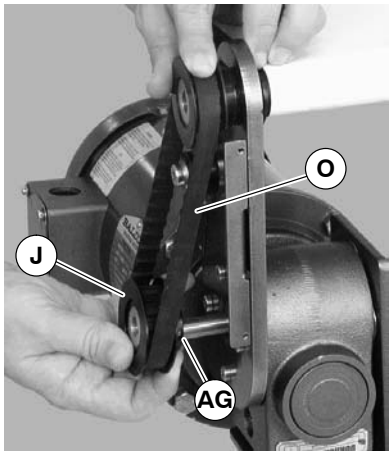


Figure 23

4. Remove screws (V & W of Figure 24) and remove support bracket (R), support plate (T) and spacer (U).

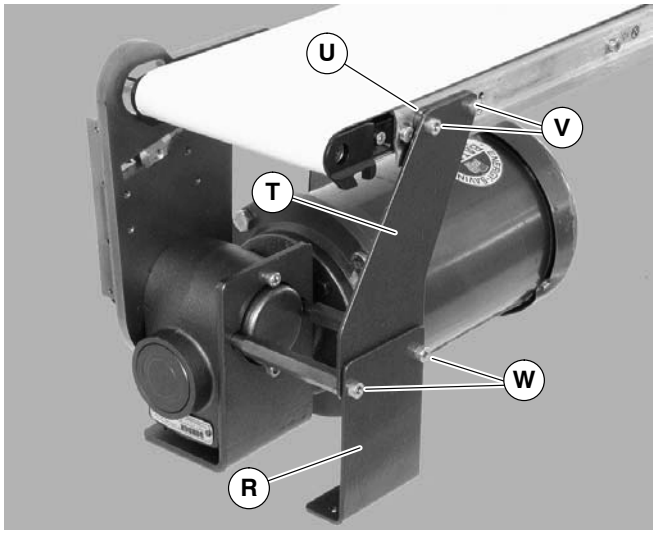


Figure 24

5. Remove hex support posts (S of Figure 25).

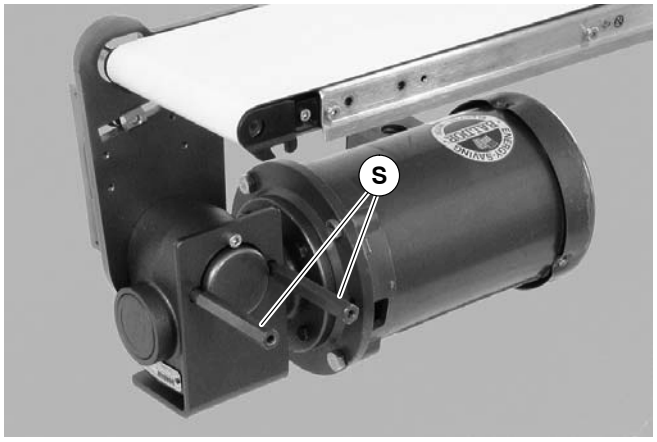


Figure 25

6. Remove two (2) bracket screws (AL of Figure 26) and remove bracket (AM).

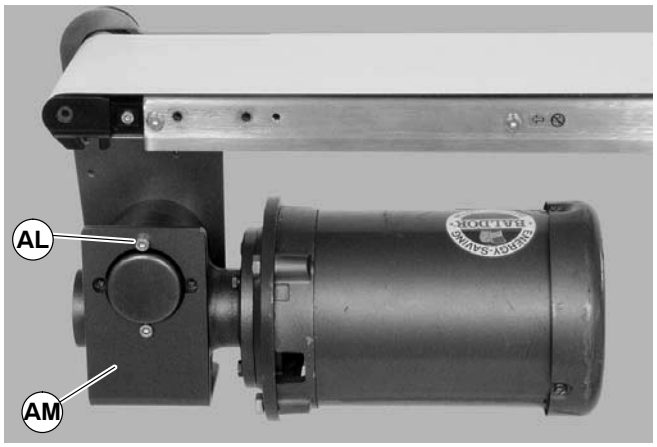


Figure 26

7. Remove four (4) gear reducer mounting screws (AN of Figure 27). Remove gearmotor.

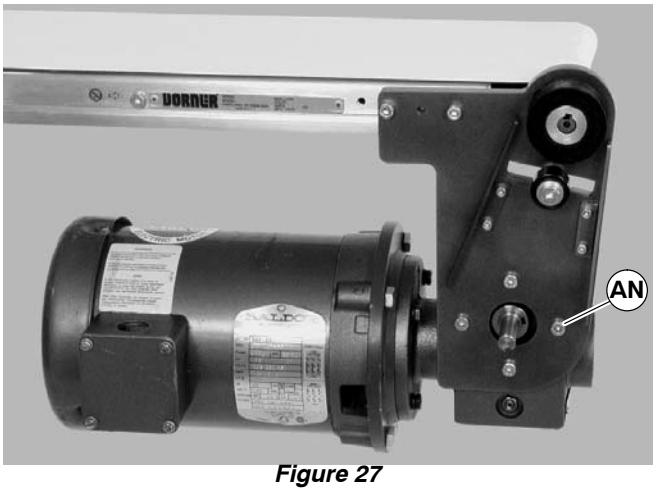


Figure 27

8. Remove four screws (AO of Figure 28). Detach motor (AP) from gear reducer (AQ). Retain motor output shaft key (AR).

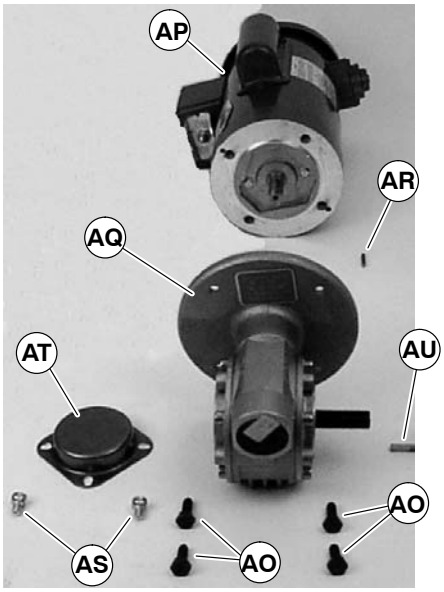


Figure 28

9. Remove two (2) screws (AS) and detach output shaft cover (AT).

10. Remove gear reducer output shaft key (AU).

11. Loosen six (6) set screws (AV of Figure 29). Remove drive shaft (AW) and key (AX).

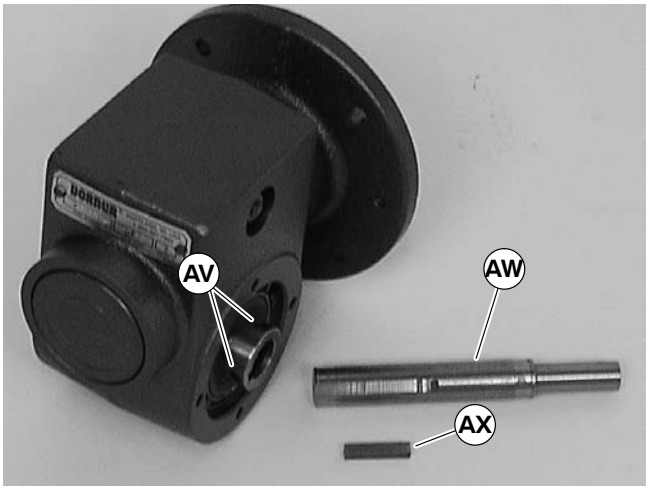


Figure 29

12. Apply grease (AY of Figure 30) to shaft.

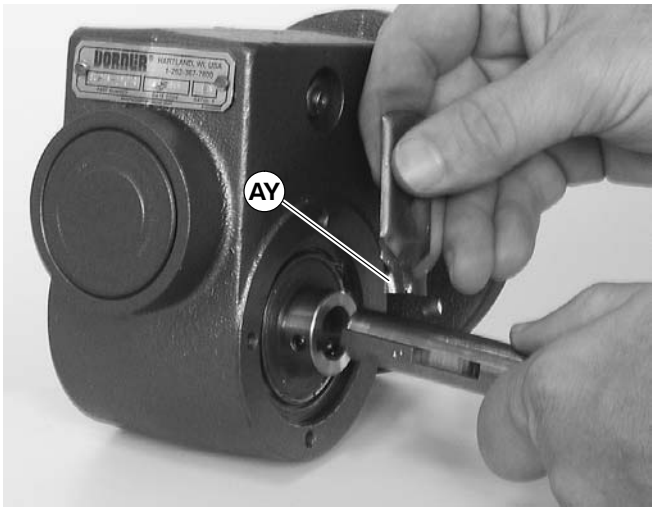


Figure 30

13. Replace the original shaft components into new gear reducer (see Figure 29). Tighten set screws (AV) to 26 in-lb (3 Nm).

IMPORTANT: Be extremely careful when coupling motor to gear reducer. Avoid misalignment and forcing the connection causing possible permanent gear reducer seal damage.

14. With key (AR of Figure 28) in keyway, slide motor (AP) and gear reducer (AQ) together. Install screws (AO) and tighten.

15. Reverse steps 4 through 7 beginning on page 13.

NOTE: Drive pulley (J of Figure 23) is removed. Wrap timing belt around drive pulley and complete step 16.

16. Complete steps 11 through 15 of "Installation" section on page 10.

Motor Replacement

1. For single phase motor, unplug power cord from outlet.

2. For three phase and VFD variable speed motor:

a. Loosen terminal box screws (AZ of Figure 31) and remove cover (BA).

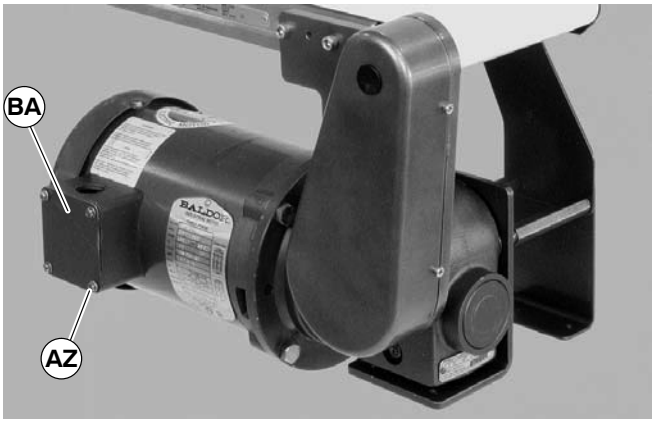


Figure 31

b. Record wire colors on terminals 1, 2 and 3. Loosen wire nuts and remove wires 1, 2 and 3.

c. Loosen cord grip and remove cord.

3. For DC variable speed motor, unplug motor cord at disconnect (BB of Figure 32).

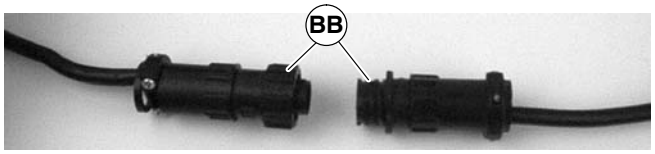


Figure 32

4. Remove four screws (AO of Figure 33). Detach motor (AP) from gear reducer (AQ). Retain motor output shaft key (AR).

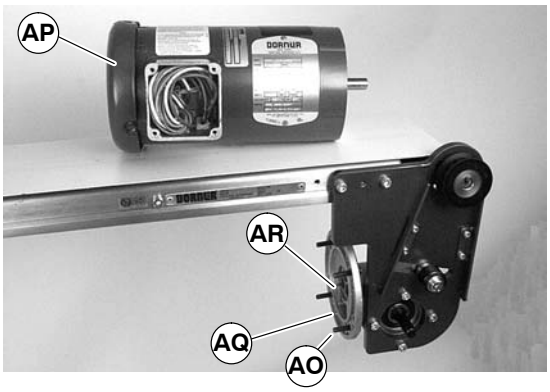


Figure 33

IMPORTANT: Be extremely careful when coupling motor to gear reducer. Avoid misalignment and forcing the connection causing possible permanent gear reducer seal damage.

5. With key (AR of Figure 34) in keyway, slide motor and gear reducer together. Install screws (AO) and tighten.

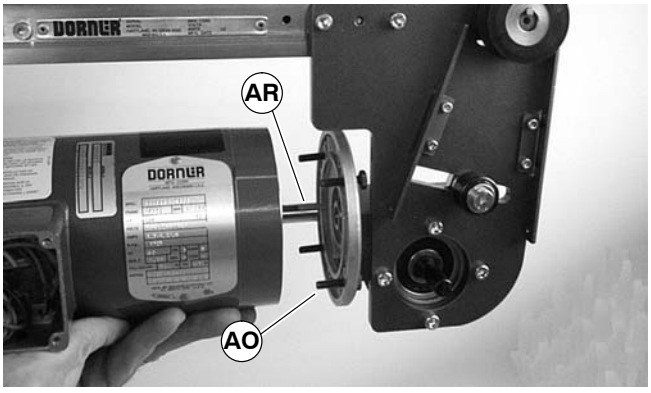


Figure 34

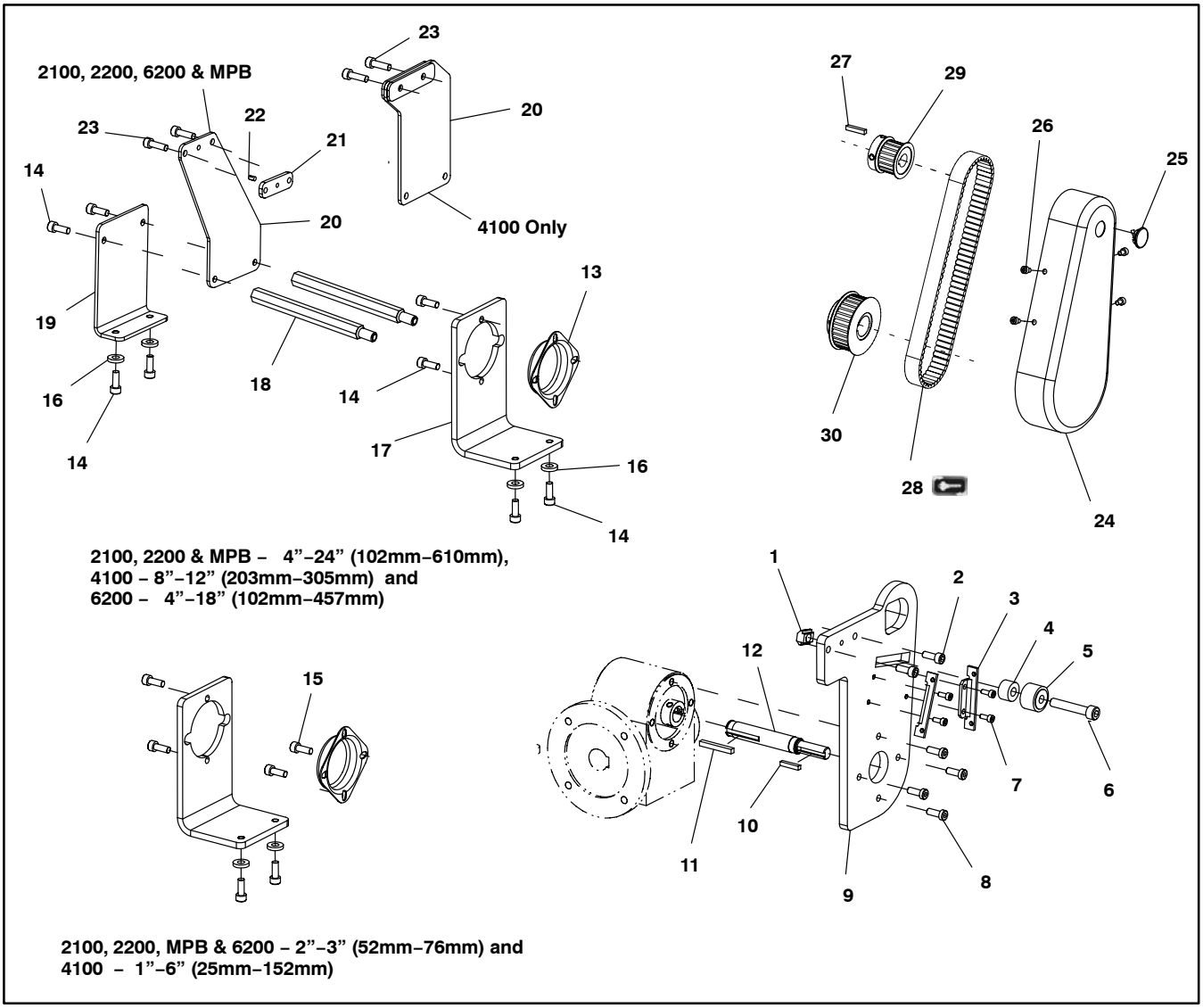
6. Replace wiring:

- For a single phase motor, reverse step 1 on this page.
- For a three phase and VFD variable speed motor, reverse step 2, on this page.
- For a DC variable speed motor, reverse step 3 on this page.

Service Parts

NOTE: For replacement parts other than those shown in this section, contact an authorized Dorner Service Center or the factory. Key Service Parts and Kits are identified by the Performance Parts Kits logo. Dorner recommends keeping these parts on hand.

2100, 2200, 4100, 6200 Series (All) and MPB Series (Flat Belt) Bottom Mount Drive Package

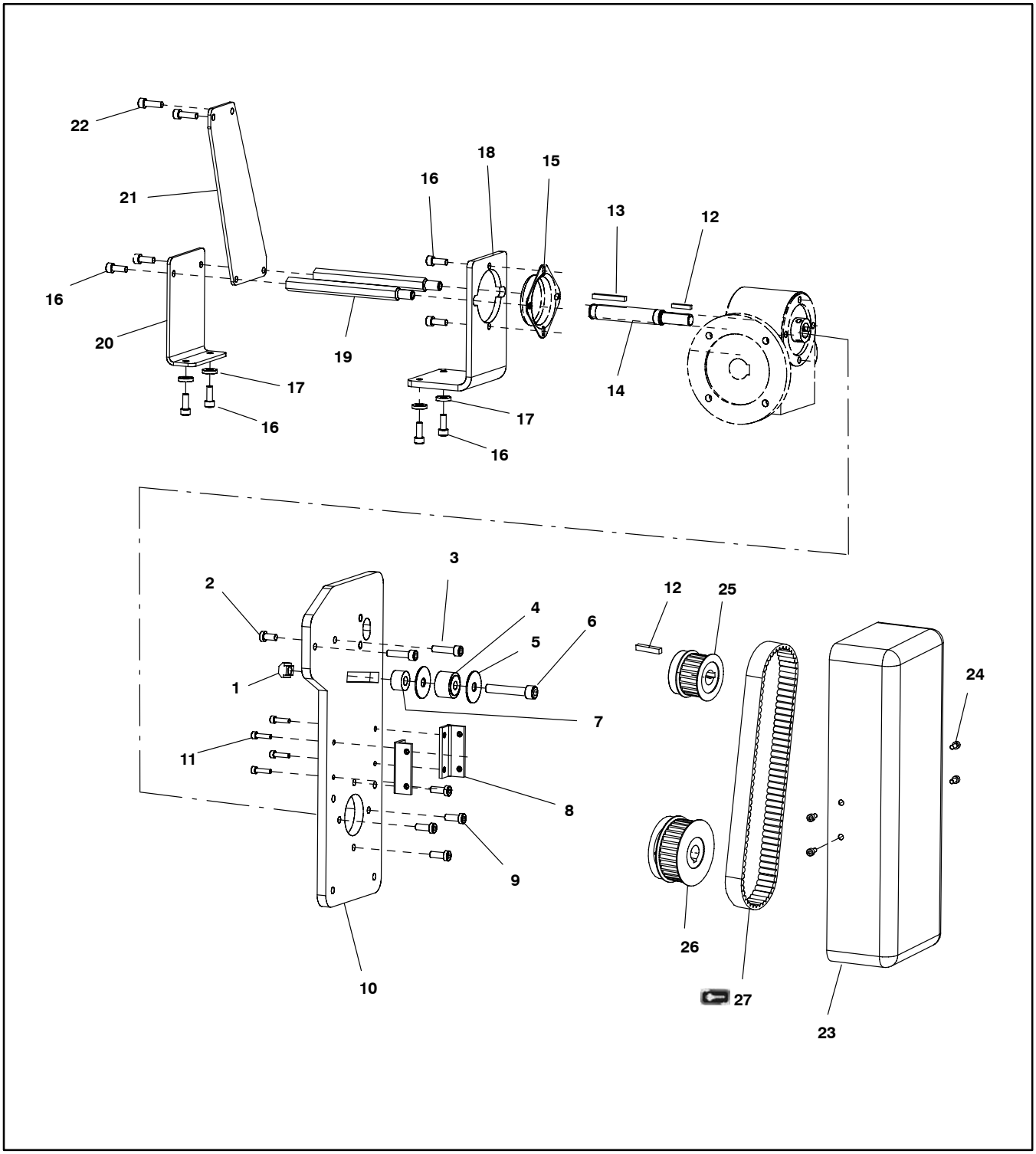


Item	Part Number	Description
1	202390M	Nut
2	920625M	Socket Head Screw M6x25mm (2100 & 2200)
	920616M	Socket Head Screw M6x16mm (4100)
	920630M	Socket Head Screw M6x30mm (6200)
3	450375M	Cover Mounting Bracket
4	450445	Spacer
5	802−046	Bearing
6	920845M	Socket Head Screw M8x45mm
7	920410M	Socket Head Screw M4x10mm
8	920693M	Socket Low Head Screw M6x16mm
9	450443M	Grove Mounting Plate
10	980422M	Square Key 4mm x 22mm
11	912−084	Square Key .188 x 1.5"
12	450444M	Grove Output Shaft 12mm
13	300139M	Drive−Bearing Shaft Cover
14	920616M	Socket Head Screw M6x16mm
15	920608M	Socket Head Screw M6x8mm
16	605279P	Hard Washer
17	450441M	Gearhead Support Bracket
18	4533WWM	Gearhead Support Hex Post
19	450440M	End Support Bracket
20	450442M	Gearhead/Conveyor Support Plate
	697869M	Gearhead/Conveyor Support Plate w/Spacer (4100 Only)
21	450027M	Drive Spacer [2100 − 4"−24" (102mm − 610mm) and All 6200]
22	807−952	Grooved Pin [2100 − 4"−24" (102mm − 610mm) and All 6200]
23	920620M	Socket Head Screw M6x20mm
24	450376M	Drive Guard
25	807−226	Snap−out Plastic Plug
26	920406M	Socket Head Screw M4x6mm
27	980422M	Square Key 4mm x 22mm
	912−053	Square Key .125 x .75" [4100 − 1" (25mm) Conveyor Only]
28	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
29	450365MP	Driven Pulley, 19Tooth, 12mm bore
	450366MP	Driven Pulley, 22Tooth, 12mm bore
	450367MP	Driven Pulley, 28Tooth, 12mm bore
	450368MP	Driven Pulley, 32Tooth, 12mm bore
30	450365MP	Drive Pulley, 19Tooth, 12mm bore
	450366MP	Drive Pulley, 22Tooth, 12mm bore
	450367MP	Drive Pulley, 28Tooth, 12mm bore
	450368MP	Drive Pulley, 32Tooth, 12mm bore
	450369MP	Drive Pulley, 44Tooth, 12mm bore
	450370MP	Drive Pulley, 48Tooth, 12mm bore

WW = Conveyor width ref.: 01, 02, 03, 04, 06, ,08, 10, 12, 18, 21, 24

Service Parts

MPB Series Cleated Belt Bottom Mount Drive Package

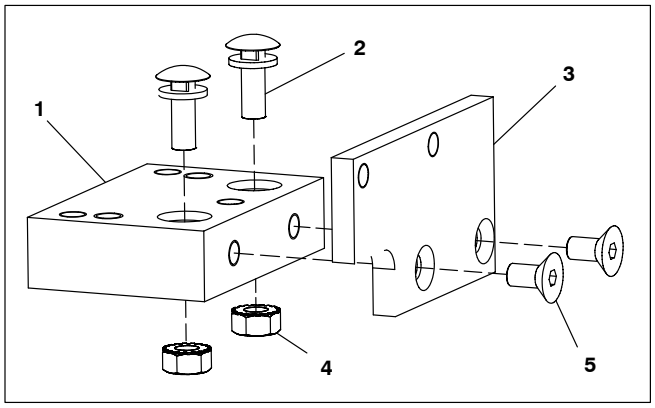


Item	Part Number	Description
1	202390M	Nut
2	920692M	Socket Low Head Screw M6 x 12mm
3	920625M	Socket Head Screw M6x25mm
4	802−046	Bearing
5	807−1133	Washer
6	920845M	Socket Head Screw M8x45mm
7	450445	Spacer
8	243402	Cover Mounting Angle
9	920693M	Socket Low Head Screw M6x16mm
10	243401	Mounting Plate
11	920416M	Socket Head Screw M4x16mm
12	980422M	Square Key 4mm x 22mm
13	912−084	Square Key .188 x 1.5”
14	450444M	Grove Output Shaft 12mm
15	300139M	Drive−Bearing Shaft Cover
16	920616M	Socket Head Screw M6x16mm
17	605279P	Hard Washer
18	450441M	Gearhead Support Bracket
19	4533WWM	Gearhead Support Hex Post
20	450440M	End Support Bracket
21	243403	Gearhead/Conveyor Support Plate
22	920620M	Socket Head Screw M6x20mm
23	300871M	Drive Cover
24	920408M	Socket Head Screw M4x8mm
25	450367MP	Driven Pulley, 28Tooth, 12mm bore
	450368MP	Driven Pulley, 32Tooth, 12mm bore
26	450366MP	Drive Pulley, 22Tooth, 12mm bore
	450367MP	Driven Pulley, 28Tooth, 12mm bore
	450369MP	Drive Pulley, 44Tooth, 12mm bore
	450370MP	Drive Pulley, 48Tooth, 12mm bore
27	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
	814-109	Timing Belt, 15mm W x 580mm L
	814-115	Timing Belt, 15mm W x 600mm L
	814-110	Timing Belt, 15mm W x 615mm L

WW = Conveyor width ref.: 04, 06, 12, 18, 24

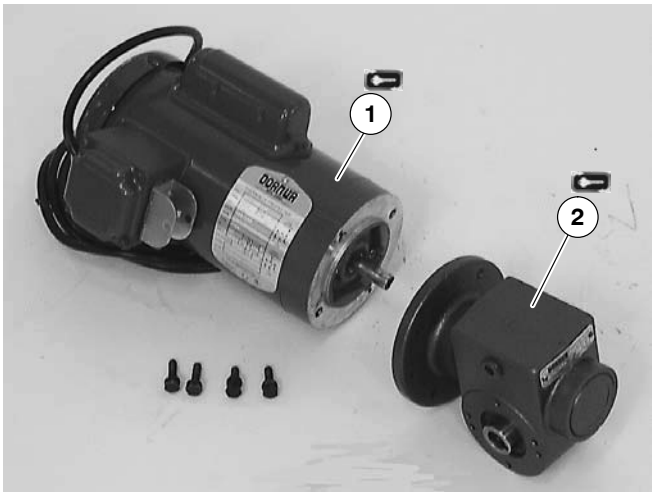
Service Parts

4100 Series Adapter Package



Item	Part No.	Part Description
1	609486	Mounting Block 1” (25mm)
	609487	Mounting Block 2” (51mm)
	609488	Mounting Block 3” (76mm)
	609479	Mounting Block 4” (102mm)
	609480	Mounting Block 5” (127mm)
	609481	Mounting Block 6” (152mm)
	609482	Mounting Block 7” (178mm)
	609483	Mounting Block 8” (203mm)
	609484	Mounting Block 10” (254mm)
	609485	Mounting Block 12” (305mm)
2	613602P	Bolt & Flat Washer Assembly
3	450374	Drive Adapter Plate
4	910−126	Hex Nut with Lock Washer
5	930612M	Flat Head Screw M6 x 12mm

Gear Motor



Item	Part No.	Part Description
1	62MH411FN	Motor, 0.5 hp (0.37 Kw) 115/230 Volts, 60 Hz, 1-Phase, non−reversing
	62MH411FR	Motor, 0.5 hp (0.37 Kw) 115/230 Volts, 60 Hz, 1-Phase, reversing
	62MHD9DEN	Motor, 0.5 hp (0.37 Kw) 90 Volts DC
	32MS423EN	Motor, 0.5 hp (0.37 Kw) 230V, 10− 60Hz, Inverter Duty, 3 Phase
	62MH423	Motor, 0.5 hp (0.37 Kw)208−230/460 Volts, 60 Hz, 3-Phase
2	32M005HS	Gear Reducer, 5:1, 56C
	32M010HS	Gear Reducer, 10:1, 56C
	32M020HS	Gear Reducer, 20:1, 56C
	32M040HS	Gear Reducer, 40:1, 56C
	32M060HS	Gear Reducer, 60:1, 56C

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.

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

There will be a return charge on all new undamaged items returned for credit where Dorner was not at fault. Dorner is not responsible for return freight on such items.

Conveyors and conveyor accessories

Standard catalog conveyors	30%
MPB Series, cleated and specialty belt conveyors	50%
7400 & 7600 Series conveyors	non–returnable items
Engineered special products	case by case
Drives and accessories	30%
Sanitary stand supports	non–returnable items

Parts

Standard stock parts	30%
MPB, cleated and specialty belts	non–returnable items

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 Technical Sales, Catalog Sales and Service Teams will gladly help with your questions on Dorner products.

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

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

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