



2100, 2200, 4100, 6200 & MPB Series Top Mount Drive Pack. for Standard Load Parallel Shaft 60 Hz Gearmotors

Installation, Maintenance & Parts Manual



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Introduction

NOTE

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 number 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 .

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.

Product Description

Refer to Figure 1 for typical components.

| | |
|---|-----------------------|
| A | Conveyor |
| B | Mounting Bracket |
| C | Gearmotor |
| D | Timing Belt Tensioner |
| E | Cover |
| F | Timing Belt |
| G | Drive Pulley |
| H | Driven Pulley |

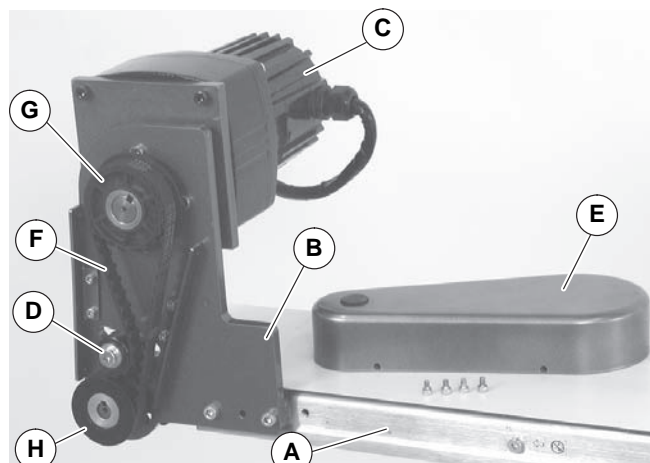


Figure 1

Specifications

Gearmotor Mounting Package Models:

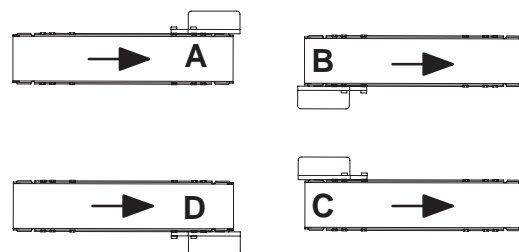
Example:

2 M T P S W W A - 32 32

- 2 = 2100 Series Conveyor
- M = 2200 & MPB Series Conveyor
- T = 4100 Series Conveyor
- P = 6200 Series Conveyor
- S = MPB Series Conveyor
- W = Standard Load, Industrial
- W = Parallel Shaft
- A = Mount Position = A, B, C or D (see detail to the right)
- 32 = Conveyor Width Reference*
- 32 = Belt Type: - = flat belt, A through J = cleated belt
- Language Code = U.S. English

2 = 2100 Series Conveyor
22 = 2200 & MPB Series Conveyor
4 = 4100 Series Conveyor
6 = 6200 Series Conveyor
2P = MPB Series Conveyor

* See "Ordering and Specifications" Catalog for details.



Specifications

Table 1: Gearmotor Specifications

| | Single Phase | Three Phase | DC Variable Speed |
|------------------|------------------------------------|----------------|----------------------------------|
| Output Power | 0.17 hp (0.13 kw) | | 0.25 hp (0.19 kw) |
| Input Voltage | 115 Volts A.C. | 230 Volts A.C. | 130 Volts D.C. |
| Input Frequency | 60 Hz | | N/A |
| Input Current | 1.9 Amperes | 1.2 Amperes | 1.8 Amperes |
| Motor RPM | 1725 | | 2500 |
| Gearmotor Ratios | 5:1, 10:1, 20:1, 30:1, 60:1, 180:1 | | |
| Frame Size | NEMA 42 CZ | | |
| Motor Type | Totally enclosed, Fan-cooled | | Totally enclosed, Non-ventilated |

Table 2: Belt Speeds for Standard Load Fixed Speed Parallel Shaft 60 Hz Gearmotors on 2100, 2200 Gang Drive, 4100 and 6200 Series Conveyors

| Gearmotors | | | | | Belt Speed | | Drive Pulley | Driven Pulley |
|-------------------|------------|-----|-------|------|------------|-------|--------------|---------------|
| Part Number | Gear Ratio | RPM | In-lb | N-m | Ft/min | M/min | | |
| 62M180PS4(vp)F(n) | 180:1 | 10 | 341 | 38.5 | 2 | 0.6 | 22 | 32 |
| 62M180PS4(vp)F(n) | 180:1 | 10 | 341 | 38.5 | 3 | 0.9 | 32 | 32 |
| 62M180PS4(vp)F(n) | 180:1 | 10 | 341 | 38.5 | 4 | 1.2 | 48 | 32 |
| 62M060PS4(vp)F(n) | 60:1 | 29 | 270 | 30.5 | 6 | 1.7 | 22 | 32 |
| 62M060PS4(vp)F(n) | 60:1 | 29 | 270 | 30.5 | 8 | 2.4 | 32 | 32 |
| 62M060PS4(vp)F(n) | 60:1 | 29 | 270 | 30.5 | 12 | 3.7 | 48 | 32 |
| 62M030PS4(vp)F(n) | 30:1 | 58 | 135 | 15.3 | 16 | 4.9 | 32 | 32 |
| 62M020PS4(vp)F(n) | 20:1 | 86 | 90 | 10.2 | 25 | 7.6 | 32 | 32 |
| 62M020PS4(vp)F(n) | 20:1 | 86 | 90 | 10.2 | 37 | 11.3 | 48 | 32 |
| 62M010PS4(vp)F(n) | 10:1 | 173 | 45 | 5.1 | 49 | 14.9 | 32 | 32 |
| 62M010PS4(vp)F(n) | 10:1 | 173 | 45 | 5.1 | 74 | 22.6 | 48 | 32 |
| 62M005PS4(vp)F(n) | 5:1 | 345 | 25 | 2.8 | 99 | 30.2 | 32 | 32 |
| 62M005PS4(vp)F(n) | 5:1 | 345 | 25 | 2.8 | 148 | 45.1 | 48 | 32 |
| 62M005PS4(vp)F(n) | 5:1 | 345 | 25 | 2.8 | 169 | 51.5 | 48 | 28 |
| 62M005PS4(vp)F(n) | 5:1 | 345 | 25 | 2.8 | 197 | 60.0 | 44 | 22 |
| 62M005PS4(vp)F(n) | 5:1 | 345 | 25 | 2.8 | 215 | 65.5 | 48 | 22 |
| 62M005PS4(vp)F(n) | 5:1 | 345 | 25 | 2.8 | 249 | 75.9 | 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)

Specifications

Table 3: Belt Speeds for Standard Load Fixed Speed Parallel Shaft 60 Hz Gearmotors on 2200 Series Conveyors (Excluding Gang Drive)

| Gearmotors* | | | | | Belt Speed | | Drive Pulley | Driven Pulley |
|-------------------|------------|-----|-------|------|------------|-------|--------------|---------------|
| Part Number | Gear Ratio | RPM | In-lb | N-m | Ft/min | M/min | | |
| 62M180PS4(vp)F(n) | 180:1 | 10 | 341 | 38.5 | 3 | 0.9 | 28 | 28 |
| 62M180PS4(vp)F(n) | 180:1 | 10 | 341 | 38.5 | 5 | 1.5 | 44 | 22 |
| 62M060PS4(vp)F(n) | 60:1 | 29 | 270 | 30.5 | 6 | 1.7 | 19 | 32 |
| 62M060PS4(vp)F(n) | 60:1 | 29 | 270 | 30.5 | 10 | 3.0 | 28 | 28 |
| 62M060PS4(vp)F(n) | 60:1 | 29 | 270 | 30.5 | 16 | 4.9 | 44 | 28 |
| 62M020PS4(vp)F(n) | 20:1 | 86 | 90 | 10.2 | 30 | 9.1 | 28 | 28 |
| 62M020PS4(vp)F(n) | 20:1 | 86 | 90 | 10.2 | 48 | 14.6 | 44 | 28 |
| 62M010PS4(vp)F(n) | 10:1 | 173 | 45 | 5.1 | 61 | 18.6 | 28 | 28 |
| 62M010PS4(vp)F(n) | 10:1 | 173 | 45 | 5.1 | 95 | 29.0 | 44 | 28 |
| 62M010PS4(vp)F(n) | 10:1 | 173 | 45 | 5.1 | 104 | 31.7 | 48 | 28 |
| 62M005PS4(vp)F(n) | 5:1 | 345 | 25 | 2.8 | 121 | 36.9 | 28 | 28 |
| 62M005PS4(vp)F(n) | 5:1 | 345 | 25 | 2.8 | 138 | 42.1 | 32 | 28 |
| 62M005PS4(vp)F(n) | 5:1 | 345 | 25 | 2.8 | 176 | 53.6 | 32 | 22 |
| 62M005PS4(vp)F(n) | 5:1 | 345 | 25 | 2.8 | 208 | 63.4 | 48 | 28 |
| 62M005PS4(vp)F(n) | 5:1 | 345 | 25 | 2.8 | 242 | 73.8 | 44 | 22 |
| 62M005PS4(vp)F(n) | 5:1 | 345 | 25 | 2.8 | 264 | 80.5 | 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 Standard Load Fixed Speed Parallel Shaft 60 Hz Gearmotors on MPD Series Conveyors

| Gearmotors* | | | | | Belt Speed | | Drive Pulley | Driven Pulley |
|-------------------|------------|-----|-------|------|------------|-------|--------------|---------------|
| Part Number | Gear Ratio | RPM | In-lb | N-m | Ft/min | M/min | | |
| 62M180PS4(vp)F(n) | 180:1 | 10 | 341 | 38.5 | 4.5 | 1.4 | 22 | 32 |
| 62M060PS4(vp)F(n) | 60:1 | 29 | 270 | 30.5 | 6 | 1.7 | 19 | 32 |
| 62M180PS4(vp)F(n) | 180:1 | 10 | 341 | 38.5 | 6.5 | 2 | 28 | 28 |
| 62M060PS4(vp)F(n) | 60:1 | 29 | 270 | 30.5 | 13 | 4.0 | 22 | 32 |
| 62M060PS4(vp)F(n) | 60:1 | 29 | 270 | 30.5 | 20 | 6.0 | 28 | 28 |
| 62M030PS4(vp)F(n) | 30:1 | 58 | 135 | 15.3 | 39 | 11.9 | 28 | 28 |
| 62M020PS4(vp)F(n) | 20:1 | 86 | 90 | 10.2 | 59 | 17.9 | 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)

Specifications

Table 5: Belt Speeds for Standard Load Variable Speed Parallel Shaft VFD Gearmotors on 2100, 4100 and 6200 Series Conveyors

| Gearmotors* | | | | | Belt Speed | | Drive Pulley | Driven Pulley |
|---------------|------------|-----|-------|------|------------|---------|--------------|---------------|
| Part Number | Gear Ratio | RPM | In-lb | N-m | Ft/min | M/min | | |
| 62M060PS423EN | 60:1 | 29 | 270 | 30.5 | 0.6–5.6 | 0.2–1.7 | 22 | 32 |
| 62M060PS423EN | 60:1 | 29 | 270 | 30.5 | 0.8–8.2 | 0.3–2.5 | 32 | 32 |
| 62M020PS423EN | 20:1 | 86 | 167 | 18.9 | 2.5–25 | 0.8–7.5 | 32 | 32 |
| 62M010PS423EN | 10:1 | 173 | 115 | 13 | 4.9–49 | 1.5–15 | 32 | 32 |
| 62M005PS423EN | 5:1 | 345 | 58 | 6.5 | 9.9–99 | 3–30 | 32 | 32 |
| 62M005PS423EN | 5:1 | 345 | 58 | 6.5 | 14–148 | 4.5–45 | 48 | 32 |
| 62M005PS423EN | 5:1 | 345 | 58 | 6.5 | 19–197 | 6–60 | 44 | 22 |
| 62M005PS423EN | 5:1 | 345 | 58 | 6.5 | 24–249 | 7.6–76 | 48 | 19 |

* At 60 Hz

Table 6: Belt Speeds for Standard Load Variable Speed Parallel Shaft VFD Gearmotors on 2200 Series Conveyors (Excluding Gang Drive)

| Gearmotors* | | | | | Belt Speed | | Drive Pulley | Driven Pulley |
|---------------|------------|-----|-------|------|------------|---------|--------------|---------------|
| Part Number | Gear Ratio | RPM | In-lb | N-m | Ft/min | M/min | | |
| 62M060PS423EN | 60:1 | 29 | 270 | 30.5 | 0.6–6 | 0.2–1.8 | 19 | 32 |
| 62M060PS423EN | 60:1 | 29 | 270 | 30.5 | 1–10 | 0.3–3.1 | 28 | 28 |
| 62M020PS423EN | 20:1 | 86 | 167 | 18.9 | 3–30 | 0.9–9.2 | 28 | 28 |
| 62M010PS423EN | 10:1 | 173 | 115 | 13 | 6–60 | 1.8–18 | 28 | 28 |
| 62M010PS423EN | 10:1 | 173 | 115 | 13 | 10–104 | 3.2–32 | 48 | 28 |
| 62M005PS423EN | 5:1 | 345 | 58 | 6.5 | 12–121 | 3.7–37 | 28 | 28 |
| 62M005PS423EN | 5:1 | 345 | 58 | 6.5 | 26–264 | 8.1–81 | 48 | 22 |

* At 60 Hz

Table 7: Belt Speeds for Standard Load Variable Speed Parallel Shaft VFD Gearmotors on MPD Series Conveyors

| Gearmotors* | | | | | Belt Speed | | Drive Pulley | Driven Pulley |
|---------------|------------|-----|-------|------|------------|---------|--------------|---------------|
| Part Number | Gear Ratio | RPM | In-lb | N-m | Ft/min | M/min | | |
| 62M060PS423EN | 60:1 | 29 | 270 | 30.5 | 1.3–13.4 | 0.4–4.1 | 22 | 32 |
| 62M060PS423EN | 60:1 | 29 | 270 | 30.5 | 2–19 | 0.9–5.9 | 28 | 28 |
| 62M020PS423EN | 20:1 | 86 | 167 | 18.9 | 5.9–59 | 1.8–18 | 28 | 28 |
| 62M010PS423EN | 10:1 | 173 | 115 | 13 | 11–117 | 3.6–36 | 28 | 28 |
| 62M010PS423EN | 10:1 | 173 | 115 | 13 | 17–175 | 5.4–54 | 48 | 32 |
| 62M005PS423EN | 5:1 | 345 | 58 | 6.5 | 23–234 | 7.1–71 | 28 | 28 |

* At 60 Hz

Specifications

Table 8: Belt Speeds for Standard Load Variable Speed Parallel Shaft DC Gearmotors on 2100, 4100 and 6200 Series Conveyors

| Gearmotors* | | | | | Belt Speed | | Drive Pulley | Driven Pulley |
|---------------|------------|-----|-------|------|------------|---------|--------------|---------------|
| Part Number | Gear Ratio | RPM | In-lb | N-m | Ft/min | M/min | | |
| 62M180PSD3DEN | 180:1 | 14 | 341 | 38.5 | 0.3–2.7 | 0.1–0.8 | 22 | 32 |
| 62M180PSD3DEN | 180:1 | 14 | 341 | 38.5 | 0.5–4 | 0.1–1.2 | 32 | 32 |
| 62M060PSD3DEN | 60:1 | 42 | 270 | 30.5 | 1.0–8.2 | 0.3–2.5 | 22 | 32 |
| 62M060PSD3DEN | 60:1 | 42 | 270 | 30.5 | 1.4–12 | 0.4–3.6 | 32 | 32 |
| 62M030PSD3DEN | 30:1 | 83 | 135 | 15.3 | 2.9–24 | 0.9–7.3 | 32 | 32 |
| 62M020PSD3DEN | 20:1 | 125 | 90 | 10.2 | 4.3–36 | 1.3–11 | 32 | 32 |
| 62M010PSD3DEN | 10:1 | 250 | 72 | 8.1 | 9–71 | 2.6–22 | 32 | 32 |
| 62M005PSD3DEN | 5:1 | 500 | 25 | 2.8 | 17–143 | 5.2–43 | 32 | 32 |
| 62M005PSD3DEN | 5:1 | 500 | 25 | 2.8 | 26–214 | 7.8–65 | 48 | 32 |
| 62M005PSD3DEN | 5:1 | 500 | 25 | 2.8 | 29–245 | 9.0–75 | 48 | 28 |

Table 9: Belt Speeds for Standard Load Variable Speed Parallel Shaft DC Gearmotors on 2200 Series Conveyors (Excluding Gang Drive)

| Gearmotors* | | | | | Belt Speed | | Drive Pulley | Driven Pulley |
|---------------|------------|-----|-------|------|------------|---------|--------------|---------------|
| Part Number | Gear Ratio | RPM | In-lb | N-m | Ft/min | M/min | | |
| 62M180PSD3DEN | 180:1 | 14 | 341 | 38.5 | 0.4–3.4 | 0.1–1.0 | 22 | 32 |
| 62M180PSD3DEN | 180:1 | 14 | 341 | 38.5 | 0.6–5 | 0.2–1.5 | 28 | 28 |
| 62M060PSD3DEN | 60:1 | 42 | 270 | 30.5 | 1.8–14 | 0.5–4.5 | 28 | 28 |
| 62M060PSD3DEN | 60:1 | 42 | 270 | 30.5 | 2.8–23 | 0.8–7 | 44 | 28 |
| 62M030PSD3DEN | 30:1 | 83 | 135 | 15.3 | 3.5–29 | 1.1–9 | 28 | 28 |
| 62M020PSD3DEN | 20:1 | 125 | 90 | 10.2 | 5.3–44 | 1.6–13 | 28 | 28 |
| 62M010PSD3DEN | 10:1 | 250 | 72 | 8.1 | 10–88 | 3.2–27 | 28 | 28 |
| 62M005PSD3DEN | 5:1 | 500 | 25 | 2.8 | 17–138 | 5–42 | 44 | 28 |
| 62M005PSD3DEN | 5:1 | 500 | 25 | 2.8 | 21–176 | 6.4–54 | 28 | 28 |
| 62M005PSD3DEN | 5:1 | 500 | 25 | 2.8 | 33–276 | 10–84 | 44 | 28 |

Table 10: Belt Speeds for Standard Load Variable Speed Parallel Shaft DC Gearmotors on MPB Series Conveyors

| Gearmotors* | | | | | Belt Speed | | Drive Pulley | Driven Pulley |
|---------------|------------|-----|-------|------|------------|---------|--------------|---------------|
| Part Number | Gear Ratio | RPM | In-lb | N-m | Ft/min | M/min | | |
| 62M180PSD3DEN | 180:1 | 14 | 341 | 38.5 | 1.1–9 | 0.3–2.9 | 28 | 28 |
| 62M060PSD3DEN | 60:1 | 42 | 270 | 30.5 | 2.3–19 | 0.7–5.9 | 22 | 32 |
| 62M060PSD3DEN | 60:1 | 42 | 270 | 30.5 | 3.4–28 | 1–8.6 | 28 | 28 |
| 62M060PSD3DEN | 60:1 | 42 | 270 | 30.5 | 5.3–44 | 1.6–13 | 44 | 28 |
| 62M030PSD3DEN | 30:1 | 83 | 135 | 15.3 | 6.8–57 | 2.1–17 | 28 | 28 |
| 62M020PSD3DEN | 20:1 | 125 | 90 | 10.2 | 10–85 | 3–26 | 28 | 28 |
| 62M020PSD3DEN | 20:1 | 125 | 90 | 10.2 | 15–127 | 4.7–39 | 48 | 32 |
| 62M010PSD3DEN | 10:1 | 250 | 72 | 8.1 | 20–170 | 6–52 | 28 | 28 |
| 62M010PSD3DEN | 10:1 | 250 | 72 | 8.1 | 31–255 | 9–77 | 48 | 32 |

* = Cleated and Sidewall Cleated belts operate 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 |
|  |
| <p>Exposed moving parts can cause severe injury.</p> <p>LOCK OUT POWER before removing guards or performing maintenance.</p> |

| |
|--|
| ⚠ WARNING |
|  |
| <p>MPB Series Conveyors are not reversible. Reversing creates pinch points which can cause severe injury.</p> <p>DO NOT REVERSE MPB SERIES CONVEYORS.</p> |

| |
|---|
| ⚠ WARNING |
|  |
| <p>For MPB Series and Cleated Belt Conveyors Gearmotors must be mounted as shown in Figure 7.</p> <p>Failure to do so creates pinch points which can cause severe injury.</p> |

1. Typical components (Figure 2)

Installation Component List:

| | |
|---|----------------------------|
| I | Top Mount Assembly |
| J | Drive Pulley |
| K | Cover |
| L | M4 Socket Head Screws (4x) |
| M | Driven Pulley |
| N | Key |
| O | M6 Socket Head Screws (2x) |
| P | Timing Belt |

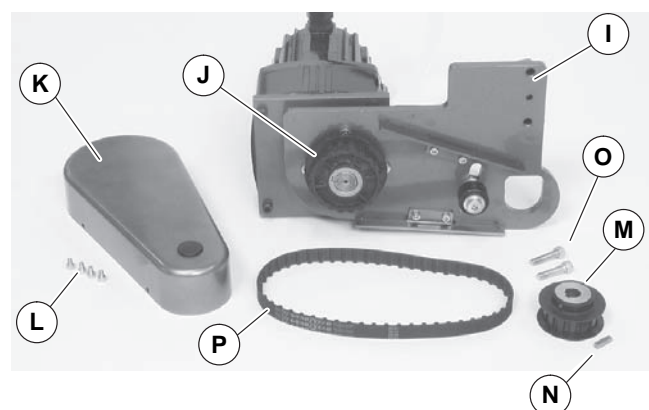
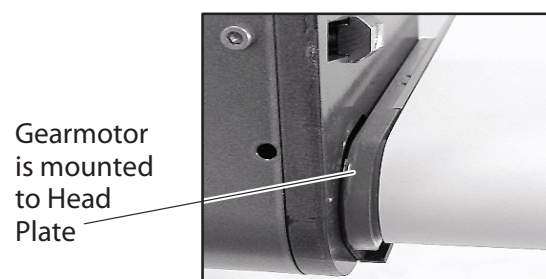


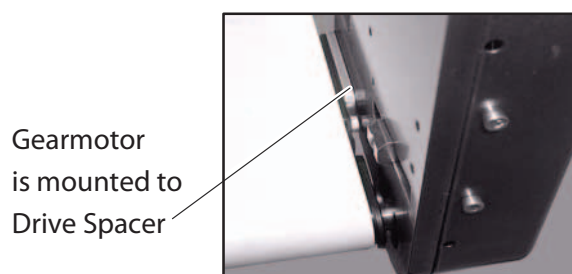
Figure 2

2. For your reference, the following figures show gearmotor mounting configurations for various conveyor series.



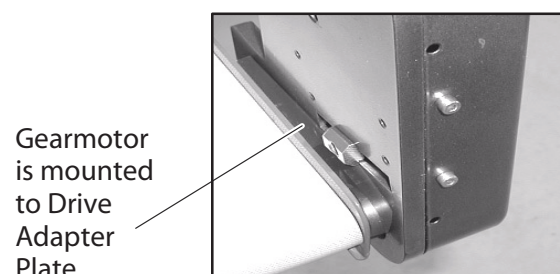
2200 Series

Figure 3



6200 Series

Figure 4

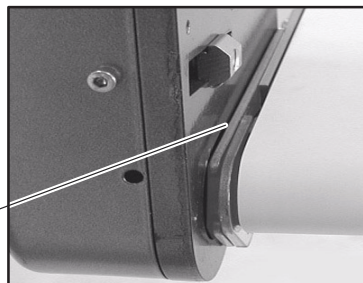


4100 Series

Figure 5

Installation

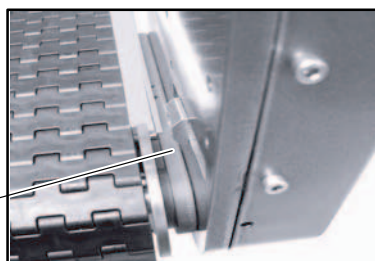
Gearmotor
is mounted
to Head
Plate



2100 Series

Figure 6

Gearmotor
is mounted
to Head
Plate



MPB Series

Figure 7

NOTE

6200 Series conveyor shown, other Series similar.

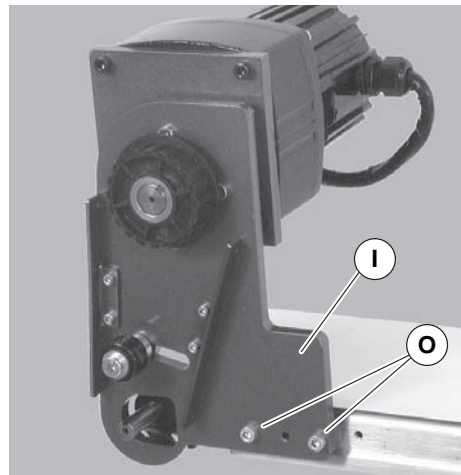


Figure 9

⚠ WARNING



Drive shaft keyway may be sharp.
HANDLE WITH CARE.

5. Install key (Figure 10, item N).

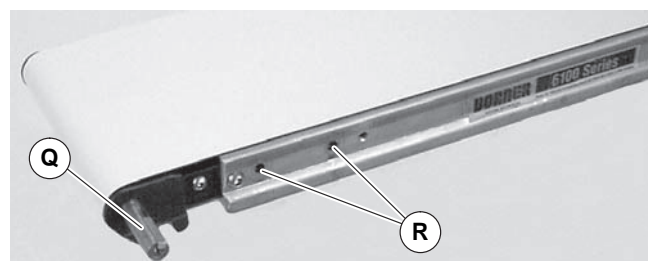


Figure 8

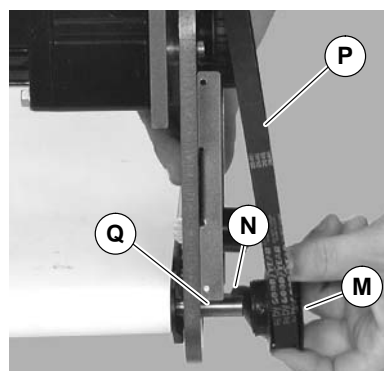


Figure 10

4. Attach mount assembly (Figure 9, item I) with screws (O). Tighten screws to 80 in-lb (9 N-m).
6. Wrap timing belt (P) around driven pulley (M) and drive pulley (J). Install driven pulley onto conveyor shaft (Q).

7. Remove cam bearing and spacer (Figure 9, item S). Place the cam bearing and spacer (Figure 11, item S) next to the driven pulley (M). Ensure the flanges of the driven pulley are aligned with the cam bearing. Tighten driven pulley set screws (T). This will allow for proper belt alignment while conveyor is in use. Install cam bearing and spacer (S).

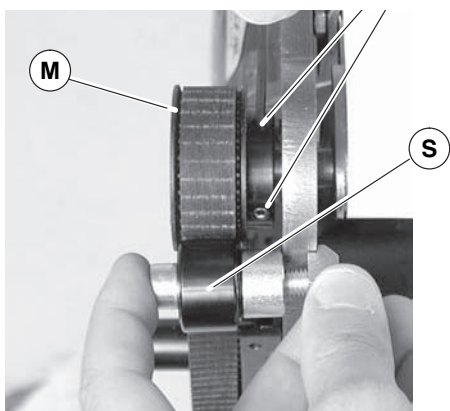


Figure 11

8. Depending on direction of conveyor belt travel (1 or 2 of Figure 12), position belt tensioner (U) as shown. Tension belt to obtain 0.125" (3 mm) deflection for 1.0 lb (456 grams) of force at belt mid-point (V). Tighten tensioner screw to 103 in-lb (12 N-m).

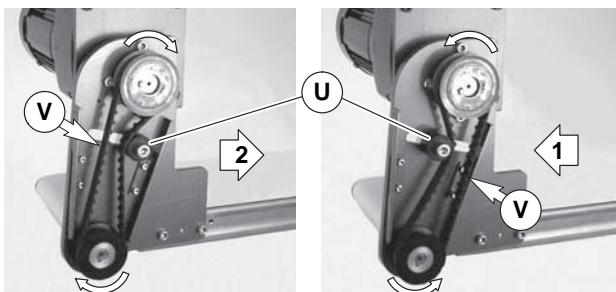


Figure 12

9. Install cover (Figure 13, item K) with four screws (L). Tighten to 35 in-lb (4 N-m).

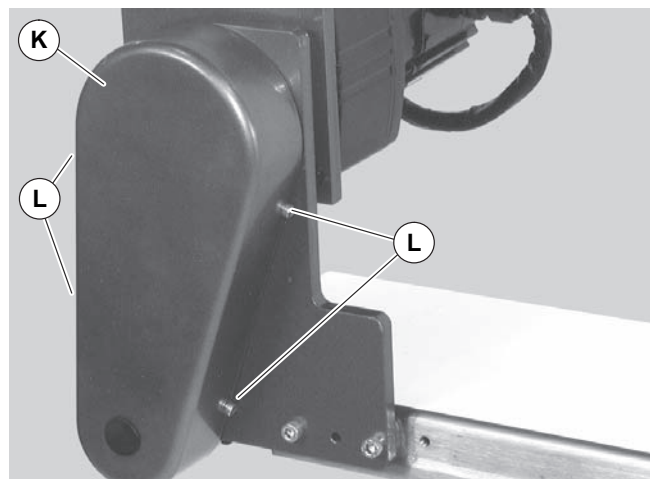


Figure 13

Preventive Maintenance and Adjustment

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 screws (Figure 13, item L) and remove cover (K).
2. Loosen tensioner (Figure 14, item U).

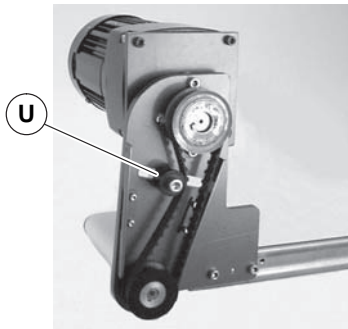


Figure 14

3. Depending on direction of conveyor belt travel (1 or 2 of Figure 12), position belt tensioner (U) as shown. Tension belt to obtain 0.125" (3 mm) deflection for 1.0 lb (456 grams) of force at belt mid-point (V). Tighten tensioner screw to 103 in-lb (12 N-m).
4. Install cover (Figure 13, item K) with four screws (L). Tighten to 35 in-lb (4 N-m).

Timing Belt Replacement

⚠ WARNING



Exposed moving parts can cause severe injury.
LOCK OUT POWER before removing guards or performing maintenance.

1. Remove four screws (Figure 13, item L) and remove cover (K).
2. Loosen tensioner (Figure 14, item U).
3. Remove timing belt (Figure 15, item P).

NOTE

If timing belt does not slide over pulley flange, loosen two driven pulley set screws (Figure 15, item T) and remove pulley with belt (P). For re-installation, see steps 6 and 7 on page 10.

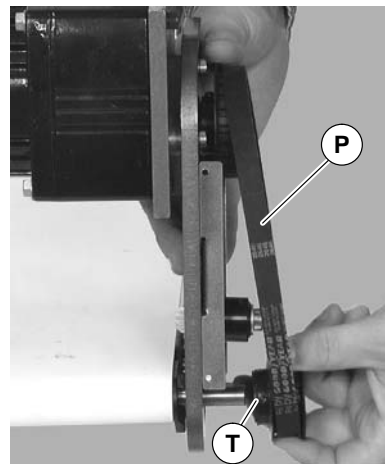


Figure 15

4. Install new timing belt.
5. Depending on conveyor belt travel (direction 1 or 2), locate timing belt tensioner (Figure 12, item U) 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 (V). Tighten tensioner screw to 103 in-lb (12 N-m).
6. Install cover (Figure 13, item K) with four screws (L). Tighten to 35 in-lb (4 N-m).

Preventive Maintenance and Adjustment

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 (Figure 18, item J) was replaced, wrap timing belt around drive pulley and complete step 3.

3. Complete steps 6 through 9 of “Installation” section beginning on page 10.

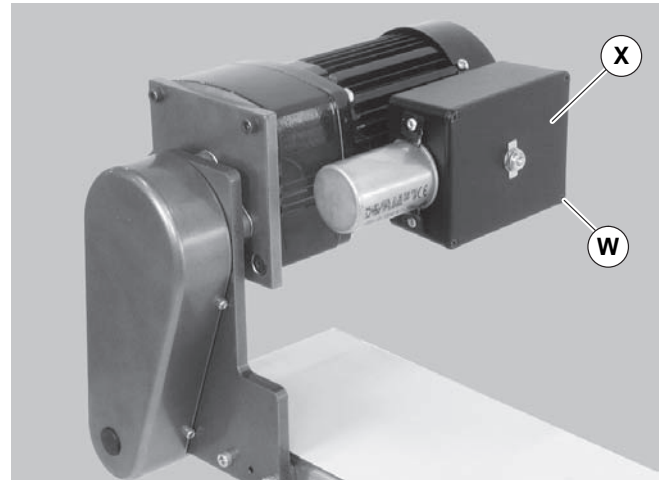


Figure 16

- a. Record incoming wire colors connecting to red, black and blue leads. Loosen wire nuts and remove incoming wires.
 - c. Loosen cord grip and remove cord.
3. For DC variable speed motor, unplug motor cord at disconnect (Figure 17, item Y).

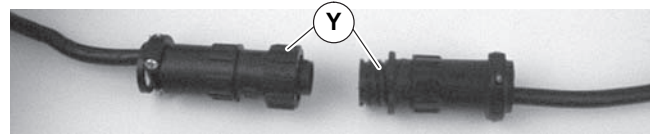


Figure 17

4. Remove four screws (Figure 13, item L) and remove cover (K).
5. Loosen tensioner (Figure 14, item U).
6. Loosen drive pulley set screws (Figure 18, item Z). Remove drive pulley (J) and timing belt (P).

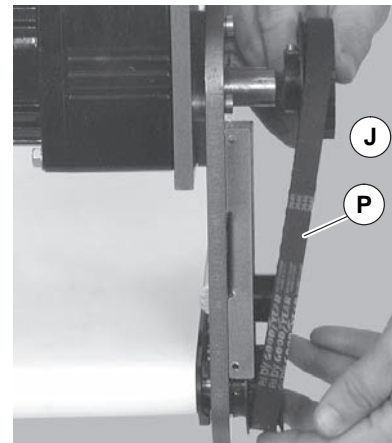


Figure 18

Gearmotor Replacement

⚠ WARNING



Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

⚠ DANGER



Hazardous voltage will cause severe injury or death.

LOCKOUT POWER BEFORE before wiring.

1. For single phase motor, unplug power cord from outlet.
2. For three phase motor:
 - a. Loosen terminal box screws (Figure 16, item W) and remove cover (X).

Preventive Maintenance and Adjustment

7. Remove four gear motor mounting screws (Figure 19, item AA). Remove gearmotor/adapter plate Assembly.

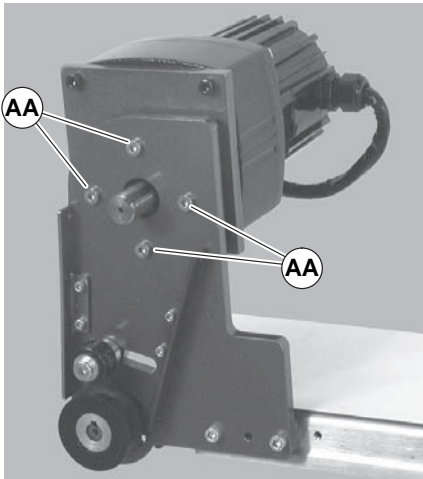


Figure 19

8. Remove four adapter plate screws (Figure 20, item AB). Remove adapter plate.

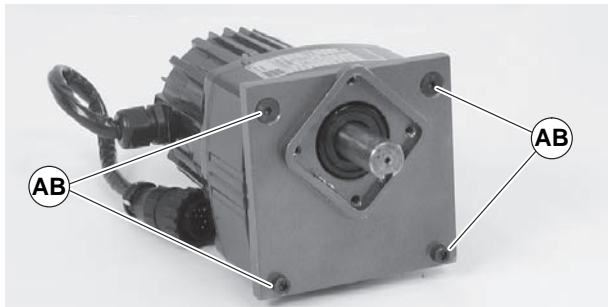


Figure 20


9. Install new gearmotor to adapter plate with screws (Figure 20, item AB). Tighten screws to 103 in-lb (12 N-m).
10. Install gearmotor/adapter plate assembly on mounting bracket with screws (Figure 19, item AA). Tighten screws to 103 in-lb (12 N-m).

NOTE

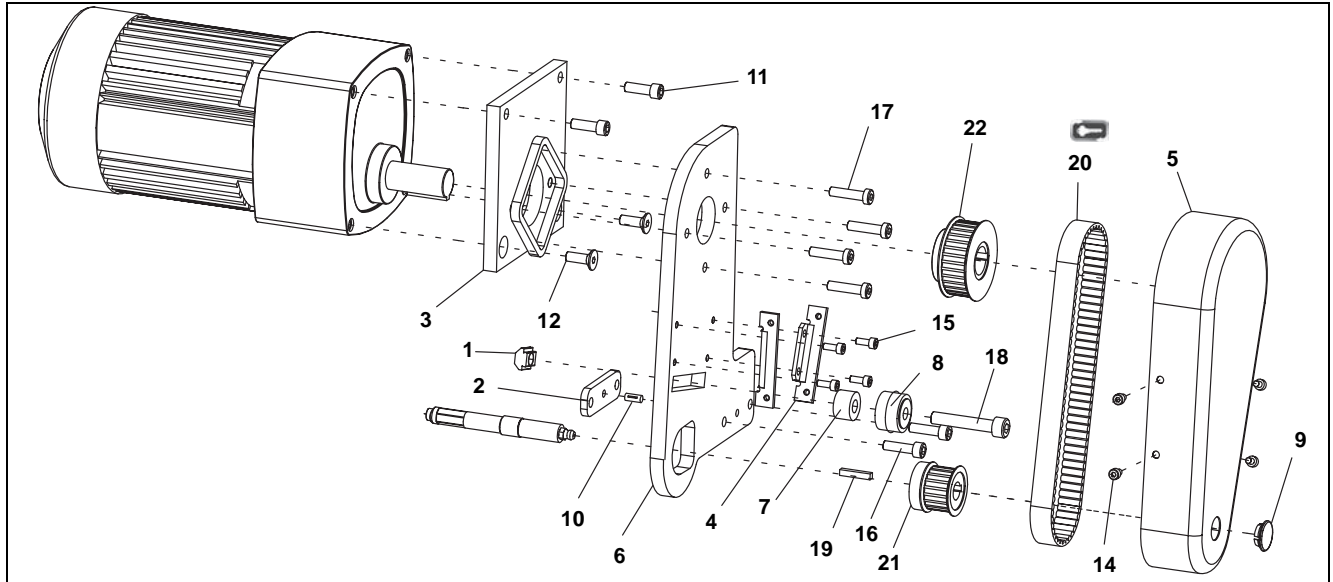
If drive pulley (Figure 18, item J) was removed, wrap timing belt around drive pulley and complete step 11.

11. Complete steps 6 through 9 of “Installation” section beginning on page 10.
12. Replace wiring:
 - For a single phase motor, reverse step 1 on page 13.
 - For a three phase motor, reverse step 2, on page 13.
 - For a DC variable speed motor, reverse step 3 on page 13.

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 and MPB Series Top Mount Drive Package

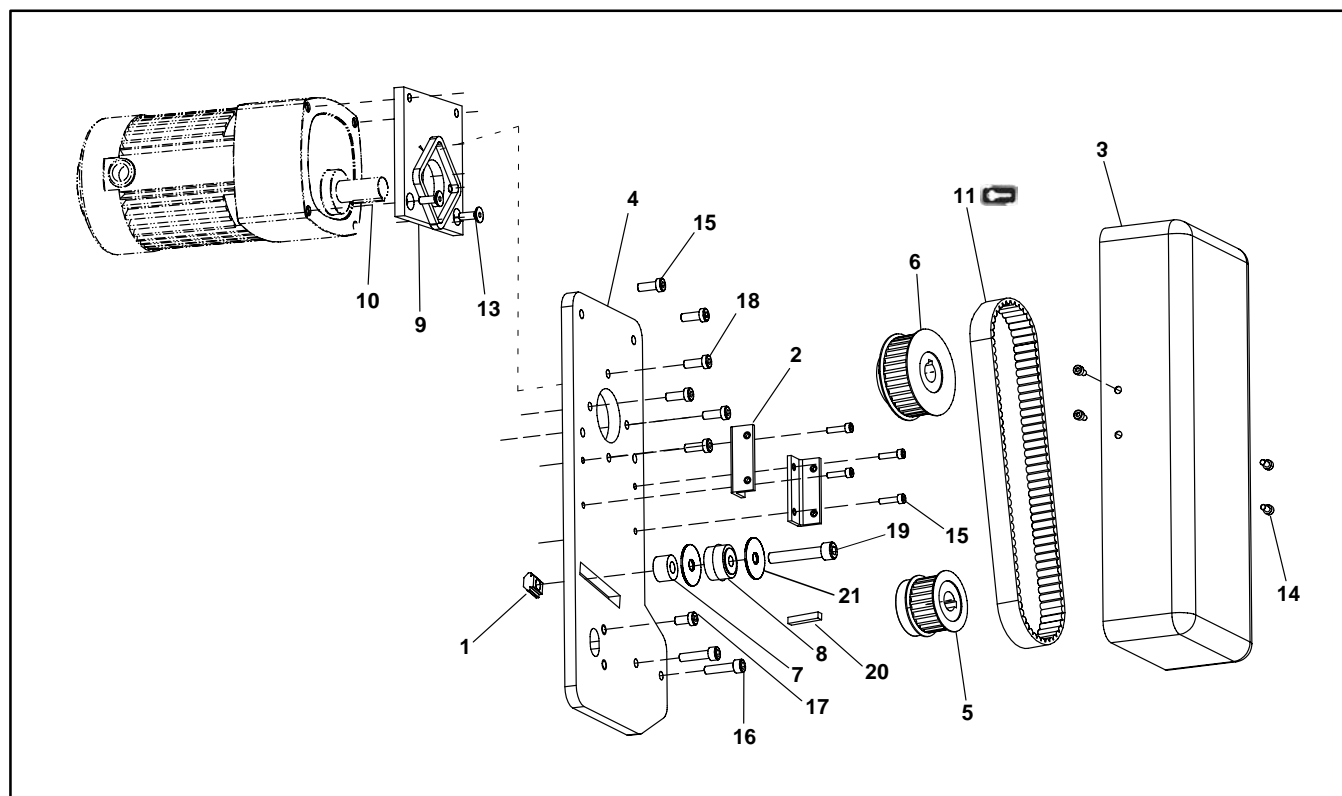


| Item | Part Number | Description |
|------|-------------|--|
| 1 | 202390M | Nut, Cam Follower |
| 2 | 450027M | Adaptor Plate Assembly (6200 Only) |
| 3 | 450029M | Adaptor Plate Assembly |
| 4 | 450375M | Cover Mounting Bracket |
| 5 | 450376M | Drive Guard |
| 6 | 450443M | Grove Mounting Plate |
| 7 | 450445 | Spacer |
| 8 | 802-046 | Bearing |
| 9 | 807-226 | Snap-out Plastic Plug |
| 10 | 807-952 | Groove Pin (6200 Only) |
| 11 | 902-157 | Socket Cap Head Screw, 1/4-28 x 0.75" |
| 12 | 903-161 | Flat Cap Head Screw, 1/4-28 x 0.75" |
| 13 | 912-084 | Square Key, 0.188" x 1.50" |
| 14 | 920406M | Socket Head Screw, M4 x 6mm |
| 15 | 920410M | Socket Head Screw, M4 x 10mm |
| 16 | 920625M | Socket Head Screw, M6 x 25mm |
| | 920616M | Socket Head Screw, M6 x 16mm (4100 Only) |
| | 920630M | Socket Head Screw, M6 x 30mm (6200 Only) |
| 17 | 920695M | Socket Low Head Screw, M6 x 20mm |
| 18 | 920845M | Socket Head Screw, M8 x 45mm |

| Item | Part Number | Description |
|------|-------------|---|
| 19 | 980422M | Square Key 4mm x 22mm |
| | 912-053 | Square Key, 0.125" x 0.75" (4100 Series - 1" (25mm) Wide Conveyor Only) |
| 20 | 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 |
| 21 | 450365MP | Driven Pulley, 19Tooth, 12mm bore |
| | 450366MP | Driven Pulley, 22Tooth, 12mm bore |
| | 450367MP | Driven Pulley, 28Tooth, 12mm bore |
| | 450368MP | Driven Pulley, 32Tooth, 12mm bore |
| 22 | 450434 | Drive Pulley, 22Tooth, 0.75" bore |
| | 450435 | Drive Pulley, 28Tooth, 0.75" bore |
| | 450436 | Drive Pulley, 32Tooth, 0.75" bore |
| | 450437 | Drive Pulley, 44Tooth, 0.75" bore |
| | 450438 | Drive Pulley, 48Tooth, 0.75" bore |
| | 450439 | Drive Pulley, 60Tooth, 0.75" bore |

Service Parts

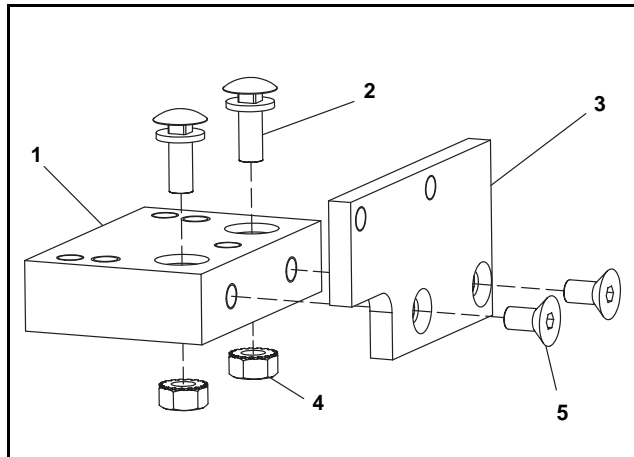
MPB Series Cleated Belt Top Mount Drive Package



| Item | Part Number | Description |
|------|-------------|------------------------------------|
| 1 | 202390M | Nut Cam Follower |
| 2 | 243402 | Mounting Cover Bracket |
| 3 | 300871M | Drive Guard |
| 4 | 243401 | Mounting Plate |
| 5 | 450367MP | Driven Pulley, 28 Tooth |
| | 450368MP | Driven Pulley, 32 Tooth |
| 6 | 450434 | Drive Pulley, 22 Tooth, 0.75" bore |
| | 450435 | Drive Pulley, 28 Tooth, 0.75" bore |
| | 450436 | Drive Pulley, 32 Tooth, 0.75" bore |
| | 450437 | Drive Pulley, 44 Tooth, 0.75" bore |
| | 450438 | Drive Pulley, 48 Tooth, 0.75" bore |
| 7 | 450445 | Spacer |
| 8 | 802-046 | Bearing |
| 9 | 450029M | Adaptor Plate Assembly |
| 10 | 912-084 | Square Key, 0.188 x 1.5" |

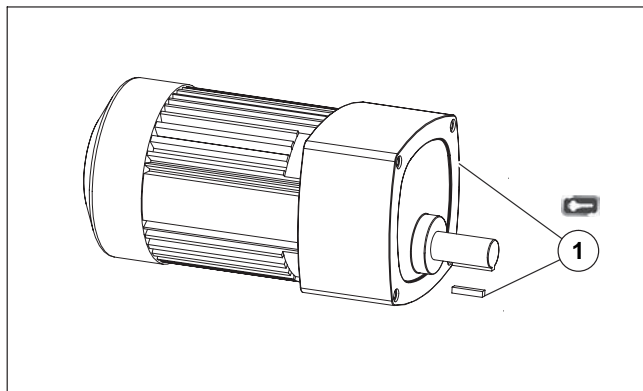
| Item | Part Number | Description |
|------|-------------|---------------------------------------|
| 11 | 814-101 | Timing Belt, 15mm W x 500mm L |
| | 814-108 | Timing Belt, 15mm W x 520mm L |
| | 814-064 | Timing Belt, 15mm W x 535mm L |
| | 814-099 | Timing Belt, 15mm W x 565mm L |
| | 814-109 | 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 |
| 12 | 902-157 | Socket Head Screw, 1/4-28 x 0.75" |
| 13 | 903-161 | Flat Head Screw, 1/4-28 x 0.75" |
| 14 | 920408M | Socket Head Screw, M4 x 8mm |
| 15 | 920416M | Socket Head Screw, M4 x 16mm |
| 16 | 920625M | Socket Head Screw, M6 x 25mm |
| 17 | 920692M | Stabilization Screw, M6 x 12mm Low Hd |
| 18 | 920695M | Socket Low Head Screw, M6 x 25mm |
| 19 | 920845M | Socket Head Screw, M8 x 45mm |
| 20 | 980422M | Square Key, 4mm x 22mm |
| 21 | 807-1133 | Washer |

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 |

Gearmotors



| Item | Part No. | Part Description |
|------|---------------|---|
| 1 | 62M180PS411FN | Motor, 0.08hp (0.06Kw), 10 RPM, 115VAC, 60Hz, 1-Phase |
| | 62M180PS411FR | Motor, 0.08hp (0.06Kw), 10 RPM, 115VAC, 60Hz, 1-Phase with reversing switch |
| | 62M060PS411FN | Motor, 0.17hp (0.13Kw), 29 RPM, 115VAC, 60Hz, 1-Phase |
| | 62M060PS411FR | Motor, 0.17hp (0.13Kw), 29 RPM, 115VAC, 60Hz, 1-Phase with reversing switch |
| | 62M060PS423FN | Motor, 0.25hp (0.19Kw), 29 RPM, 230VAC, 60Hz, 3-Phase |
| | 62M030PS411FN | Motor, 0.17hp (0.13Kw), 58 RPM, 115VAC, 60Hz, 1-Phase |
| | 62M030PS411FR | Motor, 0.17hp (0.13Kw), 58 RPM, 115VAC, 60Hz, 1-Phase with reversing switch |
| | 62M030PS423FN | Motor, 0.25hp (0.19Kw), 58 RPM, 230VAC, 60Hz, 3-Phase |
| | 62M020PS411FN | Motor, 0.17hp (0.13Kw), 86 RPM, 230VAC, 60Hz, 1-Phase |
| | 62M020PS411FR | Motor, 0.17hp (0.13Kw), 86 RPM, 115VAC, 60Hz, 1-Phase with reversing switch |

| Item | Part No. | Part Description |
|------|---------------|--|
| | 62M010PS411FN | Motor, 0.17hp (0.13Kw), 173 RPM, 115VAC, 60Hz, 1-Phase |
| | 62M010PS411FR | Motor, 0.17hp (0.13Kw), 173 RPM, 115VAC, 60Hz, 1-Phase with reversing switch |
| | 62M010PS423FN | Motor, 0.25hp (0.19Kw), 173 RPM, 230VAC, 60Hz, 3-Phase |
| | 62M005PS411FN | Motor, 0.17hp (0.13Kw), 345 RPM, 230VAC, 60Hz, 1-Phase |
| | 62M005PS411FR | Motor, 0.17hp (0.13Kw), 345 RPM, 115VAC, 60Hz, 1-Phase with reversing switch |
| | 62M180PSD3DEN | Motor, 0.12hp (0.09Kw), 14 RPM, 130VDC |
| | 62M060PSD3DEN | Motor, 0.25hp (0.19Kw), 42 RPM, 130VDC |
| | 62M030PSD3DEN | Motor, 0.25hp (0.19Kw), 83 RPM, 130VDC |
| | 62M020PSD3DEN | Motor, 0.25hp (0.19Kw), 125 RPM, 130VDC |
| | 62M010PSD3DEN | Motor, 0.25hp (0.19Kw), 250 RPM, 130VDC |
| | 62M005PSD3DEN | Motor, 0.25hp (0.19Kw), 500 RPM, 130VDC |

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 (if available, part serial number).

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

Conveyors and conveyor accessories

| | |
|--|----------------------|
| Standard catalog conveyors | 30% |
| MPB, 7200, 7300 Series, cleated and specialty belt | 50% |
| AquaGard & AquaPruf Series conveyors | non-returnable items |
| Engineered to order products | case by case |
| Drives and accessories | 30% |
| Sanitary stand supports | non-returnable items |

Parts

| | |
|--|----------------------|
| Standard stock parts | 30% |
| Plastic chain, 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 Customer Service Team 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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