

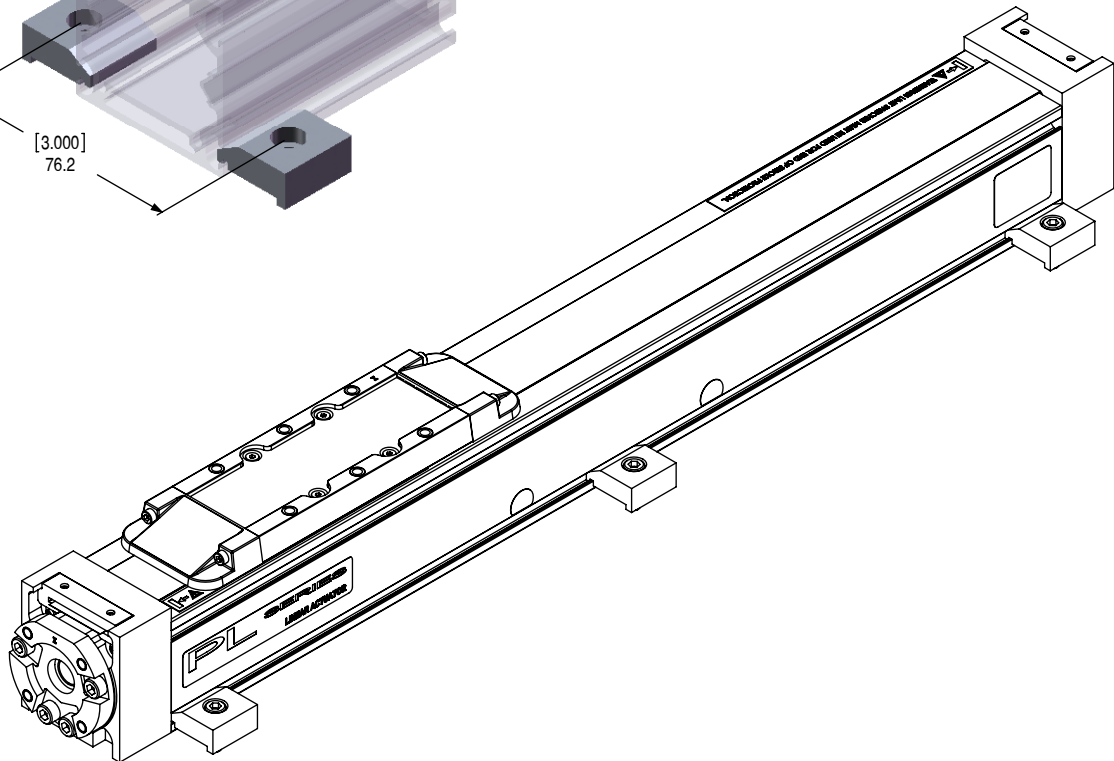
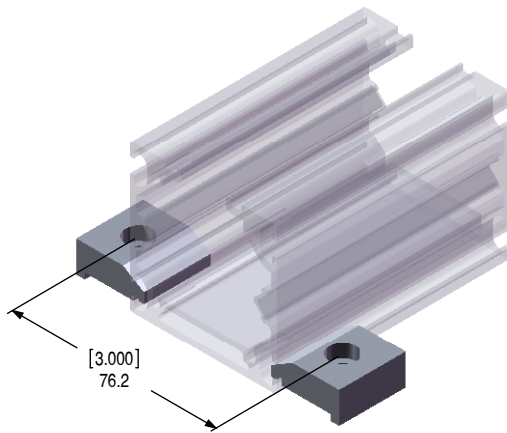
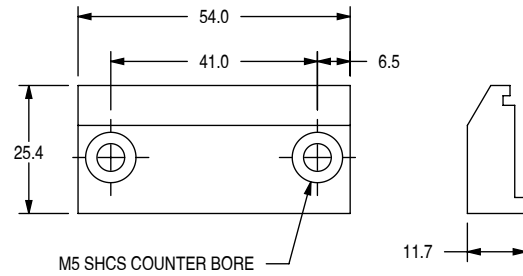
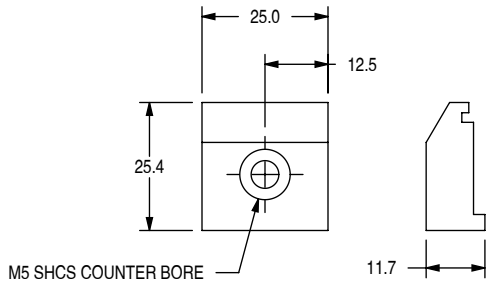
CLAMP INSTALLATION GUIDE

"HOLD DOWN" CLAMP INSTALLATION

1. Drill and tap two M5X0.8 threaded holes in the base plate in each location you wish to install a clamp (reference the PL catalog for information on recommended clamp quantity and spacing)
2. Place a clamp on both sides of actuator. Loosely tighten all four screws, then fully tighten them [5.6N-m/50in-lbs].

TOOLS REQUIRED:

4.0mm hex wrench



Note: PBC Linear™ recommends using low strength thread locker on all hardware.

MOTOR MOUNT & COUPLING INSTALLATION

The motor mount is pre-engineered to install the specified motor to the PLA actuator with the supplied coupling.

There are two standard styles of couplings that PBC Linear™ recommends. The elastomer coupling (shown in Figure 2) and the bellows coupling (shown in Figure 1).

INSTALLATION INSTRUCTIONS

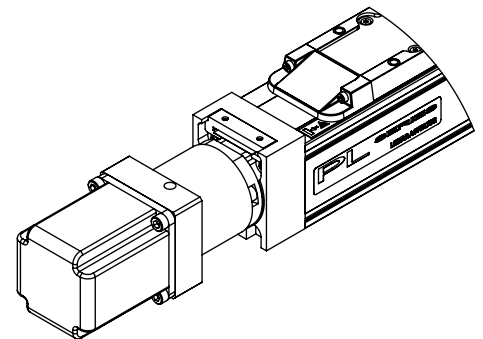
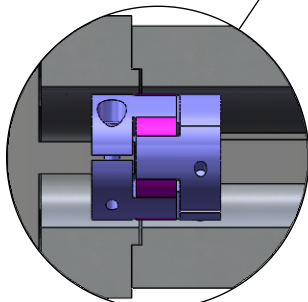
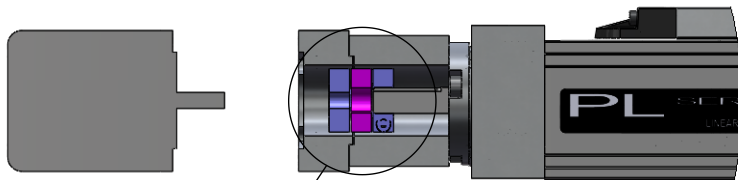
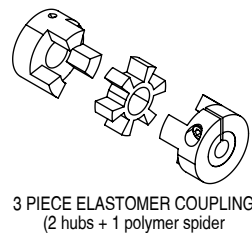
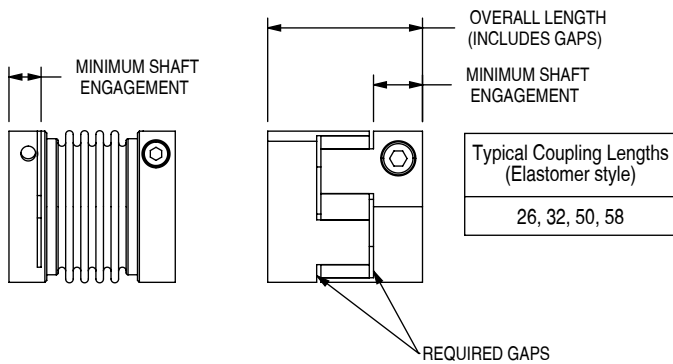
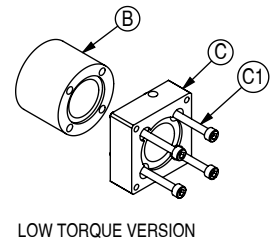
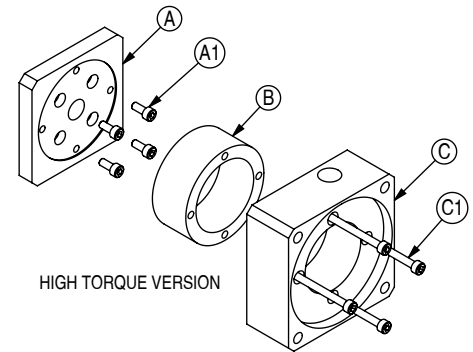
1. Attach the actuator flange (A) to the PLA actuator using the actuator flange screws (A1). If the motor spacer assembly does not have an actuator flange, then skip this step.
2. If using the three piece coupling, pull the two hubs apart until the overall length of the coupling matches the table below. There should be a gap on both sides of the plastic spider (this allows for axial miss-alignment between the shafts). The coupling may have two different bore diameters (one that matches the actuator shaft and one that matches the motor shaft). Ensure that the correct end of the coupling is to be installed on the correct shaft.
3. Start by attaching the coupling to the PLA actuator shaft. Reference Figure 1 or 2 depending on your coupling style to determine how far the shaft should engage the coupling. It is acceptable for the shaft to protrude further into the coupling 1-3 mm. Loosen the screw on the side of the coupling facing the motor.
4. Install the mount cylinder (B) and motor mount flange (C) to the actuator flange using the motor mount screws (C1).
5. Install the motor by gently sliding it into the motor mount. If using the three piece coupling design, be careful not to bump into the coupling removing the desired gap. Attach the motor to the motor flange.
6. Using the access hole on the motor flange, tighten the screw on the coupling to complete the installation.

PARTS:

- (A) Actuator flange
- (A1) Actuator flange screws
- (B) Mount cylinder
- (C) Motor mount flange
- (C1) Motor mount screws

TOOLS REQUIRED:

Metric hex wrench set



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Note: PBC Linear™ recommends using low strength thread locker on all hardware.

MOTOR MOUNT & COUPLING INSTALLATION

The motor mount is pre-engineered to install the specified motor to the PLB actuator with the supplied coupling.

There are two standard styles of couplings that PBC Linear™ recommends. The elastomer coupling (shown in Figure 2) and the bellows coupling (shown in Figure 1).

INSTALLATION INSTRUCTIONS

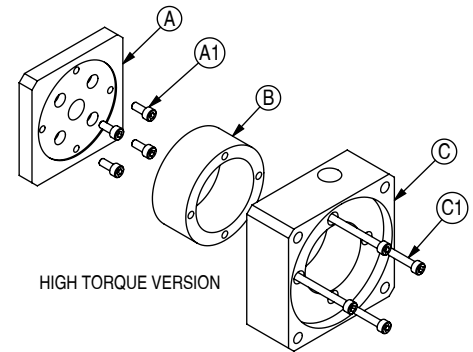
1. Attach the actuator flange (A) to the PLB actuator using the actuator flange screws (A1). If the motor spacer assembly does not have an actuator flange, then skip this step.
2. If using the three piece coupling, pull the two hubs apart until the overall length of the coupling matches the table below. There should be a gap on both sides of the plastic spider (this allows for axial miss-alignment between the shafts). The coupling may have two different bore diameters (one that matches the actuator shaft and one that matches the motor shaft). Ensure that the correct end of the coupling is to be installed on the correct shaft.
3. Start by attaching the coupling to the PLB actuator shaft. Reference Figure 1 or 2 depending on your coupling style to determine how far the shaft should engage the coupling. It is acceptable for the shaft to protrude further into the coupling 1-3 mm. Loosen the screw on the side of the coupling facing the motor.
4. Install the mount cylinder (B) and motor mount flange (C) to the actuator flange using the motor mount screws (C1).
5. Install the motor by gently sliding it into the motor mount. If using the three piece coupling design, be careful not to bump into the coupling removing the desired gap. Attach the motor to the motor flange.
6. Using the access hole on the motor flange, tighten the screw on the coupling to complete the installation.

PARTS:

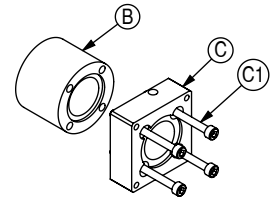
- (A) Actuator flange
- (A1) Actuator flange screws
- (B) Mount cylinder
- (C) Motor mount flange
- (C1) Motor mount screws

TOOLS REQUIRED:

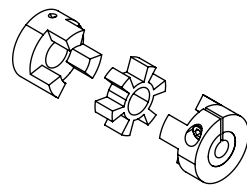
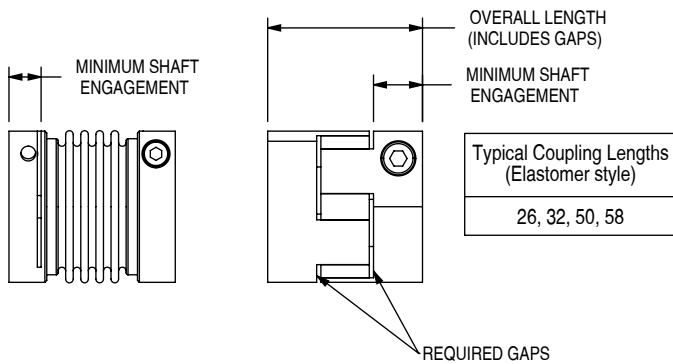
Metric hex wrench set



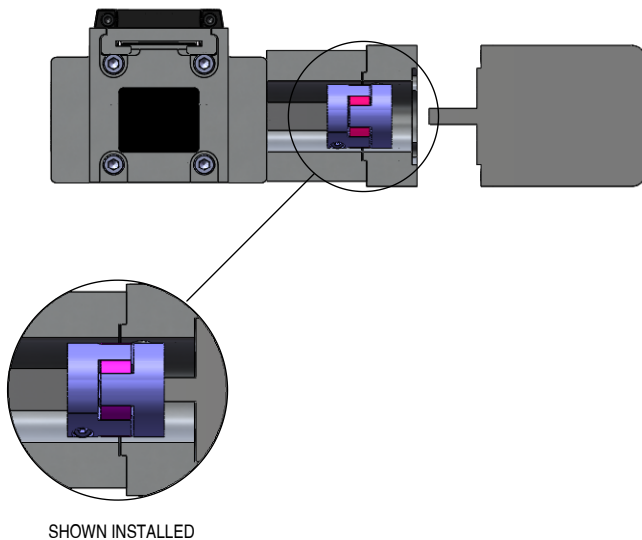
HIGH TORQUE VERSION



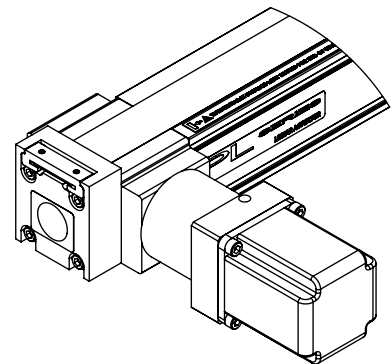
LOW TORQUE VERSION



3 PIECE ELASTOMER COUPLING
(2 hubs + 1 polymer spider)



SHOWN INSTALLED



Note: PBC Linear™ recommends using low strength thread locker on all hardware.

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SENSOR INSTALLATION GUIDE

- Establish approximate location of where sensors are to be installed. Ensure adequate over travel is accounted for.
Recommended over travel:
10mm - Stepper motor
20mm - Servo motor
- Roll in t-nut (D) into bottom t-slot in the approximate location the sensor (B) is to be installed.
- Tip the "hook" of the sensor bracket (B) into top t-slot (see Figure 1). Align the bottom hole of the sensor bracket over the t-nut. Loosely attached the bracket to the t-nut using the mounting screw & washer (C).
- Attach the sensor to the sensor bracket. If using the barrel style sensor then tighten to the sensor bracket using the two hex nuts (E). Ensure the sensing distance is within the specified range. If using the mechanical style sensor, attach the sensor to the bracket with the two mounting screws (E).
- Slide the sensor bracket to the final position desired and tighten the mounting screw and washer [5.6N-m/50in-lbs].
- Repeat as needed for additional sensors.
- Reference relevant specification sheet for sensor schematic, wiring method, voltage, etc.

PARTS:

- (A) Sensor
- (B) Sensor bracket
- (C) Mounting screw & washer
- (D) T-nut
- (E) Mounting screw or nut

TOOLS REQUIRED:

- 4mm hex wrench
- Open faced wrench (if using barrel style)

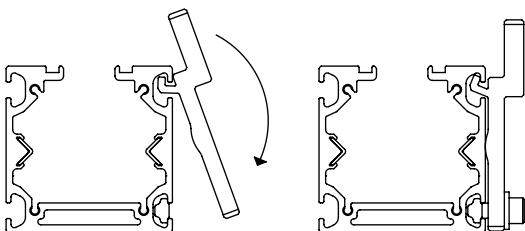
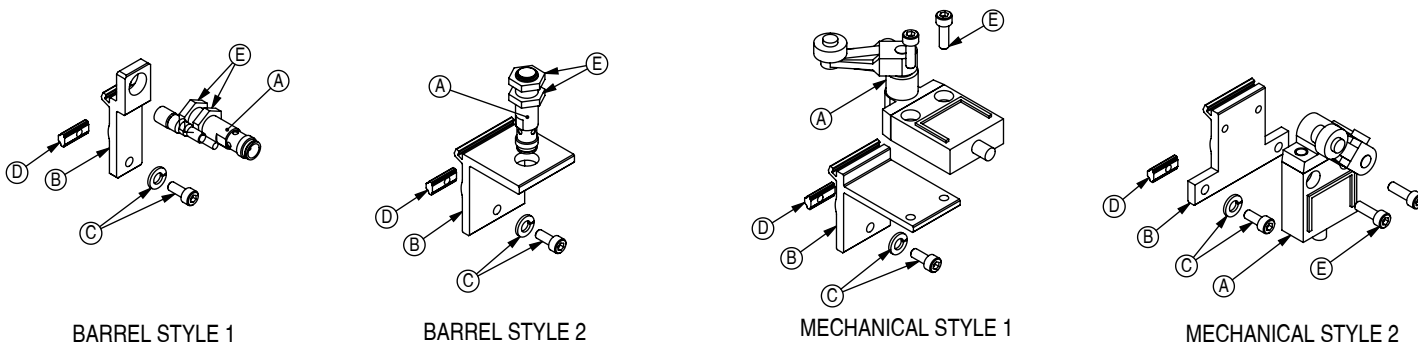
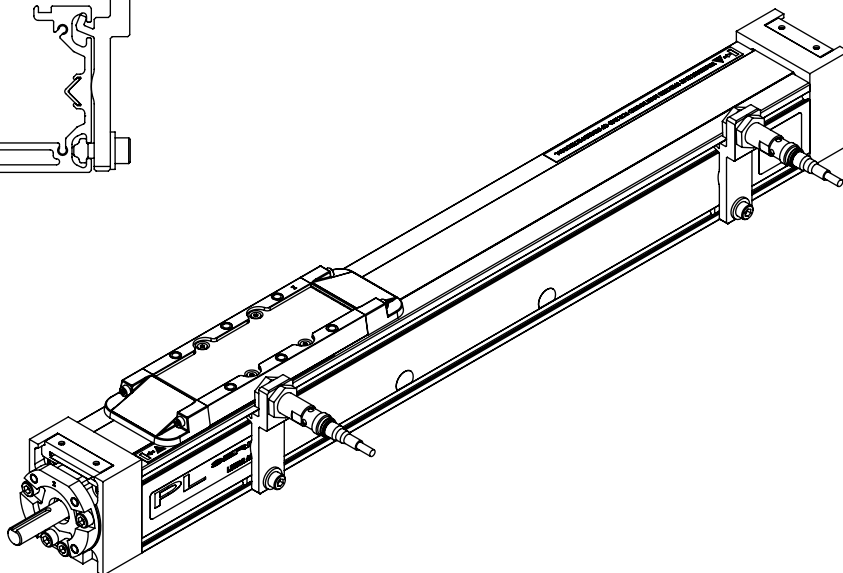


FIGURE 1



Note:
The barrel style 1 (shown) uses the PL carriage as a sensor target. The other three styles require a customer designed target to trip the sensor.



GANTRY LAYOUT GUIDE

PL actuators have many features that simplify gantry design.

- X to Y transitions do not require additional brackets. The unique hold down clamps simplify gantry assembly.
- Sensor brackets are available in several styles (Barrel style shown below)
- Additional accessories available upon request.

