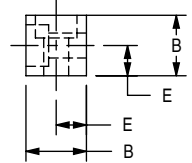
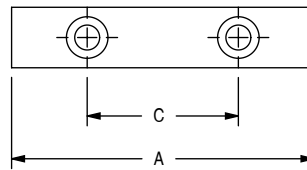
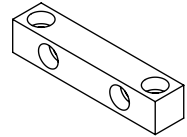
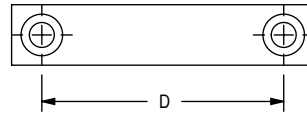


HOLD DOWN CLAMP INSTALLATION

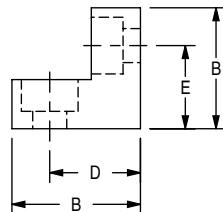
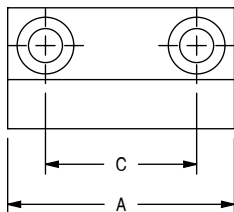
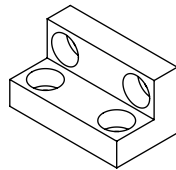
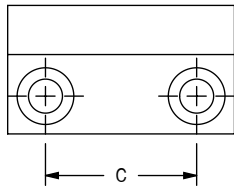
Two styles of clamps are available for the MT series actuators. The end mount style clamps fix the MT actuator to the base plate via the end blocks. The mid mount style clamps fix the MT actuator to the base plate via the side t-slots via nuts.

End mount style clamp



	A	B	C	D	E	SCREW	TORQUE	TOOL
MTB042	42	14	16	30	7	M4 SHCS	2.8 N-m [25 in-lb]	3mm hex wrench
MTB055	55	15	23	41	7.5	M5 SHCS	5.7 N-m [50 in-lb]	4mm hex wrench
MTB080	80	16	40	64	8	M6 SHCS	6.8 N-m [60 in-lb]	5mm hex wrench

Mid mount style clamp



	A	B	C	D	E	SCREW	TORQUE	TOOL
MTB042	40	17	25	10.5	11	M4 SHCS	2.8 N-m [25 in-lb]	3mm hex wrench
MTB055	50	23	30	16.5	16.5	M5 SHCS	5.7 N-m [50 in-lb]	4mm hex wrench
MTB080	60	32	40	24	22	M8 SHCS	8.5 N-m [75 in-lb]	6mm hex wrench

MOTOR MOUNT & COUPLER INSTALLATION

The motor mount is pre-engineered to install the specified motor to the MT 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 MT actuator using the actuator flange screws (A1).
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 ML 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.
6. Using the access hole on the motor flange, tighten the screw on the coupling to complete the installation.

PARTS LIST:

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

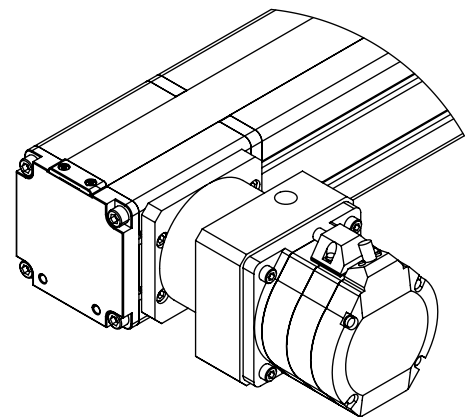
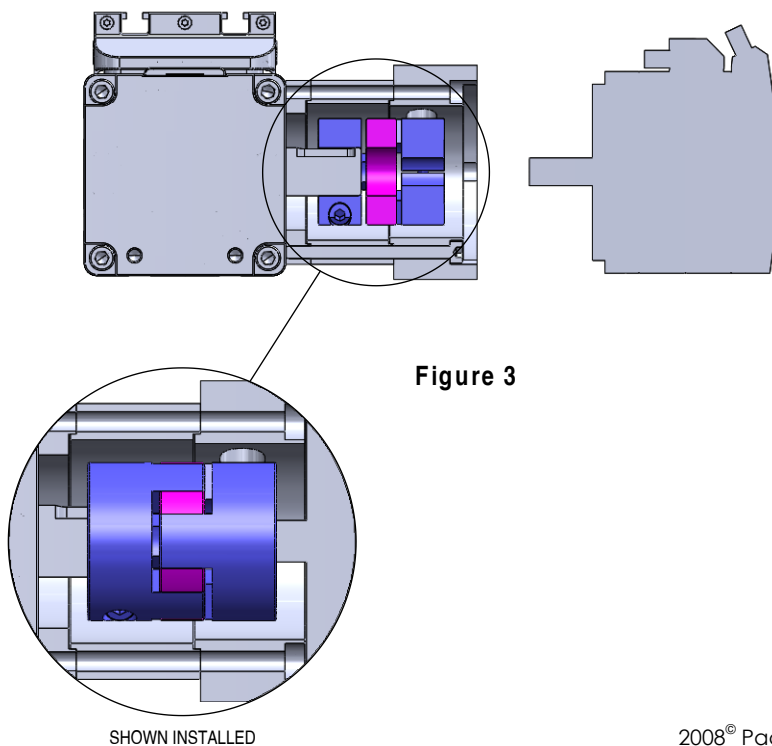
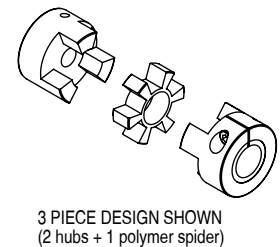
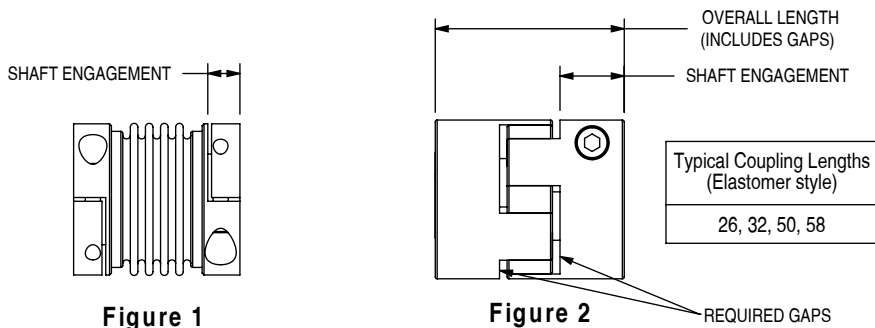
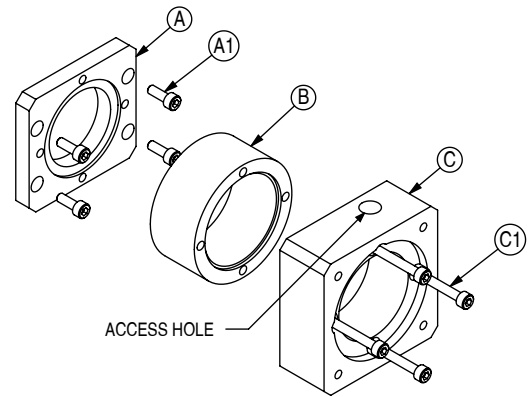


Figure 3

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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

MECHANICAL STYLE:

- Slide both nuts (D) in t-slots approximately where sensors are to be installed. Depending on the size and style, it may be necessary to use the slot opening near the end block.
- Attach the sensor (A) to the sensor bracket (B) using the mounting screw (E) to the torque shown below.
- Loosely mount the sensor bracket to the nuts in the t-slot. Slide to desired location and tighten the mounting screws (C) to the torque shown below.
- The arm can be removed and rotated as needed to contact the customer target. Skip to step 6.

BARREL STYLE:

- Slide both nuts (D) in t-slots approximately where sensors (A) are to be installed. Depending on the size and style, it may be necessary to use the slot opening near the end block.
- Loosely mount the sensor bracket (B) to the nuts in the t-slot. Slide to desired location and tighten the mounting screws (C) to the torque shown below.
- Sensor is attached to bracket using two hex nuts (E). Before fully tightening, ensure the sensing distance is within the specified range.
- Fully tighten the nuts. Skip to step 6.

T-SLOT STYLE:

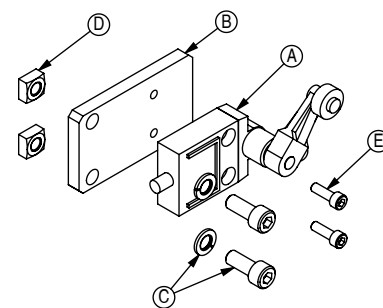
- If attaching to an MTB042 or MTB055, then simply place sensor (A) in desired location and tighten the sensor screw until it no longer moves freely; do not over torque. Skip to step 6.
- If using an MTB080 then remove the screw from the sensor. Slide the bracket (B) into the t-slot using the opening near the end block.
- Slide the bracket to the desired location & place the sensor in it. Align the bracket's threaded hole with the sensor's threaded hole (from which the screw was removed).
- Install the set screw (E) and torque to 1.1 N-m/10 in-lbs to lock the bracket and sensor in place.
- Repeat as needed for additional sensors.
- Reference relevant specification sheet for sensor schematic, wiring method, voltage, etc.

PARTS:

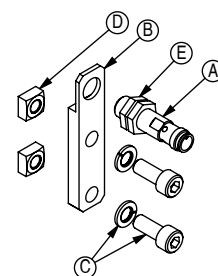
- (A) Sensor
- (B) Sensor bracket
- (C) Mounting screw & washer
- (D) T-nut
- (E) Mounting screw or nut

TOOLS REQUIRED:

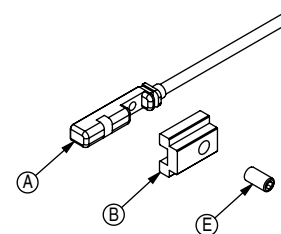
- Metric hex wrench set
- Open faced wrench (if using barrel style)



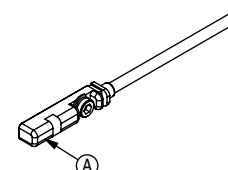
MECHANICAL STYLE



BARREL STYLE



T-SLOT STYLE (MTB080)

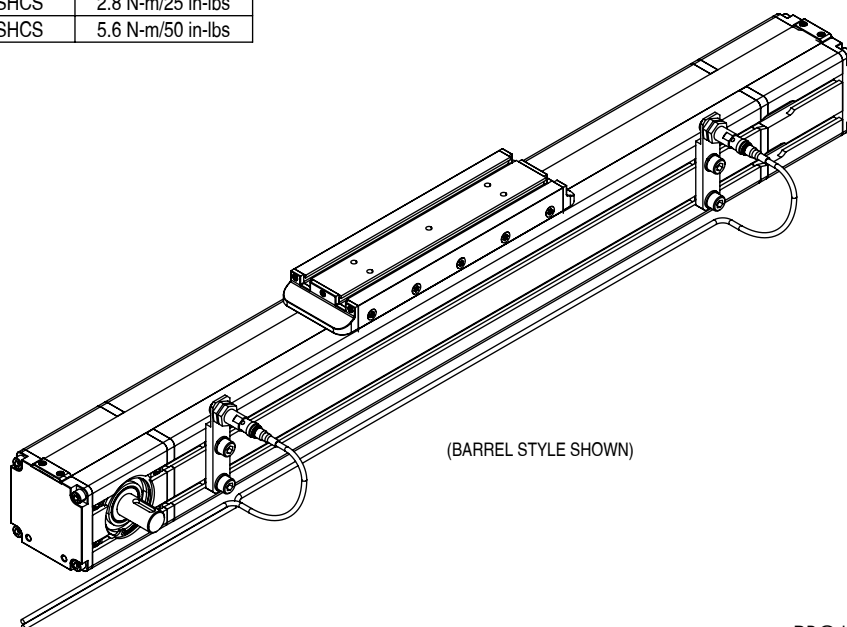


T-SLOT STYLE (MTB042 & MTB055)

RECOMMENDED SCREW TORQUE	
SCREW SIZE	TORQUE
M2 SHCS	0.6 N-m/5 in-lbs
M3 SHCS	1.1 N-m/10 in-lbs
M4 SHCS	2.8 N-m/25 in-lbs
M5 SHCS	5.6 N-m/50 in-lbs



Mechanical style sensor requires a customer designed target.



(BARREL STYLE SHOWN)

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

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GANTRY LAYOUT GUIDE

MT actuators have many features and accessories that simplify gantry design.

- XY brackets are engineered for easy gantry assembly
- Sensor brackets are available in several styles (T-slot style shown)
- Motor mounts, couplings, line shafts are pre-designed for ease of assembly.

