

Automatic Quick Changer Kit – SmartShift

Gen III SmartShift with a vacuum EOAT that requires electrical connection, pneumatics and a vacuum-actuated soft gripper. Tool pockets and framing can be built around your specific application.

SmartShift automatic tool changers feature a clutch-driven engagement that enables mechanical, pneumatic and optional electric connections. No need for compressed air or electricity for coupling, and available as a kit or a la carte, in two different payload capacities.

- **Suggested payload: 110 lbs (50kg)**
- Quick coupling/de-coupling due to dovetail engagement during linear motion.
- Lightweight, durable POM robot side construction (Gen III).
- Compatible with ISO-9409-50-4-M6 robot flanges. (Robot Side).
- ISO 9409-50-4-M6 pattern compatible with common Cobot EOAT (Tool Side).
- Built-in G1/8 pneumatic ports (2x) on Robot side. Tool Side requires add-on manifold Q#8433.
- Optional electric modules for tool I/O or industrial connections going to robot controller.

Kit Includes:

- Quick# 8465: Robot-Side Quick Changer
- Quick# 8466: EOAT-Side Quick Changer (x2)
- Quick# 8433: Pneumatic Manifold (x2)
- Quick# 8467: EOAT Tool Pocket with hardware (x2)
- Quick# 8481: EOAT-Side Electrical Connector (x2)
- Quick# 8477: Robot-Side Electrical Connector
- EOAT Pick-up Position Teaching Tool
- G1/8" Push-in Fittings for Ø6mm Tubing (x6) (see EMI Quick# 121)
- Hardware for mounting

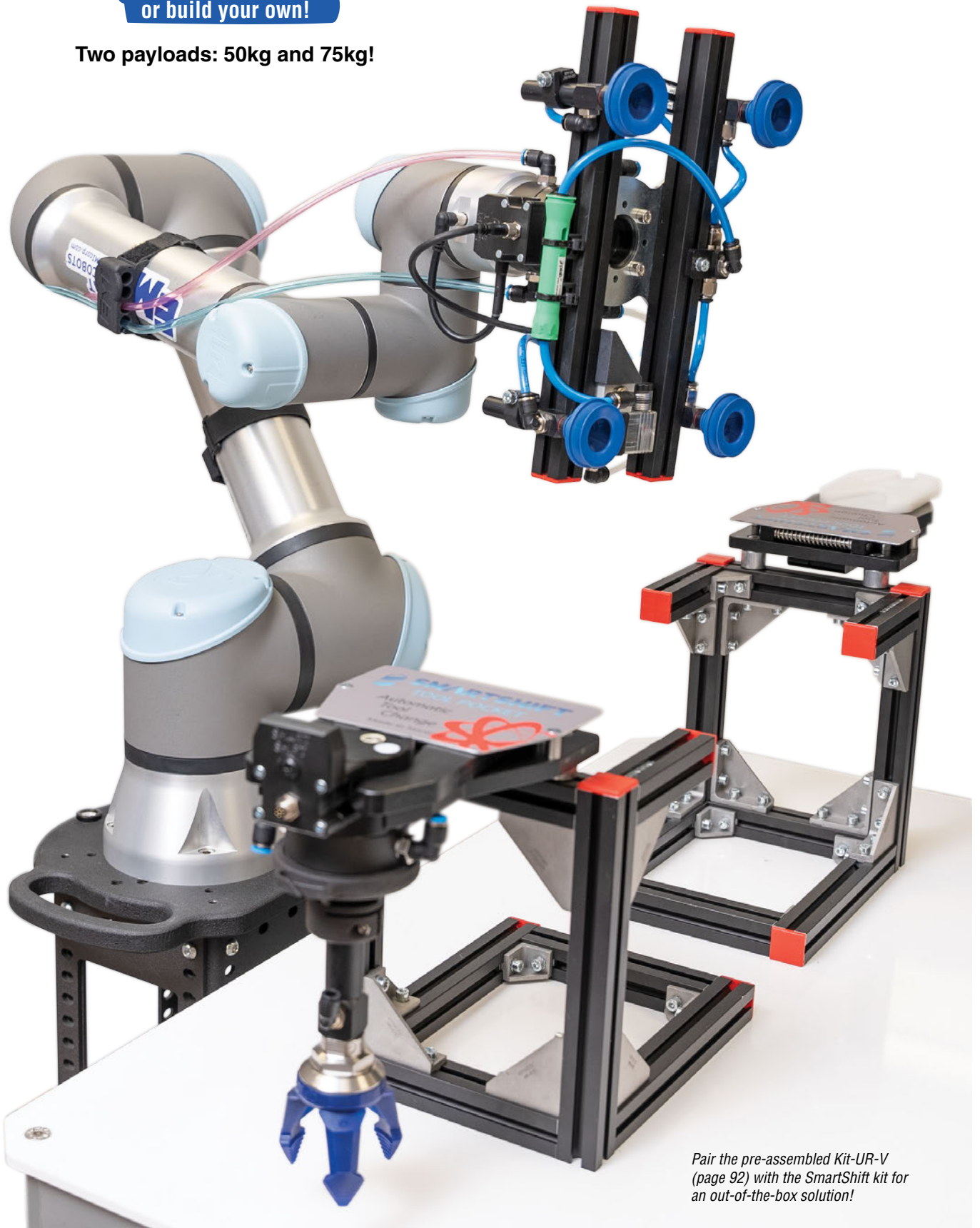
Quick# 8460
 SS-9225
KIT PRICE: \$3,028.20



Automatic Quick Changer Kit – SmartShift

Available as a kit
or build your own!

Two payloads: 50kg and 75kg!



- CU
- QC**
- VG
- VC
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*Pair the pre-assembled Kit-UR-V
(page 92) with the SmartShift kit for
an out-of-the-box solution!*

Automatic Quick Changer – SmartShift

Build Your Own SmartShift!

You can develop your own SmartShift solution using the components shown and listed below. Additional framing may be required, but rest assured we have you covered.

Automatic Tool Changers require some level of added integration, and we encourage you to partner with our EOAT Engineers to ensure a seamless implementation.

- **Suggested payload: 110 lbs (50kg)**
- Lightweight with High Precision.
- Can be mounted directly to the robot arm.
- No electricity required when changing tools via unique wedge mount.
- Equipped with an air interface allowing easy mounting of many end effectors.
- See page 50 for dimensional drawings.



Quick#	Part#	Description	Weight	Price
8465	SS-1120	Robot-Side Quick Changer, Gen III (w/ hardware)	177g	\$215.00
8466	SS-2120	EOAT-Side Quick Changer, Gen III (w/ hardware)	277g	\$402.00
8467	SS-3000	Gen III Tool Pocket (w/ hardware)	765g	\$595.00
8477	SS-1110	Electrical Connector – Robot-Side with M8 8-Pin Female 90° Cable	36g	\$249.00
8478	SS-1111	Electrical Connector – Robot-Side with M8 8-Pin Male 90° Cable	40g	\$249.00
8479	SS-1113	Industrial Electrical Connector – Robot-Side with 8-Wire Cable - High Amperage	111g	\$249.00
8480	SS-1114	Electrical Connector – Robot-Side with M8 8-Pin Male Straight Cable	46g	\$269.00
8481	SS-2110	Electrical Connector – EOAT-Side with M8 8-Pin Male Connector	54g	\$289.00
8482	SS-2111	Electrical Connector – EOAT-Side with M8 8-Pin Female Connector	64g	\$289.00
8483	SS-5000	Pneumatic Manifold – EOAT-Side with 2x Pass-Thru Ports	107g	\$108.00
8489	SS-1112	Adapter Mount Plate – Robot-Side for Techman Offset Wrist Camera	99g	\$279.00



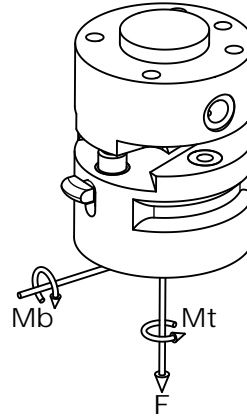
Teaching your cobot the home position is easy with the EOAT pickup position teaching tool. Contact EMI for more information.

Automatic Quick Changer – SmartShift

Safety loads

Check the table for the maximum loads allowed. Excessive forces or torques can damage the system, cause operation problems and endanger the safety of the operator.

	Max.
Axial Load Limit (F)	353 lbs
Bending Moment Limit (Mb)	73 ft-lbs
Torque Moment Limit (Mt)	95 ft-lbs



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Automatic Quick Changer – SmartShift HD63

SmartShift HD63: Higher payload and added safety features!

The HD63 version uses the same principle as the standard (Gen III) SmartShift and even uses the same pneumatic and electrical accessories. Here are a few features that set it apart and make it suitable for higher payload applications.

Automatic Tool Changers require some level of added integration, and we encourage you to partner with our EOAT Engineers to ensure a seamless implementation.

- **EMI suggested payload: 165.3 lbs (75kg)***
- Metal construction for even more stability.
- Safety lever to engage/disengage.
- Uses the same accessories for pneumatic and electric expansion
- Tool Pocket now can be enhanced with stabilizer plates for regular or manifold-mounted tools
- See page 50 for dimensional drawings.

**Manufacturer specified max. payload: 150kg. Not recommended for collaborative applications. Contact EMI Engineering.*



Quick#	Part#	Description	Weight	Price
8468	SS-1600	Robot-Side Quick Changer, HD63 (w/ hardware)	262g	\$258.00
8469	SS-2600	EOAT-Side Quick Changer, HD63 (w/ hardware)	282g	\$475.00
8470	SS-3500	HD63 Tool Pocket (w/ hardware)	888g	\$625.00
8477	SS-1110	Electrical Connector – Robot-Side with M8 8-Pin Female 90° Cable	36g	\$249.00
8478	SS-1111	Electrical Connector – Robot-Side with M8 8-Pin Male 90° Cable	40g	\$249.00
8479	SS-1113	Industrial Electrical Connector – Robot-Side with 8-Wire Cable - High Amperage	111g	\$249.00
8480	SS-1114	Electrical Connector – Robot-Side with M8 8-Pin Male Straight Cable	46g	\$269.00
8481	SS-2110	Electrical Connector – EOAT-Side with M8 8-Pin Male Connector	54g	\$289.00
8482	SS-2111	Electrical Connector – EOAT-Side with M8 8-Pin Female Connector	64g	\$289.00
8483	SS-5000	Pneumatic Manifold – EOAT-Side with 2x Pass-Thru Ports	107g	\$108.00
8489	SS-1112	Adapter Mount Plate – Robot-Side for Techman Offset Wrist Camera	99g	\$279.00
8490	SS-2155	HD63 Quick Changer Accessory EOAT-Side Stabilizer Plate / Manifold Mount	185g	\$98.00
8491	SS-2156	HD63 Quick Changer Accessory EOAT-Side Stabilizer Plate / Regular Mount	60g	\$79.00

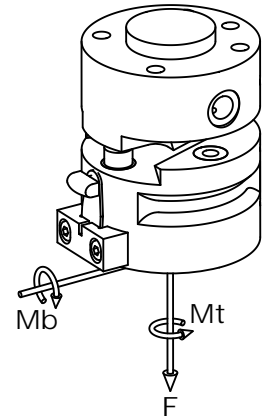
Automatic Quick Changer – SmartShift HD63



Safety loads

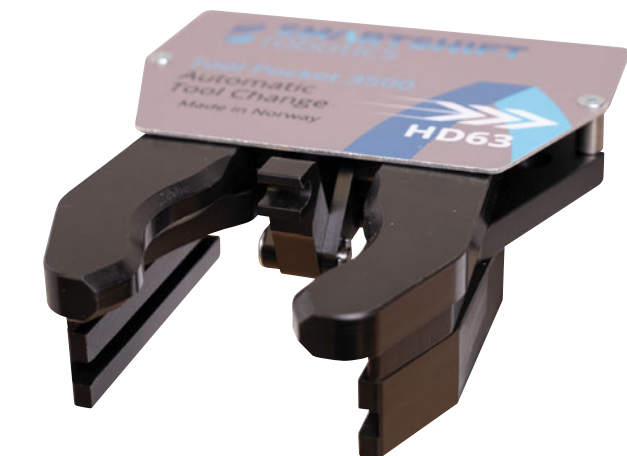
Check the table for the maximum loads allowed. Excessive forces or torques can damage the system, cause operation problems and endanger the safety of the operator.

	Max.
Axial Load Limit (F)	617 lbs
Bending Moment Limit (Mb)	184 ft-lbs
Torque Moment Limit (Mt)	162 ft-lbs



HD63 Features:

- HD63 robot side is made from hard-anodized aluminum and a robust locking latch strike insert.
- The tool pocket for larger, heavier tools includes slotted receiver for the recommended stabilizer plates (Q#8490 & Q#8491).
- With an added secondary safety latch, the tool side HD63 ensure the tool can only be released when it is securely nested into the tool pocket.
- Note that the HD63 tool side with the safety latch is not compatible with the Gen III (standard) SmartShift version and requires the HD63 Tool Pocket (Q#8470).



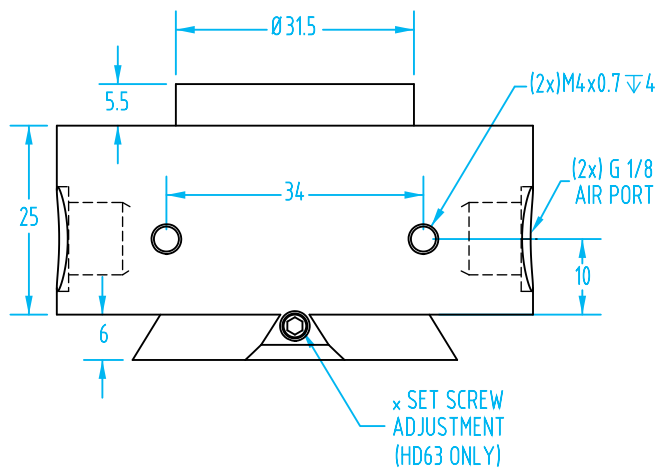
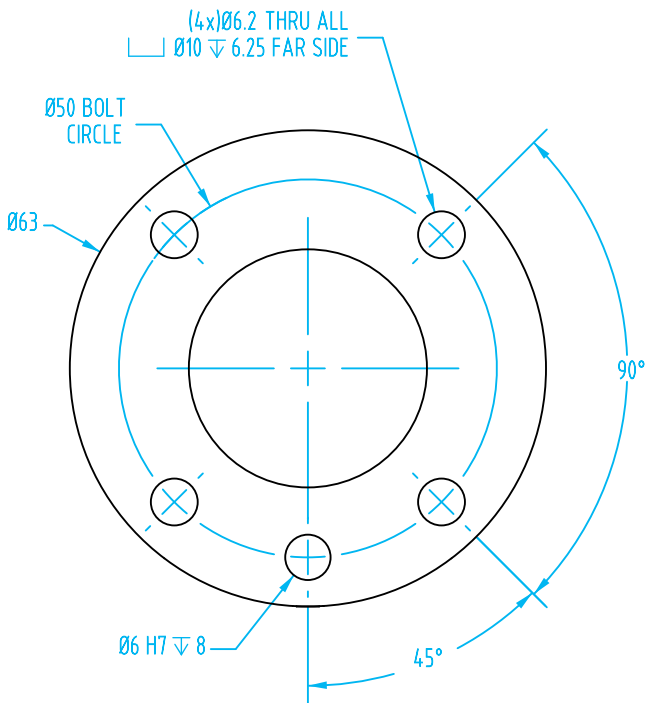
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Automatic Quick Changer – SmartShift

(Dimensioned drawings shown full scale)

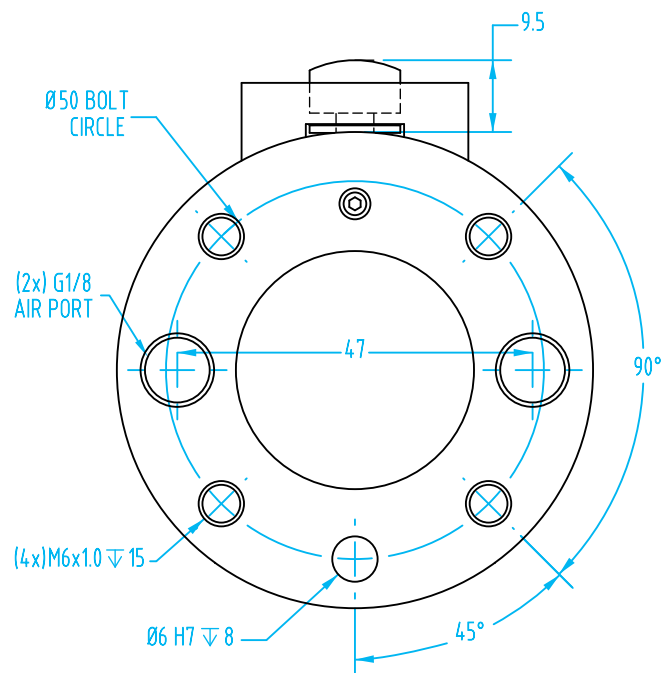
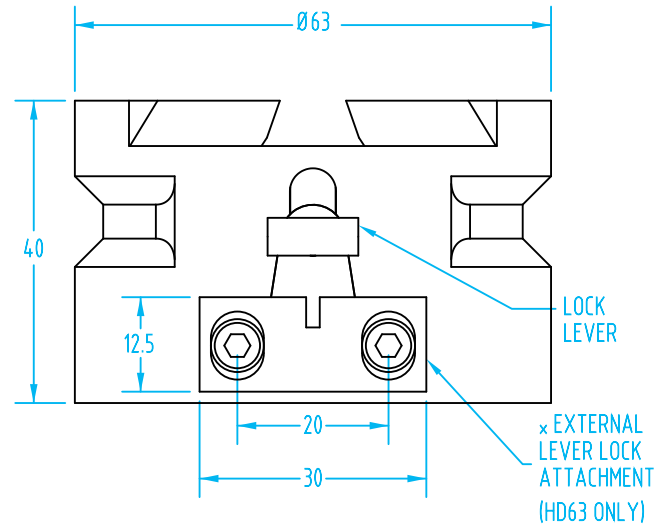
Robot-Side

#8465 Gen III & #8468 HD63:



EOAT-Side

#8466 Gen III & #8469 HD63:

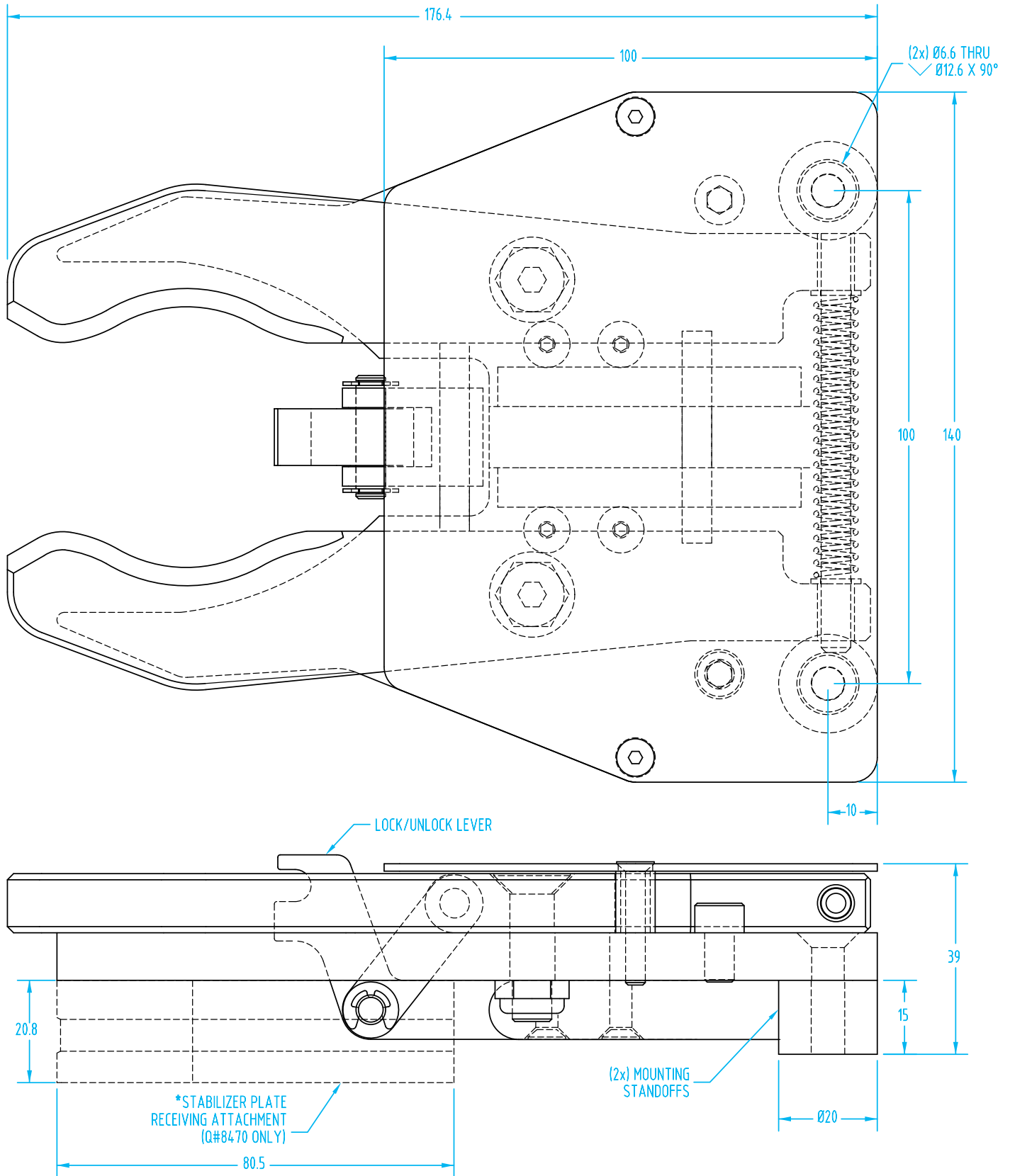


See EMI website for more dimensional drawings and information on electric and pneumatic connectors.

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(Dimensioned drawings shown full scale)

Tool Pocket:



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