

# SIZING AND APPLICATION CHART

## Tool Changers

### Manual Tool Changer

See Page TC-TC1-1



| Specifications:         | TC1        |             |
|-------------------------|------------|-------------|
| Max. Payload:           | Kg [lb]    | 10 [22]     |
| Coupled Weight:         | Kg [lb]    | 0.33 [0.73] |
| Max Moment (My, Mz, Mx) | Nm [in-lb] | 100 [885]   |
| Max Force (Fy, Fz)      | N [lbf]    | 1000 [225]  |
| Max Force (Fx)          | N [lbf]    | 100 [22.5]  |

## Automatic Tool Changers



| Series       | Page-TC-# | Max Moment Kg [lb] |                        |                          |                            | Max Payload Kg [lb]         |                             |                             |               | Weight Kg [lb]     |                        |                          |                            | Features      |                   |                     |                      |                       |            |                  |                  |              |                    |                  |   |   |
|--------------|-----------|--------------------|------------------------|--------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|---------------|--------------------|------------------------|--------------------------|----------------------------|---------------|-------------------|---------------------|----------------------|-----------------------|------------|------------------|------------------|--------------|--------------------|------------------|---|---|
|              |           | 0 to 50 [0 to 110] | 50 to 100 [110 to 220] | 100 to 500 [220 to 1100] | 500 to 1000 [1100 to 2200] | 1000 to 2000 [2200 to 4400] | 2000 to 3000 [4400 to 6600] | 3000 to 4000 [6600 to 8800] | 4000+ [9120+] | 0 to 50 [0 to 110] | 50 to 100 [110 to 220] | 100 to 500 [220 to 1100] | 500 to 1000 [1100 to 2200] | 1000+ [2280+] | 0 to 2 [0 to 4.4] | 2 to 4 [4.4 to 8.8] | 4 to 6 [8.8 to 13.2] | 6 to 8 [13.2 to 17.6] | 8+ [17.6+] | Optional Modules | High Temperature | Round Design | Rectangular Design | Failsafe Locking |   |   |
| RQC/RTP-200  | RQTP-3    |                    |                        |                          | ●                          |                             |                             |                             |               | ●                  |                        |                          |                            |               |                   |                     |                      |                       |            |                  | ✓                |              |                    | ✓                | ✓ |   |
| RQC/RTP-400  | RQTP-7    |                    |                        |                          | ●                          |                             |                             |                             |               | ●                  |                        |                          |                            |               |                   |                     | ●                    |                       |            |                  |                  | ✓            |                    |                  | ✓ | ✓ |
| RQC/RTP-800  | RQTP-7    |                    |                        |                          |                            | ●                           |                             |                             |               | ●                  |                        |                          |                            |               |                   |                     |                      | ●                     |            |                  |                  | ✓            |                    |                  | ✓ | ✓ |
| RQC/RTP-1200 | RQTP-7    |                    |                        |                          |                            |                             | ●                           |                             |               |                    | ●                      |                          |                            |               |                   |                     |                      |                       | ●          |                  |                  | ✓            |                    |                  | ✓ | ✓ |
| RQC/RTP-2400 | RQTP-13   |                    |                        |                          |                            |                             |                             | ●                           |               |                    |                        | ●                        |                            |               |                   |                     |                      |                       |            | ●                |                  | ✓            |                    |                  | ✓ | ✓ |
| QC/TP-30     | QCTP-5    | ●                  |                        |                          |                            |                             |                             |                             | ●             |                    |                        |                          |                            |               |                   |                     |                      |                       |            |                  |                  |              |                    | ✓                | ✓ |   |
| QC/TP-60     | QCTP-7    |                    | ●                      |                          |                            |                             |                             |                             | ●             |                    |                        |                          |                            |               |                   |                     |                      |                       |            |                  |                  | ✓            |                    |                  | ✓ | ✓ |
| QC/TP-60-10  | QCTP-9    |                    | ●                      |                          |                            |                             |                             |                             | ●             |                    |                        |                          |                            |               |                   |                     |                      |                       |            |                  |                  |              |                    | ✓                | ✓ |   |
| QC/TP-150    | QCTP-11   |                    |                        | ●                        |                            |                             |                             |                             | ●             |                    |                        |                          |                            |               |                   |                     |                      |                       |            |                  |                  | ✓            |                    |                  | ✓ | ✓ |
| RHC-1        | RHC-3     | ●                  |                        |                          |                            |                             |                             |                             | ●             |                    |                        |                          |                            |               |                   |                     |                      |                       |            |                  |                  |              |                    | ✓                | ✓ | ✓ |
| RHC-2        | RHC-5     |                    |                        | ●                        |                            |                             |                             |                             | ●             |                    |                        |                          |                            |               |                   |                     |                      |                       |            |                  |                  |              |                    | ✓                | ✓ | ✓ |
| RHC-3        | RHC-7     |                    |                        |                          | ●                          |                             |                             |                             |               | ●                  |                        |                          |                            |               |                   |                     |                      |                       |            |                  |                  |              |                    | ✓                | ✓ | ✓ |
| RHC-4        | RHC-9     |                    |                        |                          |                            | ●                           |                             |                             |               | ●                  |                        |                          |                            |               |                   |                     |                      |                       |            |                  |                  |              |                    | ✓                | ✓ | ✓ |

## Technical Information

### Pneumatic Specification

Pressure Range (Locked Cylinder):

3~7 bar [40~100 psi] (QC/TP, RHC Series)

4~7 bar [60~100 psi] (RQC/RTP Series)

Cylinder Type: Double Acting, Spring Assist

Valve Required to Actuate:

3-way, 2-position (QC-30 only)

4-way, 2-Position

### Air Quality Requirements

Air Filtration: 40 Microns or Better

Air Lubrication: Not Necessary\*

Air Humidity: Low Moisture Content (Dry)

(\*Addition of lubrication will greatly increase service life.

### Temperature Operating Range

Buna-N-Seals: -35~80° C [-30~180° F] (All Models)

Viton® Seals: -30~150° C [-20~300° F] (RHC Series)

### Maintenance Specification

Expected Life: Normal Application: 5 Million Cycles

With Preventative Maintenance: 10+ Million Cycles

Repeatability: ±0.025mm [±0.001 in]

Field Repairable: Yes


Seal Repair Kits Available: Yes


### Application Restrictions

- Dirty or Gritty Environments
- Machining Operations Generating Chips
- Environments with Loose Particulates

# SIZING AND APPLICATION CHART

## Cylindrical Horizontal Compliance Device



| Series  | Page-TC-# | Max Centering Force         | Max Payload             | Weight               | Misalignment | Features            |                        |                    |                  |
|---|-----------|-----------------------------|-------------------------|----------------------|--------------|---------------------|------------------------|--------------------|------------------|
|   |           | Kg [lb]                     | Kg [lb]                 | Kg [lb]              | ±mm [±in]    | Custom Misalignment | Optional Spring Assist | Harsh Environments | Field Repairable |
|  | CH-3      | 0 to 500 [0 to 1100]        | 0 to 5 [0 to 110]       | 0 to 1 [0 to 4.4]    | 3 [0.12]     | ✓                   | ✓                      | ✓                  | ✓                |
|   | CH-4      | 500 to 1000 [1100 to 2200]  | 5 to 10 [110 to 220]    | 1 to 2 [4.4 to 8.8]  | 5 [0.20]     | ✓                   | ✓                      | ✓                  | ✓                |
|   | CH-5      | 1000 to 2000 [2200 to 4400] | 10 to 20 [220 to 1100]  | 2 to 4 [8.8 to 13.2] | 6.5 [0.25]   | ✓                   | ✓                      | ✓                  | ✓                |
|   | CH-6      | 2000 to 3000 [4400 to 6600] | 20 to 40 [1100 to 2200] | 4+ [17.6+]           | 8 [0.31]     | ✓                   | ✓                      | ✓                  | ✓                |
|   | CH-7      | 3000 to 4000 [6600 to 8800] | 4000+ [9120+]           |                      | 12 [0.47]    | ✓                   | ✓                      | ✓                  | ✓                |
|   | CH-140    | 4000+ [9120+]               |                         |                      |              | ✓                   | ✓                      | ✓                  | ✓                |
|   | CH-165    |                             |                         |                      |              | ✓                   | ✓                      | ✓                  | ✓                |

### Technical Information

#### Pneumatic Specification

**Pressure Range (w/o springs):** 2-7 bar [30-100 psi]  
**Pressure Range (w/springs CH-50):** 3-7 bar [43-100 psi]  
**Pressure Range (w/springs):** 4-7 bar [60-100 psi]  
**Cylinder Type:** Double Acting, Double Acting Spring Assist, or Single Acting Spring Return  
**Dynamic Seals:** Internally Lubricated Buna-N  
**Valve Required to Actuate:** Double Acting: 4-way, 2-Position; Single Acting (-RL or -RA Option): 3-way, 2-Position

#### Air Quality Requirements

**Air Filtration:** 40 Microns or Better  
**Air Lubrication:** Not Necessary\*  
**Air Humidity:** Low Moisture Content (Dry)  
 (\*)Addition of lubrication will greatly increase service life.

#### Temperature Operating Range

**Buna-N-Seals (Standard):** -25°~80° C [-10°~180° F]

#### Maintenance Specification

**Expected Life: Normal Application:** 5 Million Cycles  
**With Preventative Maintenance:** 6+ Million Cycles  
**Field Repairable:** Yes  
**Seal Repair Kits Available:** Yes

# ROBOTIC TOOLING SOLUTIONS

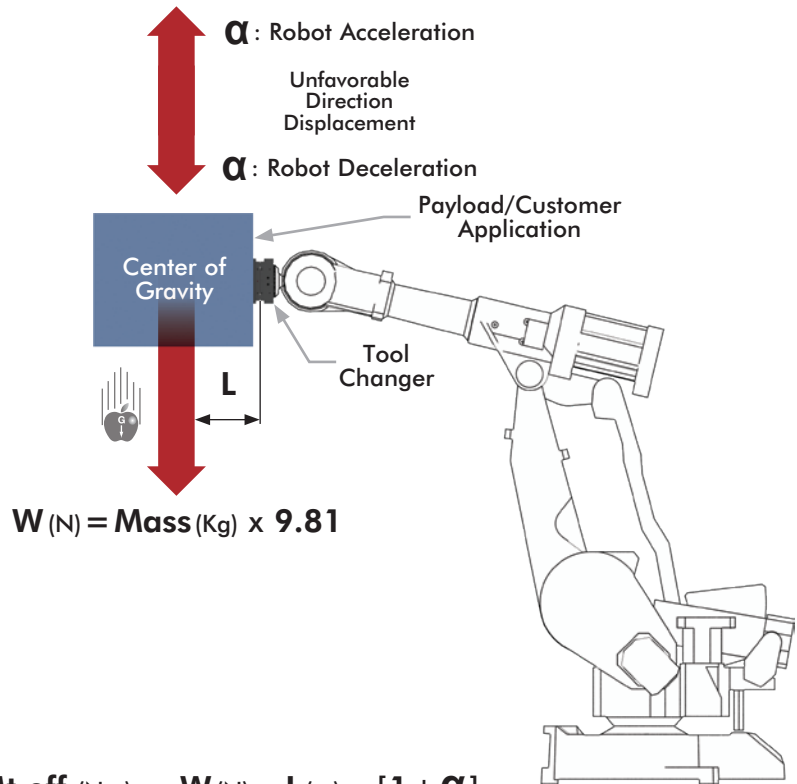
## Automatic Tool Changer Sizing Guide

For tool changer sizing, the maximum effective moment during displacement will be considered. The effective moment will be calculate in the worst case of the application, and must consider:

- The weight of the tool
- The position of the center of gravity
- The dynamic effect due to the maximum acceleration or deceleration. (Emergency stop for example)

See below the simplified calculation formula to estimate the effective moment of your application.

| Required Information |   |    |
|----------------------|---|----|
| M                    | Mass of the tool attached on the tool changer                   | Kg |
| L                    | Distance from the payload center of gravity to the tool changer | m  |
| α                    | Maximum acceleration or deceleration of the robot               | g  |



**Effective Moment** →  $M_{t \text{ eff}} \text{ (Nm)} = W \text{ (N)} \times L \text{ (m)} \times [1 + \alpha]$

**CAUTION:** Applications with high and wide loads: in case of heavy application, we strongly recommend to strengthen the cylindrical and diamond indexing pins, between tool changer and tool plate, by adding larger diameter pins, the farthest to the center of changer tool, incorporated into the design of the tooling.

## Application Example

| Application Data                               |       |
|--|-------|
| Mass of tool                                   | 90 kg |
| Center of gravity / Tool Changer               | 0.5 m |
| Acceleration (or deceleration) of displacement | 2 g   |

$$M_{t \text{ eff}} = (90 \times 9.81) \times 0.5 \times (1 + 2)$$

$$M_{t \text{ eff}} = 883 \times 0.5 \times 3$$

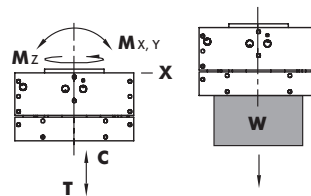
$$M_{t \text{ eff}} = 1324.5 \text{ Nm}$$

### Loading Capacity:

Max. Tensile T: 2670 N [600 lb]

Max. Compressive C: 3560 N [800 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>): 1580 Nm [14000 in-lb]



The obtained value 1324.5 Nm should be compared to the technical data of our products in this catalog in the "loading capacity information" section. For this application, the choice will be a RQC-400M tool changer that has a qualifying capacity, in terms of torque, of 1580Nm, over than the 1325Nm of the application.

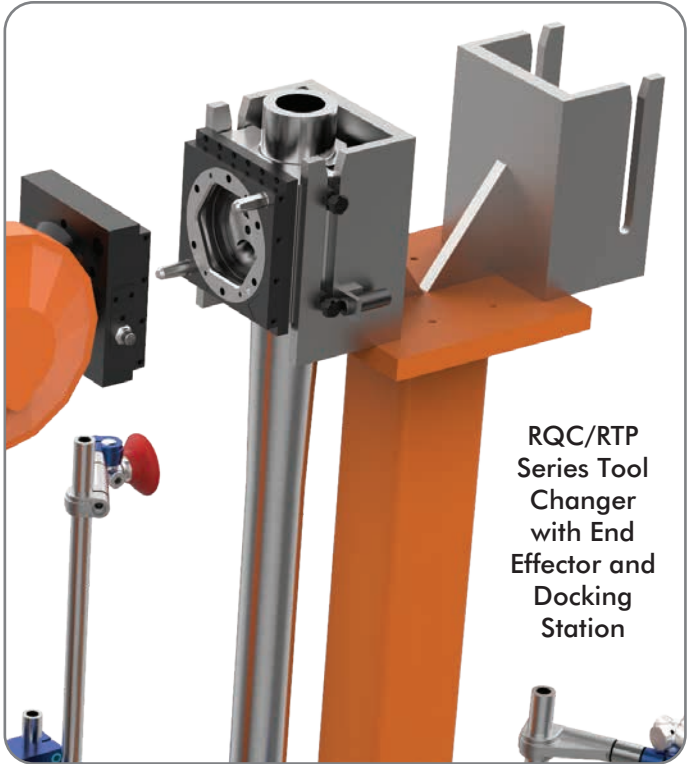
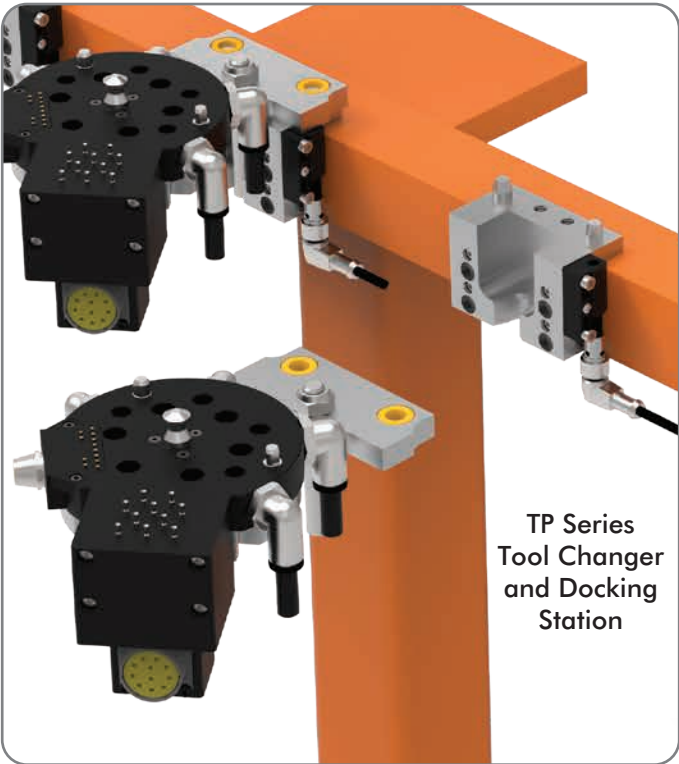
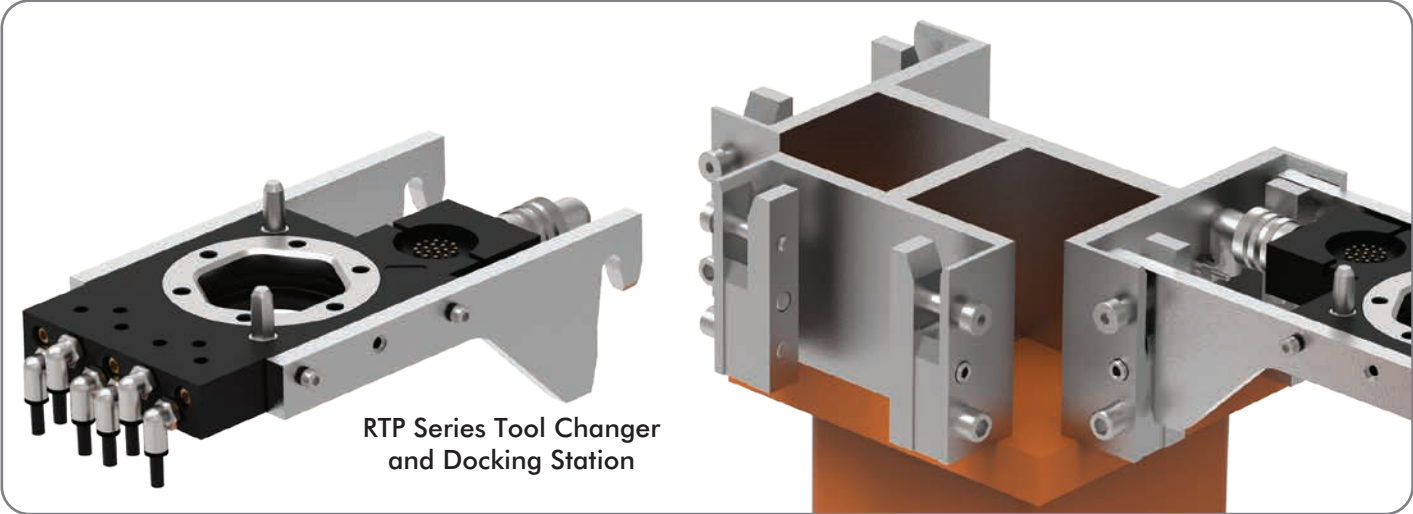
# ROBOTIC TOOLING SOLUTIONS

## Tool Changer Docking Station

Destaco offers custom and standard Docking Stations to fit customers needs. Please contact Destaco Sales for more information.

**Key Features:**

- Allows for quick changing of tooling
- Reducing machine down-time
- Safely stores tooling when not in use
- Standard or custom stations





# TC1 SERIES

## Manual Tool Changers | Ordering Information

Base Model: **TC1** — Model Size: **050** — Robot or Tool Plate: **M-01**

### Robot Plate

**M-00** Application Specific - User adds mounting hole pattern

**M-01** ISO-9409-1-50-4-M6 mounting pattern with boss  
(See robot compatibility table on next page)

### Tool Plate

**T-00** Application Specific - User adds mounting hole pattern

**T-01** DirectConnect mounting to DESTACO Robohand products

**T-02** ISO-9409-1-50-4-M6 mounting pattern



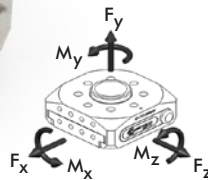
Shown mounted to cobot with robot plate and tool plate coupled.



Compatible with multiple brands of cobots.

**TC1-050M-01**  
Robot Plate  
ISO 9409 Mounting  
(see page 3).

Patent Pending



| Specifications:         |            | TC1                        |
|-------------------------|------------|----------------------------|
| Max. Payload:           | Kg [lb]    | 10 [22]                    |
| Coupled Weight:         | Kg [lb]    | 0.33 [0.73]                |
| Robot Plate Weight:     | Kg [lb]    | 0.20 [0.44]                |
| Tool Plate Weight:      | Kg [lb]    | 0.13 [0.29]                |
| Repeatability:          | mm [in]    | ±0.025 [0.001]             |
| Temperature Range:      | C° [F°]    | -30° to 66° [-22° to 151°] |
| Max Moment (My, Mz, Mx) | Nm [in-lb] | 100 [885]                  |
| Max Force (Fy, Fz)      | N [lbf]    | 1000 [225]                 |
| Max Force (Fx)          | N [lbf]    | 100 [22.5]                 |



**TC1-050T-01**  
Tool Plate with DirectConnect  
Robohand Mounting.

### Optional Accessories

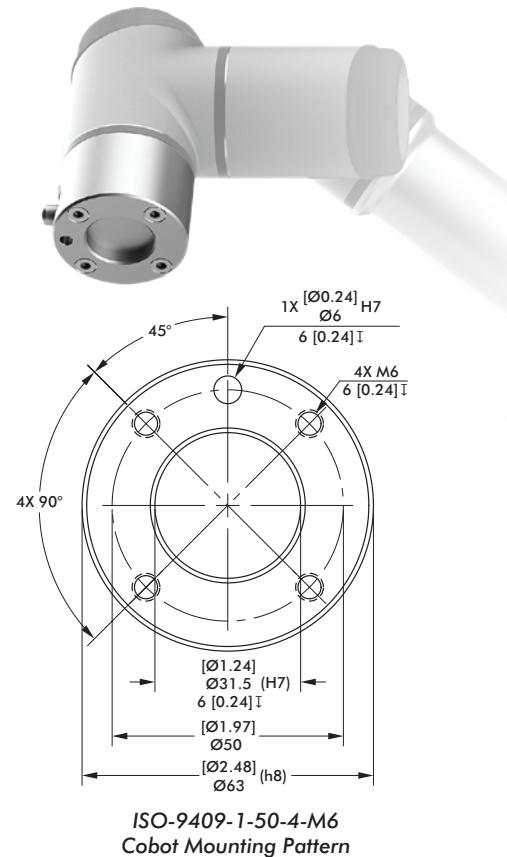
| Description  | Order no.    |
|--|--------------|
| 8-Pin M8 Socket Connector Electrical Pass-thru for Robot Plate | TC1-E01M-C01 |
| 8-Pin M8 Plug Connector Electrical Pass-thru for Robot Plate   | TC1-E02M-C01 |
| 8-Pin M8 Plug Connector Electrical Pass-thru for Tool Plate    | TC1-E01T-C01 |
| 8-Pin M8 Socket Connector Electrical Pass-thru for Tool Plate  | TC1-E02T-C01 |
| PNP Magneto-resistive 4mm Sensing Module for Tool Plate        | TC1-E01T-P01 |
| NPN Magneto-resistive 4mm Sensing Module for Tool Plate        | TC1-E02T-N01 |
| Tool Plate Holder  | TC1-050H-01  |
| Seal Replacement Kit   | SLKT-480     |

# TC1 SERIES

## Manual Tool Changers | Compatibility Charts

### TC1-050M-01 Robot Plate - Robot Compatibility

| Robot Manufacturer         | Model                                     |
|----------------------------|---|
| GENERIC                    | Any model with ISO-9409-1-50-4-M6 Pattern |
| STAUBLI                    | TX2touch-90, 90L, 90XL                    |
| UNIVERSAL ROBOTS           | UR3, UR5, UR10, UR16                      |
| TECHMAN/OMRON              | TM5-700, TM5-900, TM12, TM14              |
| KUKA                       | LBR iiwa 7 R800, LBR iiwa 14 R820         |
| AUBO                       | I3, I5, I7, I10                           |
| ESI                        | C-7, C-15                                 |
| F&P PERSONAL ROBOTICS      | P-ROB 2R-24V, 48V                         |
| HANWHA PRECISION MACHINERY | HCR-3, 5, 12                              |
| JAKA/KUNLIN                | ZU 7, 12                                  |
| MODBOT                     | COBOT, SCARA                              |
| ROZUM                      | PULSE 75, 90                              |
| SIASUN                     | GCR5, GCR14, GCR20, SCR3, SCR5            |
| HAN'S ROBOTS               | ELFIN 3, 5, 10                            |
| FRANKA EMIKA               | PANDA                                     |



### TC1-050T-01 Tool Plate - Robohand Compatibility

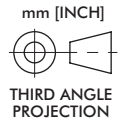
| Robohand Products | Compatible Series  | Description                          |
|-------------------|--------------------|--------------------------------------|
| DPE               | 200-25             | Electric 2 Jaw Parallel Gripper      |
| DGC               | All Sizes          |                                      |
| DPDL              | 047, 056, 088, 125 |                                      |
| DPDS              |                    |                                      |
| DPG               |                    |                                      |
| DPL               | 2520, 2535         |                                      |
| DPP               | All Sizes          |                                      |
| DPW               | 250M, 375M, 500M   |                                      |
| G110, G120        | All Sizes          |                                      |
| DCT               | 12M, 16M, 20M, 25M | Pneumatic 2 Jaw Angular Gripper      |
| DRF               | All Sizes          | Rotary Actuator                      |
| DRG               |                    |                                      |
| DLM               |                    | Miniature Linear Rail Thruster Slide |
| DLT               | 06, 08, 10, 12, 16 | Linear Thruster Slide                |
| DLB               |                    | Linear Base Slide                    |



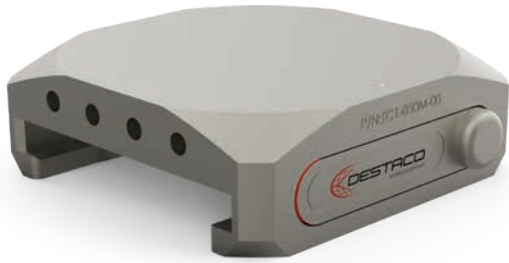
Shown with G120 Parallel Gripper and TC1-E01T-P01 Magneto-resistive Sensors.

# TC1 ROBOT PLATE

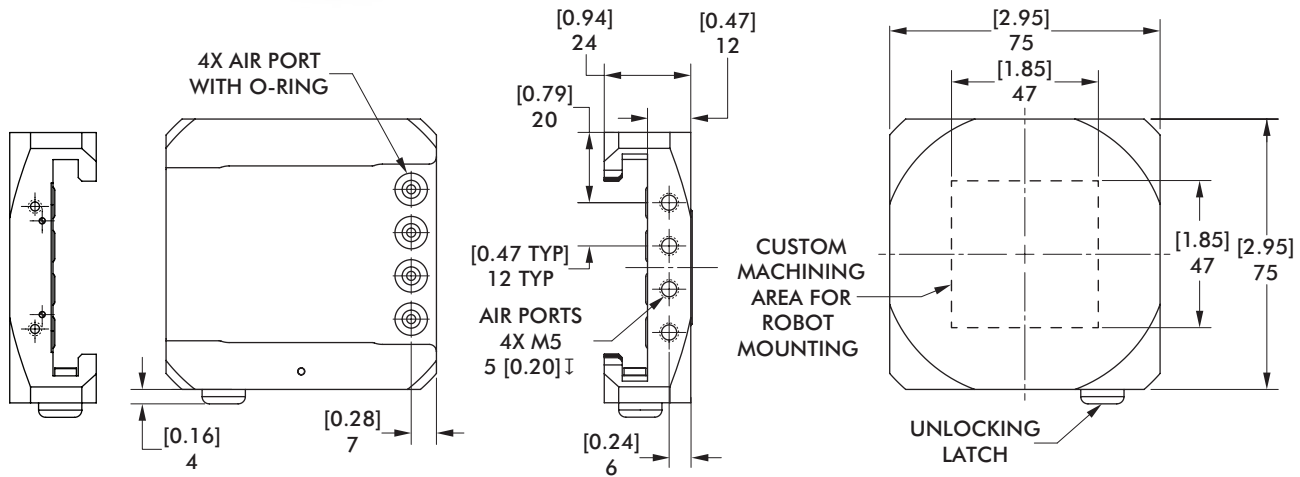
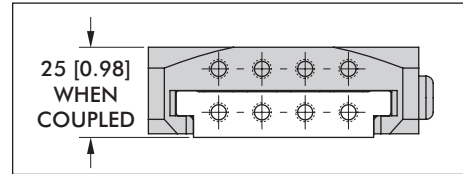
## Manual Tool Changers | Dimensions



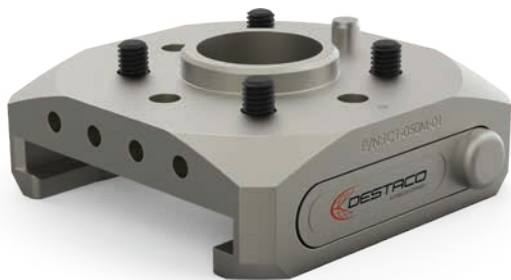
### TC1-050M-00 Blank Robot Plate (general unit dimensions shown apply to all models)



Requires mounting pattern added by user for their specific application.

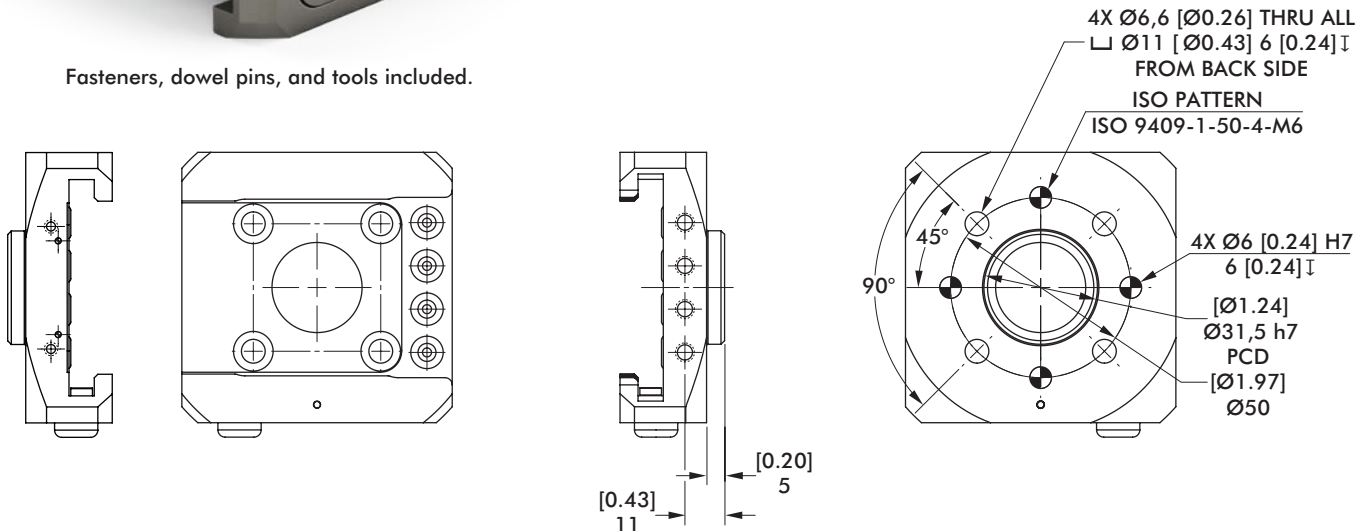
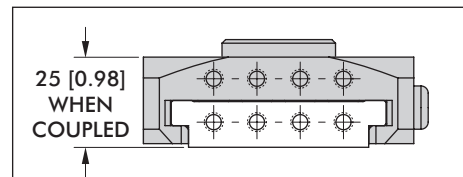


### TC1-050M-01 ISO 9409 Robot Plate (see TC1-050M-00 for general dimensions)

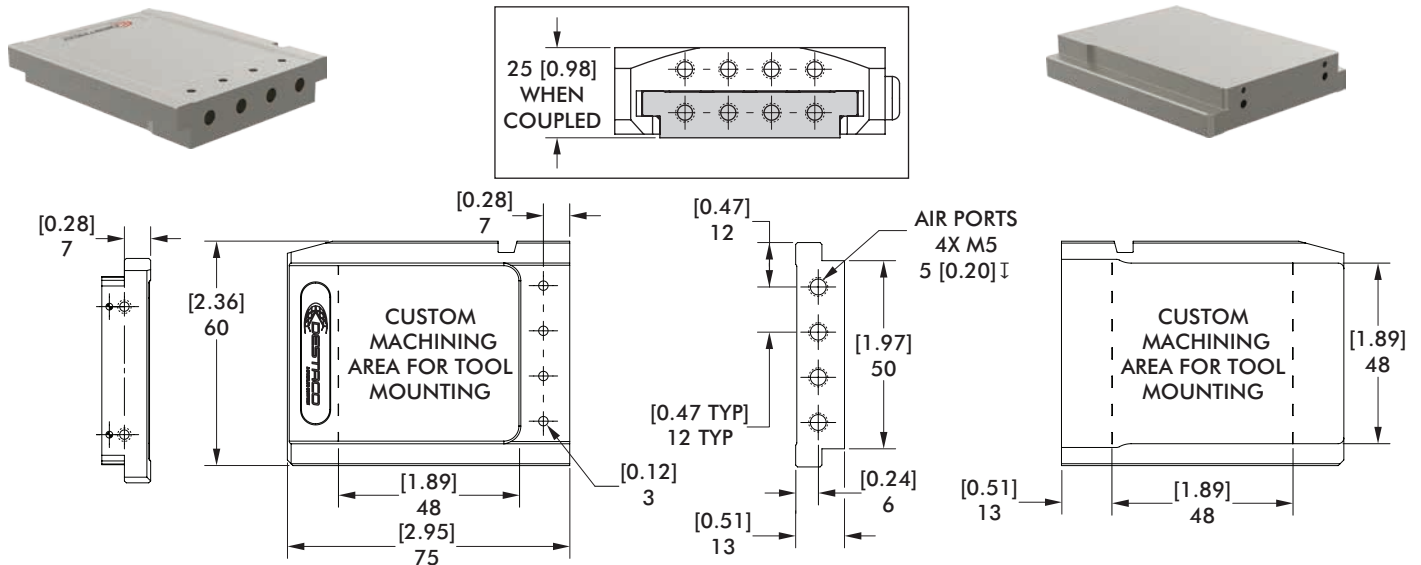


Fasteners, dowel pins, and tools included.

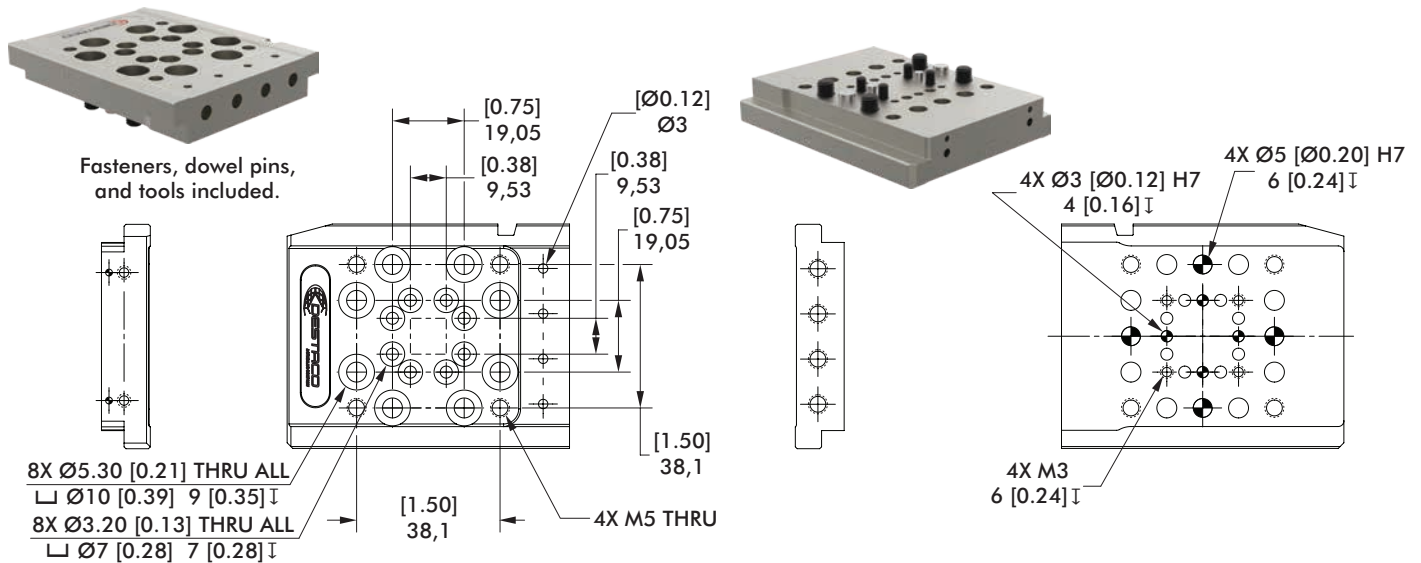
Compatible with multiple brands of cobots. Verify cobot arm mounting pattern.



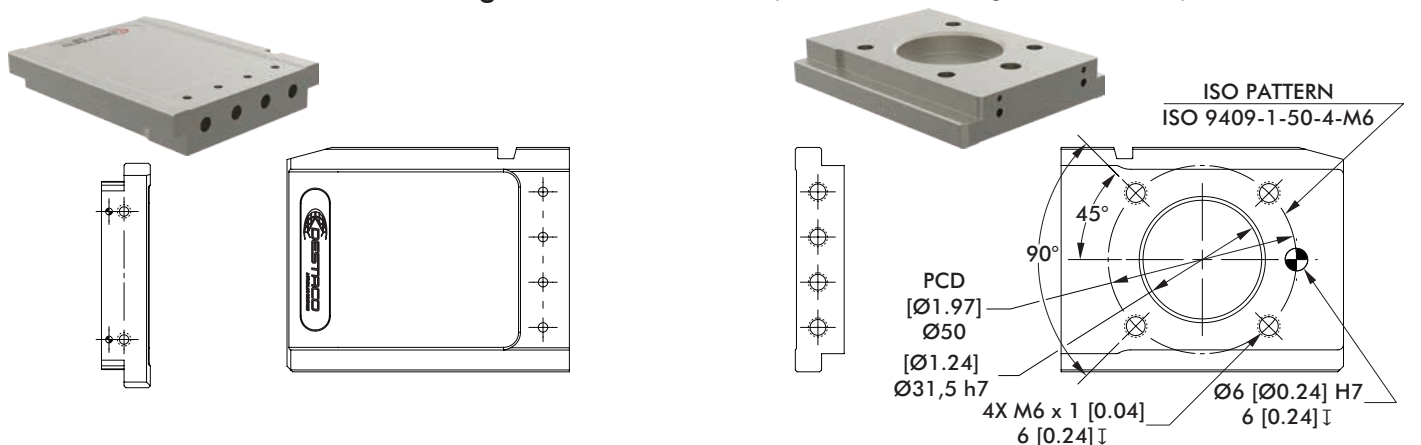
### TC1-050T-00 Blank Tool Plate (general unit dimensions shown apply to all models)



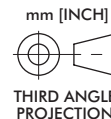
### TC1-050T-01 DirectConnect Robohand Mounting Tool Plate (see TC1-050T-00 for general dimensions)



### TC1-050T-02 ISO 9409 Mounting Pattern Tool Plate (see TC1-050T-00 for general dimensions)



# TC1 ELECTRICAL MODULES



## Manual Tool Changers | Dimensions and Specifications

**TC1-E01M-C01** 8-Pin M8 Socket Electrical Pass-thru Module for Robot Plate (Universal Robot Compatible)

**TC1-E02M-C01** 8-Pin M8 Plug Electrical Pass-thru Module for Robot Plate (TechMan Cobot Compatible)

CABLE LENGTH  
**TC1-E01M-C01** 145 [5.71]  
**TC1-E02M-C01** 175 [6.80]

2X Ø3 [0.12] THRU ALL  
 √Ø6 [0.24] x 90°

PLUG CONNECTOR TC1-E02M-C01    SOCKET CONNECTOR TC1-E01M-C01    INTERFACE PINS

| PLUG CONNECTOR<br>TC1-E02M-C01 | SOCKET CONNECTOR<br>TC1-E01M-C01 | INTERFACE<br>PIN |
|--------------------------------|----------------------------------|------------------|
| 1                              | 1                                | 1                |
| 2                              | 2                                | 2                |
| 3                              | 3                                | 3                |
| 4                              | 4                                | 4                |
| 5                              | 5                                | 8                |
| 6                              | 6                                | 5                |
| 7                              | 7                                | 6                |
| 8                              | 8                                | 7                |

**TC1-E01M-C01** with 8-Pin M8 Socket shown.  
 Fasteners and tools included.

| ELECTRIC SPECIFICATION |                   |     |     |     |      |
|------------------------|-------------------|-----|-----|-----|------|
| SYMBOL                 | CHARACTERISTIC    | MIN | TYP | MAX | UNIT |
| V <sub>dd</sub>        | CONDUCTOR VOLTAGE | -   | -   | 30  | V    |
| I <sub>dd</sub>        | CONDUCTOR CURRENT | -   | -   | 1.5 | A    |

**TC1-E01T-C01** 8-Pin M8 Plug Electrical Pass-thru Module for Tool Plate (Universal Robot Compatible)

**TC1-E02T-C01** 8-Pin M8 Socket Electrical Pass-thru Module for Tool Plate (TechMan Cobot Compatible)

2X Ø3 [0.12] THRU ALL  
 √Ø6 [0.24] x 90°

CABLE LENGTH  
 155 [6.10]

PLUG CONNECTOR TC1-E01T-C01    SOCKET CONNECTOR TC1-E02T-C01    INTERFACE PINS

| PLUG CONNECTOR<br>TC1-E01T-C01 | SOCKET CONNECTOR<br>TC1-E02T-C01 | INTERFACE<br>PIN |
|--------------------------------|----------------------------------|------------------|
| 1                              | 1                                | 1                |
| 2                              | 2                                | 2                |
| 3                              | 3                                | 3                |
| 4                              | 4                                | 4                |
| 5                              | 5                                | 8                |
| 6                              | 6                                | 5                |
| 7                              | 7                                | 6                |
| 8                              | 8                                | 7                |

**TC1-E01T-C01** with 8-Pin M8 Plug shown.  
 Fasteners and tools included.

| ELECTRIC SPECIFICATION |                   |     |     |     |      |
|------------------------|-------------------|-----|-----|-----|------|
| SYMBOL                 | CHARACTERISTIC    | MIN | TYP | MAX | UNIT |
| V <sub>dd</sub>        | CONDUCTOR VOLTAGE | -   | -   | 30  | V    |
| I <sub>dd</sub>        | CONDUCTOR CURRENT | -   | -   | 1.5 | A    |

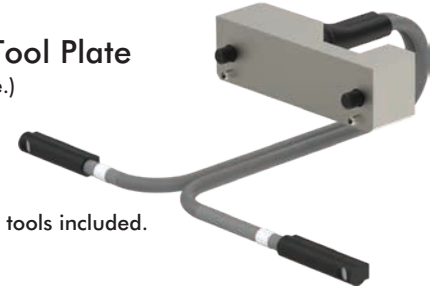


# TC1 ELECTRICAL MODULES

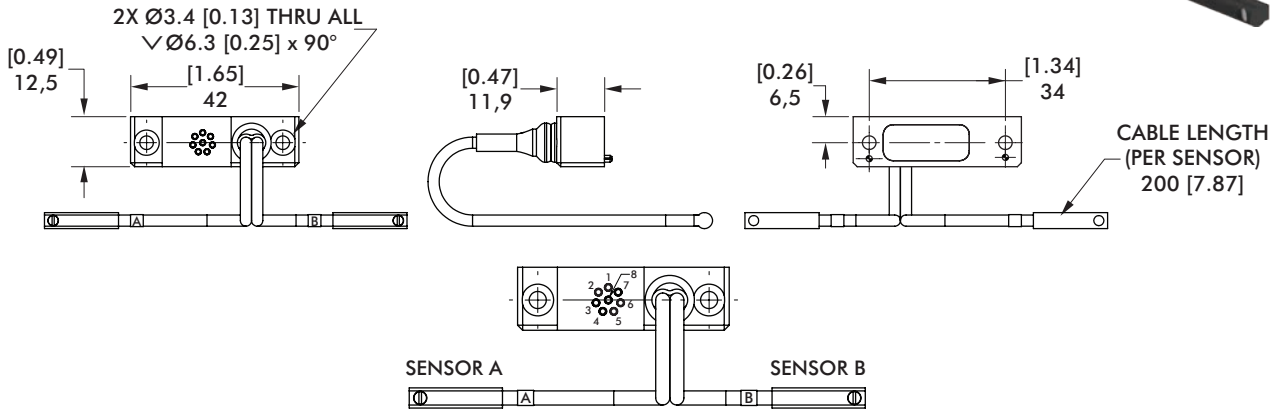
Manual Tool Changers | Dimensions and Specifications

**TC1-E01T-P01** PNP Magneto Resistive 4mm Sensing Module for Tool Plate  
(For use with grippers to detect jaw positioning. Univeral Robot Compatible.)

**TC1-E02T-N01** NPN Magneto Resistive 4mm Sensing Module for Tool Plate  
(For use with grippers to detect jaw positioning. TechMan Cobot Compatible.)



Fasteners and tools included.

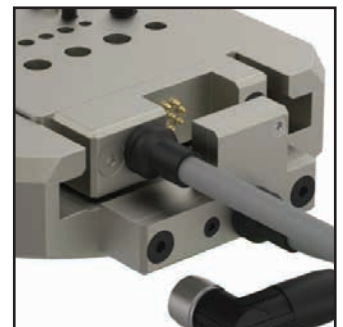


| INTERFACE PIN |              | SIGNAL DESCRIPTION |
|---------------|--------------|--------------------|
| TC1-E01T-P01  | TC1-E02T-N01 |                    |
| 3             | 3            | SIGNAL A           |
| 4             | 2            | SIGNAL B           |
| 8             | 1            | POWER (4.5~28VDC)  |
| 7             | 7            | GND (OV)           |

| ELECTRIC SPECIFICATION |                             |     |     |     |      |
|------------------------|-----------------------------|-----|-----|-----|------|
| SYMBOL                 | CHARACTERISTIC              | MIN | TYP | MAX | UNIT |
| $V_{dd}$               | SUPPLY VOLTAGE              | 4.5 | -   | 28  | V DC |
| $I_{dd}$               | OUTPUT CURRENT (PER SENSOR) | -   | -   | 100 | mA   |
| $I_Q$                  | QUIESCENT (IDLE) CURRENT    | -   | 20  | -   | mA   |



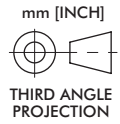
Tool Changer shown with TC1-E01M-C01 and TC1-E01T-P01 modules installed.



Tool Changer shown with TC1-E01M-C01 and TC1-E02T-N01 modules installed.

# TC1 TOOL HOLDER

Manual Tool Changers | Dimensions

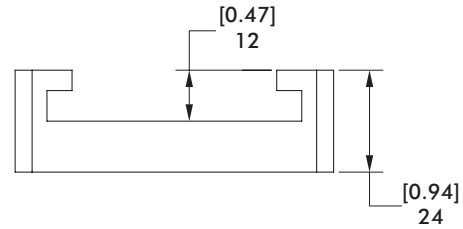
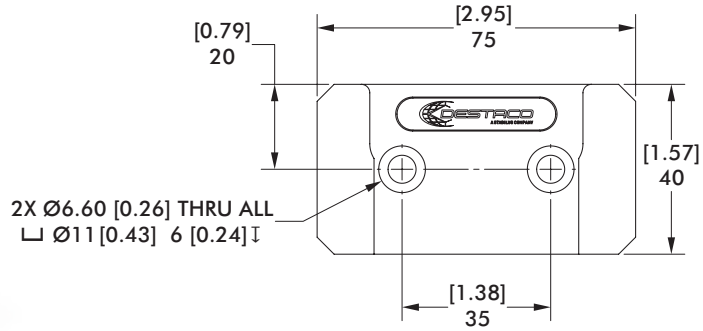


## TC1-050H-01 Tool Holder

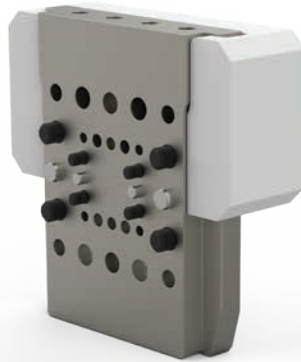


Fasteners and tools included.

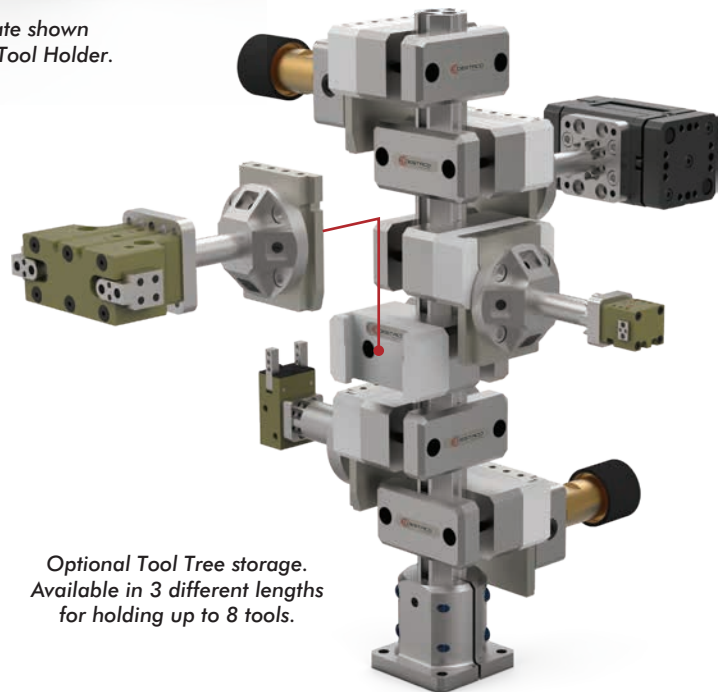
Material: Acetal Plastic



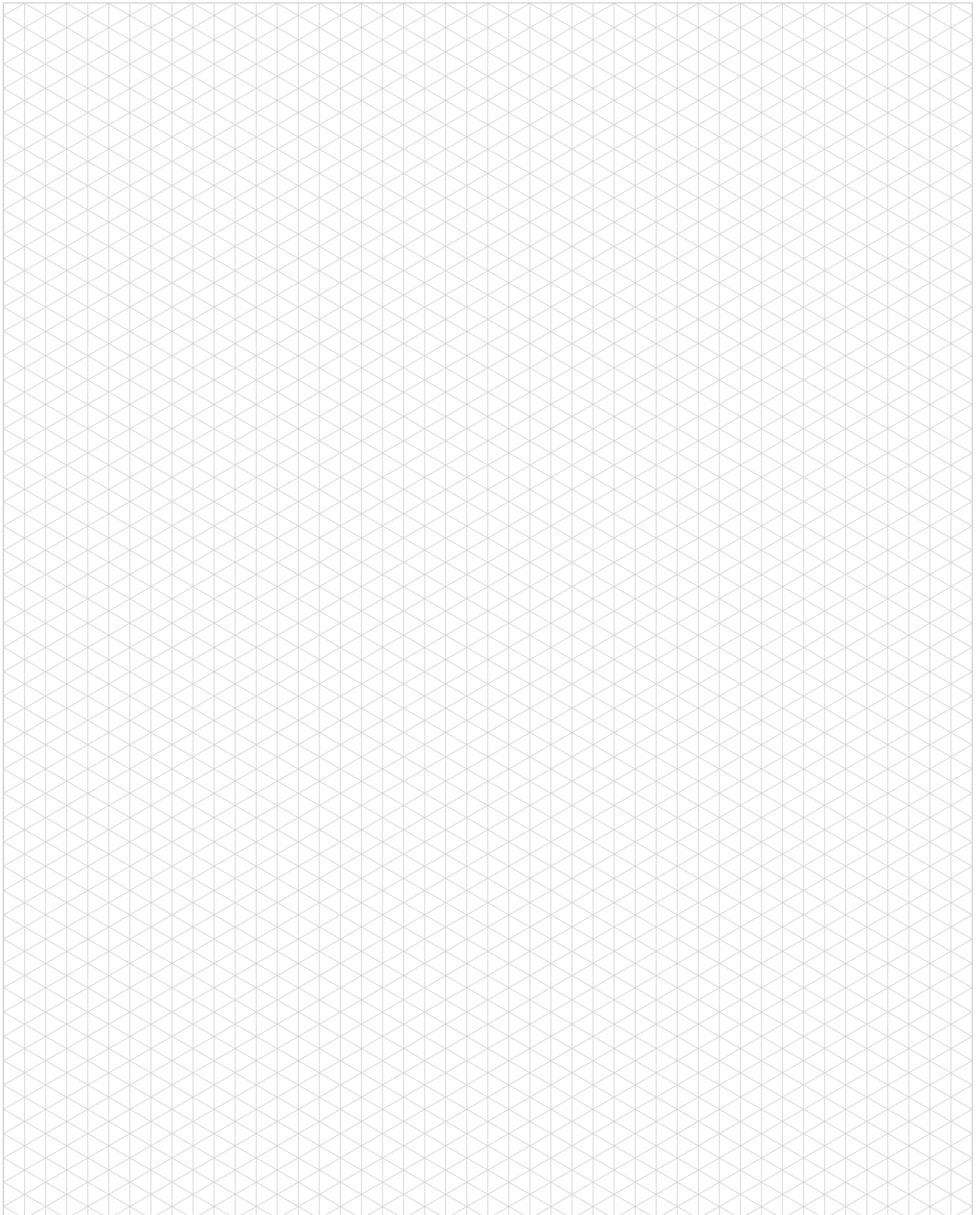
Tool Plate shown with a Robohand DPE-200 Electric Parallel Gripper placed in Tool Holder.



Tool Plate shown placed in Tool Holder.



Optional Tool Tree storage. Available in 3 different lengths for holding up to 8 tools.



# RQC/RTP SERIES

## Automatic Tool Changers | Features and Benefits

### Robotic applications:

Perfect for those flexible/multiple tooling applications utilizing one Robot. This product was designed with exceptional repeatability, high rigidity & load capacity to make it ideal for any robotic application.

### Automation applications:

End effector tooling and interchangeable fixturing can be changed quickly and easily to accommodate many different styles of parts on the same assembly machine or machining center.

### Highly configurable, modular design (RQC/RTP):

The Modular RQC series easily accommodates up to (4) optional modular interfaces, offering a high level of flexibility.

### Additional Optional Air, Fluid, Electrical Modules are Available.

Air and fluid ports modules are available in NPT, BSPP, and BSPT (See Page TC-RQTP-17)

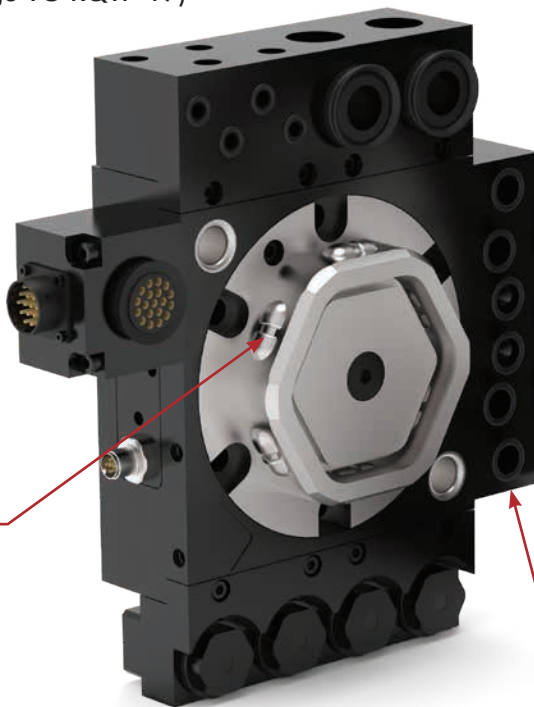
### Optional 19 Pin I/O Module

Spring loaded contacts are recessed for a better protection

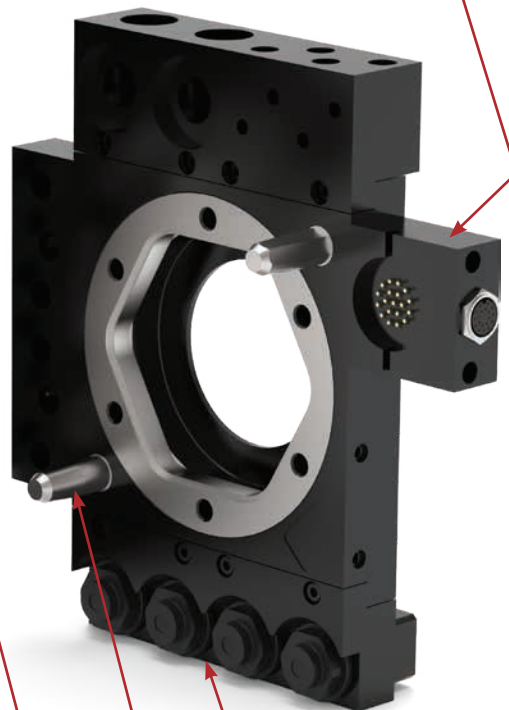
V-Seal provides moisture resistance

### Locking Mechanisms

Made from hardened stainless steel, they provide a low stress, highly rigid locking capability



Robot Plate



Tool Plate

### Latch/Unlatch Switch

RQC's are pre-equipped for latch, unlatch (all sizes) and part presence sensing (sizes 800 & 1200 only)

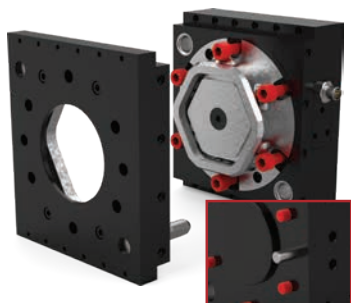
Dry contact or inductive sensors with or w/o connectors are available

### Optional 6 Port Pneumatic Module

### Locating Pins

### Optional (4) Self-Sealing Fluid Module

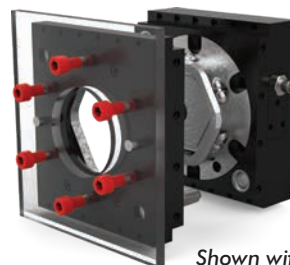
(sizes 800, 1200 & 2400 only)



### Robot Plate

has counterbored holes for mounting with a dowel pin hole, a raised boss for location, and features a ISO9409-1 mounting pattern

Back Side of Robot Plate



### Tool Plate

has tapped holes, two dowel pin holes for accurate location of payload, and features a ISO9409-1 mounting pattern

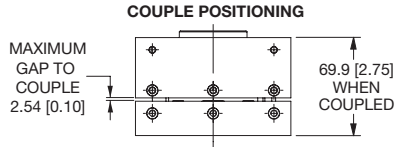
Shown with customer supplied adapter plate.

# RQC/RTP SERIES

## Automatic Tool Changers | Technical Information

### RQC-200/RTP-200

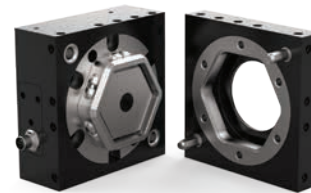
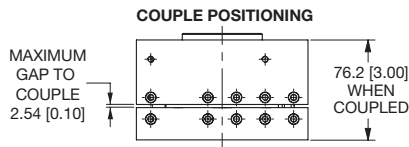
Combined Weight: 3 Kg [6.7 lb]  
 Max. Payload\*: 90 Kg [200 lb]  
 Max. Moment: 810 Nm [7200 in-lb]



**RQC-200** Robot Plate  
**RTP-200** Tool Plate

### RQC-400/RTP-400

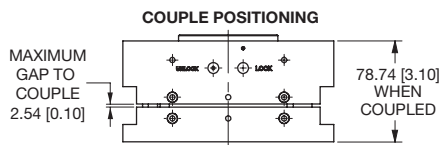
Combined Weight: 4.7 Kg [10.4 lb]  
 Max. Payload\*: 180 Kg [400 lb]  
 Max. Moment: 1580 Nm [14000 in-lb]



**RQC-400** Robot Plate  
**RTP-400** Tool Plate

### RQC-800/RTP-800

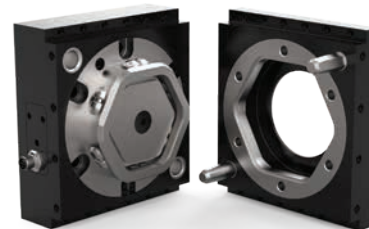
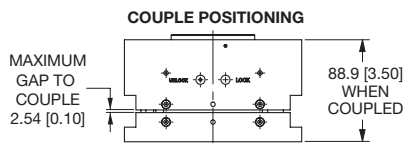
Combined Weight: 7.1 Kg [15.8 lb]  
 Max. Payload\*: 360 Kg [800 lb]  
 Max. Moment: 2490 Nm [22000 in-lb]



**RQC-800** Robot Plate  
**RTP-800** Tool Plate

### RQC-1200/RTP-1200

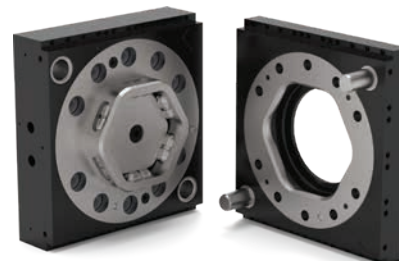
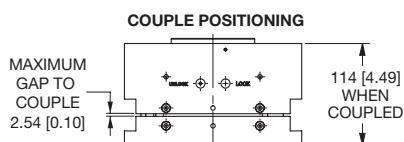
Combined Weight: 8.3 Kg [18.4 lb]  
 Max. Payload\*: 550 Kg [1200 lb]  
 Max. Moment: 3390 Nm [30000 in-lb]



**RQC-1200** Robot Plate  
**RTP-1200** Tool Plate

### RQC-2400/RTP-2400

Combined Weight: 30 Kg [66.1 lb]  
 Max. Payload\*: 1089 Kg [2400 lb]  
 Max. Moment: 7000 Nm [61955 in-lb]



**RQC-2400** Robot Plate  
**RTP-2400** Tool Plate

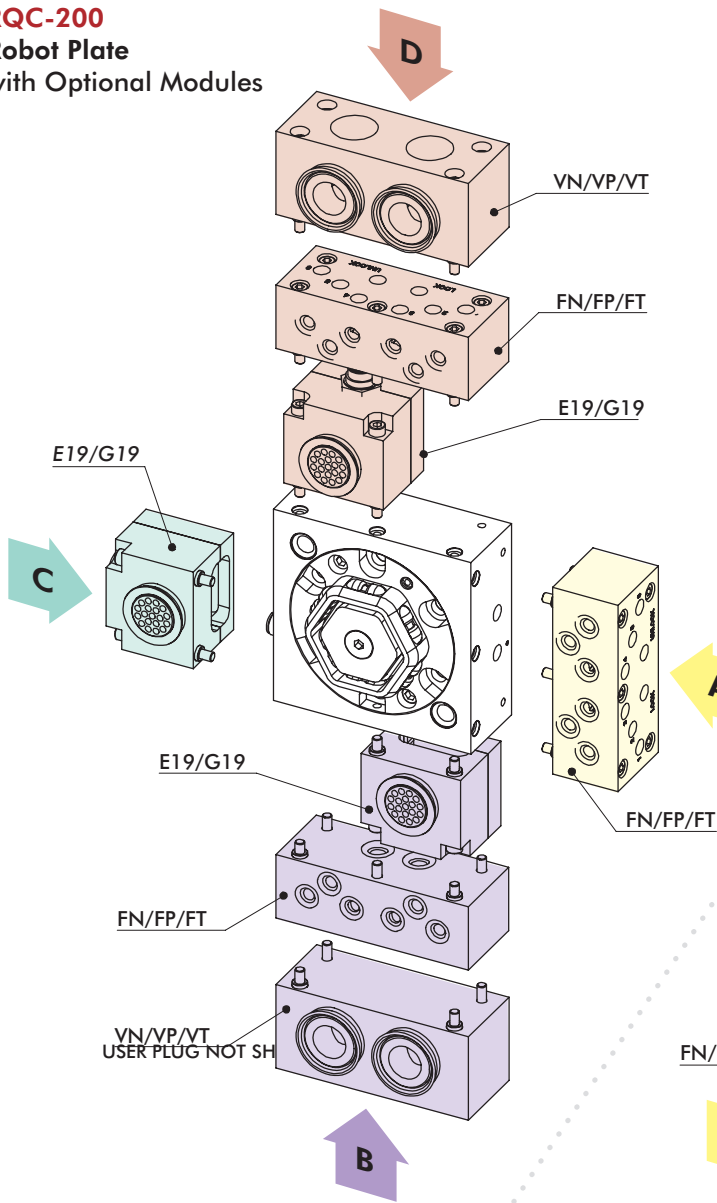
\*Depending on your application parameters please contact DESTACO for validation.



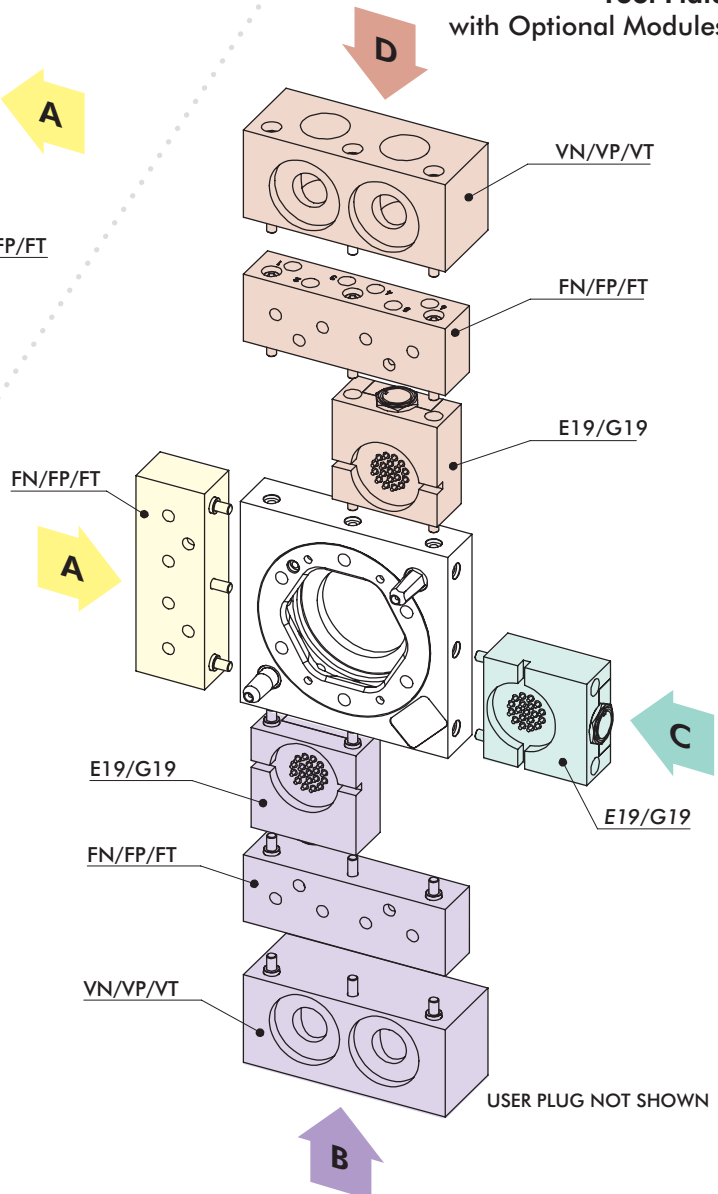
# RQC-200/RTP-200

## Automatic Tool Changers | Module Usage Illustrations

### RQC-200 Robot Plate with Optional Modules

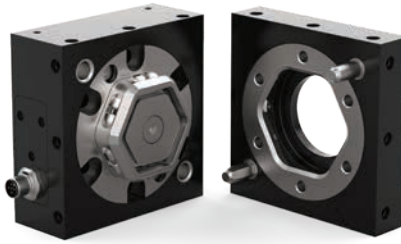


### RTP-200 Tool Plate with Optional Modules



# RQC-200/RTP-200

## Automatic Tool Changers | Ordering Information



Robot Plate RQC-200      Tool Plate RTP-200

|   |   |   |   |  |                       |                       |                       |
|---|---|---|---|--|-----------------------|-----------------------|-----------------------|
| <b>Base Model</b>   | <b>Model Size</b>                                 | <b>Port Options</b><br>(RQC-only)                                       | <b>Sensing</b><br>(RQC-only)  | <b>Side A MODULES</b>  | <b>Side B MODULES</b> | <b>Side C MODULES</b> | <b>Side D MODULES</b> |
| <b>RQC</b>  | <b>200</b>  | <b>N</b>  | <b>L0</b>   | <b>0</b>   | <b>0</b>              | <b>0</b>              | <b>0</b>              |
| <br><b>RQC</b><br>Robot Plate<br><b>RTP</b><br>Tool Plate                               | <br><b>200</b><br>(See Page 8 for Specifications) | <br><b>N</b><br>1/8 NPT<br><b>M</b><br>1/8 BSPP<br><b>A</b><br>1/8 BSPT | <br><b>L0</b> No Sensing<br><b>LP*</b> PNP Inductive Sensing<br><b>CP†</b> PNP Inductive Sensing with M12 connector<br><b>LN*</b> NPN Inductive Sensing<br><b>CN†</b> NPN Inductive Sensing with M12 connector<br><b>LD*</b> Dry contact sensor<br><b>CD†</b> Dry contact sensor with M12 connector | Optional Electrical, Air and Vacuum Modules can be ordered with Base Model<br>See below for Module Description<br>(See Pg. TC-RQTP-3 for Illustrated Module Config.) |                       |                       |                       |
| *Requires E19 or G19 module mounted on Side C.<br>†Cordset or plug are sold separately. |   |   |   |  |                       |                       |                       |

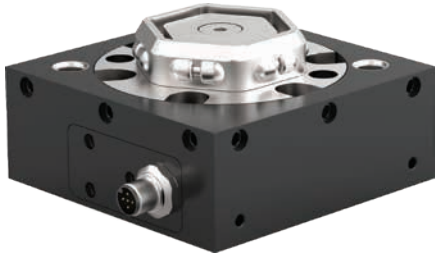
| Side A | Side B | Side C | Side D | Order Code  | Optional Modules   |
|--------|--------|--------|--------|-------------|--|
| ●      | ●      | ●      | ●      | <b>0</b>    | No Module  |
|        | ●      | ●      | ●      | <b>E19†</b> | 19 pin, 3 Amp, 48 VDC Module w/Turck M16 Conn, w/o Cordset       |
|        | ●      | ●      | ●      | <b>G19</b>  | 19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable |
| ●      | ●      |        | ●      | <b>FN</b>   | 6X 1/8" NPT Air Ports Module, Face Seal, 10 Bar                  |
| ●      | ●      |        | ●      | <b>FP</b>   | 6X 1/8" BSPP Air Ports Module, Face Seal, 10 Bar                 |
| ●      | ●      |        | ●      | <b>FT</b>   | 6X 1/8" BSPT Air Ports Module, Face Seal, 10 Bar                 |
|        | ●      |        | ●      | <b>VN</b>   | 2X 3/4" Vacuum NPT Ports Module, Face Sealing                    |
|        | ●      |        | ●      | <b>VP</b>   | 2X 3/4" Vacuum BSPP Ports Module, Face Sealing                   |
|        | ●      |        | ●      | <b>VT</b>   | 2X 3/4" Vacuum BSPT Ports Module, Face Sealing                   |

†Cordset or plug are sold separately.

**NOTE:** Only (1) module can be mounted per side. Modules usage is based on the size of the Base Model and which side the module can be mounted.

# RQC-200 (ROBOT PLATE)

## Automatic Tool Changers | Technical Specifications | Dimensions



### Specification:

Max. Payload\* W: 90 Kg [200 lb]

Weight: 2 Kg [4.41 lb]

Cylinder Bore: Ø53mm [2.09in]

Displacement: 41.3 cm<sup>3</sup> [2.52in<sup>3</sup>]

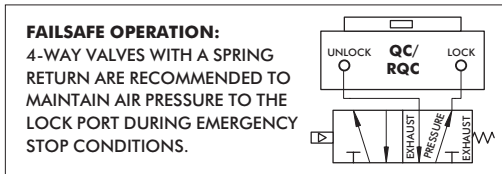
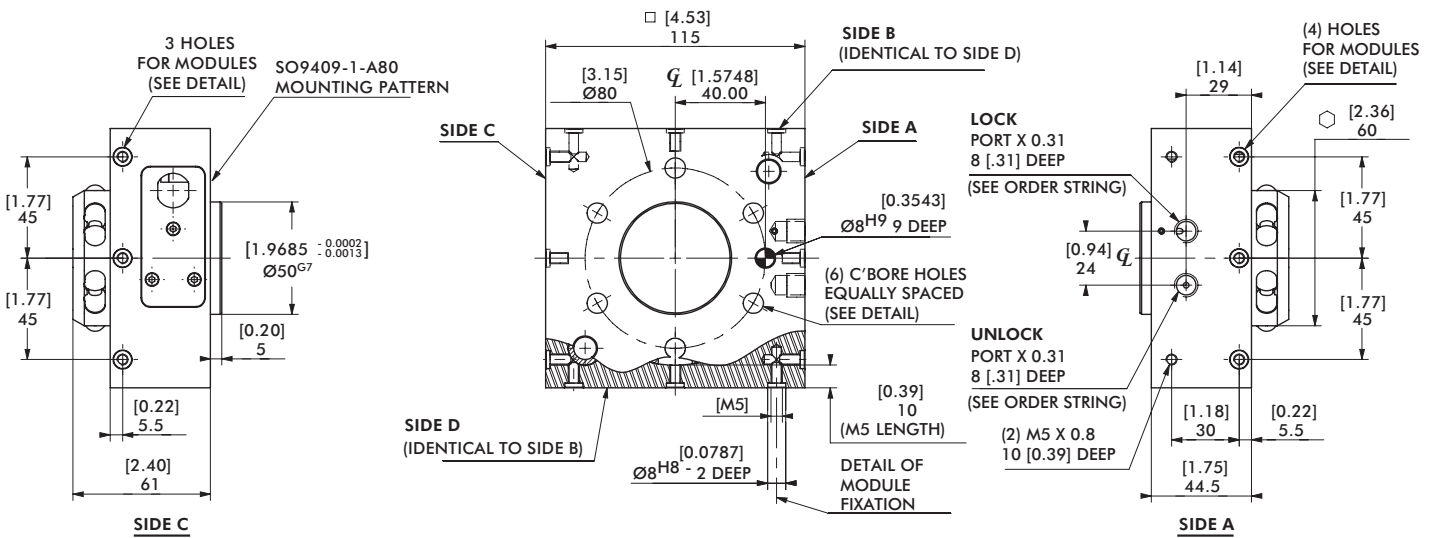
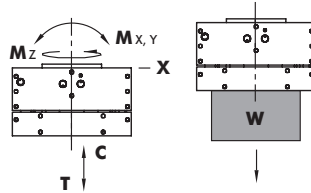
\*Depending on your application parameters please contact DESTACO for validation.

### Loading Capacity:

Max. Tensile T: 1330 N [300 lb]

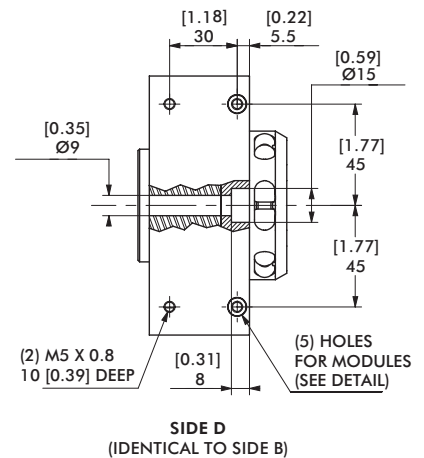
Max. Compressive C: 1780 N [400 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>): 810 Nm [7200 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

|   |                        |  |                             |   |  |
|---|------------------------|--|-----------------------------|---|--|
|   |                        |  |                             | IMPERIAL ([IN.])                                | METRIC (MM)  |
| DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE | THIRD ANGLE PROJECTION | ALL DOWEL HOLES ARE SF (SLIP FIT). LOCATIONAL TOLERANCE ±.0005" OR [±.013MM] | METRIC THREADS COURSE PITCH | 0.00 = ±.01<br>0.000 = ±.005<br>0.0000 = ±.0005 | [0] = [±.25]<br>[0.0] = [±.13]<br>[0.00] = [±.013] |



# RTP-200 (TOOL PLATE)

## Automatic Tool Changers | Technical Specifications | Dimensions

**Specification:**

**Max. Payload\* W:** 90 Kg [200 lb]

**Weight:** 1 Kg [2.2 lb]

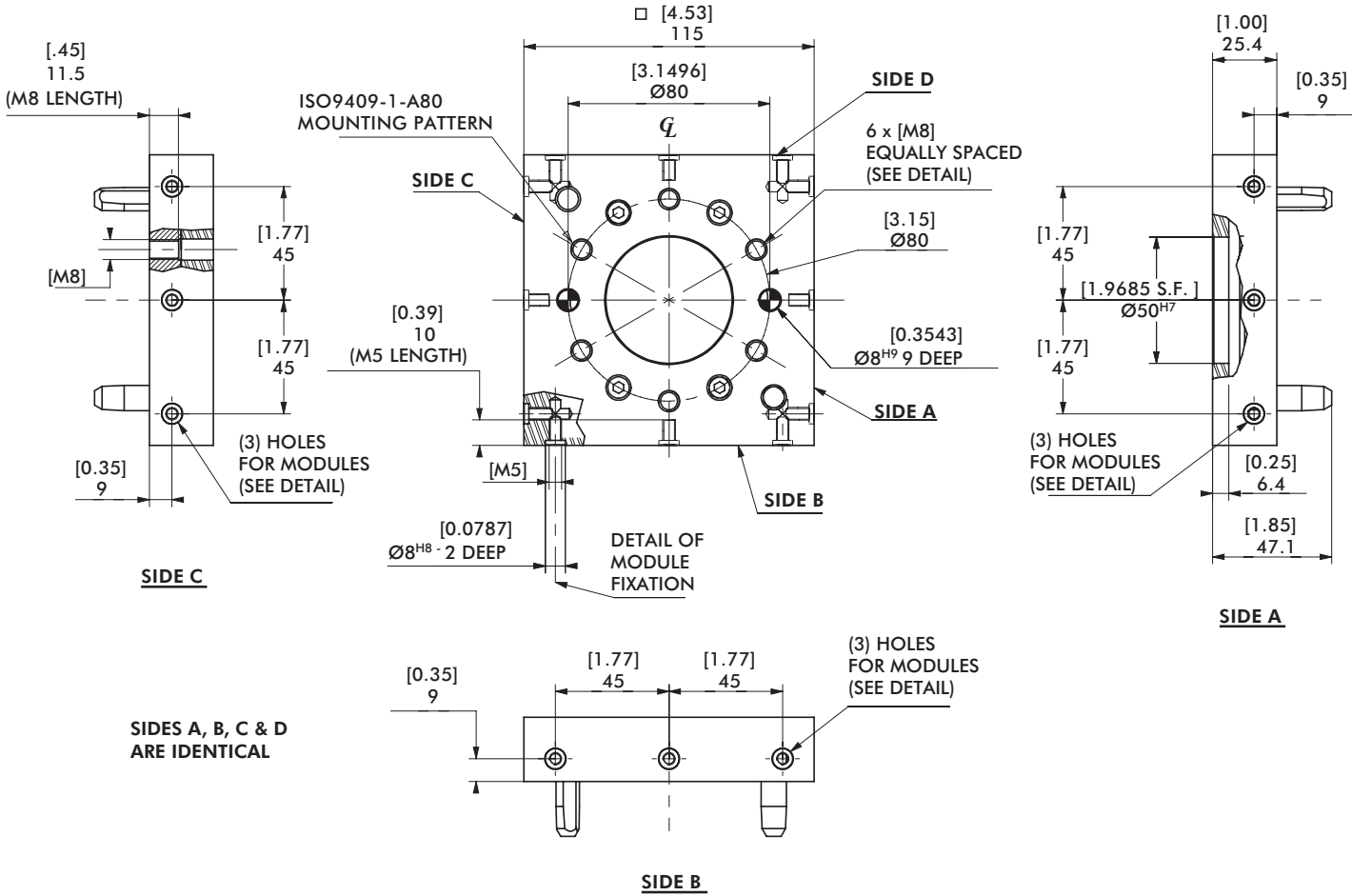
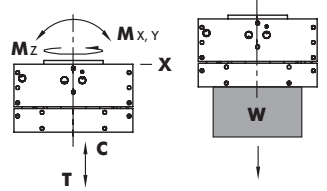
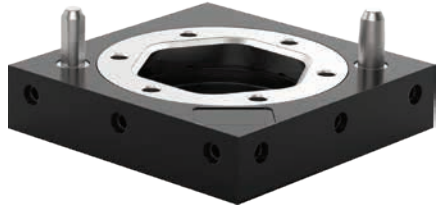
\*Depending on your application paramaters please contact DESTACO for validation.

**Loading Capacity:**

**Max. Tensile T:** 1330 N [300 lb]

**Max. Compressive C:** 1780 N [400 lb]

**Max. Moment (Mx/My/Mz):** 810 Nm [7200 in-lb]



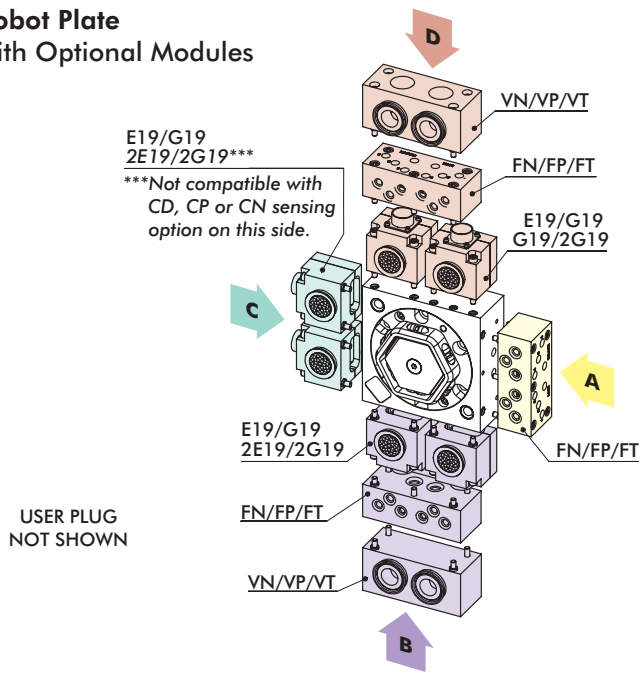
UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

|   |                            |  |                                    |  |   |
|---|----------------------------|--|------------------------------------|--|---|
| <br>DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE | <br>THIRD ANGLE PROJECTION | <br>ALL DOWEL HOLES ARE SF (SLIP FIT).<br>LOCATIONAL TOLERANCE<br>±.0005" OR [±.013MM] | <br>METRIC THREADS<br>COURSE PITCH | IMPERIAL ( [ IN.] )<br>0.00 = ±.01<br>0.000 = ±.005<br>0.0000 = ±.0005 | METRIC (MM)<br>[0] = [±.25]<br>[0.0] = [±.13]<br>[0.00] = [±.013] |
|---|----------------------------|--|------------------------------------|--|---|

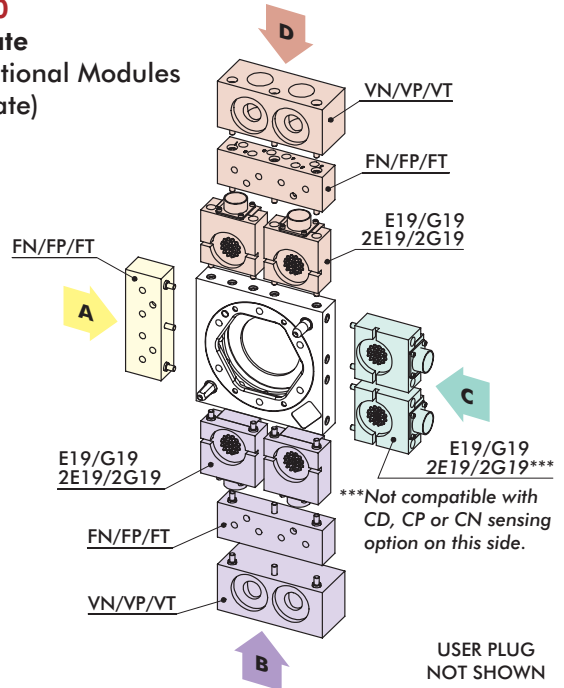
# RQC-400, 800, 1200/RTP-400, 800, 1200

## Automatic Tool Changers | Module Usage Illustrations

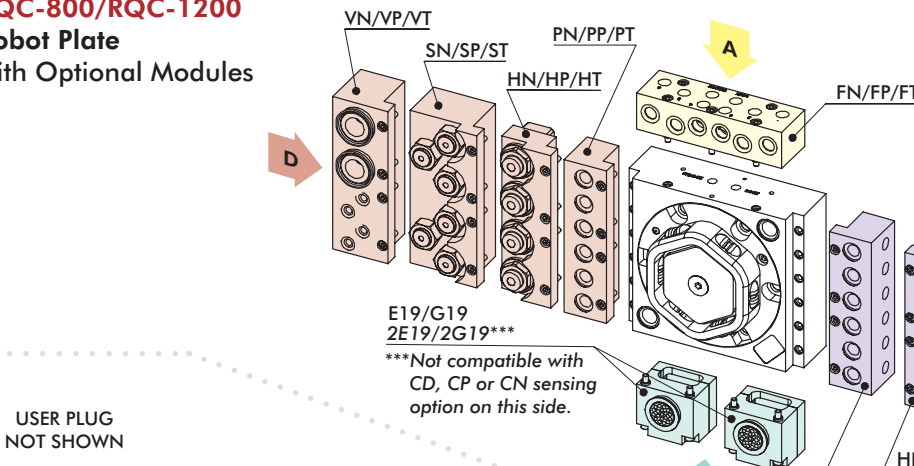
### RQC-400 Robot Plate with Optional Modules



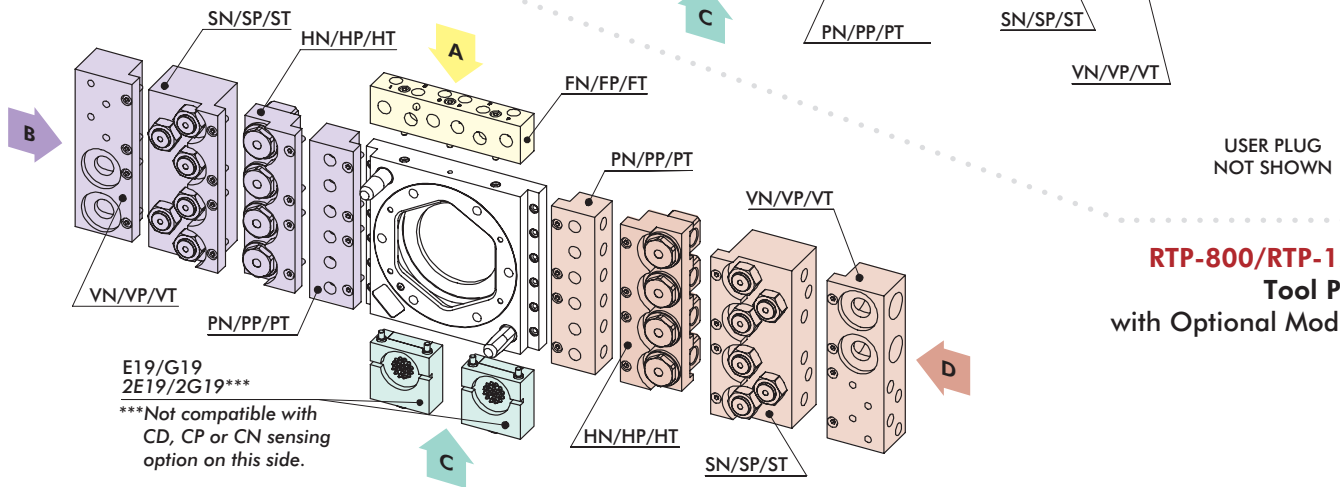
### RTP-400 Tool Plate with Optional Modules (Tool Plate)



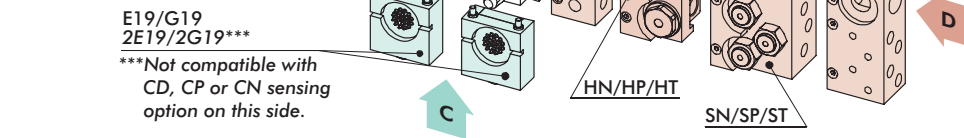
### RQC-800/RQC-1200 Robot Plate with Optional Modules



NOTE: Only (1) module can be mounted per side (except 2E19, 2G19 which are composed of (2) modules)



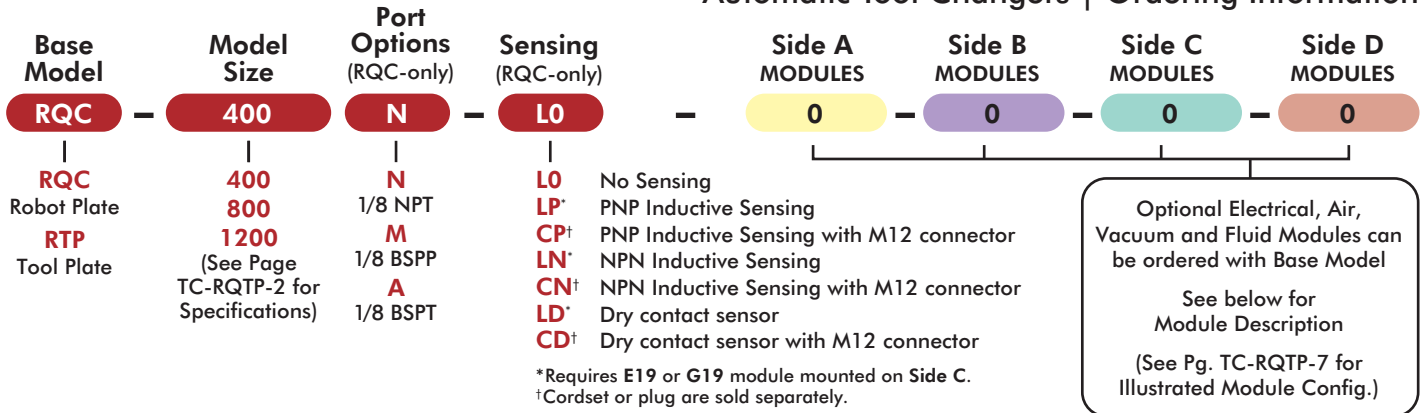
### RTP-800/RTP-1200 Tool Plate with Optional Modules





# RQC-400, 800, 1200/RTP-400, 800, 1200

## Automatic Tool Changers | Ordering Information



| 400 | 800/1200 | Side A | Side B | Side C | Side D | Order Code      | Optional Modules  |
|-----|----------|--------|--------|--------|--------|-----------------|---|
| ●   | ●        | ●      | ●      | ●      | ●      | <b>0</b>        | No Module   |
|     | ●        |        |        | ●      |        | <b>E19†</b>     | 19 pin, 3 Amp, 48 VDC Module w/Turck M12 Conn, w/o Cordset          |
|     | ●        |        |        | ●***   |        | <b>2E19†***</b> | 2X 19 pin, 3 Amp, 48 VDC Module w/Turck M12 Conn, w/o Cordset       |
|     | ●        |        |        | ●      |        | <b>G19</b>      | 19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable    |
|     | ●        |        |        | ●***   |        | <b>2G19***</b>  | 2X 19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable |
| ●   |          |        | ●      | ●      | ●      | <b>E19†</b>     | 19 pin, 3 Amp, 48 VDC Module w/Turck M12 Conn, w/o Cordset          |
| ●   |          |        | ●      | ●***   | ●      | <b>2E19†***</b> | 2X 19 pin, 3 Amp, 48 VDC Module w/Turck M12 Conn, w/o Cordset       |
| ●   |          |        | ●      | ●      | ●      | <b>G19</b>      | 19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable    |
| ●   |          |        | ●      | ●***   | ●      | <b>2G19***</b>  | 2X 19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable |
| ●   |          | ●      | ●      |        | ●      | <b>FN</b>       | 6X 1/8" NPT Air Ports Module, Face Seal, 10 Bar                     |
| ●   |          | ●      | ●      |        | ●      | <b>FP</b>       | 6X 1/8" BSPP Air Ports Module, Face Seal, 10 Bar                    |
| ●   |          | ●      | ●      |        | ●      | <b>FT</b>       | 6X 1/8" BSPT Air Ports Module, Face Seal, 10 Bar                    |
|     | ●        | ●      | ●      |        | ●      | <b>FN</b>       | 6X 1/4" NPT Air Ports Module, Face Seal, 10 Bar                     |
|     | ●        | ●      | ●      |        | ●      | <b>FP</b>       | 6X 1/4" BSPP Air Ports Module, Face Seal, 10 Bar                    |
|     | ●        | ●      | ●      |        | ●      | <b>FT</b>       | 6X 1/4" BSPT Air Ports Module, Face Seal, 10 Bar                    |
|     | ●        |        | ●      |        | ●      | <b>PN</b>       | 6X 1/4" NPT Air Ports Module, Face Seal, 10 Bar                     |
|     | ●        |        | ●      |        | ●      | <b>PP</b>       | 6X 1/4" BSPP Air Ports Module, Face Seal, 10 Bar                    |
|     | ●        |        | ●      |        | ●      | <b>PT</b>       | 6X 1/4" BSPT Air Ports Module, Face Seal, 10 Bar                    |
|     | ●        |        | ●      |        | ●      | <b>SN</b>       | 6X 1/4" NPT Air Ports Module, Self Sealing, 10 Bar                  |
|     | ●        |        | ●      |        | ●      | <b>SP</b>       | 6X 1/4" BSPP Air Ports Module, Self Sealing, 10 Bar                 |
|     | ●        |        | ●      |        | ●      | <b>ST</b>       | 6X 1/4" BSPT Air Ports Module, Self Sealing, 10 Bar                 |
| ●   |          |        | ●      |        | ●      | <b>VN</b>       | 2X 3/4" Vacuum NPT Ports Module, Face Sealing                       |
| ●   |          |        | ●      |        | ●      | <b>VP</b>       | 2X 3/4" Vacuum BSPP Ports Module, Face Sealing                      |
| ●   |          |        | ●      |        | ●      | <b>VT</b>       | 2X 3/4" Vacuum BSPT Ports Module, Face Sealing                      |
|     | ●        |        | ●      |        | ●      | <b>VN</b>       | 2X 3/4" Vacuum + 4 X 1/4" Air NPT Ports Module, Face Sealing        |
|     | ●        |        | ●      |        | ●      | <b>VP</b>       | 2X 3/4" Vacuum + 4 X 1/4" Air BSPP Ports Module, Face Sealing       |
|     | ●        |        | ●      |        | ●      | <b>VT</b>       | 2X 3/4" Vacuum + 4 X 1/4" Air BSPT Ports Module, Face Sealing       |
|     | ●        |        | ●      |        | ●      | <b>HN</b>       | 4X 3/8" NPT Fluid Ports Module, 100 Bar                             |
|     | ●        |        | ●      |        | ●      | <b>HP</b>       | 4X 3/8" BSPP Fluid Ports Module, 100 Bar                            |
|     | ●        |        | ●      |        | ●      | <b>HT</b>       | 4X 3/8" BSPT Fluid Ports Module, 100 Bar                            |

†Cordset or plug are sold separately. \*\*\*Not compatible with CD, CP or CN sensing option on Side C.

**NOTE:** Only (1) module can be mounted per side. (Except 2E19 and 2G19, which are composed of (2) modules).  
 Modules usage is based on the size of the Base Model and which side the module can be mounted.

### Electrical and pneumatic accessories are ordered separately.

Please note some electrical accessories can only be used with certain modules for either RQC or RTP "Base Models".

For pneumatic accessories, size of "Base Model" is considered.

### ELECTRICAL ACCESSORIES

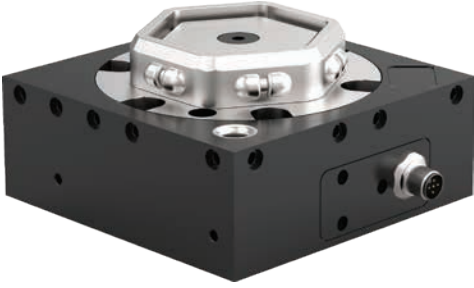
- ELCT-048** 90° Female Plug, w/o Cable, Solder Type, Cable Clamp for G19 (RQC Only)
- ELCT-049** 90° male Plug, w/o Cable, Solder Type, Cable Clamp for G19 (RTP Only)
- CABL-028** 90° Female M12 Cordset with 2M Cable for CP, CN, and CD (RQC Only)
- CABL-029** 90° Female Cordset with 4M Cable for E19 (RQC Only)
- CABL-031** 90° male Cordset with 2M Cable for E19 (RTP Only)
- OSRK-004** PNP Inductive Sensor Repair Kit (RQC Only)
- OSRK-005** NPN Inductive Sensor Repair Kit (RQC Only)
- OSRK-006** Dry Contact Sensor Repair Kit (RQC Only)

### PNEUMATIC ACCESSORIES

- SLKT-402** RQC-400 Standard Seal Repair Kit
- SLKT-403** RQC-800 Standard Seal Repair Kit
- SLKT-404** RQC-1200 Standard Seal Repair Kit

# RQC-400 (ROBOT PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions



## Specification:

Max. Payload\* W: 180 Kg [400 lb]

Weight: 3.6 Kg [7.94 lb]

Cylinder Bore: Ø73mm [2.87in]

Displacement: 80.9 cm<sup>3</sup> [4.93in<sup>3</sup>]

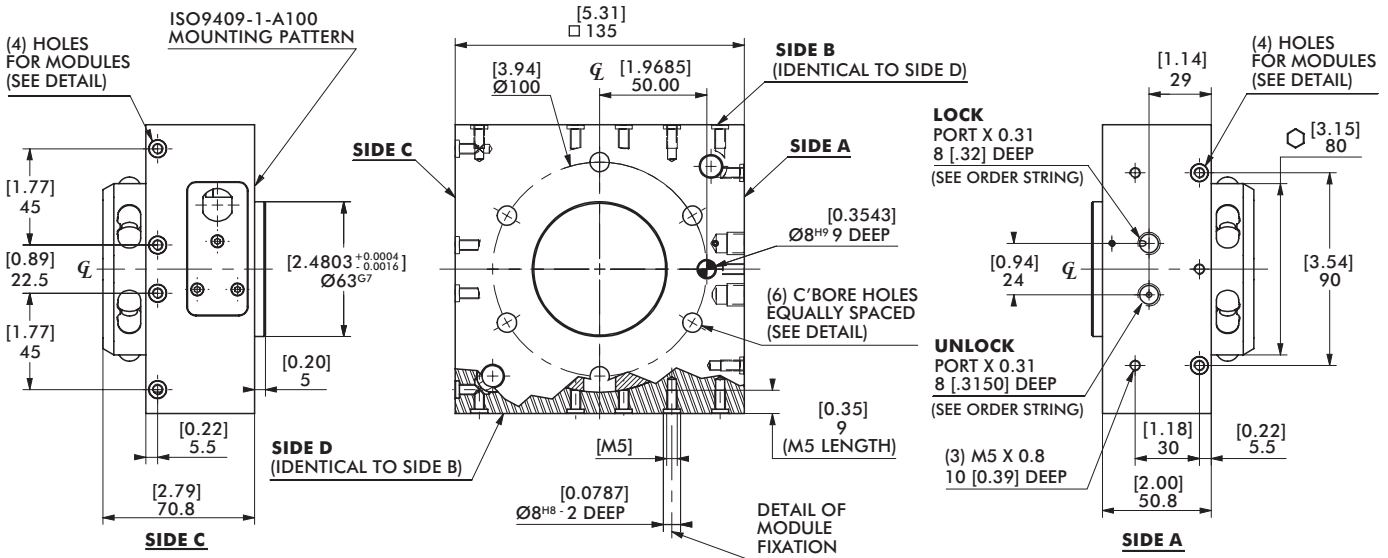
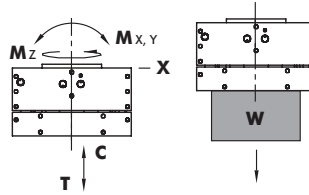
\*Depending on your application parameters please contact DESTACO for validation.

## Loading Capacity:

Max. Tensile T: 2670 N [600 lb]

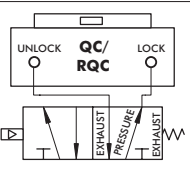
Max. Compressive C: 3560 N [800 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>): 1580 Nm [14000 in-lb]



### FAILSAFE OPERATION:

4-WAY VALVES WITH A SPRING RETURN ARE RECOMMENDED TO MAINTAIN AIR PRESSURE TO THE LOCK PORT DURING EMERGENCY STOP CONDITIONS.



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

| IMPERIAL ([ IN. ]) | METRIC (MM)      |
|--------------------|------------------|
| 0.00 = ±.01        | [0] = [±.25]     |
| 0.000 = ±.005      | [0.0] = [±.13]   |
| 0.0000 = ±.0005    | [0.00] = [±.013] |

# RTP-400 (TOOL PLATE)

## Automatic Tool Changers | Technical Specifications | Dimensions

### Specification:

Max. Payload\* **W**: 180 Kg [400 lb]

Weight: 1.1 Kg [2.43 lb]

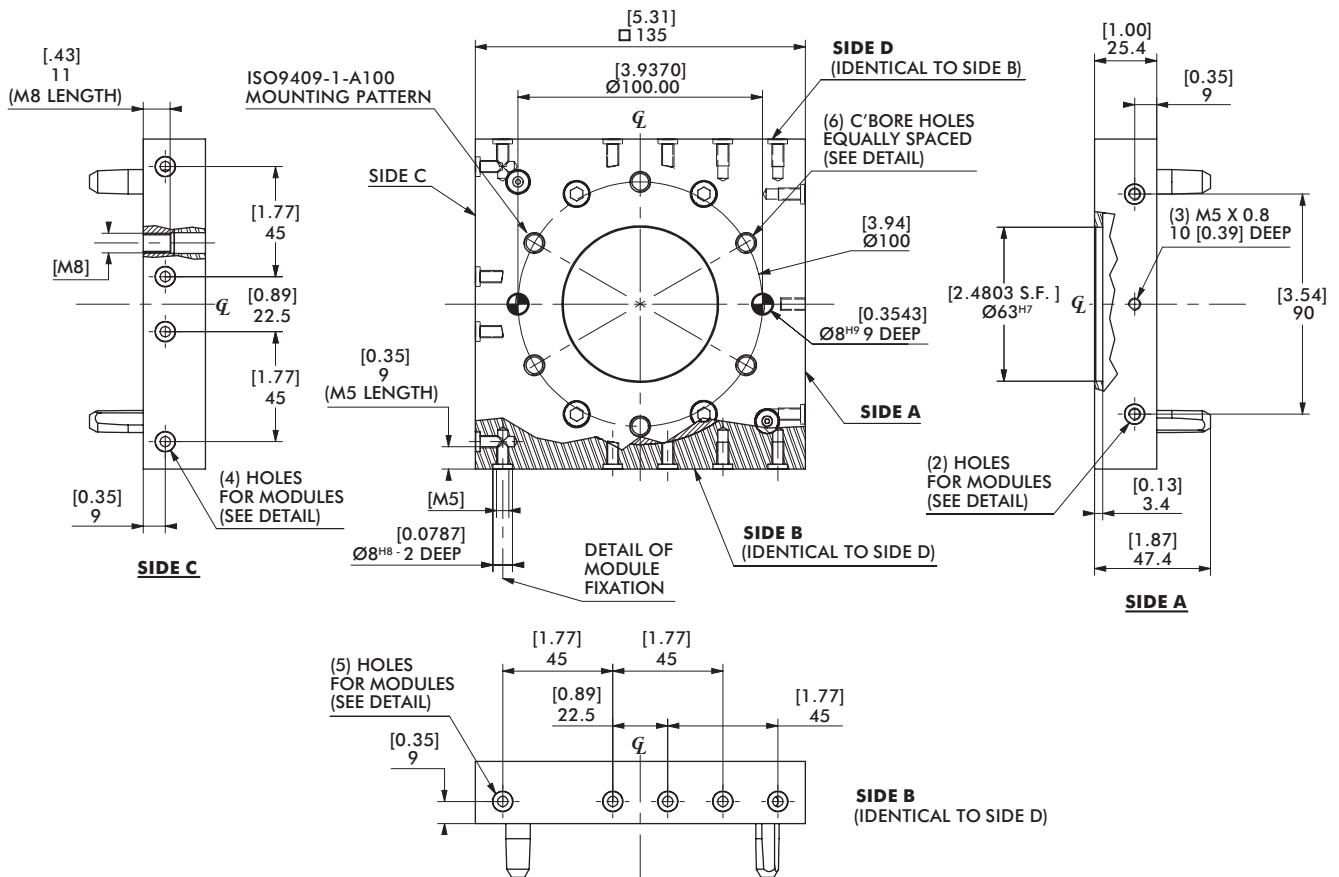
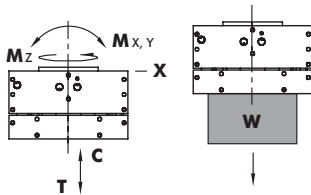
\*Depending on your application parameters please contact DESTACO for validation.

### Loading Capacity:

Max. Tensile **T**: 2670 N [600 lb]

Max. Compressive **C**: 3560 N [800 lb]

Max. Moment ( $M_x/M_y/M_z$ ): 1580 Nm [14000 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).  
LOCAL TOLERANCE ±.0005" OR [±.013MM]

METRIC THREADS COURSE PITCH

IMPERIAL ([ IN.])  
0.00 = ±.01  
0.000 = ±.005  
0.0000 = ±.0005

METRIC (MM)  
[0] = [±.25]  
[0.0] = [±.13]  
[0.00] = [±.013]

# RQC-800, RQC-1200 (ROBOT PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions



## RQC-800 Specification:

Max. Payload\* **W**: 360 Kg [800 lb]

Weight: 5.3 Kg [11.68 lb]

Cyl. Bore: Ø80mm [3.15in]

Displacement: 95.6 cm<sup>3</sup> [5.83in<sup>3</sup>]

\*Depending on your application parameters please contact DESTACO for validation.

## Loading Capacity:

Max. Tensile **T**:

5340 N [1200 lb]

Max. Compressive **C**:

7120 N [1600 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>):

2490 Nm [22000 in-lb]

## RQC-1200 Specification:

Max. Payload\* **W**: 550 Kg [1200 lb]

Weight: 6.4 Kg [14.11 lb]

Cyl. Bore: Ø95mm [3.74in]

Displacement: 153.7 cm<sup>3</sup> [9.38in<sup>3</sup>]

\*Depending on your application parameters please contact DESTACO for validation.

## Loading Capacity:

Max. Tensile **T**:

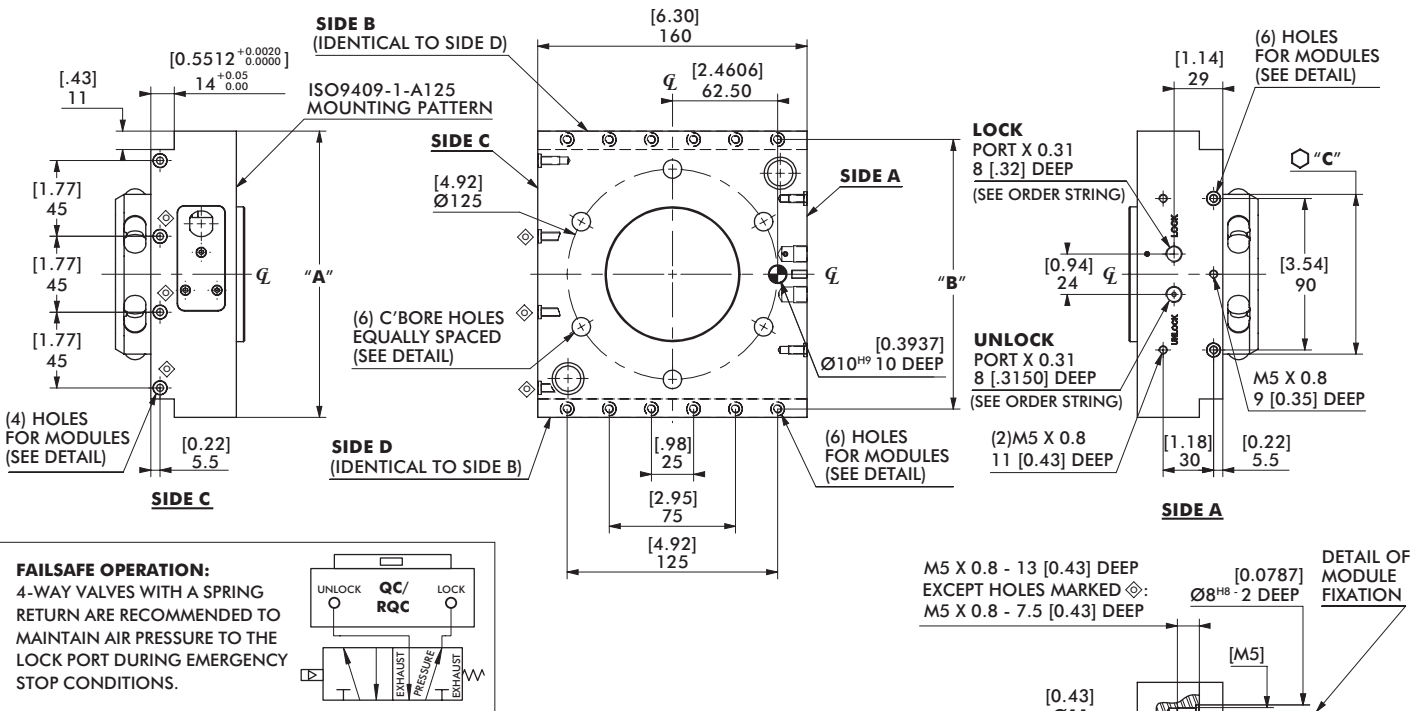
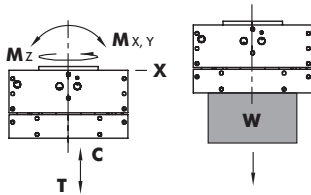
8000 N [1800 lb]

Max. Compressive **C**:

10700 N [2400 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>):

3390 Nm [30000 in-lb]



| MODEL NUMBER | "A"             | "B"               | "C"             | "D"             | "E"             | WEIGHT              |
|--------------|-----------------|-------------------|-----------------|-----------------|-----------------|---------------------|
| RQC-800      | [6.69]<br>170.0 | [6.2992]<br>160.0 | [3.73]<br>94.75 | [2.00]<br>50.8  | [2.82]<br>71.75 | [11.8 lb]<br>6.3 kg |
| RQC-1200     | [7.01]<br>178.0 | [6.6142]<br>168.0 | [4.08]<br>103.6 | [2.25]<br>57.15 | [3.31]<br>84.15 | [14.1 lb]<br>6.4 kg |

# RTP-800, RTP-1200 (TOOL PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions

## RTP-800 Specification:

Max. Payload\* W: 360 Kg [800 lb]

Weight: 1.8 Kg [3.97 lb]

\*Depending on your application parameters please contact DESTACO for validation.

## Loading Capacity:

Max. Tensile T:

5340 N [1200 lb]

Max. Compressive C:

7120 N [1600 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>):

2490 Nm [22000 in-lb]

## RTP-1200 Specification:

Max. Payload\* W: 550 Kg [1200 lb]

Weight: 1.9 Kg [4.19 lb]

\*Depending on your application parameters please contact DESTACO for validation.

## Loading Capacity:

Max. Tensile T:

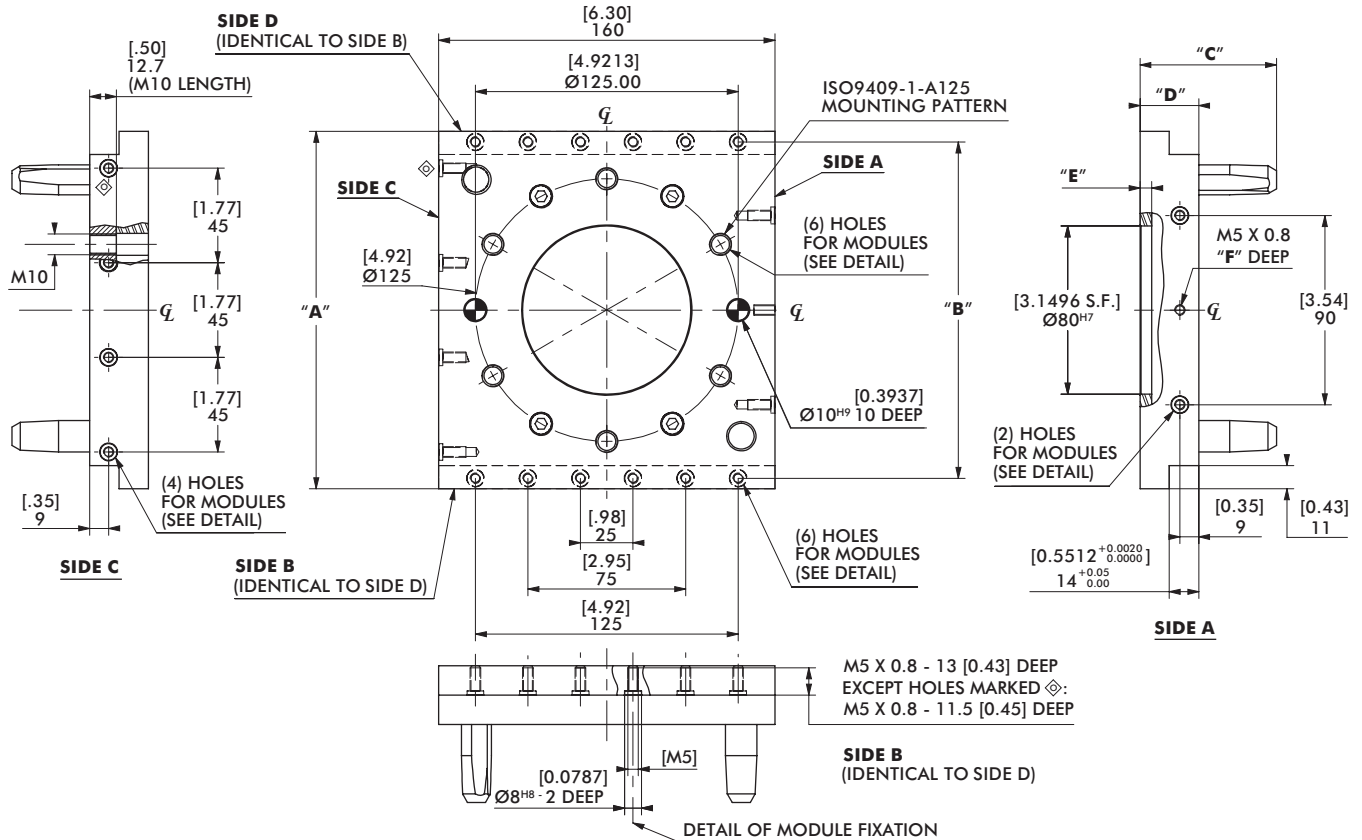
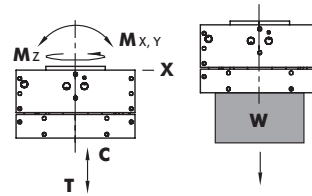
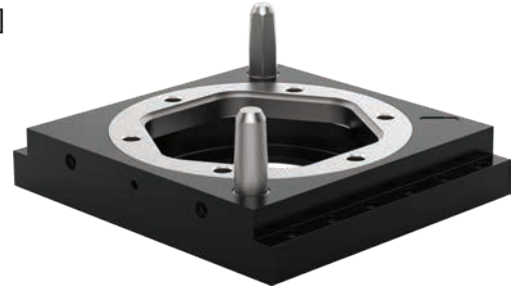
8000 N [1800 lb]

Max. Compressive C:

10700 N [2400 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>):

3390 Nm [30000 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

|   |                        |  |                             |   |  |
|---|------------------------|--|-----------------------------|---|--|
|   |                        |  |                             | IMPERIAL ( [ IN. ] )                            | METRIC (MM)  |
| DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE | THIRD ANGLE PROJECTION | ALL DOWEL HOLES ARE SF (SLIP FIT). LOCATIONAL TOLERANCE ±.0005" OR [±.013MM] | METRIC THREADS COURSE PITCH | 0.00 = ±.01<br>0.000 = ±.005<br>0.0000 = ±.0005 | [0] = [±.25]<br>[0.0] = [±.13]<br>[0.00] = [±.013] |

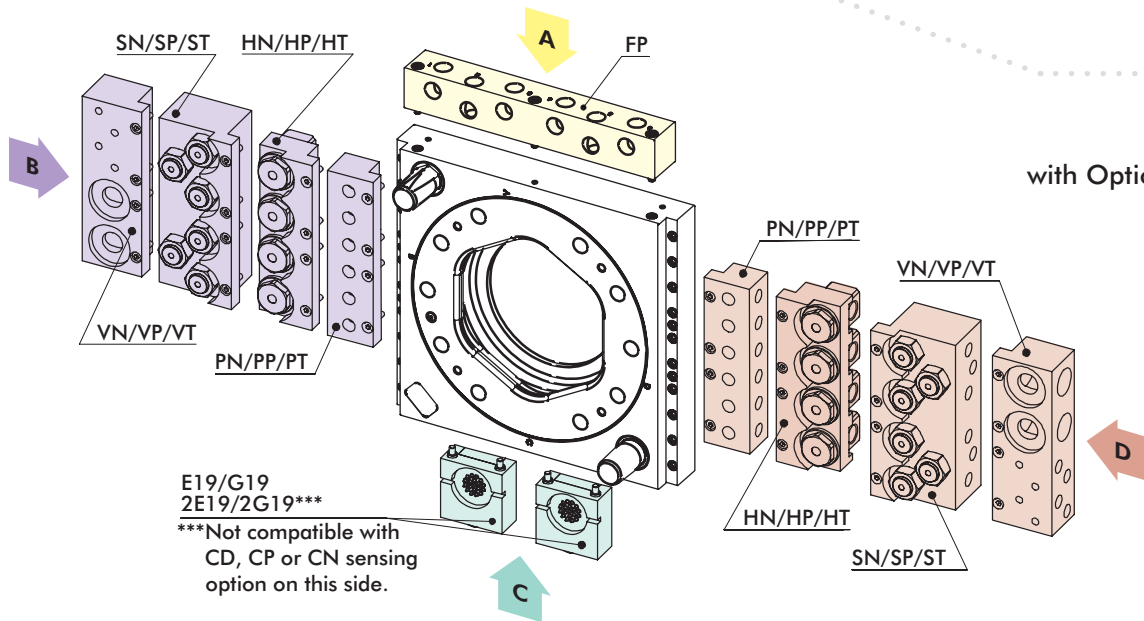
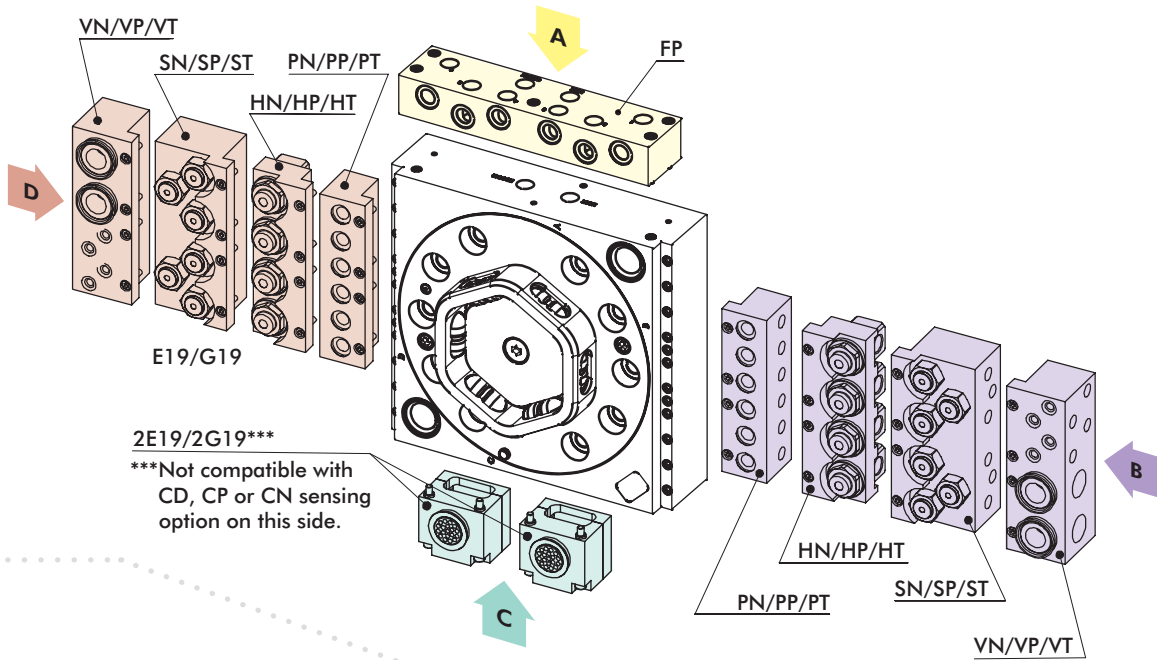
| MODEL NUMBER | "A"          | "B"            | "C"          | "D"          | "E"         | "F"         | WEIGHT            |
|--------------|--------------|----------------|--------------|--------------|-------------|-------------|-------------------|
| RTP-800      | [6.69] 170.0 | [6.2992] 160.0 | [2.56] 64.94 | [1.10] 27.94 | [0.22] 5.5  | [0.39] 10.0 | [4.00 lb] 1.8 kg  |
| RTP-1200     | [7.01] 178   | [6.6142] 168.0 | [2.71] 68.75 | [1.25] 31.75 | [0.13] 3.25 | [0.30] 7.5  | [2.90 lb] 1.32 kg |



# RQC-2400/RTP-2400

## Automatic Tool Changers | Module Usage Illustrations

### RQC-2400 Robot Plate with Optional Modules



**RTP-2400**  
Tool Plate  
with Optional Modules

USER PLUG NOT SHOWN

# RQC-2400/RTP-2400

## Automatic Tool Changers | Ordering Information



Robot Plate  
RQC-2400

Tool Plate  
RTP-2400

| Base Model         | Model Size                              | Port Options (RQC-only) | Sensing (RQC-only)                              | Side A MODULES | Side B MODULES | Side C MODULES | Side D MODULES |
|--------------------|---|-------------------------|---|----------------|----------------|----------------|----------------|
| <b>RQC</b>         | <b>2400</b>                             | <b>N</b>                | <b>L0</b>                                       | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>       |
| RQC<br>Robot Plate | 2400<br>(See Page 8 for Specifications) | N<br>1/8 NPT            | L0<br>No Sensing                                |                |                |                |                |
| RTP<br>Tool Plate  |   | M<br>1/8 BSPP           | LP*<br>PNP Inductive Sensing                    |                |                |                |                |
|                    |   | A<br>1/8 BSPT           | CP†<br>PNP Inductive Sensing with M12 connector |                |                |                |                |
|                    |   |                         | LN*<br>NPN Inductive Sensing                    |                |                |                |                |
|                    |   |                         | CN†<br>NPN Inductive Sensing with M12 connector |                |                |                |                |
|                    |   |                         | LD*<br>Dry contact sensor                       |                |                |                |                |
|                    |   |                         | CD†<br>Dry contact sensor with M12 connector    |                |                |                |                |

\*Requires E19 or G19 module mounted on Side C.  
†Cordset or plug are sold separately.

Optional Air Modules can be ordered with Base Model  
See below for Module Description  
(See Pg. TC-RQTP-13 for Illustrated Module Config.)

| Side A | Side B | Side C | Side D | Order Code      | Optional Modules  |
|--------|--------|--------|--------|-----------------|---|
| ●      | ●      | ●      | ●      | <b>0</b>        | No Module   |
|        |        | ●      |        | <b>E19†</b>     | 19 pin, 3 Amp, 48 VDC Module w/Turck M16 Conn, w/o Cordset          |
|        |        | ●**    |        | <b>2E19†***</b> | 2X 19 pin, 3 Amp, 48 VDC Module w/Turck M16 Conn, w/o Cordset       |
|        |        | ●      |        | <b>G19</b>      | 19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable    |
|        |        | ●**    |        | <b>2G19***</b>  | 2X 19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable |
| ●      |        |        |        | <b>FP</b>       | 6X 1/4" BSPP Air Ports Module, Face Seal, 10 Bar                    |
|        | ●      |        | ●      | <b>PN</b>       | 6X 1/4" NPT Air Ports Module, Face Seal, 10 Bar                     |
|        | ●      |        | ●      | <b>PP</b>       | 6X 1/4" BSPP Air Ports Module, Face Seal, 10 Bar                    |
|        | ●      |        | ●      | <b>PT</b>       | 6X 1/4" BSPT Air Ports Module, Face Seal, 10 Bar                    |
|        | ●      |        | ●      | <b>SN</b>       | 6X 1/4" NPT Air Ports Module, Self Sealing, 10 Bar                  |
|        | ●      |        | ●      | <b>SP</b>       | 6X 1/4" BSPP Air Ports Module, Self Sealing, 10 Bar                 |
|        | ●      |        | ●      | <b>ST</b>       | 6X 1/4" BSPT Air Ports Module, Self Sealing, 10 Bar                 |
|        | ●      |        | ●      | <b>HN</b>       | 4X 3/8" NPT Fluid Ports Module, 100 Bar                             |
|        | ●      |        | ●      | <b>HP</b>       | 4X 3/8" BSPP Fluid Ports Module, 100 Bar                            |
|        | ●      |        | ●      | <b>HT</b>       | 4X 3/8" BSPT Fluid Ports Module, 100 Bar                            |

†Cordset or plug are sold separately. \*\*\*Not compatible with CD, CP or CN sensing option.

**NOTE:** Only (1) module can be mounted per side. (Except 2E19 and 2G19, which are composed of (2) modules).  
Modules usage is based on the size of the Base Model and which side the module can be mounted.

# RQC-2400 (ROBOT PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions



## RQC-2400 Specification:

Max. Payload\* W: 1089Kg [2400 lb]

Weight: 22 Kg [48.5 lb]

Cyl. Bore: Ø80mm [3.15in]

\*Depending on your application parameters please contact DESTACO for validation.

## Loading Capacity:

Max. Tensile T:

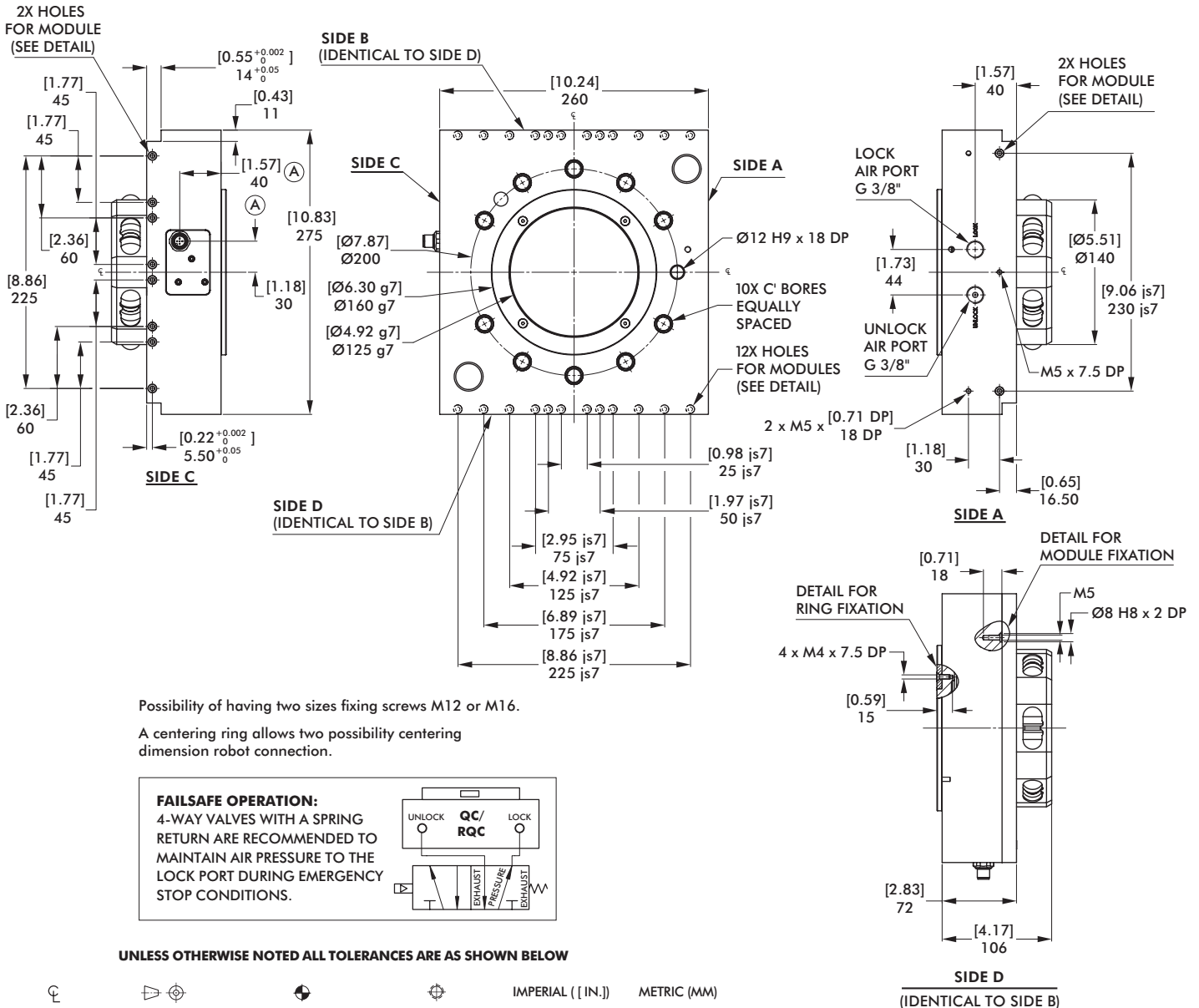
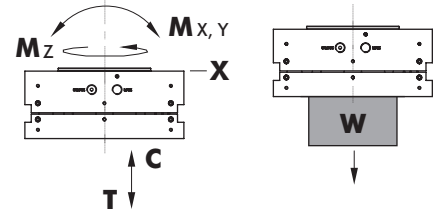
16000 N [3597 lb]

Max. Compressive C:

22000 N [4946 lb]

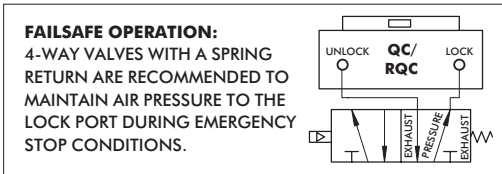
Max. Moment (Mx/My/Mz):

7000 Nm [91955 in-lb]



Possibility of having two sizes fixing screws M12 or M16.

A centering ring allows two possibility centering dimension robot connection.



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

| IMPERIAL ([ IN. ]) | METRIC (MM)       |
|--------------------|-------------------|
| 0.00 = ± .01       | [0] = [± .25]     |
| 0.000 = ± .005     | [0.0] = [± .13]   |
| 0.0000 = ± .0005   | [0.00] = [± .013] |

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE  
 THIRD ANGLE PROJECTION  
 ALL DOWEL HOLES ARE SF (SLIP FIT). LOCAL TOLERANCE ±.0005" OR [±.013MM]  
 METRIC THREADS COURSE PITCH

# RTP-2400 (TOOL PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions

## RTP-2400 Specification:

Max. Payload\* W: 1089Kg [2400 lb]

Weight: 8 Kg [17.64 lb]

\*Depending on your application paramaters please contact DESTACO for validation.

## Loading Capacity:

Max. Tensile T:

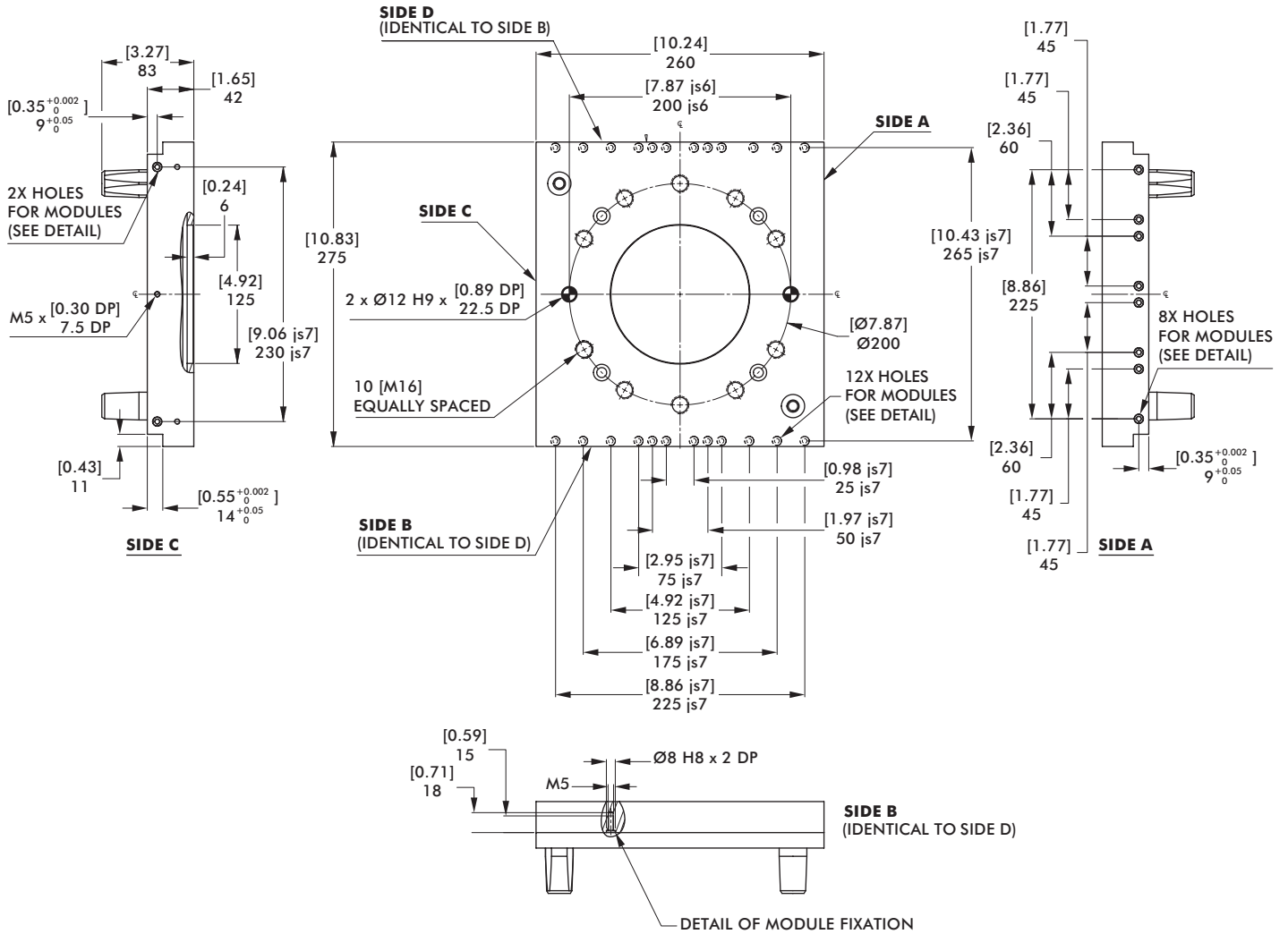
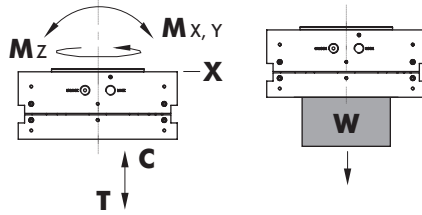
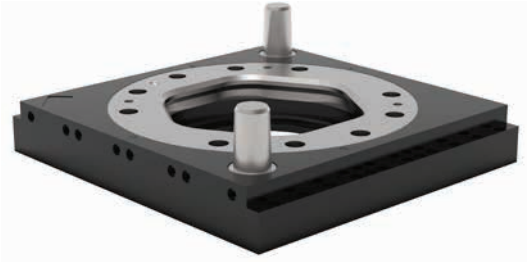
16000 N [3597 lb]

Max. Compressive C:

22000 N [4946 lb]

Max. Moment (Mx/My/Mz):

7000 Nm [91955 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT). LOCALATIONAL TOLERANCE ±.0005" OR [±.013MM]

METRIC THREADS COURSE PITCH

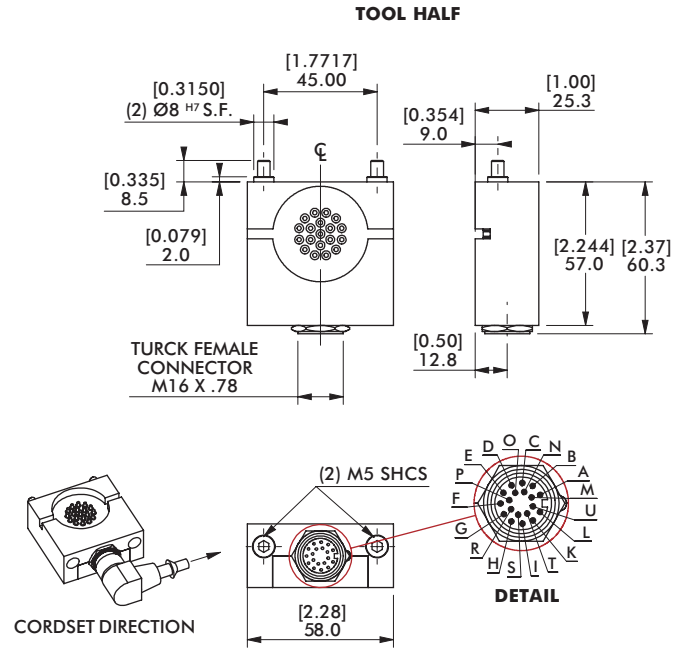
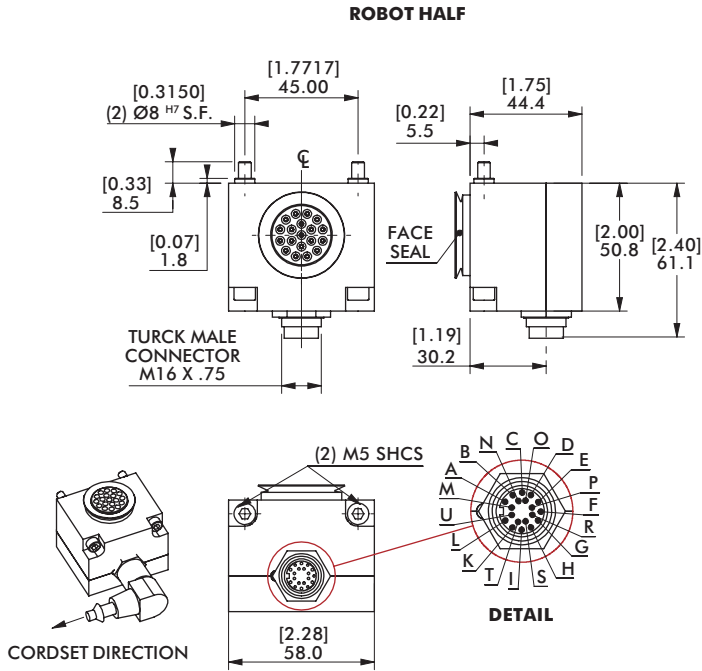
IMPERIAL ([ IN.])  
0.00 = ± .01  
0.000 = ± .005  
0.0000 = ± .0005

METRIC (MM)  
[0] = [± .25]  
[0.0] = [± .13]  
[0.00] = [± .013]

# RQC/RTP SERIES

## Automatic Tool Changers | Technical Specifications | Dimensions

### 19 Pin Module 3 Amp - 48 VDC

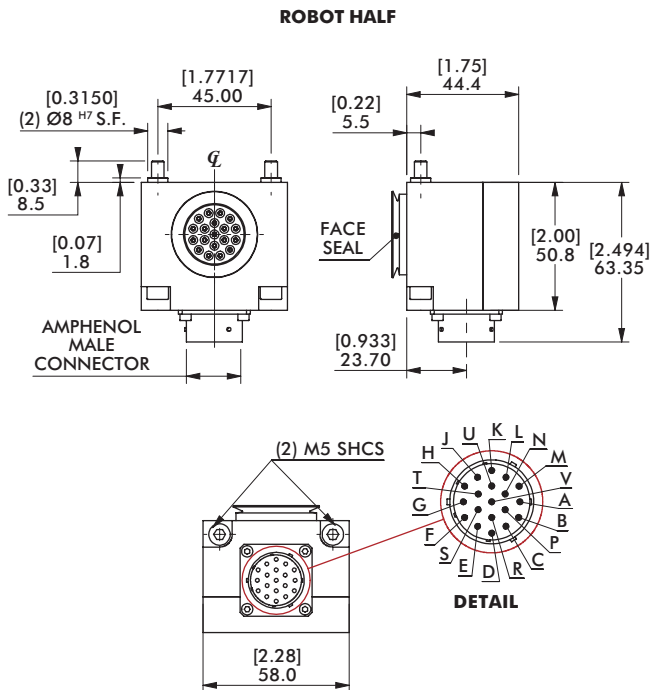


MODULE REPLACEMENT **ROBOT PLATE**  
E19 KE19-RQC

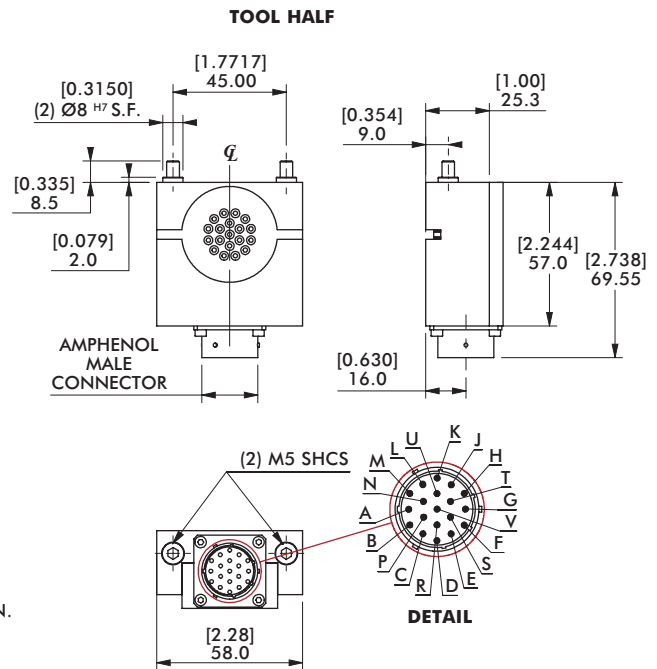
Module kits above include:  
90° Plug Support (without cable),  
indexing sleeves and hardware.

MODULE REPLACEMENT **TOOL PLATE**  
E19 KE19-RTP

### 19 Pin Module 5 Amp - 120 VDC



USER  
90°  
PLUG  
NOT  
SHOWN.



MODULE REPLACEMENT **ROBOT PLATE**  
G19 KG19-RQC

Module kits above include: 90°  
Plug support (without cable),  
indexing sleeves and hardware.

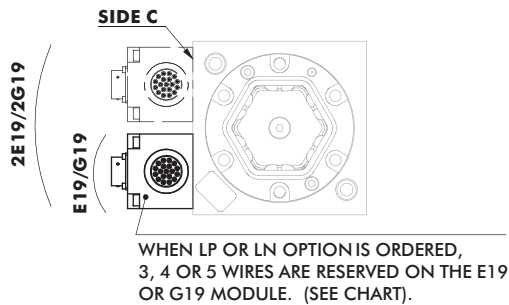
MODULE REPLACEMENT **TOOL PLATE**  
G19 KG19-RTP



# RQC/RTP SERIES

## Automatic Tool Changers | Technical Specifications | Dimensions

### Modules Connecting with Latch/Unlatch Sensors

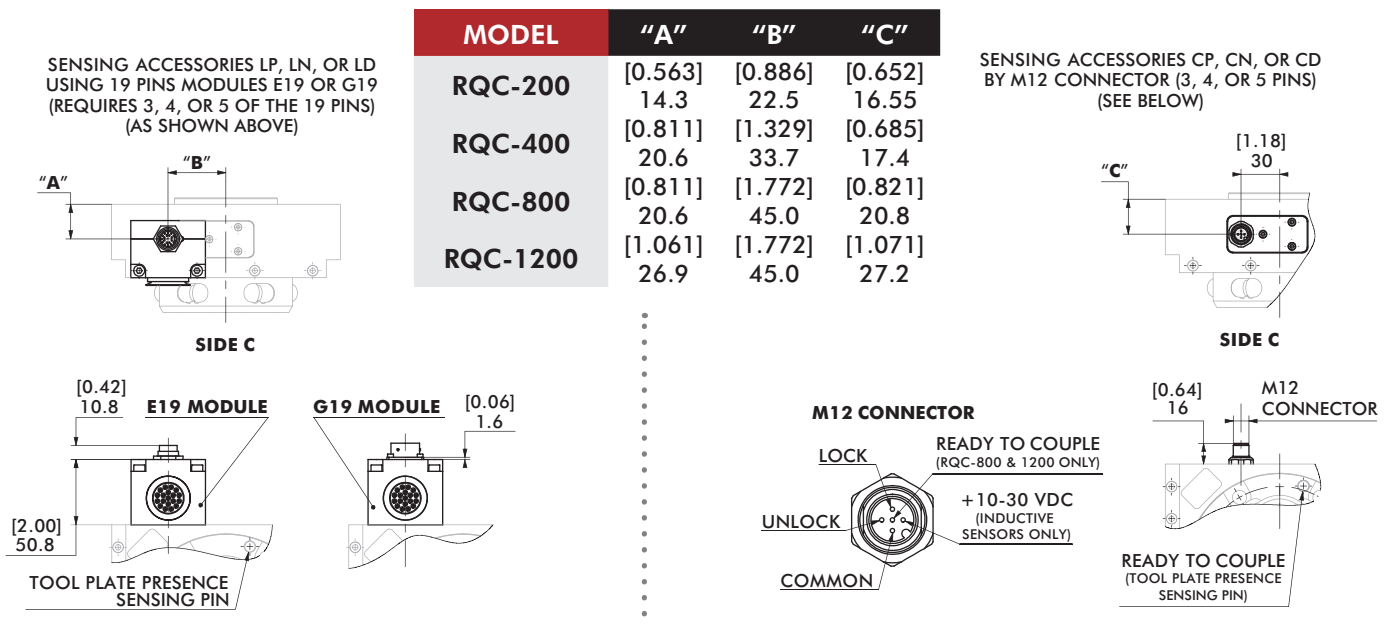


| Reserved Pin Numbers on E19/G19 |                  |                     |
|---------------------------------|------------------|---------------------|
| Sensor/Switch                   | RQC 200 & 400    | RQC 800, 1200, 2400 |
| LP or LN<br>(Inductive)         | R: + 10 - 30 VDC | R: + 10 - 30 VDC    |
|                                 | L: Common        | L: Common           |
|                                 | M: Lock          | M: Lock             |
|                                 | N: Unlock        | N: Unlock           |
| LD<br>(Dry Contact)             | R: + 10 - 30 VDC | R: + 10 - 30 VDC    |
|                                 | L: Common        | L: Common           |
|                                 | M: Lock          | M: Lock             |
|                                 | N: Unlock        | N: Lock             |
|                                 |                  | P: Ready to Couple  |

### Pin Numbering



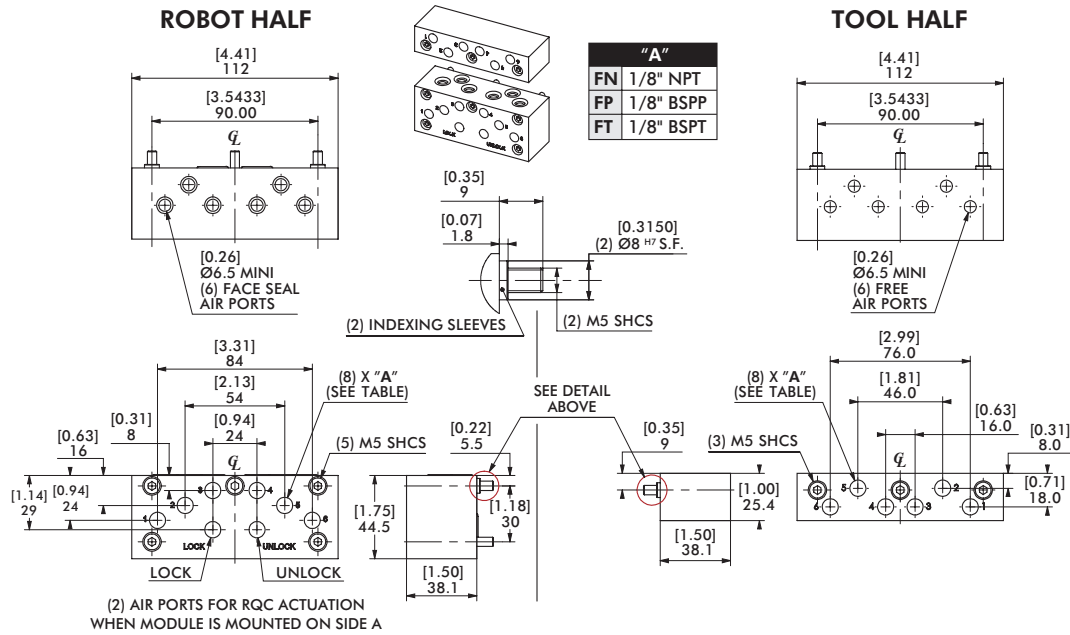
### Lock/Unlock Tool Plate Presence Sensing Options (with inductive Sensors and Dry Contact Switches)



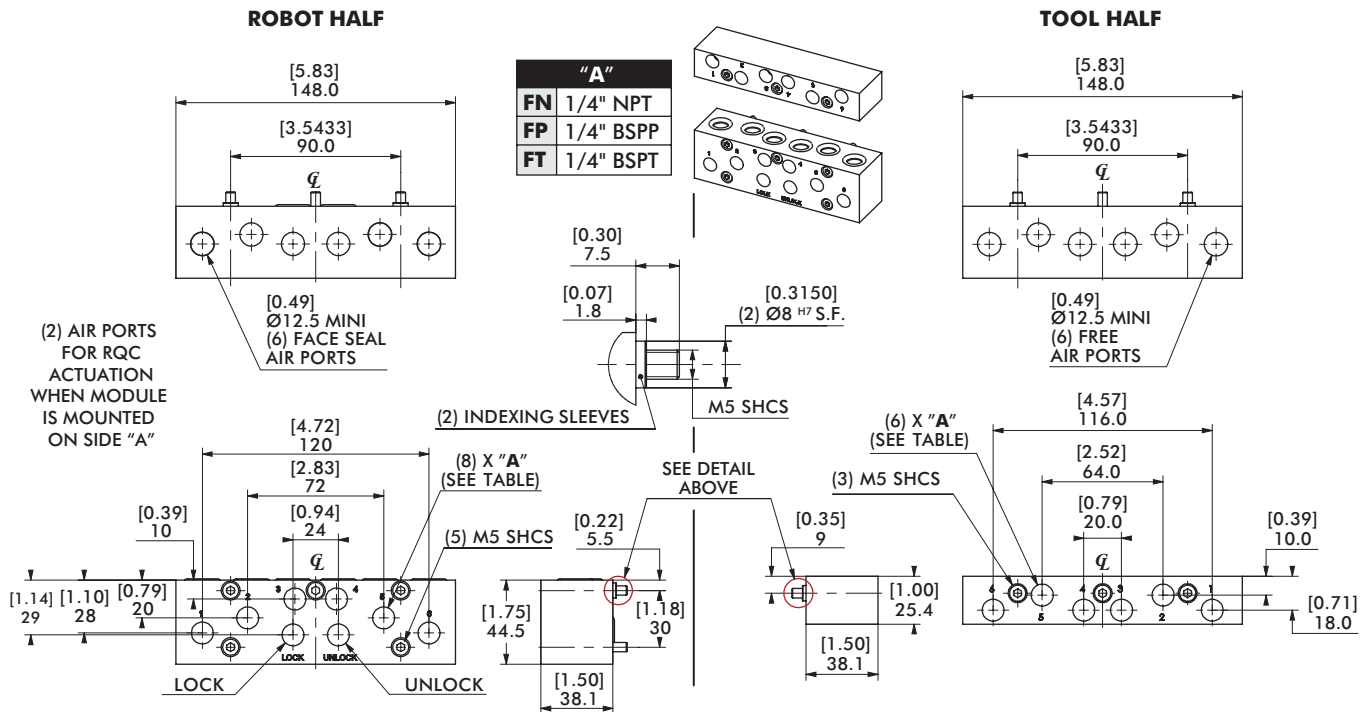
# RQC/RTP SERIES

Automatic Tool Changers | Technical Specifications | Dimensions

## 6 x 1/8" Air Ports Module | Face Seal (for RQC/RTP-200 & RQC/RTP-400)



## 6 x 1/4" Air Ports Module | Face Seal (for RQC/RTP-800, -1200)



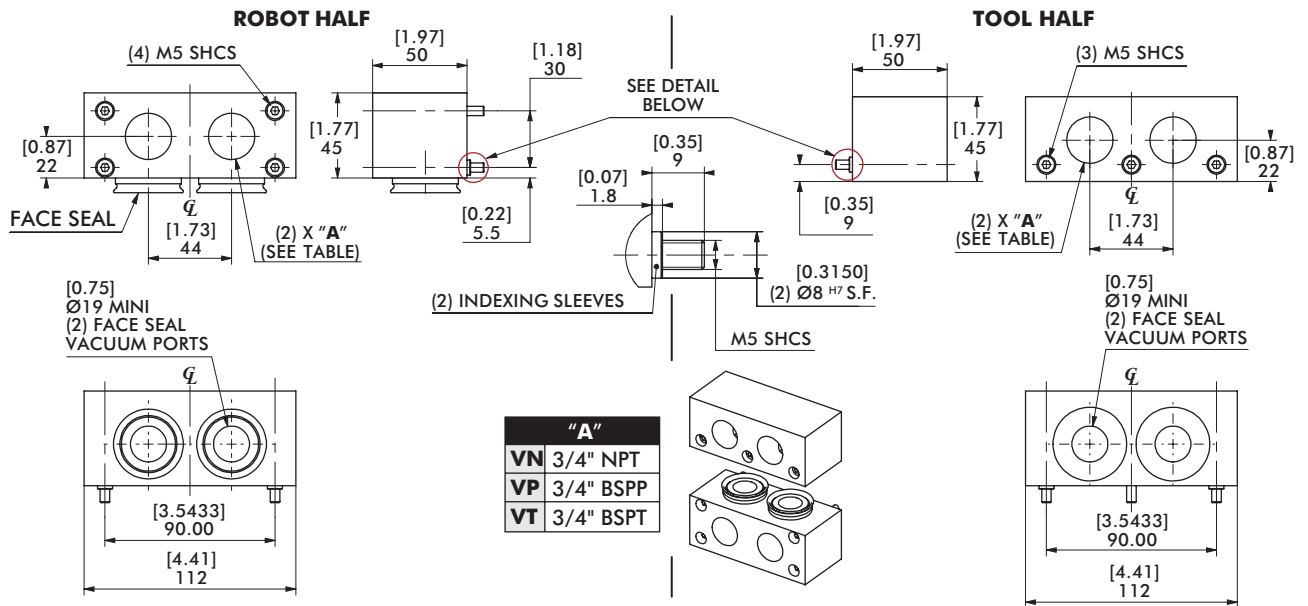
| MODULE REPLACEMENT | RQC-200/400 | RQC 800/1200 | MODULE REPLACEMENT | RTP-200/400 | RTP 800/1200 |
|--------------------|-------------|--------------|--------------------|-------------|--------------|
| FN                 | KFN-RQC200  | KFN-RQC800   | FN                 | KFN-RTP200  | KFN-RTP800   |
| FP                 | KFP-RQC200  | KFP-RQC800   | FP                 | KFP-RTP200  | KFP-RTP800   |
| FT                 | KFT-RQC200  | KFT-RQC800   | FT                 | KFT-RTP200  | KFT-RTP800   |

Module kits above include: Couplings, indexing sleeves and hardware.

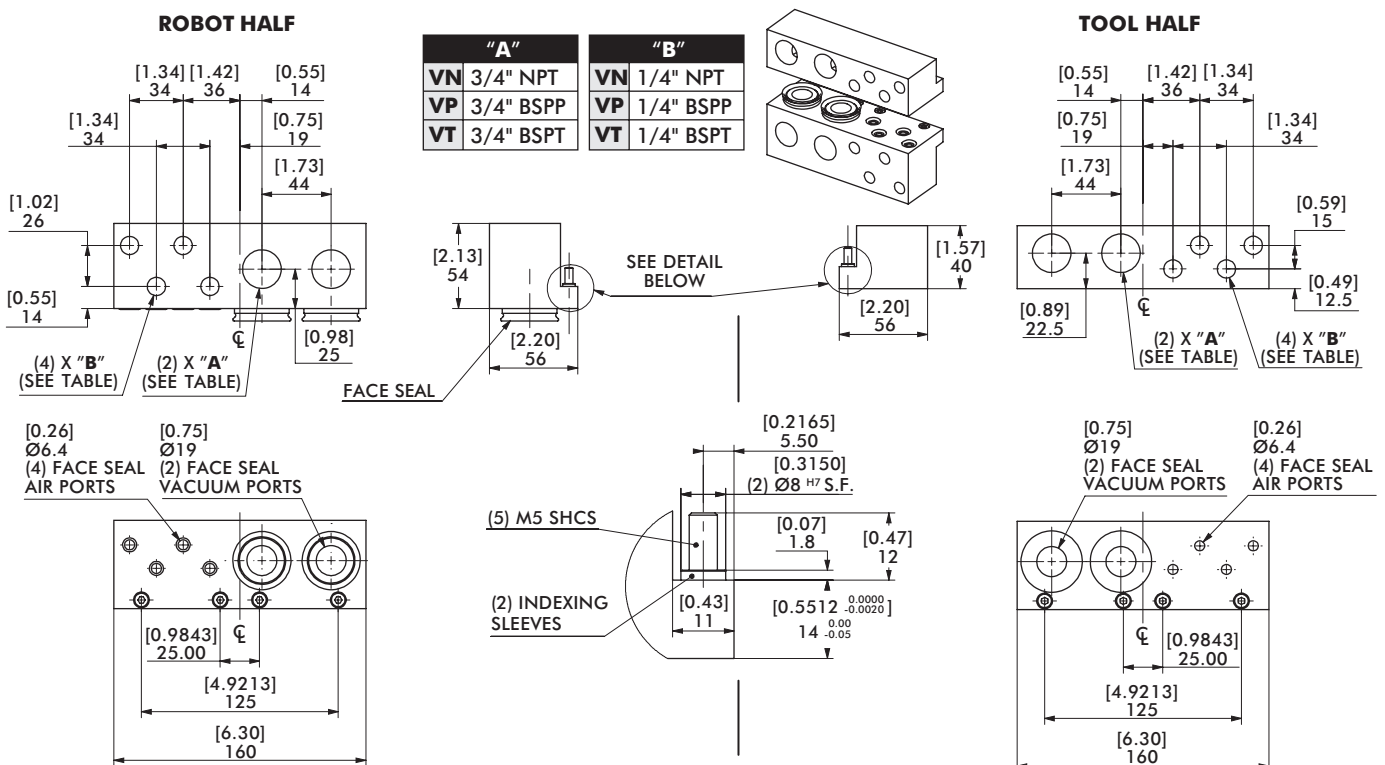
# RQC/RTP SERIES

## Automatic Tool Changers | Technical Specifications | Dimensions

### 2 x 3/4" Vacuum Ports Module | Face Seal (for RQC/RTP-200 & RQC/RTP-400)



### 2 x 3/4" Vacuum Ports Module | Face Seal (for RQC/RTP-800, -1200, -2400)



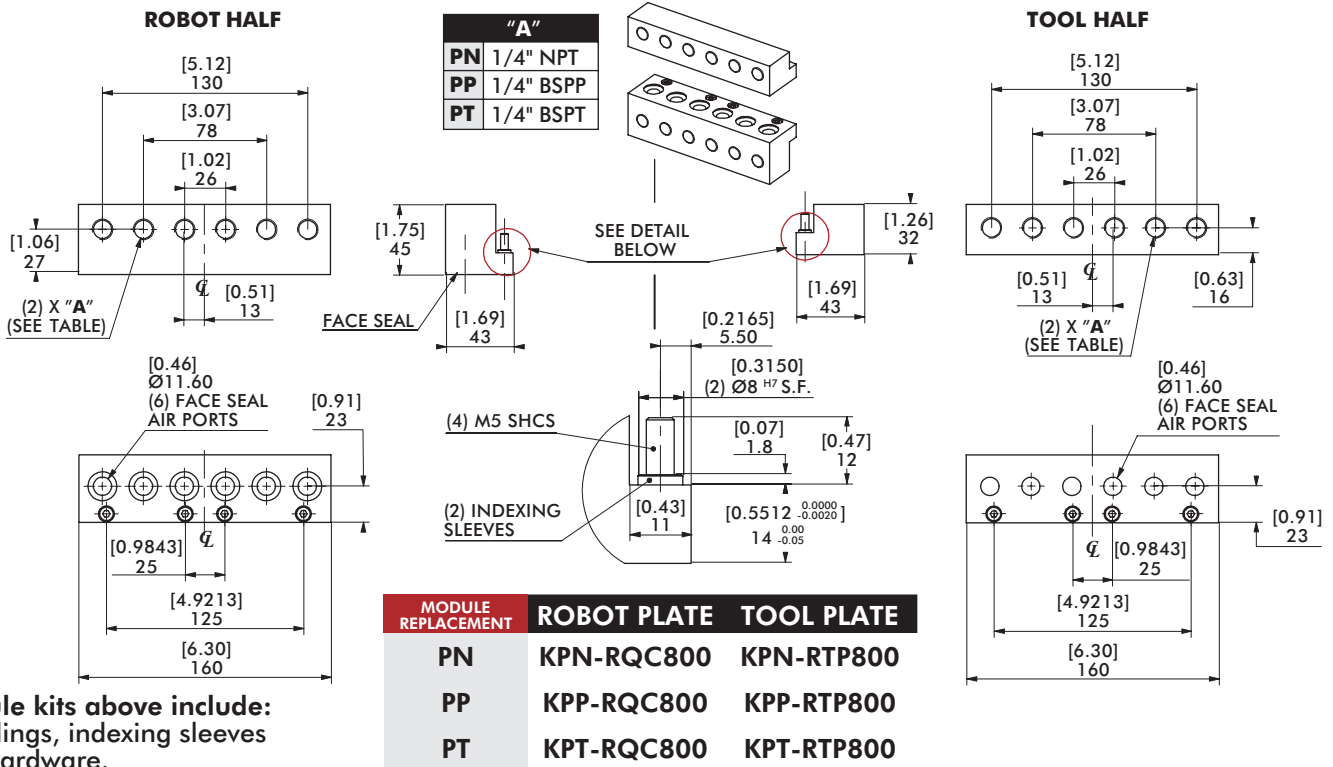
| MODULE REPLACEMENT | RQC-200/400 | RQC 800/1200/2400 | MODULE REPLACEMENT | RTP-200/400 | RTP 800/1200/2400 |
|--------------------|-------------|-------------------|--------------------|-------------|-------------------|
| VN                 | KVN-RQC200  | KVN-RQC800        | VN                 | KVN-RTP200  | KVN-RTP800        |
| VP                 | KVP-RQC200  | KVP-RQC800        | VP                 | KVP-RTP200  | KVP-RTP800        |
| VT                 | KVT-RQC200  | KVT-RQC800        | VT                 | KVT-RTP200  | KVT-RTP800        |

Module kits above include: Couplings, indexing sleeves and hardware.

# RQC/RTP SERIES

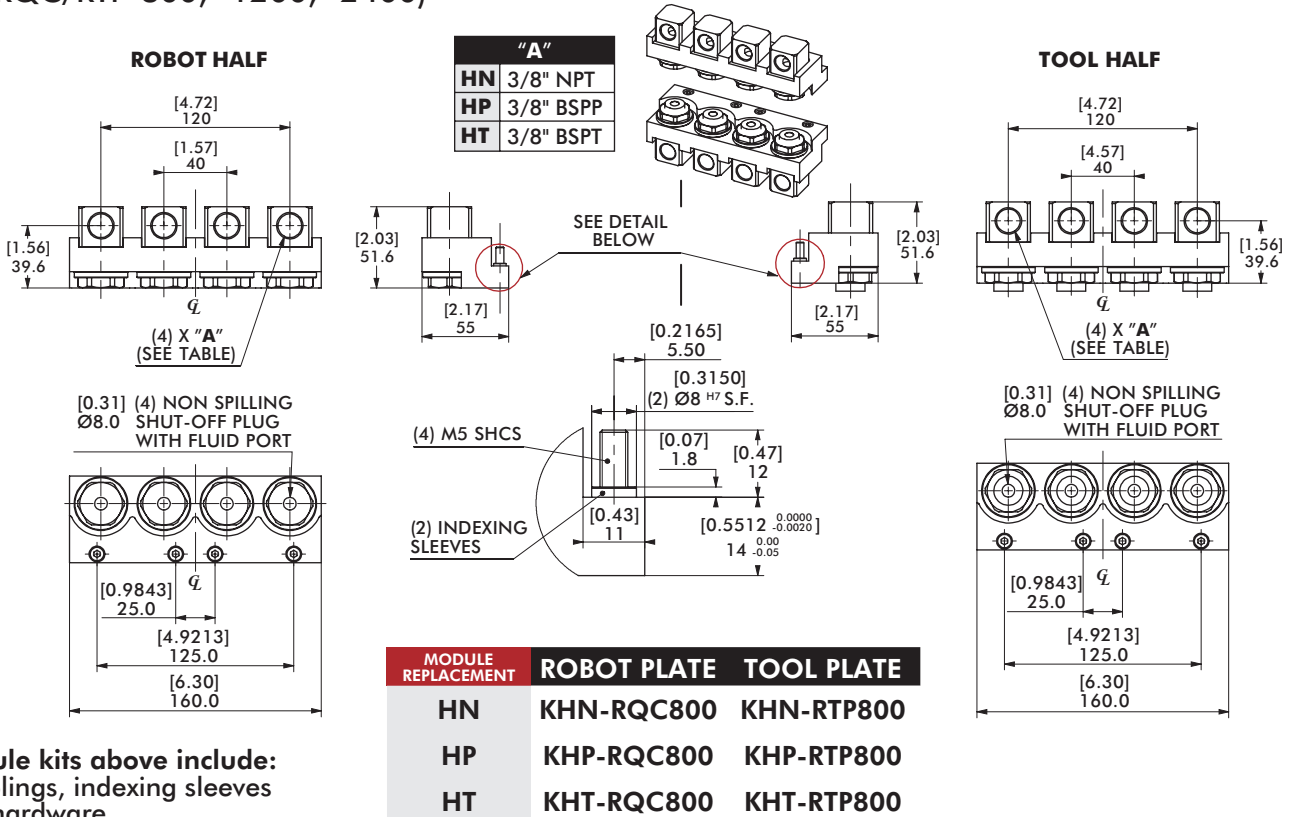
Automatic Tool Changers | Technical Specifications | Dimensions

## 6 x 1/4" Air Ports Module | Face Seal (for RQC/RTP-800, -1200, -2400)



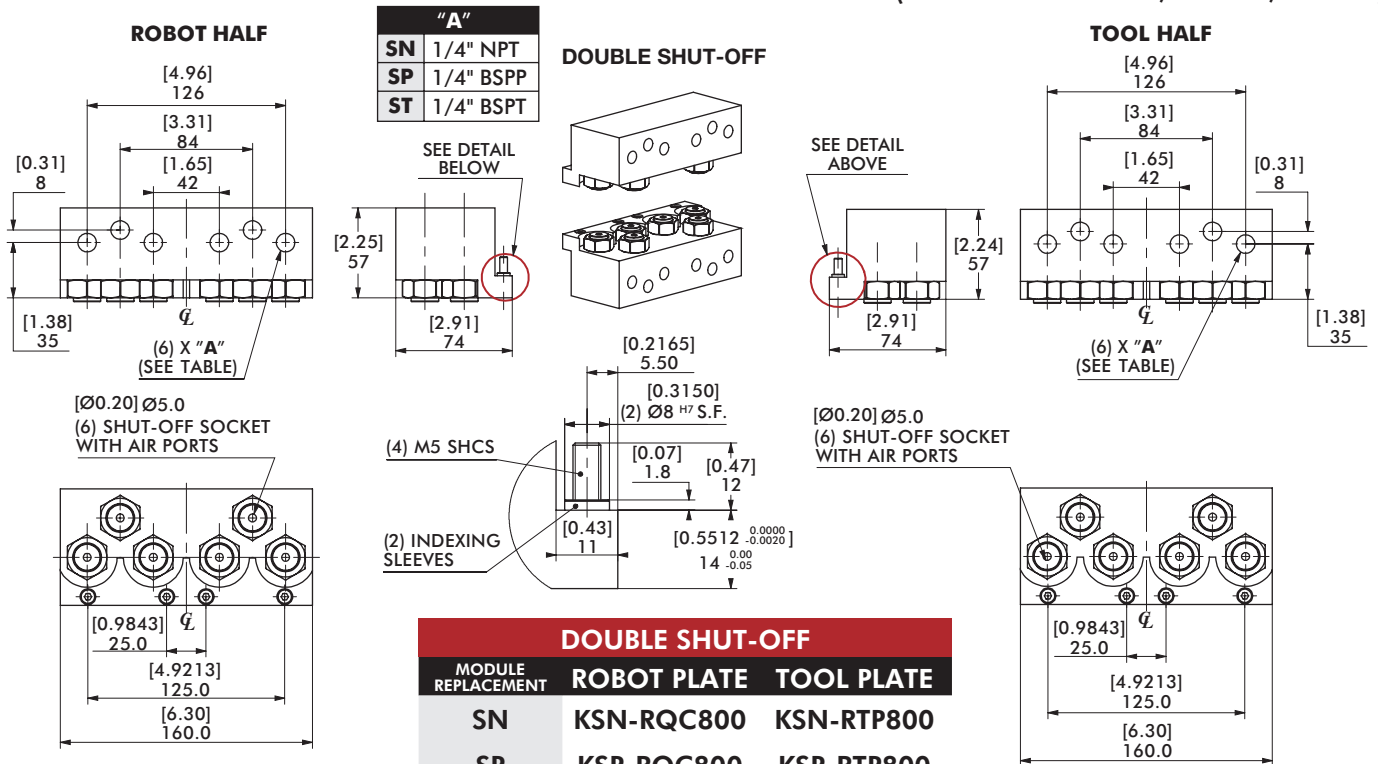
Module kits above include:  
Couplings, indexing sleeves  
and hardware.

## 4 x 3/8" Fluid Ports Module | Non Spilling | Double Shut-Off (for RQC/RTP-800, -1200, -2400)



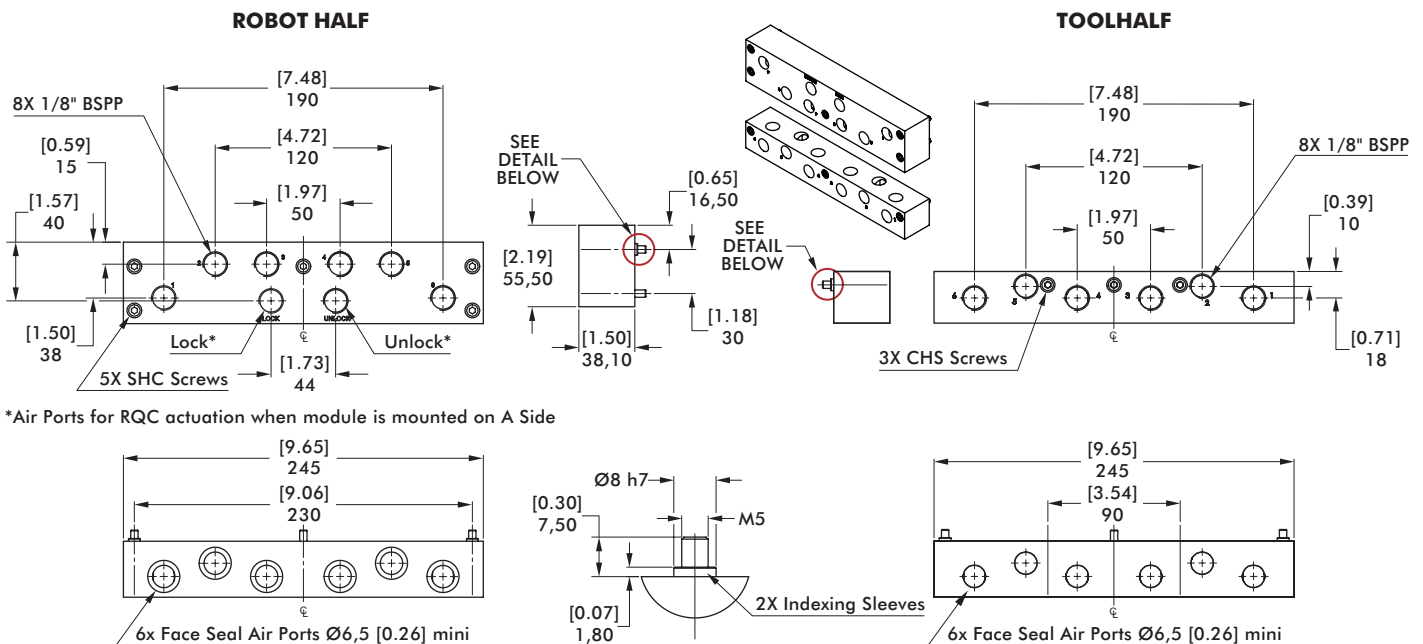
Module kits above include:  
Couplings, indexing sleeves  
and hardware.

### 6 x 1/4" Air Ports Module | Double Shut-Off Flat Face (SN/SP/ST) (for RQC/RTP-800, -1200, -2400)



Module kits above include:  
Couplings, indexing sleeves  
and hardware.

### 8 x 1/8" Air Ports Module | Face Seal (FN) (for RQC/RTP-2400)



Module kits above include:  
Couplings, indexing sleeves  
and hardware.



# QC/TP SERIES

## Automatic Tool Changers | Features and Benefits

### Flexibility of the tool:

Cylindrical Horizontal compliance devices are used for inserting components that may be misaligned with the tool. They allow a horizontal displacement that compensates for part placing inaccuracies.

### For precision applications:

The use of high quality components allow to get centering repeatability from 0.02mm and angular repeatability from  $\pm 10^\circ$ .

### Harsh environments:

The enclosed design of this series allows them to be used in harsh environments.

### Spring assist:

Due to the optional spring assist, compliance may be used in single acting mode.

### Failsafe Operation

Failsafe locking spring keeps units coupled in the event of pressure loss

### Durable Components

Locking components are made from hardened bearing & tool steels

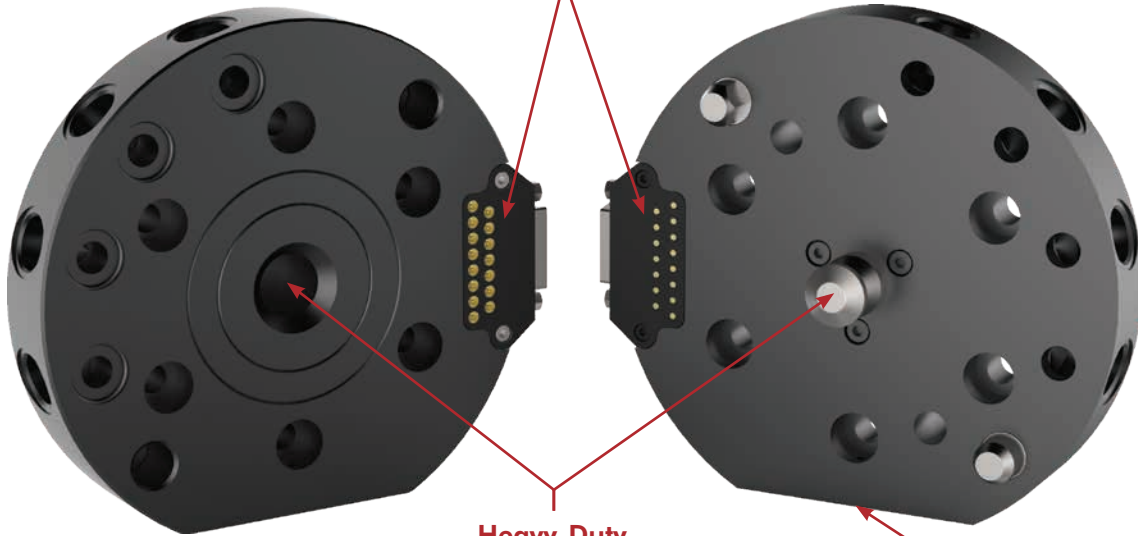
### Self Lubricating Seals

Self lubricating dynamic seals

**Offboard I/O Block**  
with heavy-duty pins offer reliable contact points

**Robot Plate**

**Tool Plate**



**Switches for Couple/  
Uncouple/Ready-to-Couple**  
Switch for latch (size 150 only)

**Heavy-Duty  
Locking Mechanism**  
Improved rigidity  
for heavy-duty and  
in-process changing

**Module Mounting Surface**  
Flat for optional pneumatic,  
fluid or electric module  
(See Page TC-QCTP-13)

## Mounting Information



**Robot Plate**  
has counterbored  
holes for mounting  
and two dowel pins  
for hole location (size  
30 has pilot boss)

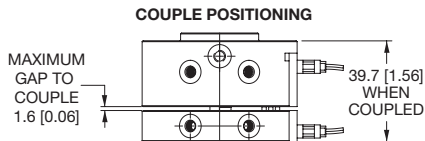


**Tool Plate**  
has counterbored  
holes for mounting  
and two dowel pins  
for hole location (size  
30 has pilot boss)

# QC/TP SERIES

## Automatic Tool Changers | Technical Information

**Combined Weight:** 0.34 Kg [0.75 lbs]  
**Max. Payload:** 13.6 Kg [30 lbs]  
**Max. Moment:** 22.6 Nm [200 in-lbs]

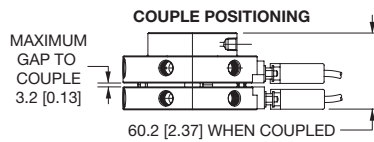


### QC-30/TP-30



**QC-30** **TP-30**  
**Robot Plate** **Tool Plate**

**Combined Weight:** 1.27 Kg [2.8 lbs]  
**Max. Payload:** 27 Kg [60 lbs]  
**Max. Moment:** 88.1 Nm [780 in-lbs]

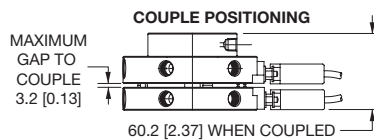


### QC-60/TP-60



**QC-60** **TP-60**  
**Robot Plate** **Tool Plate**

**Combined Weight:** 1.27 Kg [2.8 lbs]  
**Max. Payload:** 27 Kg [60 lbs]  
**Max. Moment:** 88.1 Nm [780 in-lbs]

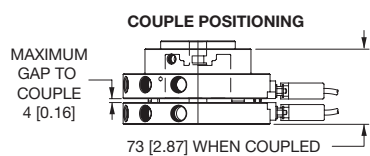


### QC-60-10P/TP-60-10P



**QC-60-10P** **TP-60-10P**  
**Robot Plate** **Tool Plate**

**Combined Weight:** 3.2 Kg [7.1 lbs]  
**Max. Payload:** 68 Kg [150 lbs]  
**Max. Moment:** 215 Nm [1900 in-lbs]



### QC-150/TP-150

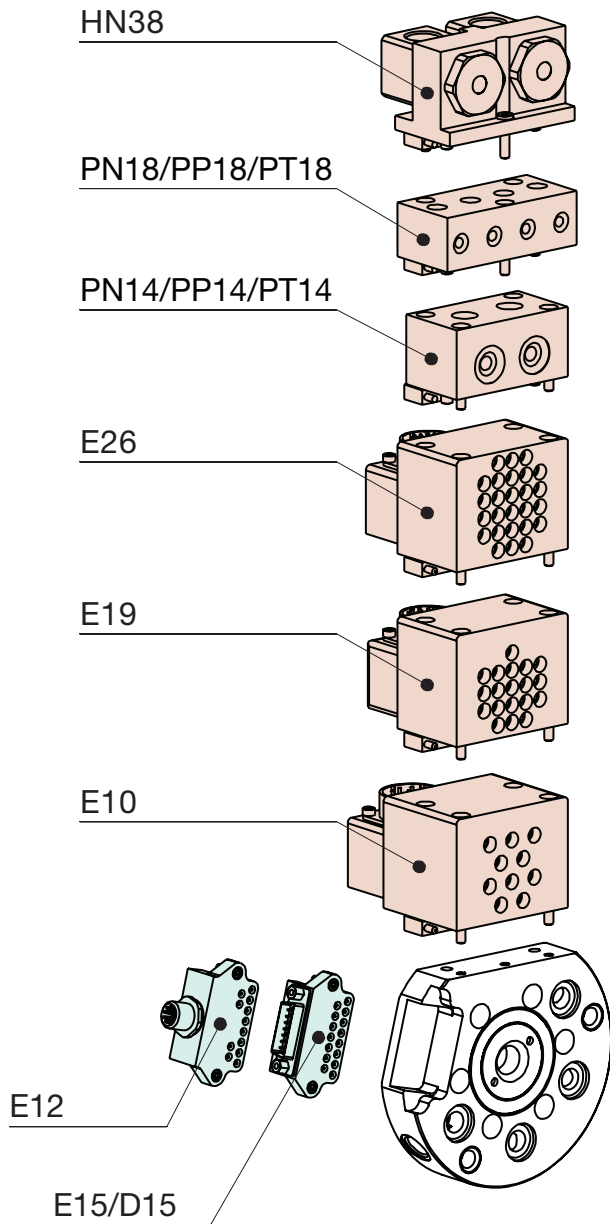


**QC-150** **TP-150P**  
**Robot Plate** **Tool Plate**

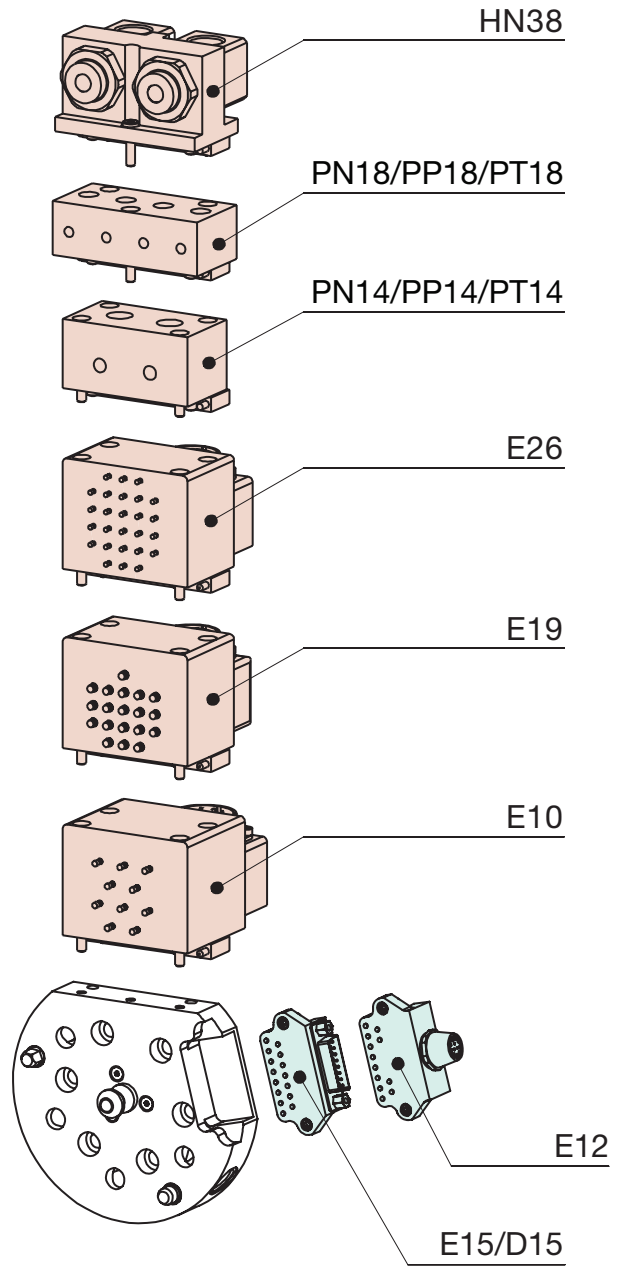
# QC/TP SERIES

## Automatic Tool Changers | Module Usage Illustrations

### QC Series Robot Plate with Optional Modules



### TP Series Tool Plate with Optional Modules



# QC/TP SERIES

Automatic Tool Changers | How to Order



|                          |   |   |  |                          |                                |
|--------------------------|---|---|--|--------------------------|--------------------------------|
| <b>Base Model</b>        | <b>Model Size</b>   | <b>Port Options (QC-only)</b>               | <b>I/O Block</b>                           | <b>Optional Modules*</b> | <b>10-Port (QC/TP-60 only)</b> |
| <b>QC</b>                | <b>60</b>   | <b>M</b>                                    | <b>E15</b>                                 | <b>PN18</b>              | <b>10P</b>                     |
|                          |   |   |  |                          |                                |
| <b>QC</b><br>Robot Plate | <b>30</b><br><b>60</b><br>(See Page TC-QCTP-2 for Specifications) | <b>Blank</b><br>NPT                         | <b>0</b><br>No I/O Block                   | <b>Order Code</b>        | <b>Optional Modules</b>        |
| <b>TP</b><br>Tool Plate  |   | <b>M</b><br>BSPP                            | <b>E15</b><br>15-pin, Sub-D                | <b>E26</b>               | 26-PIN 5A Module               |
|                          |   | <b>A</b><br>BSPT<br>(QC-60 and QC-150 only) | <b>D15</b><br>(2) X E15<br>(QC/TP-30 only) | <b>E19*</b>              | 19-PIN 5A Module               |
|                          |   |   | <b>E12</b><br>12-pin, Turck                | <b>E10</b>               | 10-PIN 13A Module              |
|                          |   |   |  | <b>PN18</b>              | 4X 1/8 NPT Pneumatic Port      |
|                          |   |   |  | <b>PP18</b>              | 4X 1/8 BSPP Pneumatic Port     |
|                          |   |   |  | <b>PT18</b>              | 4X 1/8 BSPT Pneumatic Port     |
|                          |   |   |  | <b>PN14</b>              | 2X 1/4 NPT Pneumatic Port      |
|                          |   |   |  | <b>PP14</b>              | 2X 1/4 BSPP Pneumatic Port     |
|                          |   |   |  | <b>PT14</b>              | 2X 1/4 BSPT Pneumatic Port     |
|                          |   |   |  | <b>HN38</b>              | 2X 3/8 NPT Fluid Port          |

\*QC/TP-30 and QC/TP-60-10P cannot be ordered with optional modules

## Electric and Pneumatic Accessories (Ordered Separately)

### Electrical Accessories

- ELCT-047** Straight Female 12-pin D-Sub User Plug, w/o Cable, Solder Type for E15 (QC/TP-60/150)
- CABL-021** 90° Female Cordset 4M for E12 (QC-30/60/150)
- CABL-023** 90° Male Cordset 2M for E12 (TP-30/60/150)
- CABL-024** Straight Male Cordset 1.2M for E15 (QC/TP-30)
- OSRK-009** NPN Inductive Sensor Repair Kit (QC-150 Only)
- OSRK-010** PNP Inductive Sensor Repair Kit (QC-150 Only)

### Pneumatic Accessories

- SLKT-387** Seal Repair Kit (QC-30)
- SLKT-388** Face Seal Repair Kit (QC-30)
- SLKT-389** Seal Repair Kit (QC-60)
- SLKT-390** Face Seal Repair Kit (QC-60/150)
- SLKT-392** Face Seal Repair Kit (QC-60-10P)
- SLKT-393** Seal Repair Kit (QC-150)

# QC-30 (ROBOT PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions



## QC-30 Specification:

Max. Payload: 13.6 Kg [30 lbs]

Weight: 0.23 Kg [0.50 lbs]

Bore Ø: 25.4 mm [1.00 in]

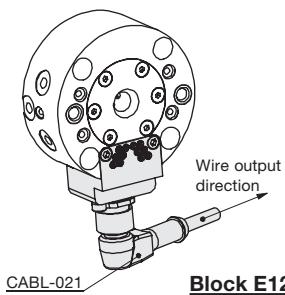
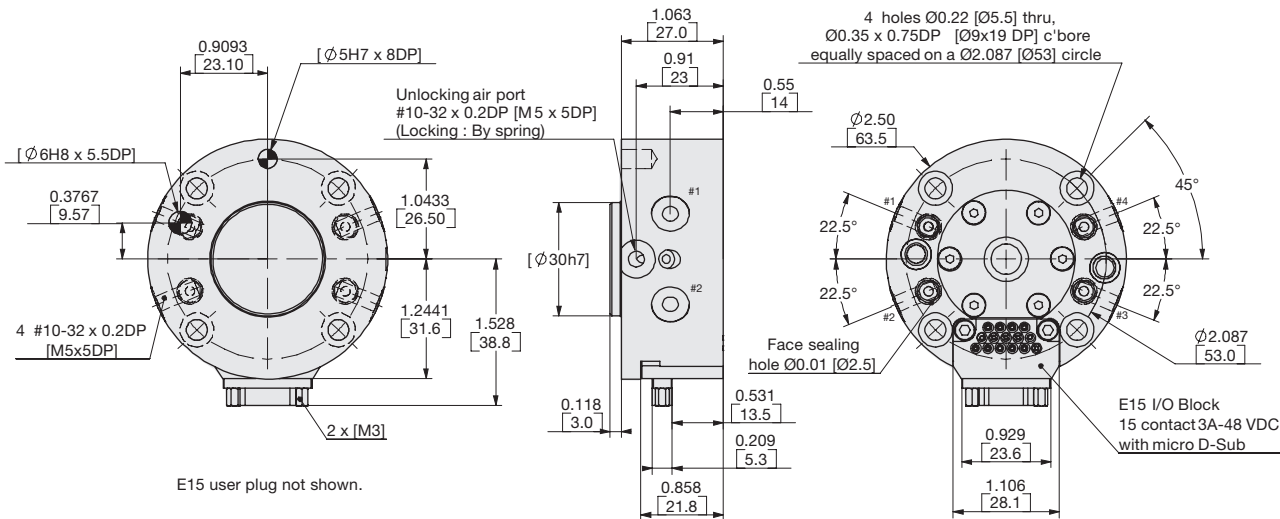
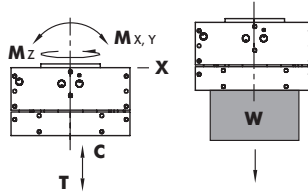
Displacement: 3.9 cm<sup>3</sup> [0.24 in<sup>3</sup>]

## Loading Capacity

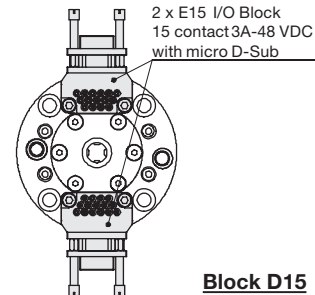
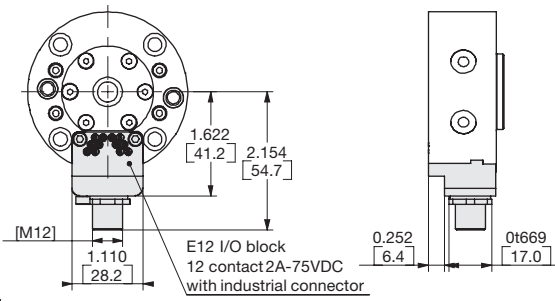
Max. Tensile T: 311 N [70 lb]

Max. Compressive C: 445 N [100 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>): 22.6 Nm [200 in-lb]



**Block E12**



**Block D15**

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

⌀ DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT). LOCAL TOLERANCE ±.0005" OR [±.013MM]

METRIC THREADS COURSE PITCH

IMPERIAL ([ IN.])  
0.00 = ±.01  
0.000 = ±.005  
0.0000 = ±.0005

METRIC (MM)  
[0] = [±.25]  
[0.0] = [±.13]  
[0.00] = [±.013]



# TP-30 (TOOL PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions

## TP-30 Specification:

Max. Payload: 13.6 Kg [30 lbs]

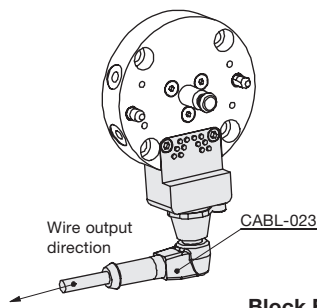
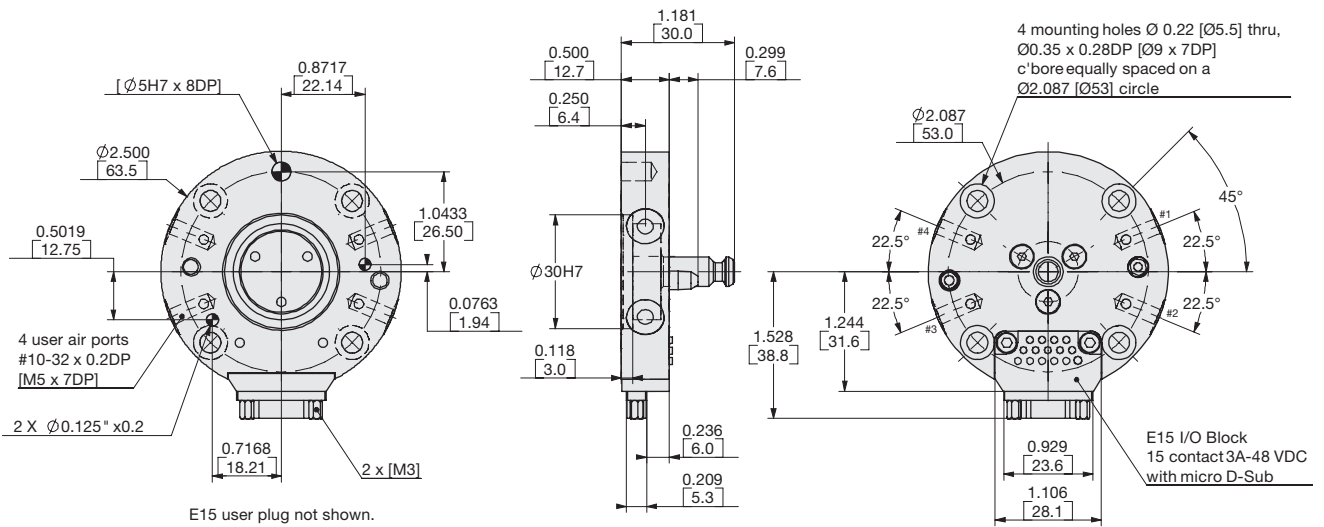
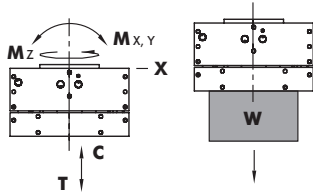
Weight: 0.11 Kg [0.25 lbs]

## Loading Capacity

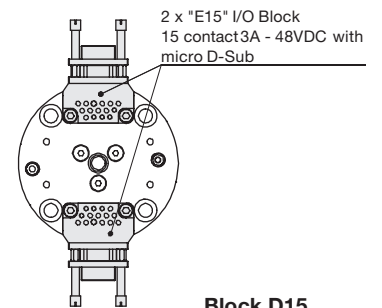
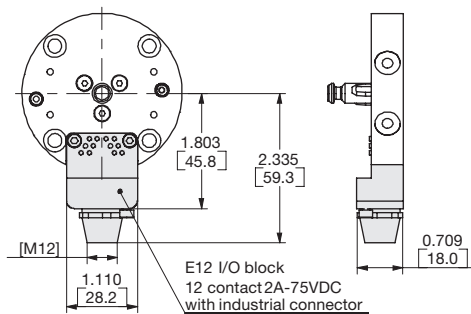
Max. Tensile T: 311 N [70 lb]

Max. Compressive C: 445 N [100 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>): 22.6 Nm [200 in-lb]



**Block E12**



**Block D15**

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).  
LOCATIONAL TOLERANCE ±.0005" OR [±.013MM]

METRIC THREADS  
COURSE PITCH

IMPERIAL ([ IN.])  
0.00 = ±.01  
0.000 = ±.005  
0.0000 = ±.0005

METRIC (MM)  
[0] = [±.25]  
[0.0] = [±.13]  
[0.00] = [±.013]

# QC-60 (ROBOT PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions



## QC-60 Specification:

Max. Payload: 27 Kg [60 lbs]

Weight: 0.86 Kg [1.9 lbs]

Bore Ø: 44.5 mm [1.75 in]

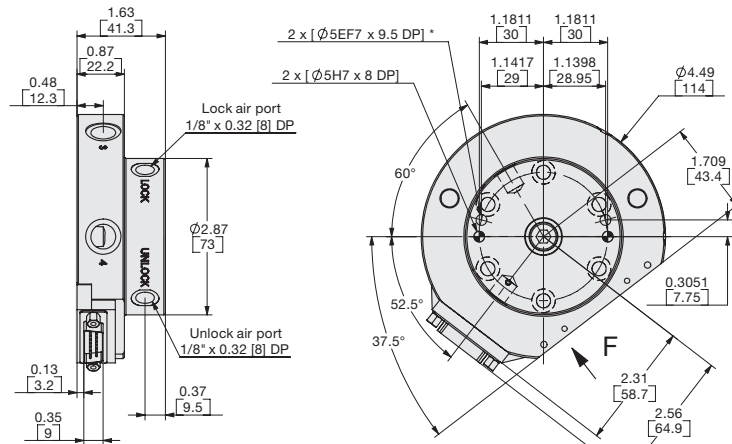
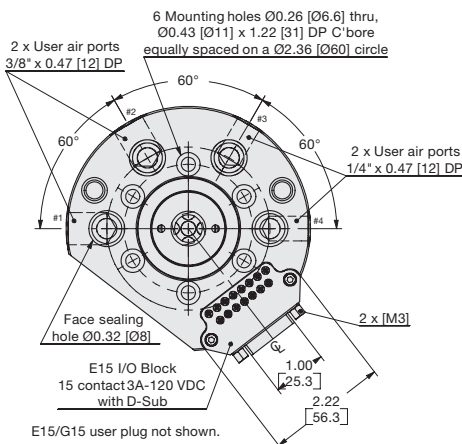
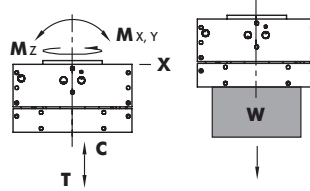
Displacement: 9.2 cm<sup>3</sup> [0.56 in<sup>3</sup>]

## Loading Capacity

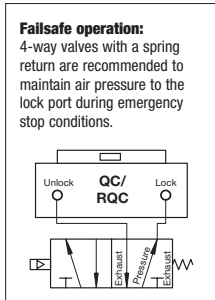
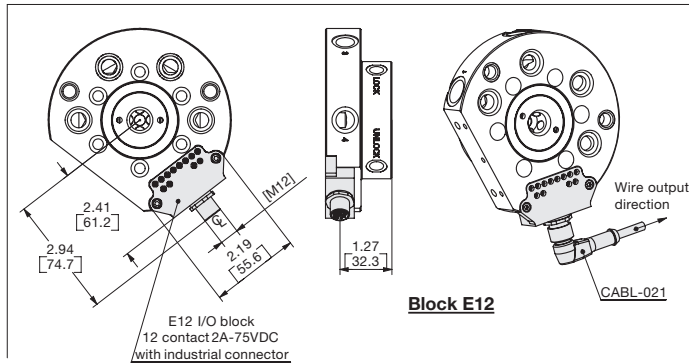
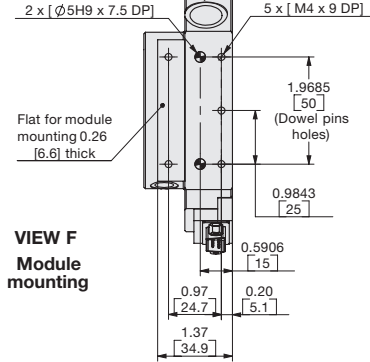
Max. Tensile T: 445 N [100 lb]

Max. Compressive C: 534 N [120 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>): 88.1 Nm [780 in-lb]



\* : Not preferred for new installation



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

⌀ DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT). LOCAL TOLERANCE ±.0005" OR ±.013MM

METRIC THREADS COURSE PITCH

IMPERIAL ([ IN.])  
0.00 = ± .01  
0.000 = ± .005  
0.0000 = ± .0005

METRIC (MM)  
[0] = [± .25]  
[0.0] = [± .13]  
[0.00] = [± .013]

# TP-60 (TOOL PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions

## TP-60 Specification:

Max. Payload: 27 Kg [60 lbs]

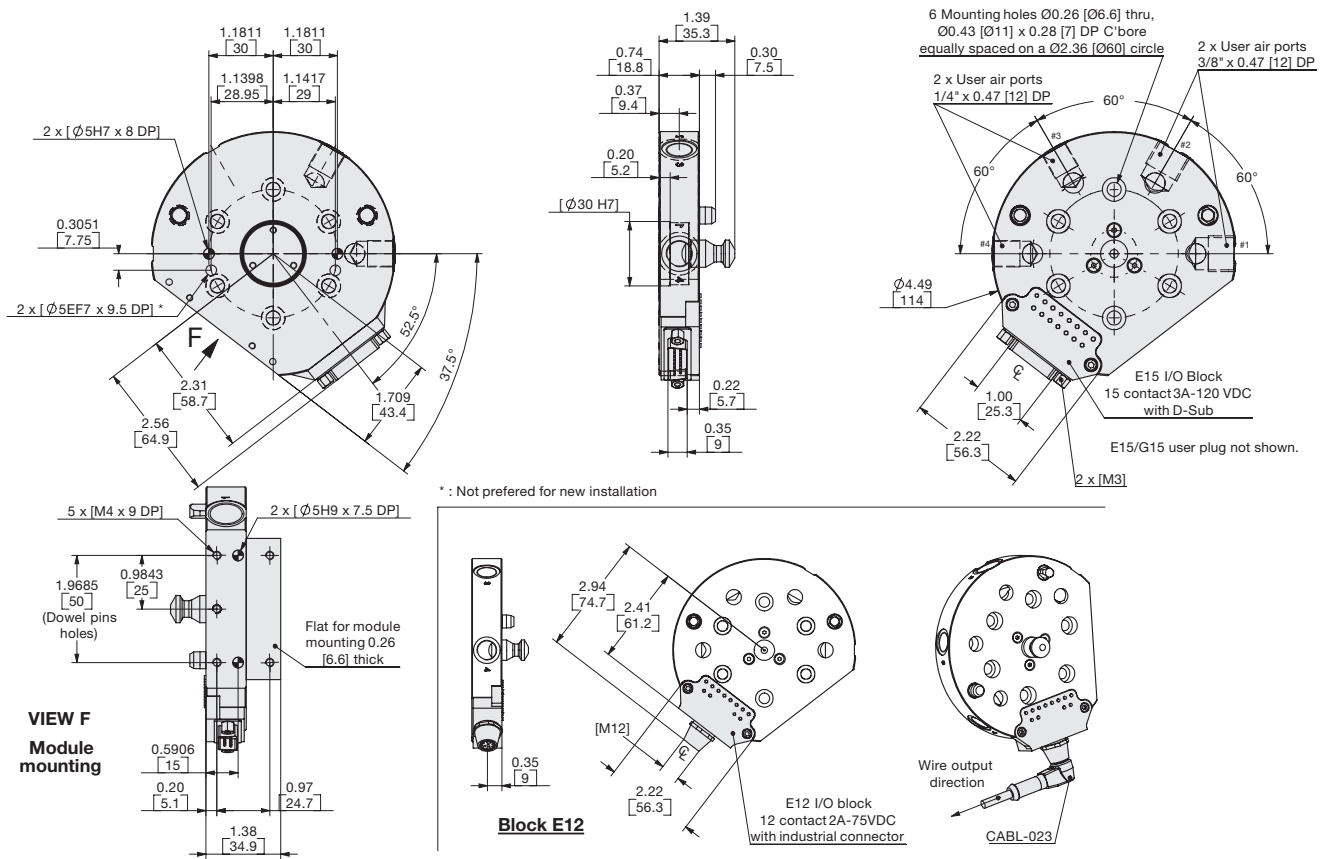
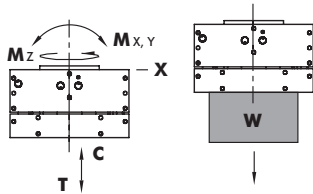
Weight: 0.41 Kg [0.90 lbs]

## Loading Capacity

Max. Tensile T: 445 N [100 lb]

Max. Compressive C: 534 N [120 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>): 88.1 Nm [780 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT). LOCATIONAL TOLERANCE ±.0005" OR [±.013MM]

METRIC THREADS COURSE PITCH

IMPERIAL ([ IN.])  
0.00 = ±.01  
0.000 = ±.005  
0.0000 = ±.0005

METRIC (MM)  
[0] = [±.25]  
[0.0] = [±.13]  
[0.00] = [±.013]

# QC-60-10P (ROBOT PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions



## QC-60-10P Specification:

Max. Payload: 27 Kg [60 lbs]

Weight: 0.86 Kg [1.9 lbs]

Bore Ø: 44.5 mm [1.75 in]

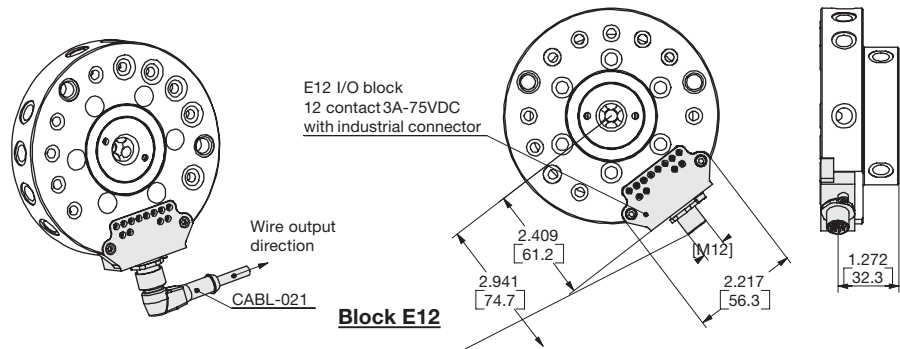
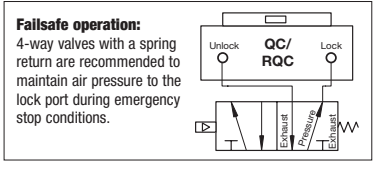
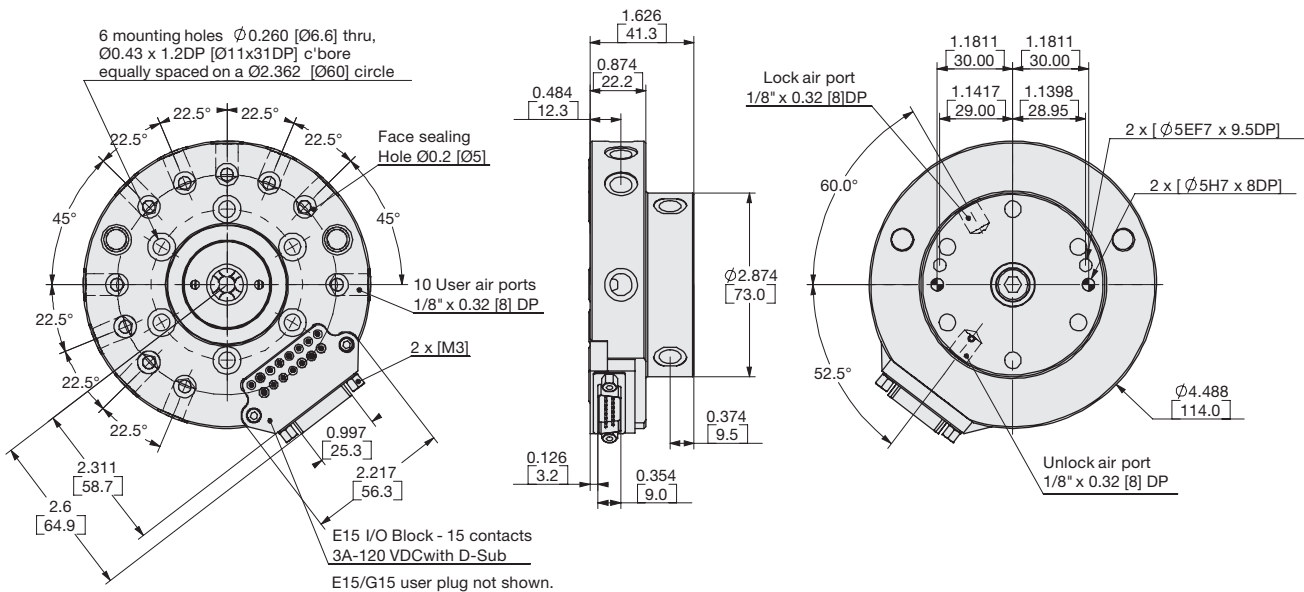
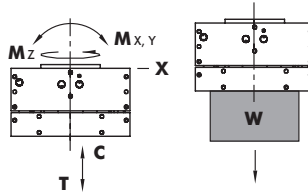
Displacement: 9.2 cm<sup>3</sup> [0.56 in<sup>3</sup>]

## Loading Capacity

Max. Tensile T: 445 N [100 lb]

Max. Compressive C: 534 N [120 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>): 88.1 Nm [780 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

| ⌀   | ⊕                      | ⊖   | ⊕                           | IMPERIAL ([ IN.])                               | METRIC (MM)  |
|---|------------------------|---|-----------------------------|---|--|
| DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE | THIRD ANGLE PROJECTION | ALL DOWEL HOLES ARE SF (SLIP FIT). LOCAL TOLERANCE ±.0005" OR ±.013MM | METRIC THREADS COURSE PITCH | 0.00 = ±.01<br>0.000 = ±.005<br>0.0000 = ±.0005 | [0] = [±.25]<br>[0.0] = [±.13]<br>[0.00] = [±.013] |

# TP-60-10P (TOOL PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions

## TP-60-10P Specification:

Max. Payload: 27 Kg [60 lbs]

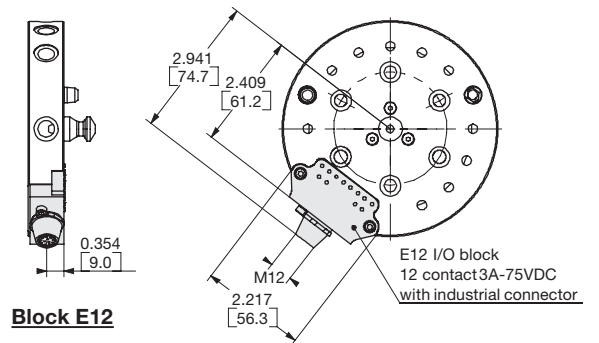
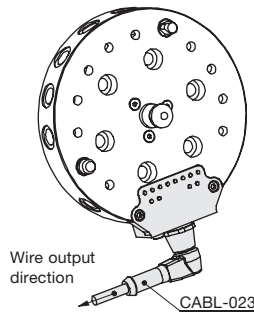
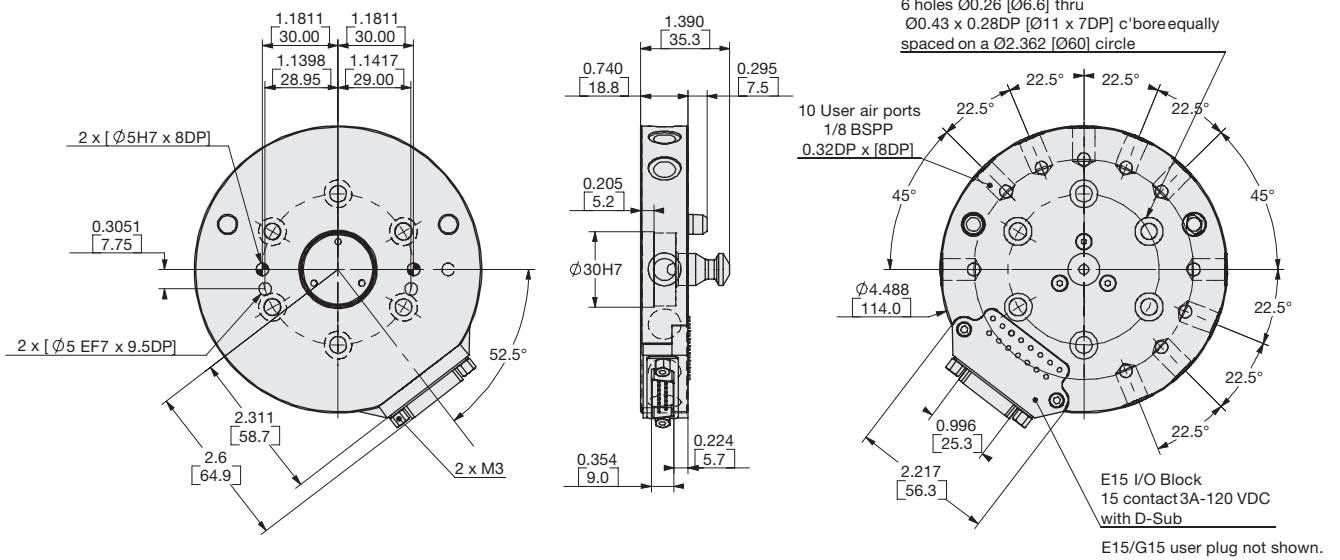
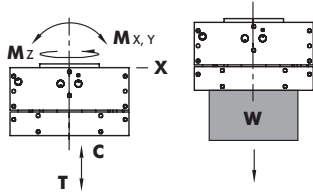
Weight: 0.41 Kg [0.90 lbs]

## Loading Capacity

Max. Tensile T: 445 N [100 lb]

Max. Compressive C: 534 N [120 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>): 88.1 Nm [780 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).  
LOCATIONAL TOLERANCE  
±.0005" OR [±.013MM]

METRIC THREADS  
COURSE PITCH

IMPERIAL ([ IN.])  
0.00 = ±.01  
0.000 = ±.005  
0.0000 = ±.0005

METRIC (MM)  
[0] = [±.25]  
[0.0] = [±.13]  
[0.00] = [±.013]

# QC-150 (ROBOT PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions



## QC-150 Specification:

**Max. Payload:** 68 Kg [150 lbs]

**Weight:** 2.2 Kg [4.8 lbs]

**Bore Ø:** 66.8 mm [2.63 in]

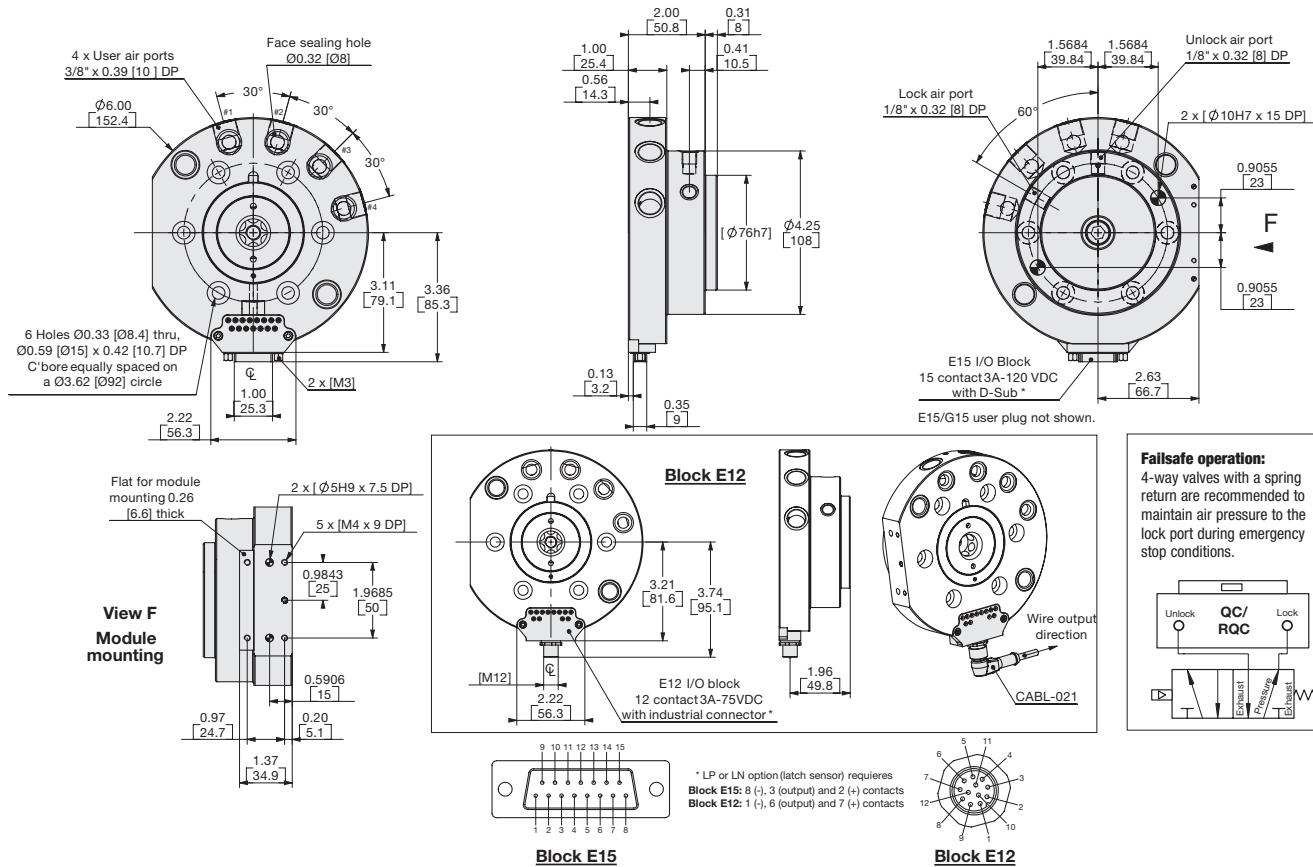
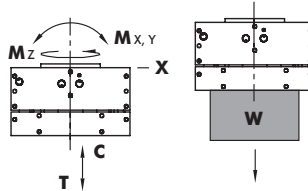
**Displacement:** 25.4 cm<sup>3</sup> [1.55 in<sup>3</sup>]

## Loading Capacity

**Max. Tensile T:** 890 N [200 lb]

**Max. Compressive C:** 1334 N [300 lb]

**Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>):** 215 Nm [1900 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

☉  
DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

☉  
THIRD ANGLE PROJECTION

☉  
ALL DOWEL HOLES ARE SF (SLIP FIT).  
LOCATIONAL TOLERANCE  
±.0005" OR ±.013MM

☉  
METRIC THREADS  
COURSE PITCH

IMPERIAL ([ IN.])  
0.00 = ± .01  
0.000 = ± .005  
0.0000 = ± .0005

METRIC (MM)  
[0] = [± .25]  
[0.0] = [± .13]  
[0.00] = [± .013]



# TP-150 (TOOL PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions

## TP-150 Specification:

Max. Payload: 68 Kg [150 lbs]

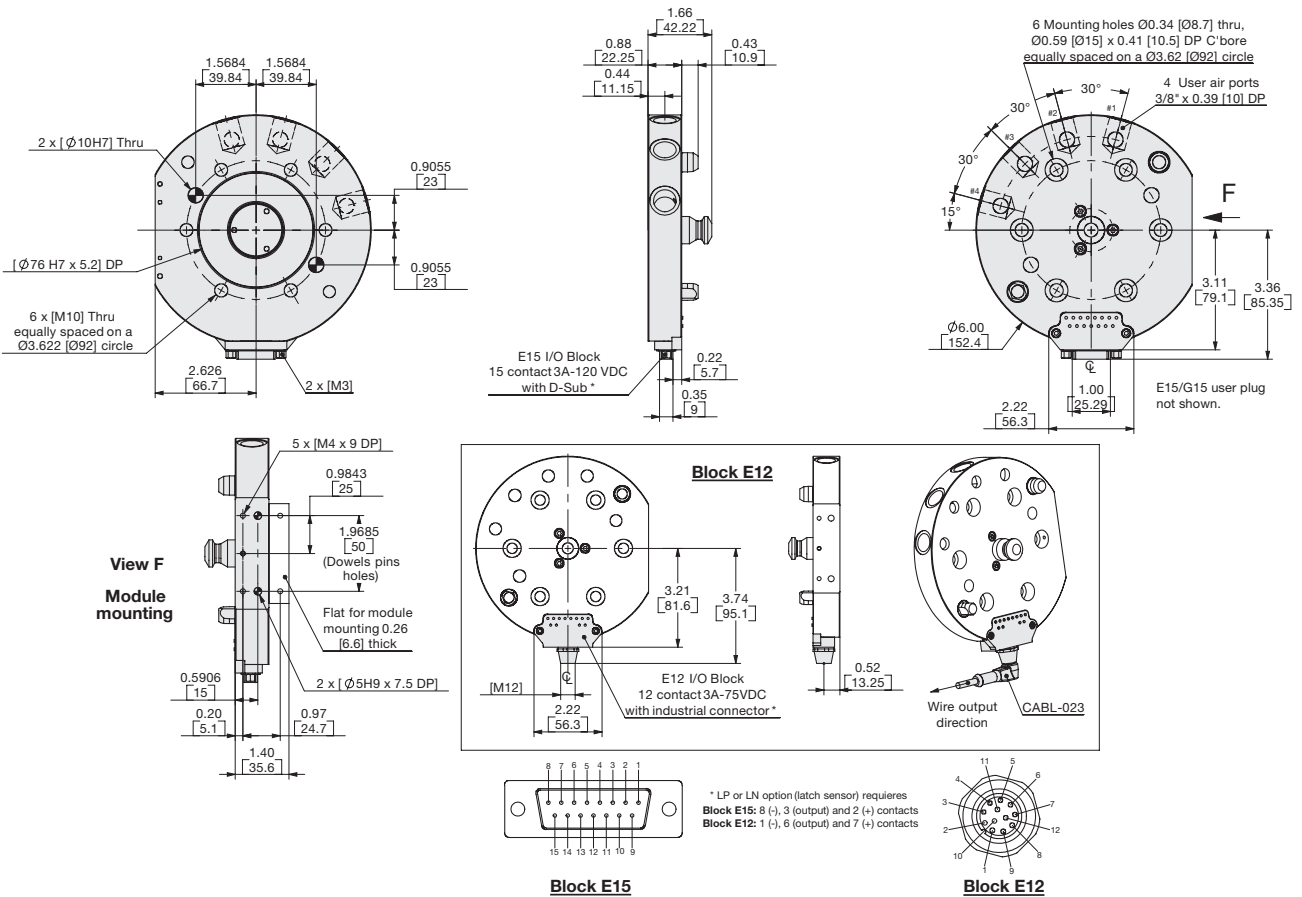
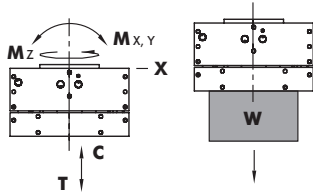
Weight: 1.0 Kg [2.3 lbs]

## Loading Capacity

Max. Tensile T: 890 N [200 lb]

Max. Compressive C: 1334 N [300 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>): 215 Nm [1900 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).  
LOCATIONAL TOLERANCE ±.0005" OR [±.013MM]

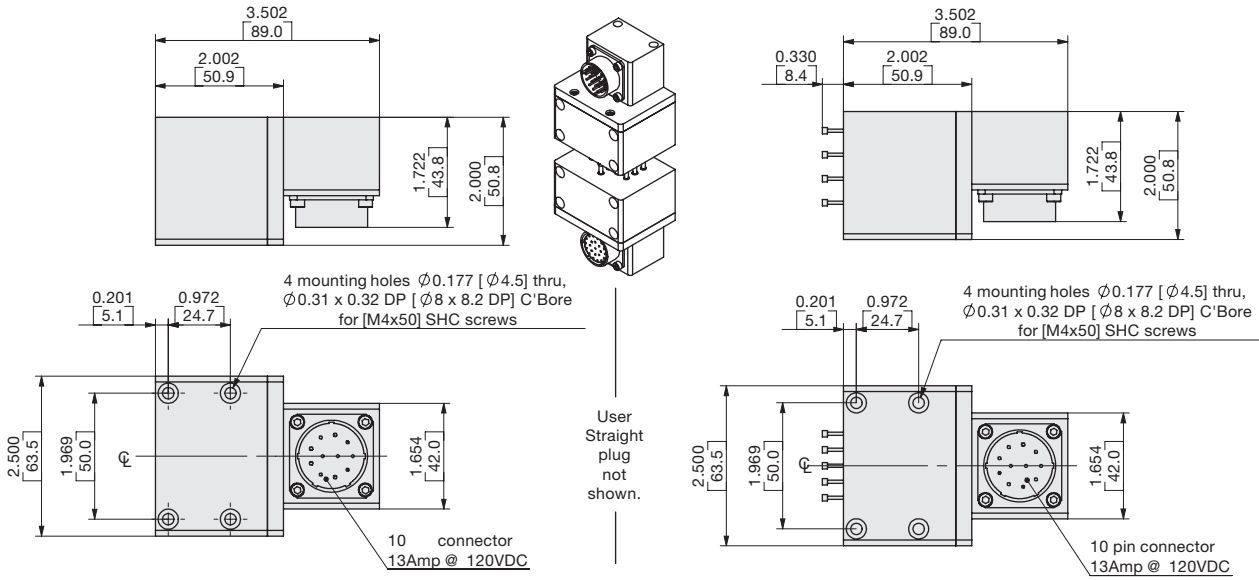
METRIC THREADS  
COURSE PITCH

IMPERIAL ([ IN.])  
0.00 = ±.01  
0.000 = ±.005  
0.0000 = ±.0005

METRIC (MM)  
[0] = [±.25]  
[0.0] = [±.13]  
[0.00] = [±.013]

# QC/TP SERIES

## Automatic Tool Changers | Dimensions | 10-Pin Module 5Amp @ 120VDC Electric Module



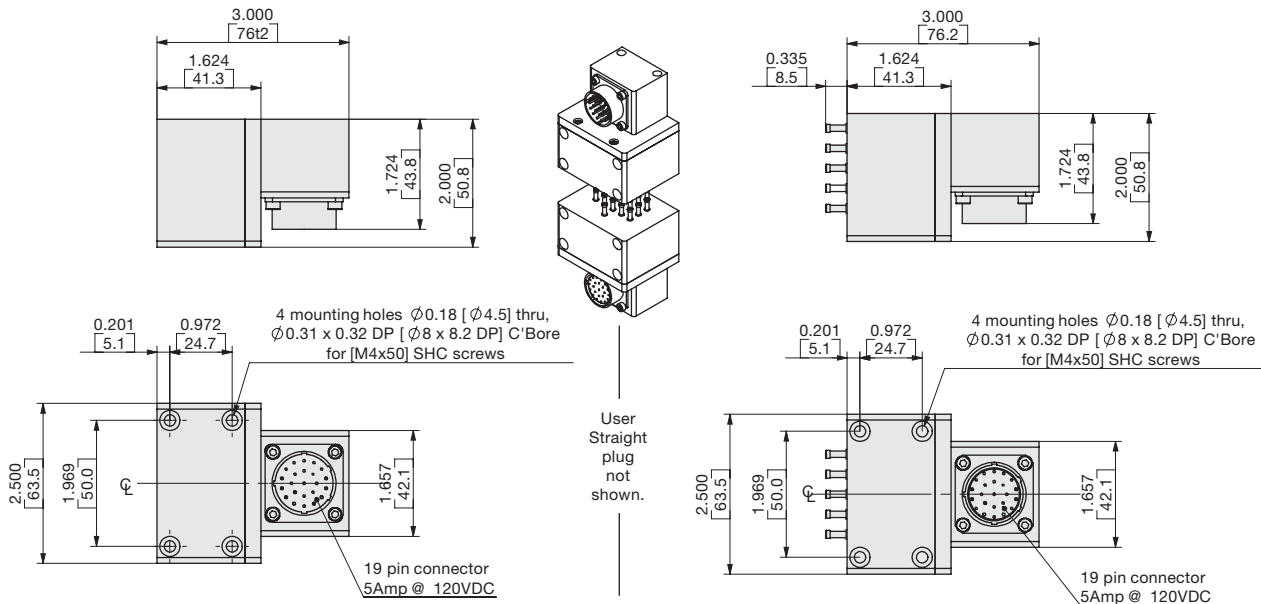
Flat for module mounting not shown: See QC or TP drawings.

| Model    | Module | Robot Plate | Tool Plate | *Accessory        |
|----------|--------|-------------|------------|-------------------|
| QC/TP60  | E10    | KE10-QC60   | KE10-TP60  | ELCT-041 (Female) |
| QC/TP150 | E10    | KE10-QC150  | KE10-TP150 | ELCT-042 (Male)   |

\*Straight Plug, (w/o Cable), Solder Type, Cable Clamp

Module kits above include: Flat for module mounting, straight plug (without cable), locating pins and hardware.

## 19-Pin Module 5Amp @ 120VDC Electric Module



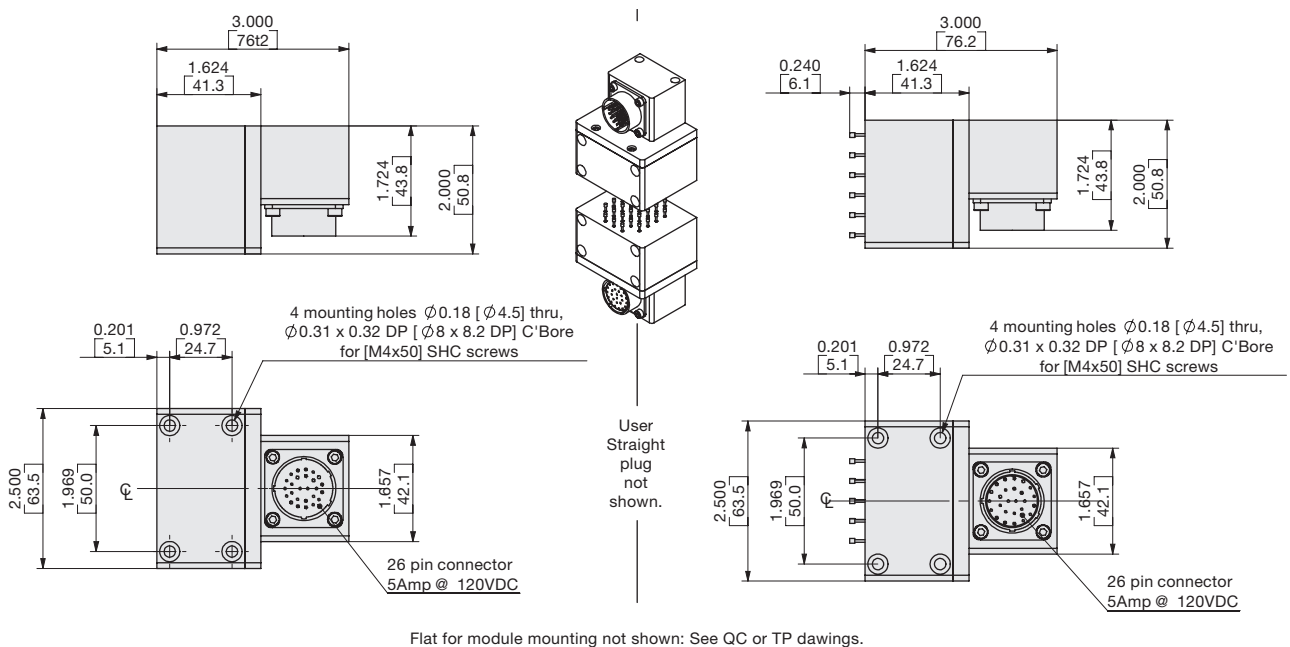
Flat for module mounting not shown: See QC or TP drawings.

| Model    | Module | Robot Plate | Tool Plate | *Accessory        |
|----------|--------|-------------|------------|-------------------|
| QC/TP60  | E19    | KE19-QC60   | KE19-TP60  | ELCT-043 (Female) |
| QC/TP150 | E19    | KE19-QC150  | KE19-TP150 | ELCT-044 (Male)   |

\*Straight Plug, (w/o Cable), Solder Type, Cable Clamp

Module kits above include: Flat for module mounting, straight plug (without cable), locating pins and hardware.

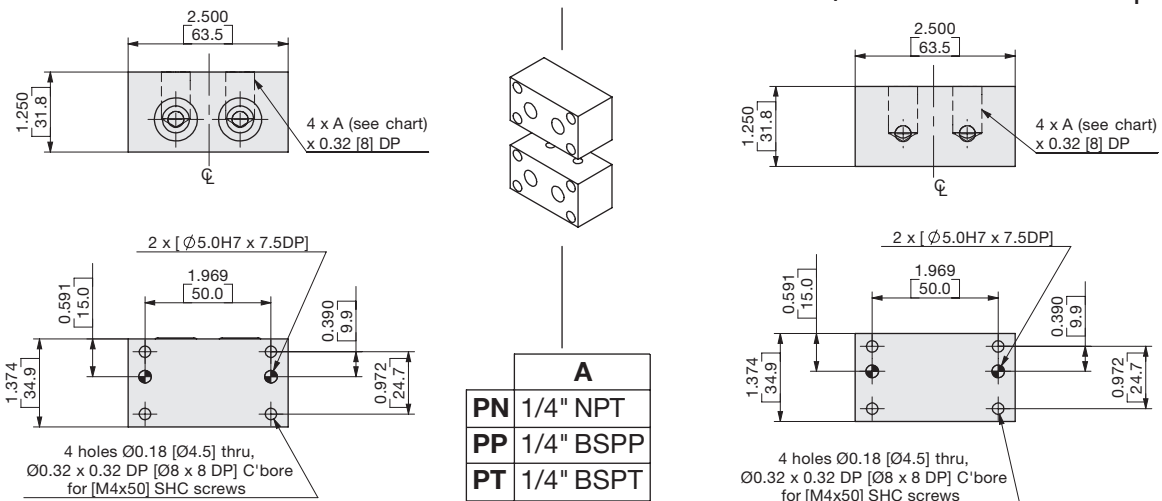
## Automatic Tool Changers | Dimensions | 26-Pin Module 5Amp @ 120VDC Electric Module



| Model    | Module | Robot Plate | Tool Plate | *Accessory        |
|----------|--------|-------------|------------|-------------------|
| QC/TP60  | E26    | KE26-QC60   | KE26-TP60  | ELCT-045 (Female) |
| QC/TP150 | E26    | KE26-QC150  | KE26-TP150 | ELCT-046 (Male)   |

\*Straight Plug, (w/o Cable), Solder Type, Cable Clamp

Module kits above include: Flat for module mounting, straight plug (without cable), locating pins and hardware.



| A  |           |
|----|-----------|
| PN | 1/4" NPT  |
| PP | 1/4" BSPP |
| PT | 1/4" BSPT |

For QC/TP-60

| Module   | Robot Plate | Tool Plate |
|----------|-------------|------------|
| PN14     | KPN14-QC60  | KPN14-TP60 |
| PP14     | KPP14-QC60  | KPP14-TP60 |
| PT14     | KPT14-QC60  | KPT14-TP60 |
| Seal Kit | SLKT-395    | ---        |

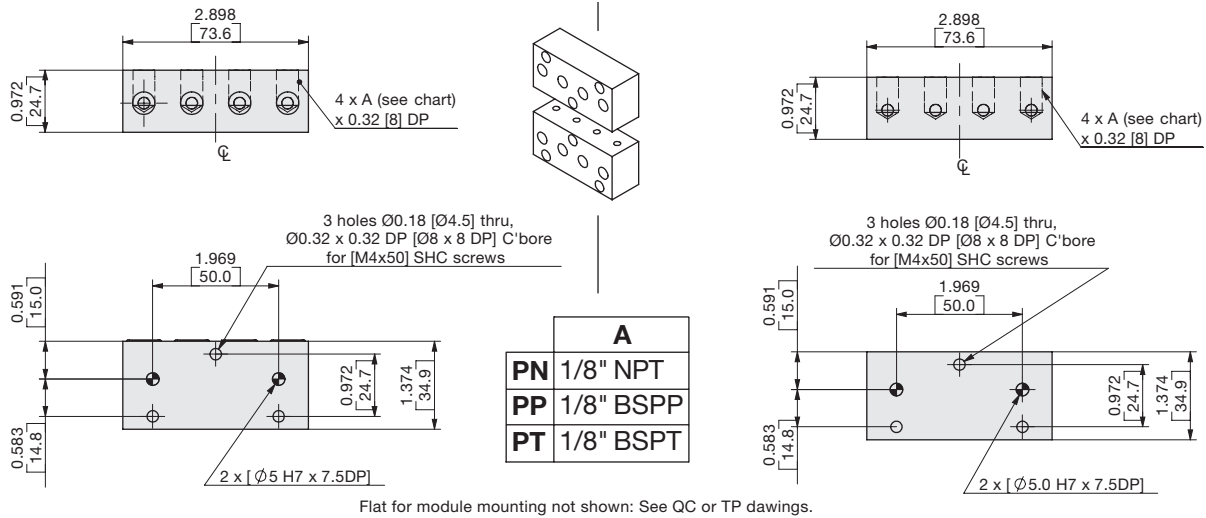
For QC/TP-150

| Module   | Robot Plate | Tool Plate  |
|----------|-------------|-------------|
| PN14     | KPN14-QC150 | KPN14-TP150 |
| PP14     | KPP14-QC150 | KPP14-TP150 |
| PT14     | KPT14-QC150 | KPT14-TP150 |
| Seal Kit | SLKT-395    | ---         |

Module kits include: Flat for module mounting, seals, locating pins and hardware.

# QC/TP SERIES

## Automatic Tool Changers | Dimensions | 4 X 1/8" Air Port Module | Face Seal



Maximum Working Pressure: 10 bar

For QC/TP-60

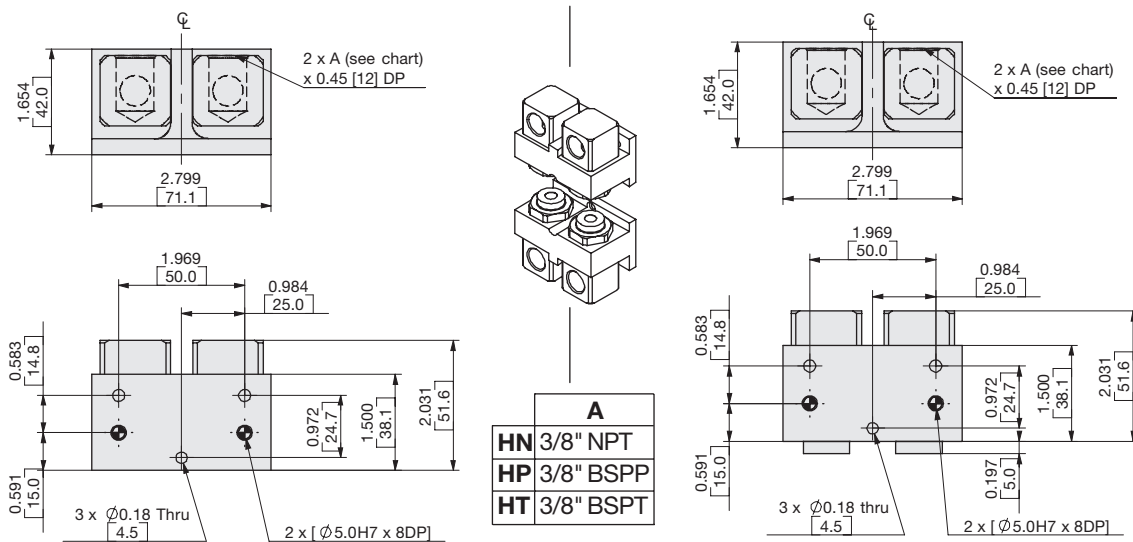
| Module   | Robot Plate | Tool Plate |
|----------|-------------|------------|
| PN18     | KPN18-QC60  | KPN18-TP60 |
| PP18     | KPP18-QC60  | KPP18-TP60 |
| PT18     | KPT18-QC60  | KPT18-TP60 |
| Seal Kit | SLKT-391    | ---        |

For QC/TP-150

| Module   | Robot Plate | Tool Plate  |
|----------|-------------|-------------|
| PN18     | KPN18-QC150 | KPN18-TP150 |
| PP18     | KPP18-QC150 | KPP18-TP150 |
| PT18     | KPT18-QC150 | KPT18-TP150 |
| Seal Kit | SLKT-391    | ---         |

Module kits include: Flat for module mounting, seals, locating pins and hardware.

## 2 X 3/8" Fluid Ports Module | Non-Spilling Double Shut-off



Maximum Working Pressure: 100 bar

For QC/TP-60

| Module | Robot Plate | Tool Plate |
|--------|-------------|------------|
| HN38   | KHN38-QC60  | KHN38-TP60 |

For QC/TP-150

| Module | Robot Plate | Tool Plate  |
|--------|-------------|-------------|
| HN38   | KHN38-QC150 | KHN38-TP150 |

Module kits include: Flat for module mounting couplings, locating pins and hardware.

# QC/TP SERIES

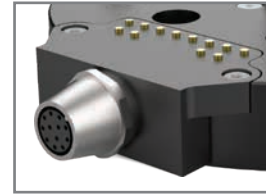
## Automatic Tool Changers | Dimensions | Sub-D Conn and User Plug IO Block



15 Pin w/Sub-D Conn and User Plug w/o cable

| Model    | Module | Robot Plate | Tool Plate |
|----------|--------|-------------|------------|
| QC/TP30  | E15    | KE15-QC30   | KE15-TP30  |
| QC/TP60  | E15    | KE15-QC60   | KE15-TP60  |
| QC/TP150 | E15    | KE15-QC150  | KE15-TP150 |

See individual datasheets for dimensions.



12 Pin w/Turck M12 Conn w/o Cordset

| Model    | Module | Robot Plate | Tool Plate |
|----------|--------|-------------|------------|
| QC/TP30  | E12    | KE12-QC30   | KE12-TP30  |
| QC/TP60  | E12    | KE12-QC60   | KE12-TP60  |
| QC/TP150 | E12    | KE12-QC150  | KE12-TP150 |

See individual datasheets for dimensions.

# RHC SERIES

## Automatic Tool Changers | Features and Benefits

### Robotic applications:

Perfect for those flexible/multiple tooling applications utilizing one Robot. This product was designed with exceptional repeatability, high rigidity & load capacity to make it ideal for any robotic application.

### Automation applications:

End effector tooling and interchangeable fixturing can be changed quickly and easily to accommodate many different styles of parts on the same assembly machine or machining center.

#### Durable Components

Locking components are made from hardened bearing & tool steels

#### Self Lubricating Seals

Self lubricating dynamic seals

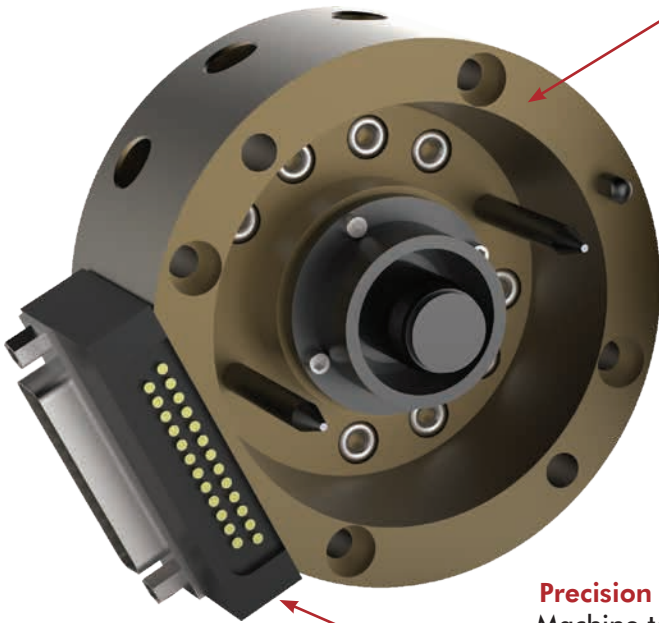
#### Quality Materials

Each body is made of lightweight 7075-T6 aircraft quality aluminum

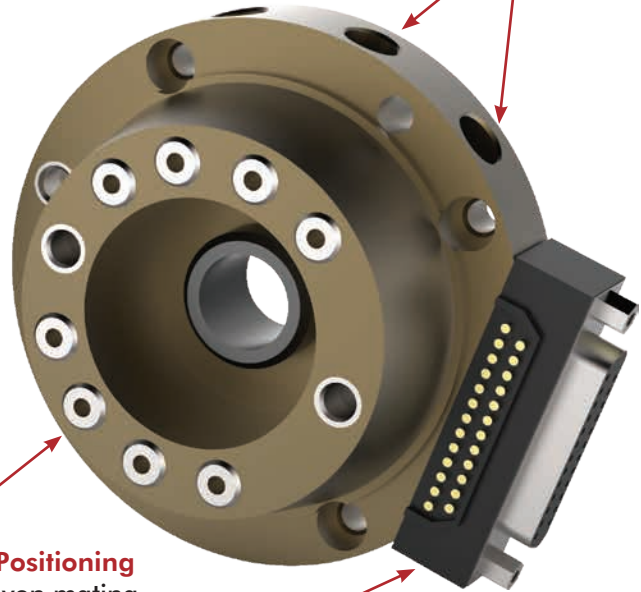
#### Pneumatic Ports

User pneumatic ports

#### Robot Plate



#### Tool Plate



**Precision Cone Positioning**  
Machine tool proven mating conical coupling

#### Durable Finish

Bodies have hard-coat anodize 60RC with Teflon® impregnation

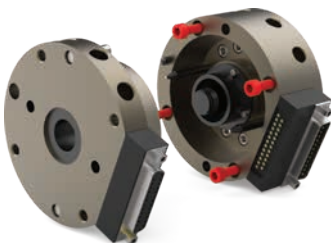
#### Electrical Contacts

(Sold Separately- See "How to Order" Section for more info)

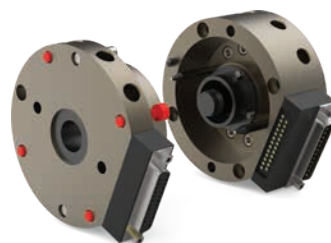
#### Failsafe Operation

Failsafe locking spring keeps units coupled in the event of pressure loss

## Mounting Information



**Robot Plate** mounts with screws from behind or through the front and locates with dowel pins for accuracy.

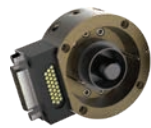


**Tool Plate** mounts payload with screws from behind or through the front and locates with dowel pins for accuracy. Protect cone surfaces from debris to insure proper positioning.



# RHC SERIES

## Automatic Tool Changers | Ordering Information



Robot Plate  
**RHC-1-R**



Tool Plate  
**RHC-1-T**



Robot Plate  
**RHC-2-R**



Tool Plate  
**RHC-2-T**



Robot Plate  
**RHC-3-R**



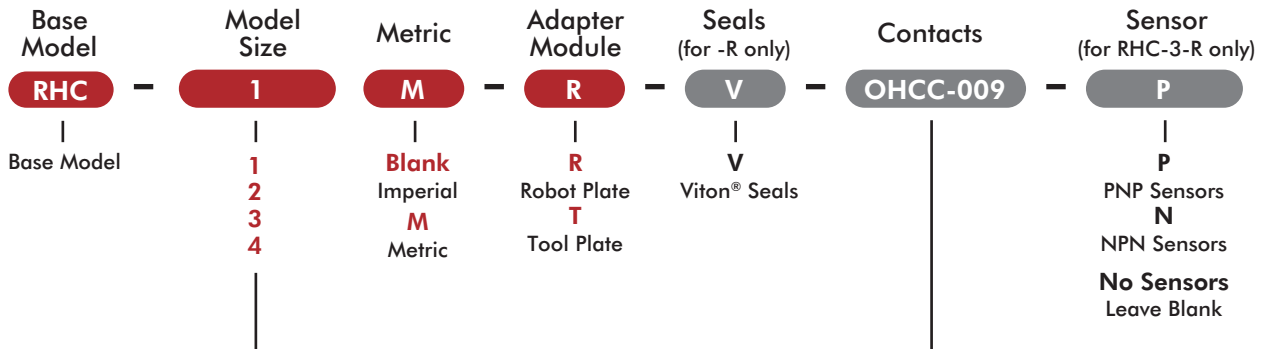
Tool Plate  
**RHC-3-T**



Robot Plate  
**RHC-4-R**



Tool Plate  
**RHC-4-T**



| Size  | Max. Moment<br>Nm [in-lb] | Max. Payload<br>Kg [lbs] |
|-------|---------------------------|--------------------------|
| RHC-1 | 28 [250]                  | 9 [20]                   |
| RHC-2 | 136 [1200]                | 59 [130]                 |
| RHC-3 | 1017 [9000]               | 136 Kg [300]             |
| RHC-4 | 2825 [25000]              | 454 Kg [1000]            |

| Robot Plate     | Optional Contacts                        |
|-----------------|--|
| <b>OHCC-009</b> | 15 Pin D-Sub Contacts (RHC-1)            |
| <b>OHCC-011</b> | 15 Pin D-Sub Contacts (RHC-2, -3)        |
| <b>OHCC-003</b> | 25 Pin D-Sub Contacts (RHC-2, -3)        |
| <b>OHCC-005</b> | 19 Pin Mil. Spec. Contacts (RHC-3)       |
| <b>OHCC-007</b> | 38 Pin Mil. Spec. Contacts (RHC-3)       |
| <b>OHCC-021</b> | 24 Pin Mil. Spec. Contacts (RHC-4)       |
| Tool Plate      | Optional Contacts                        |
| <b>OHCC-010</b> | 15 Pin D-Sub Contacts (RHC-1)            |
| <b>OHCC-012</b> | 15 Pin D-Sub Contacts (RHC-2, -3)        |
| <b>OHCC-004</b> | 25 Pin D-Sub Contacts (RHC-2, -3)        |
| <b>OHCC-006</b> | 19 Pin Mil. Spec. Contacts (RHC-3)       |
| <b>OHCC-027</b> | 24 Pin Mil. Spec. Contacts (RHC-4)       |
| <b>OHCC-023</b> | 24 Wire Single Pigtail Connector (RHC-4) |
| <b>OHCC-022</b> | 24 Wire Double Pigtail Connector (RHC-4) |

## Sensor and Pneumatic Accessories (Ordered Separately)

### Sensor Accessories

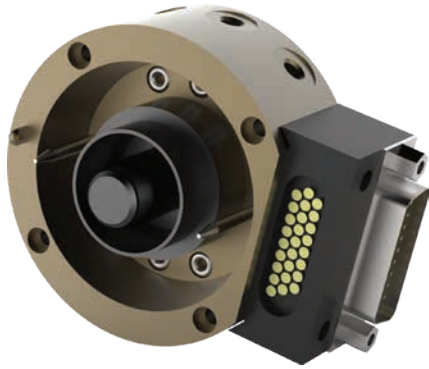
- OSMK-064** Replacement Sensor Mounting Kit (**RHC-3-R**)
- OISP-009** Replacement Locked Position NPN Inductive Sensor with Hard Wired Cable (**RHC-3-R**)
- OISP-009** Replacement Locked Position NPN Inductive Sensor with Hard Wired Cable (**RHC-3-R**)
- OSMK-063** Replacement Sensor Mounting Kit (**RHC-4-R**)
- OISN-008** Replacement Locked Position NPN Inductive Sensor with Hard Wired Cable (**RHC-4-R**)
- OISP-008** Replacement Locked Position PNP Inductive Sensor with Hard Wired Cable (**RHC-4-R**)

### Pneumatic Accessories

- SLKT-028** Standard Seal Repair Kit (**RHC-1-R**)
- SLKT-028V** Viton Seal Repair Kit (**RHC-1-R**)
- SLKT-029** Standard Seal Repair Kit (**RHC-2-R**)
- SLKT-029V** Viton Seal Repair Kit (**RHC-2-R**)
- SLKT-030** Standard Seal Repair Kit (**RHC-3-R**)
- SLKT-030V** Viton Seal Repair Kit (**RHC-3-R**)
- SLKT-031** Standard Seal Repair Kit (**RHC-4-R**)
- SLKT-031V** Viton Seal Repair Kit (**RHC-4-R**)

# RHC-1-R (ROBOT PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions



## RHC-1-R Specification:

**Max. Payload (W):** 9 Kg [20 lbs]

**Weight:** 0.18 Kg [0.41 lbs]

**Bore Ø:** 19 mm [0.75 in]

**Displacement:** 4.18 cm<sup>3</sup> [0.255 in<sup>3</sup>]

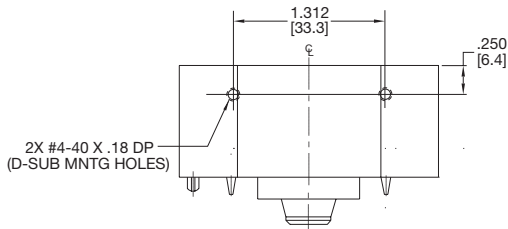
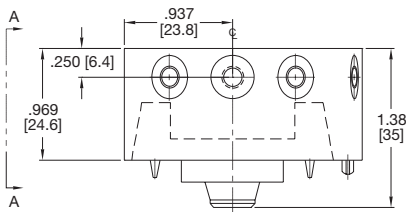
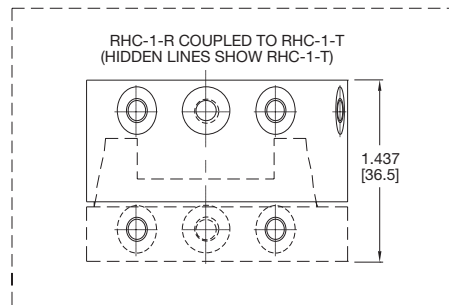
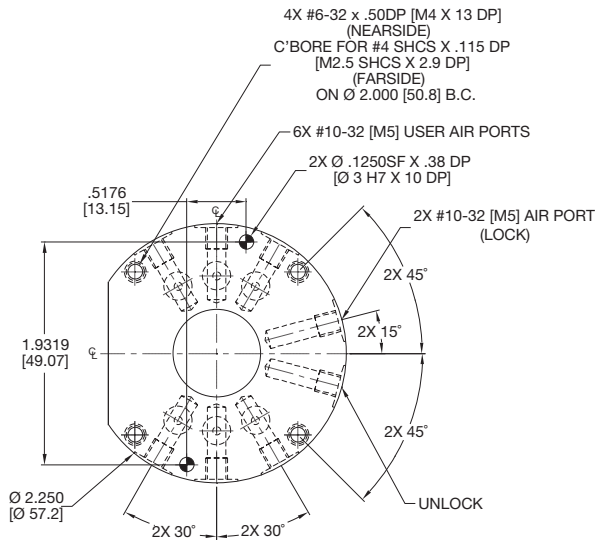
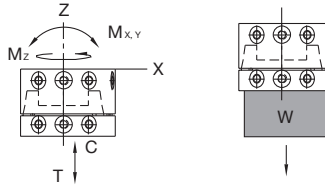
## Loading Capacity

**Max. Tensile T:** 890 N [200 lb]

**Max. Compressive C:** 2224 N [500 lb]

**Max. Moment (M<sub>x</sub>/M<sub>y</sub>):** 14 Nm [125 in-lb]

**Max. Moment (M<sub>z</sub>):** 28 Nm [250 in-lb]



VIEW AA

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

☉  
 DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

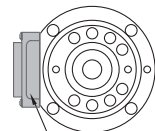
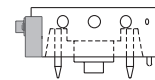
⊕  
 THIRD ANGLE PROJECTION

⊙  
 ALL DOWEL HOLES ARE SF (SLIP FIT).  
 LOCATIONAL TOLERANCE  
 ±.0005" OR [±.013MM]

⊘  
 METRIC THREADS  
 COURSE PITCH

IMPERIAL ([ IN.])  
 0.00 = ±.01  
 0.000 = ±.005  
 0.0000 = ±.0005

METRIC (MM)  
 [0] = [±.25]  
 [0.0] = [±.13]  
 [0.00] = [±.013]



26 PIN OR 15 PIN D-SUB ELECTRICAL CONTACTS

| Model | Robot Plate | Description           | Specification   |
|-------|-------------|-----------------------|-----------------|
| RHC-1 | OHCC-009    | 15 Pin D-Sub Contacts | 15 Pin @ 3 AMPS |
|       | OHCC-001    | 26 Pin D-Sub Contacts | 26 Pin @ 3 AMPS |

# RHC-1-T (TOOL PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions

## RHC-1-T Specification:

Max. Payload (W): 9 Kg [20 lbs]

Weight: 0.09 Kg [0.22 lbs]

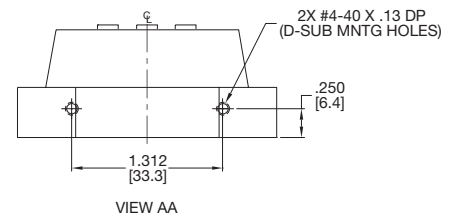
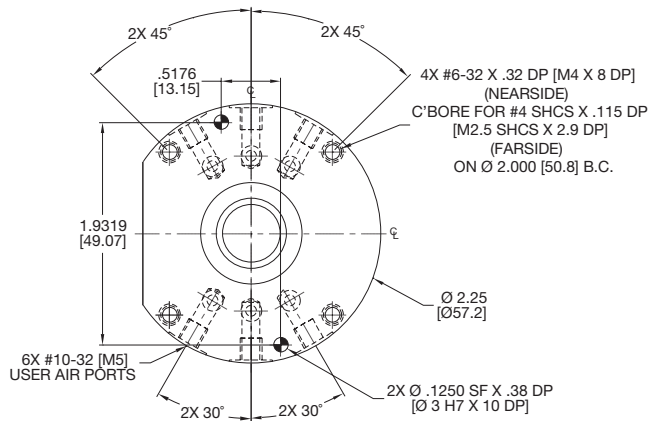
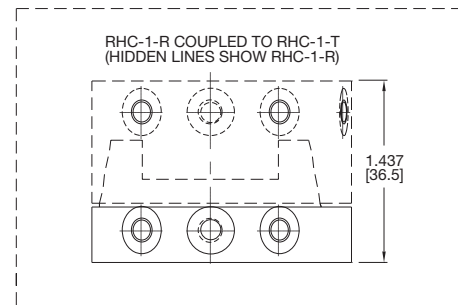
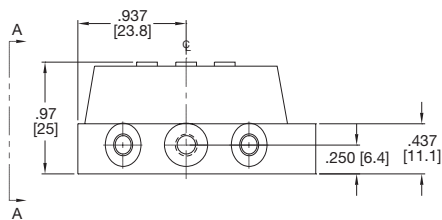
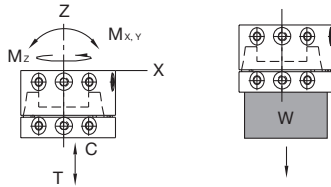
## Loading Capacity

Max. Tensile T: 890 N [200 lb]

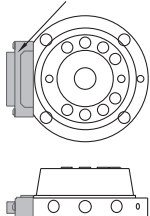
Max. Compressive C: 2224 N [500 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>): 14 Nm [125 in-lb]

Max. Moment (M<sub>z</sub>): 28 Nm [250 in-lb]



26 PIN OR 15 PIN D-SUB ELECTRICAL CONTACTS



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

$\phi$   
DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

$\triangle$   
THIRD ANGLE PROJECTION

$\oplus$   
ALL DOWEL HOLES ARE SF (SLIP FIT).  
LOCATIONAL TOLERANCE  
 $\pm .0005$ " OR  $[\pm .013\text{MM}]$

$\oplus$   
METRIC THREADS  
COURSE PITCH

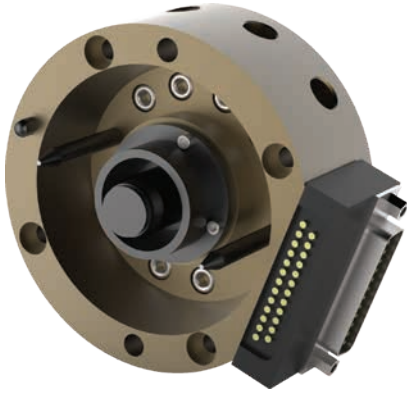
IMPERIAL ( [ IN. ] )  
0.00 =  $\pm .01$   
0.000 =  $\pm .005$   
0.0000 =  $\pm .0005$

METRIC (MM)  
[0] =  $[\pm .25]$   
[0.0] =  $[\pm .13]$   
[0.00] =  $[\pm .013]$

| Model | Tool Plate | Description           | Specification   |
|-------|------------|-----------------------|-----------------|
| RHC-1 | OHCC-010   | 15 Pin D-Sub Contacts | 15 Pin @ 3 AMPS |
|       | OHCC-002   | 26 Pin D-Sub Contacts | 26 Pin @ 3 AMPS |

# RHC-2-R (ROBOT PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions

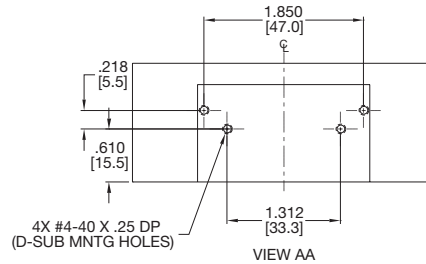
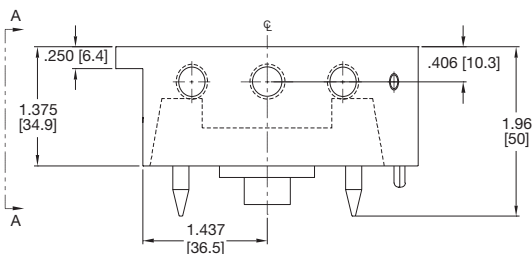
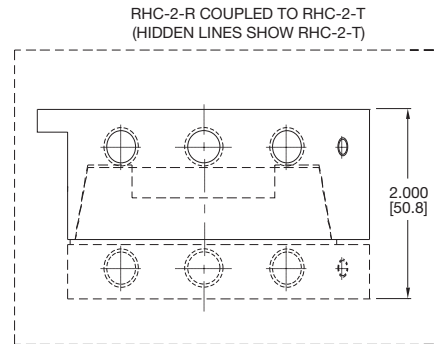
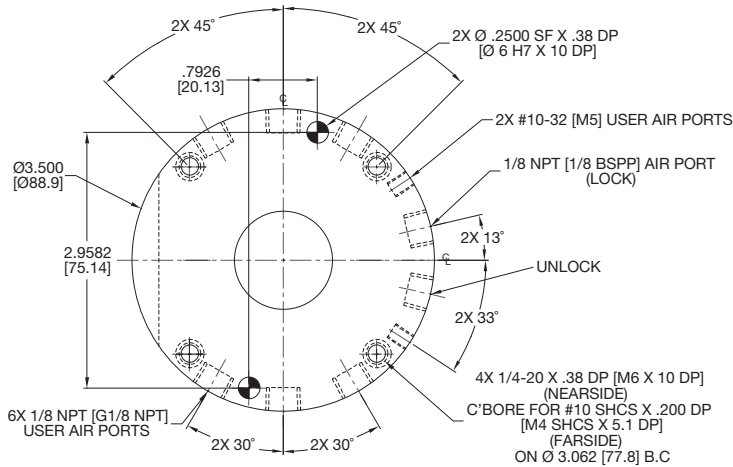
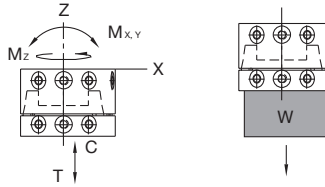


## RHC-2-R Specification:

- Max. Payload (W): 59 Kg [130 lbs]
- Weight: 0.44 Kg [0.99 lbs]
- Bore Ø: 28.57 mm [1.125 in]
- Displacement: 12.22 cm<sup>3</sup> [0.746 in<sup>3</sup>]

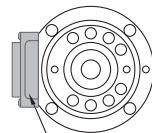
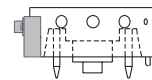
## Loading Capacity

- Max. Tensile T: 3336 N [750 lb]
- Max. Compressive C: 6672 N [1500 lb]
- Max. Moment (M<sub>x</sub>/M<sub>y</sub>): 90 Nm [800 in-lb]
- Max. Moment (M<sub>z</sub>): 136 Nm [1200 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

| Symbol                                      | Symbol                 | Symbol   | Symbol                      | IMPERIAL ([ IN.]) | METRIC (MM)      |
|---|------------------------|--|-----------------------------|-------------------|------------------|
| ⌀   | ⊕                      | ⊖  | ⊘                           | 0.00 = ±.01       | [0] = [±.25]     |
| DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE | THIRD ANGLE PROJECTION | ALL DOWEL HOLES ARE SF (SLIP FIT). LOCATIONAL TOLERANCE ±.0005" OR [±.013MM] | METRIC THREADS COURSE PITCH | 0.000 = ±.005     | [0.0] = [±.13]   |
|   |                        |  |                             | 0.0000 = ±.0005   | [0.00] = [±.013] |



25 PIN OR 15 PIN D-SUB ELECTRICAL CONTACTS

| Model | Robot Plate | Description           | Specification   |
|-------|-------------|-----------------------|-----------------|
| RHC-2 | OHCC-011    | 15 Pin D-Sub Contacts | 15 Pin @ 3 AMPS |
|       | OHCC-003    | 25 Pin D-Sub Contacts | 25 Pin @ 3 AMPS |

# RHC-2-T (TOOL PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions

## RHC-2-T Specification:

Max. Payload (W): 59 Kg [130 lbs]

Weight: 0.37 Kg [0.82 lbs]

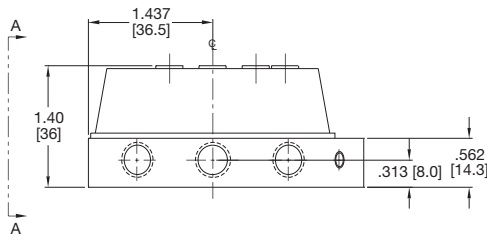
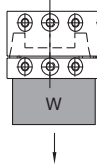
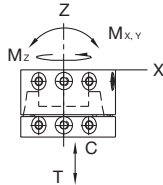
## Loading Capacity

Max. Tensile T: 3336 N [750 lb]

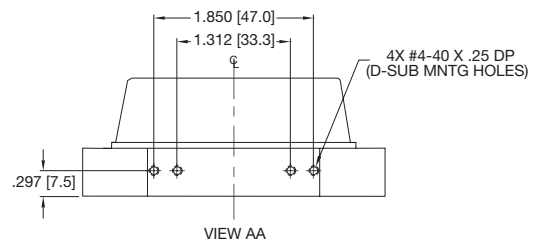
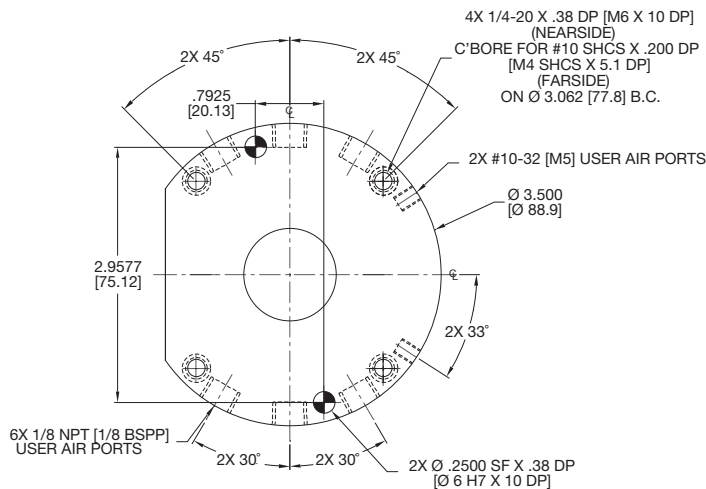
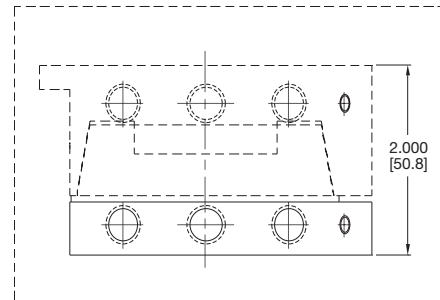
Max. Compressive C: 6672 N [1500 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>): 90 Nm [800 in-lb]

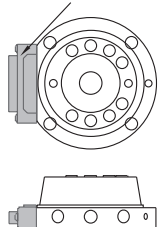
Max. Moment (M<sub>z</sub>): 136 Nm [1200 in-lb]



RHC-2-R COUPLED TO RHC-2-T  
(HIDDEN LINES SHOW RHC-2-R)



25 PIN OR 15 PIN D-SUB  
ELECTRICAL CONTACTS



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

$\phi$   
DIMENSIONS ARE  
SYMMETRICAL ABOUT  
CENTERLINE

$\triangle$   
THIRD ANGLE  
PROJECTION

$\oplus$   
ALL DOWEL HOLES ARE SF (SLIP FIT).  
LOCATIONAL TOLERANCE  
 $\pm .0005$ " OR [ $\pm .013$ MM]

$\oplus$   
METRIC THREADS  
COURSE PITCH

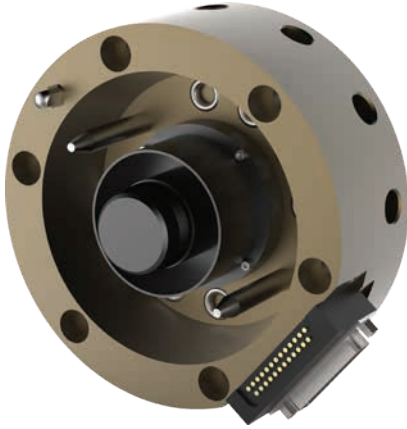
IMPERIAL ( [ IN. ] )  
0.00 =  $\pm .01$   
0.000 =  $\pm .005$   
0.0000 =  $\pm .0005$

METRIC (MM)  
[0] = [ $\pm .25$ ]  
[0.0] = [ $\pm .13$ ]  
[0.00] = [ $\pm .013$ ]

| Model | Tool Plate | Description           | Specification   |
|-------|------------|-----------------------|-----------------|
| RHC-2 | OHCC-012   | 15 Pin D-Sub Contacts | 15 Pin @ 3 AMPS |
|       | OHCC-004   | 25 Pin D-Sub Contacts | 25 Pin @ 3 AMPS |

# RHC-3-R (ROBOT PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions



## RHC-3-R Specification:

**Max. Payload (W):** 136 Kg [300 lbs]

**Weight:** 1.79 Kg [3.95 lbs]

**Bore Ø:** 44.45 mm [1.750 in]

**Displacement:** 44.34 cm<sup>3</sup> [2.706 in<sup>3</sup>]

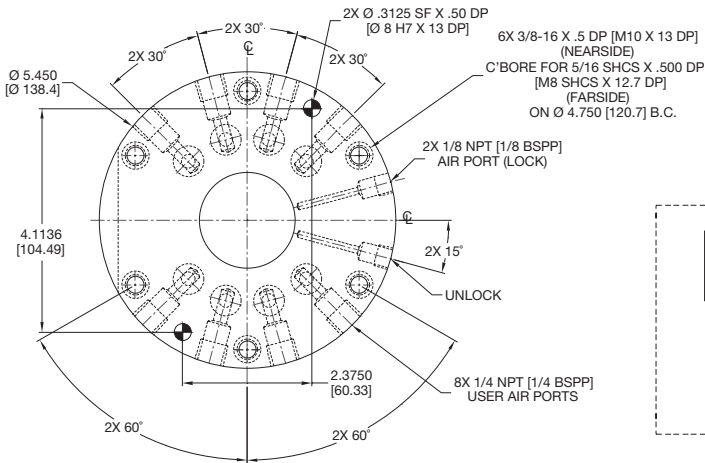
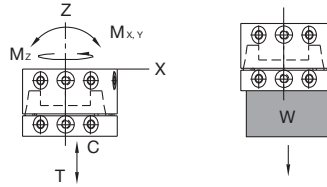
## Loading Capacity

**Max. Tensile T:** 8896 N [2000 lb]

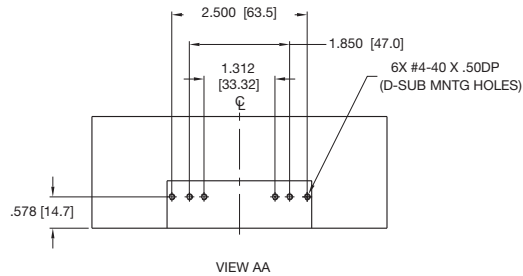
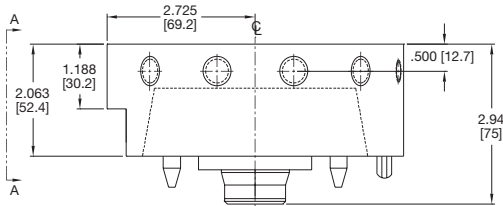
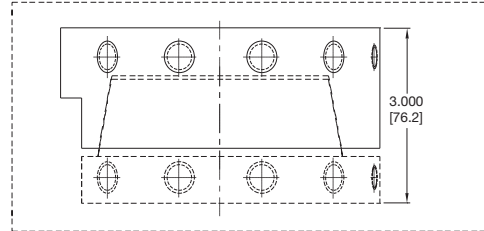
**Max. Compressive C:** 17793 N [4000 lb]

**Max. Moment (M<sub>x</sub>/M<sub>y</sub>):** 678 Nm [6000 in-lb]

**Max. Moment (M<sub>z</sub>):** 1017 Nm [9000 in-lb]



RHC-3-R COUPLED TO RHC-3-T  
(HIDDEN LINES SHOW RHC-3-T)



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

☉  
 DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

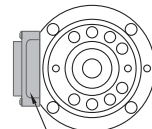
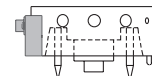
∠  
 THIRD ANGLE PROJECTION

⊙  
 ALL DOWEL HOLES ARE SF (SLIP FIT).  
 LOCATIONAL TOLERANCE  
 ±.0005" OR [±.013MM]

⊕  
 METRIC THREADS  
 COURSE PITCH

IMPERIAL ([ IN. ])  
 0.00 = ±.01  
 0.000 = ±.005  
 0.0000 = ±.0005

METRIC (MM)  
 [0] = [±.25]  
 [0.0] = [±.13]  
 [0.00] = [±.013]



25 OR 15 PIN D-SUB or  
 19 OR 38 PIN MIL SPEC  
 ELECTRICAL CONTACTS

| Model | Robot Plate | Description                | Specification   |
|-------|-------------|----------------------------|-----------------|
| RHC-3 | OHCC-011    | 15 Pin D-Sub Contacts      | 15 Pin @ 3 AMPS |
|       | OHCC-003    | 25 Pin D-Sub Contacts      | 25 Pin @ 3 AMPS |
|       | OHCC-005    | 19 Pin Mil. Spec. Contacts | 19 Pin @ 3 AMPS |
|       | OHCC-007    | 38 Pin Mil. Spec. Contacts | 38 Pin @ 3 AMPS |



# RHC-3-T (TOOL PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions

## RHC-3-T Specification:

Max. Payload (W): 136 Kg [300 lbs]

Weight: 1.29 Kg [2.85 lbs]

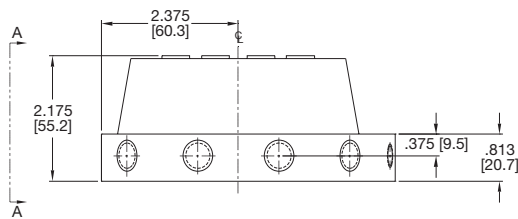
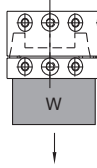
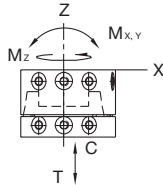
## Loading Capacity

Max. Tensile T: 8896 N [2000 lb]

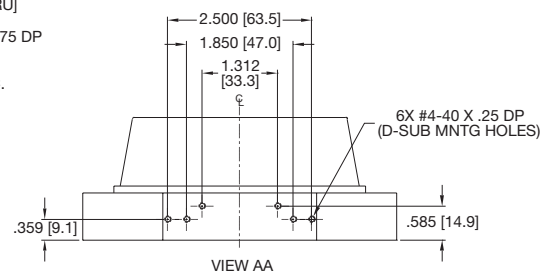
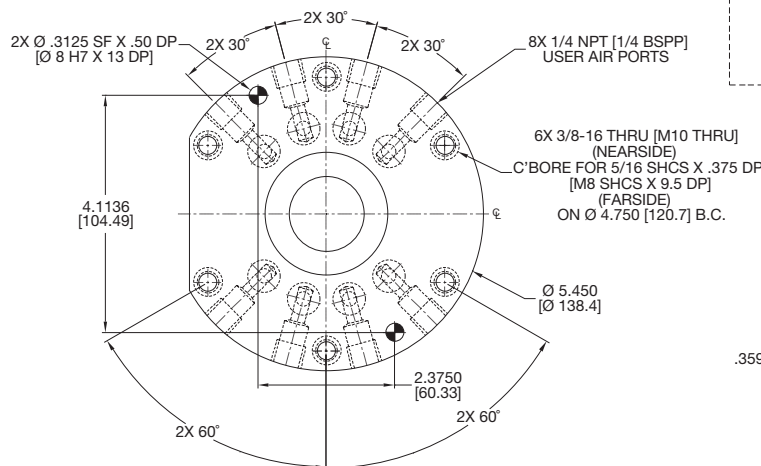
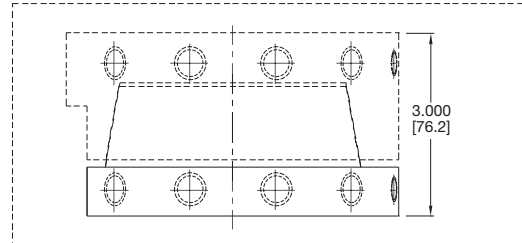
Max. Compressive C: 17793 N [4000 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>): 678 Nm [6000 in-lb]

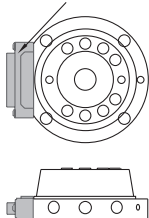
Max. Moment (M<sub>z</sub>): 1017 Nm [9000 in-lb]



RHC-3-R COUPLED TO RHC-3-T  
(HIDDEN LINES SHOW RHC-3-R)



25 OR 15 PIN D-SUB or  
19 OR 38 PIN MIL SPEC  
ELECTRICAL CONTACTS



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

☉  
DIMENSIONS ARE  
SYMMETRICAL ABOUT  
CENTERLINE

☉  
THIRD ANGLE  
PROJECTION

☉  
ALL DOWEL HOLES ARE SF (SLIP FIT).  
LOCATIONAL TOLERANCE  
±.0005" OR [±.013MM]

☉  
METRIC THREADS  
COURSE PITCH

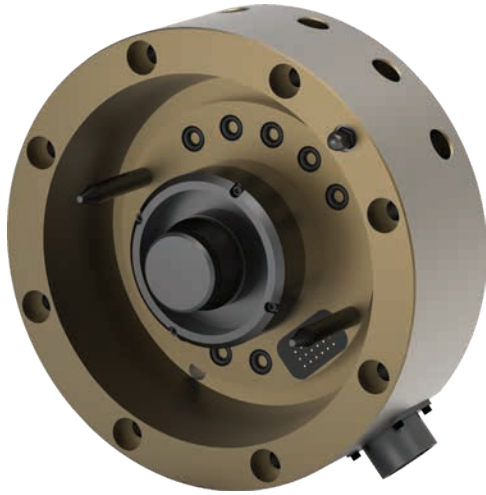
IMPERIAL ( [ IN.])  
0.00 = ±.01  
0.000 = ±.005  
0.0000 = ±.0005

METRIC (MM)  
[0] = [±.25]  
[0.0] = [±.13]  
[0.00] = [±.013]

| Model | Tool Plate | Description                | Specification   |
|-------|------------|----------------------------|-----------------|
| RHC-3 | OHCC-010   | 15 Pin D-Sub Contacts      | 15 Pin @ 3 AMPS |
|       | OHCC-002   | 25 Pin D-Sub Contacts      | 25 Pin @ 3 AMPS |
|       | OHCC-006   | 19 Pin Mil. Spec. Contacts | 19 Pin @ 3 AMPS |

# RHC-4-R (ROBOT PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions



## RHC-4-R Specification:

**Max. Payload (W):** 454 Kg [1000 lbs]

**Weight:** 6.52 Kg [12.39 lbs]

**Bore Ø:** 57.15 mm [2.250 in]

**Displacement:** 85.52 cm<sup>3</sup> [85.52 in<sup>3</sup>]

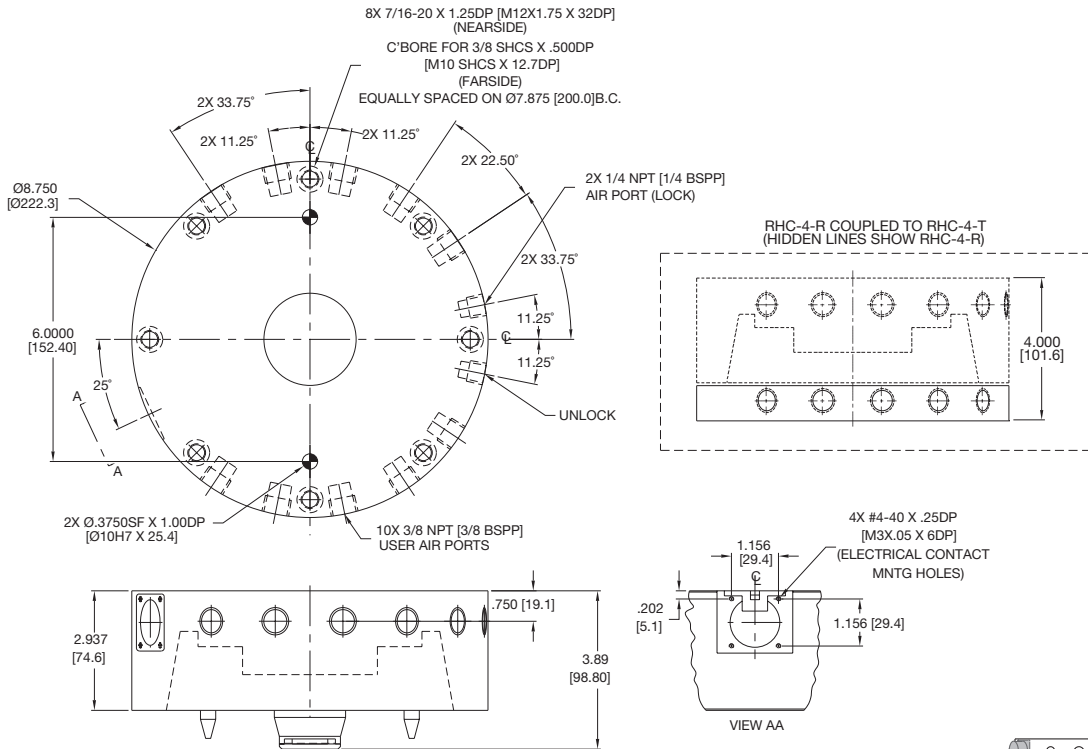
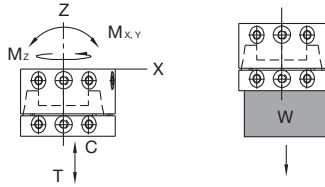
## Loading Capacity

**Max. Tensile T:** 35586 N [8000 lb]

**Max. Compressive C:** 71171 N [16000 lb]

**Max. Moment (M<sub>x</sub>/M<sub>y</sub>):** 2825 Nm [25000 in-lb]

**Max. Moment (M<sub>z</sub>):** 2825 Nm [25000 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

⌀  
DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

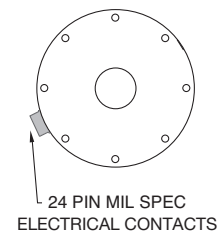
ALL DOWEL HOLES ARE SF (SLIP FIT).  
LOCATIONAL TOLERANCE ±.0005" OR [±.013MM]

METRIC THREADS COURSE PITCH

IMPERIAL ( [IN.] )  
0.00 = ±.01  
0.000 = ±.005  
0.0000 = ±.0005

METRIC (MM)  
[0] = [±.25]  
[0.0] = [±.13]  
[0.00] = [±.013]

| Model | Robot Plate | Description                | Specification   |
|-------|-------------|----------------------------|-----------------|
| RHC-4 | OHCC-021    | 24 Pin Mil. Spec. Contacts | 24 Pin @ 3 AMPS |



# RHC-4-T (TOOL PLATE)

Automatic Tool Changers | Technical Specifications | Dimensions

## RHC-4-T Specification:

Max. Payload (W): 454 Kg [1000 lbs]

Weight: 4.35 Kg [9.61 lbs]

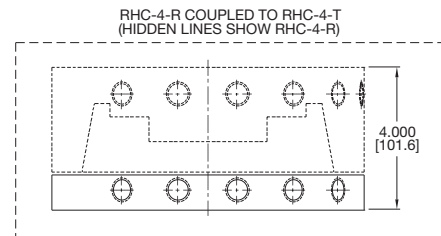
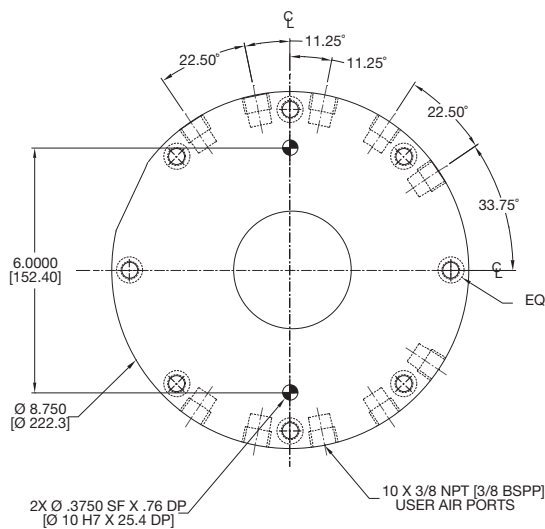
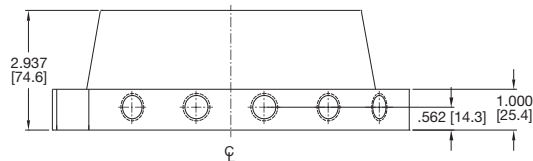
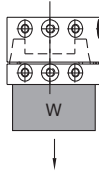
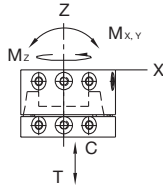
## Loading Capacity

Max. Tensile T: 35586 N [8000 lb]

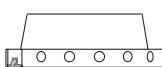
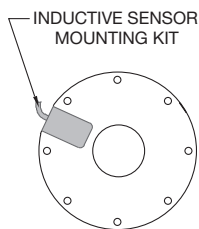
Max. Compressive C: 71171 N [16000 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>): 2825 Nm [25000 in-lb]

Max. Moment (M<sub>z</sub>): 2825 Nm [25000 in-lb]



8X 7/16-20 X .75 DP [M12 X 19 DP]  
(NEARSIDE)  
C'BORE FOR 3/8 SHCS X .375 DP  
[M10 SHCS X 9.5 DP]  
(FARSIDE)  
EQUALLY SPACED ON Ø 7.875 [Ø 200.0] B.C.



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

⌀  
DIMENSIONS ARE  
SYMMETRICAL ABOUT  
CENTERLINE

THIRD ANGLE  
PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).  
LOCAL TOLERANCE  
±.0005" OR [±.013MM]

METRIC THREADS  
COURSE PITCH

IMPERIAL ( [ IN. ] )  
0.00 = ± .01  
0.000 = ± .005  
0.0000 = ± .0005

METRIC (MM)  
[0] = [± .25]  
[0.0] = [± .13]  
[0.00] = [± .013]

| Model | Tool Plate | Description                      | Specification   |
|-------|------------|----------------------------------|-----------------|
|       | OHCC-027   | 24 Pin Mil. Spec. Contacts       | 24 Pin @ 3 AMPS |
| RHC-4 | OHCC-023   | 24 Wire Single Pigtail Connector |                 |
|       | OHCC-022   | 24 Wire Double Pigtail Connector |                 |

# CH SERIES

## Cylindrical Horizontal Compliance Device | Features and Benefits

### Flexibility of the tool:

Cylindrical Horizontal compliance devices are used for inserting components that may be misaligned with the tool. They allow a horizontal displacement that compensates for part placing inaccuracies.

### For precision applications:

The use of high quality components allow to get centering repeatability from 0.02mm and angular repeatability from  $\pm 10^\circ$ .

### Harsh environments:

The enclosed design of this series allows them to be used in harsh environments.

### Spring assist:

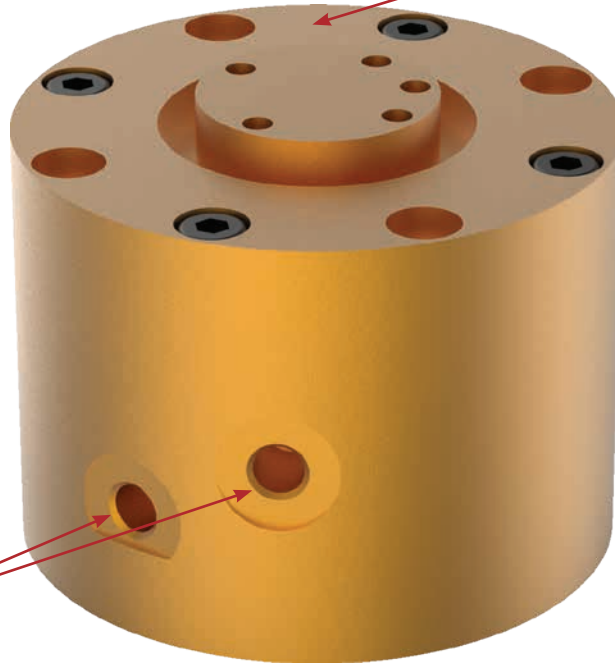
Due to the optional spring assist, compliance may be used in single acting mode.

### Spring Assist

Spring assist option allows to center the tool (RA) or to release the tooling (RL). It also allows the use in single acting mode

### Quality Components

Made from aluminum alloy hard coat anodization. Main components are made of hardened and precision ground steel



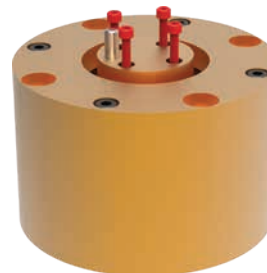
### Air Ports

Side or top airports (top ports require O-rings)

## Mounting Information



The compliance is located using a pilot boss and a dowel pin and assembled using 4 or 6 through body screws



Tooling is located using a centering pin and a dowel pin and assembled using 4 screws

## Cylindrical Horizontal Compliance Device | Technical Information | Dimensions

### Pneumatic Specification

Pressure Range (w/o springs): 2-7 bar [30-100 psi]  
 Pressure Range (w/springs CH-50): 3-7 bar [43-100 psi]  
 Pressure Range (w/springs): 4-7 bar [60-100 psi]  
 Cylinder Type: Double Acting, Double Acting Spring Assist, or Single Acting Spring Return  
 Dynamic Seals: Internally Lubricated Buna-N  
 Valve Required to Actuate: Double Acting: 4-way, 2-Position; Single Acting (-RL or -RA Option): 3-way, 2-Position

### Temperature Operating Range

Buna-N-Seals (Standard): -25°~80° C [-10°~180° F]

### Maintenance Specification

Expected Life: Normal Application: 5 Million Cycles  
 With Preventative Maintenance: 6+ Million Cycles  
 Field Repairable: Yes  
 Seal Repair Kits Available: Yes

### Air Quality Requirements

Air Filtration: 40 Microns or Better  
 Air Lubrication: Not Necessary\*  
 Air Humidity: Low Moisture Content (Dry)  
 (\*)Addition of lubrication will greatly increase service life.

## How to Order

Base Model      Spring Assist      Misalignment  
**CH-50-P**      **RA**      **XX**

|  
 CH-50-P  
 CH-80-P  
 CH-110-P  
 CH-140-P  
 CH-165-P

|  
 RA  
 RL  
 —

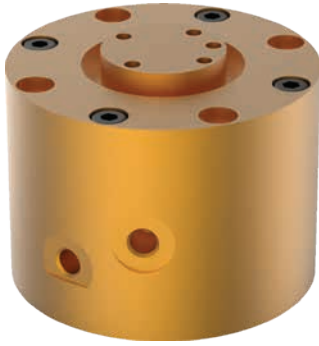
|  
 XX  
 —

Special Misalignment x 10  
 (ie: 15 is for ± 1.5 mm)  
 Leave Blank. Standard Capability  
  
 Tool Recentering  
 Tool Release  
 Leave Blank. No Spring Option (Standard)

| Size     | Centering Force<br>Nm [in-lb] | Max. Payload<br>Kg [lbs] |
|----------|-------------------------------|--------------------------|
| CH-50-P  | 322 [74]                      | 2 [4.4]                  |
| CH-80-P  | 1035 [232]                    | 8 [17.6]                 |
| CH-110-P | 1660 [373]                    | 14 [30.8]                |
| CH-140-P | 3170 [712]                    | 30 [66.1]                |
| CH-165-P | 4140 [931]                    | 40 [88.2]                |

# CH-50-P

## Cylindrical Horizontal Compliance Device | Technical Information | Dimensions

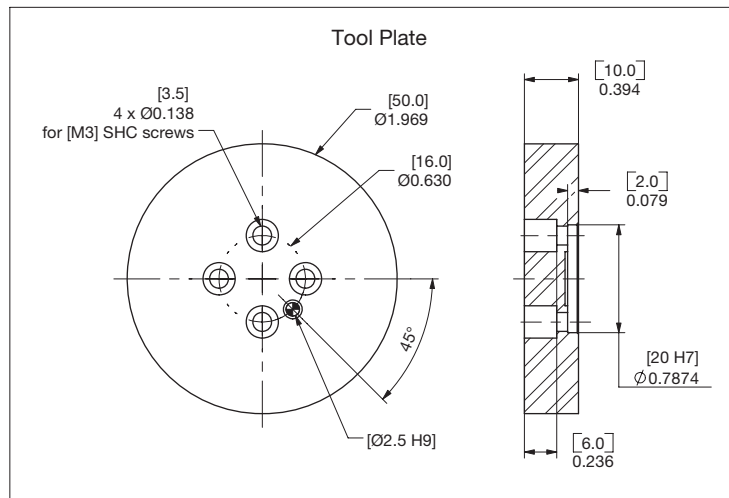
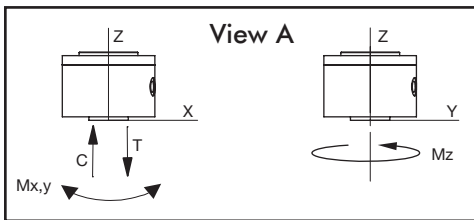
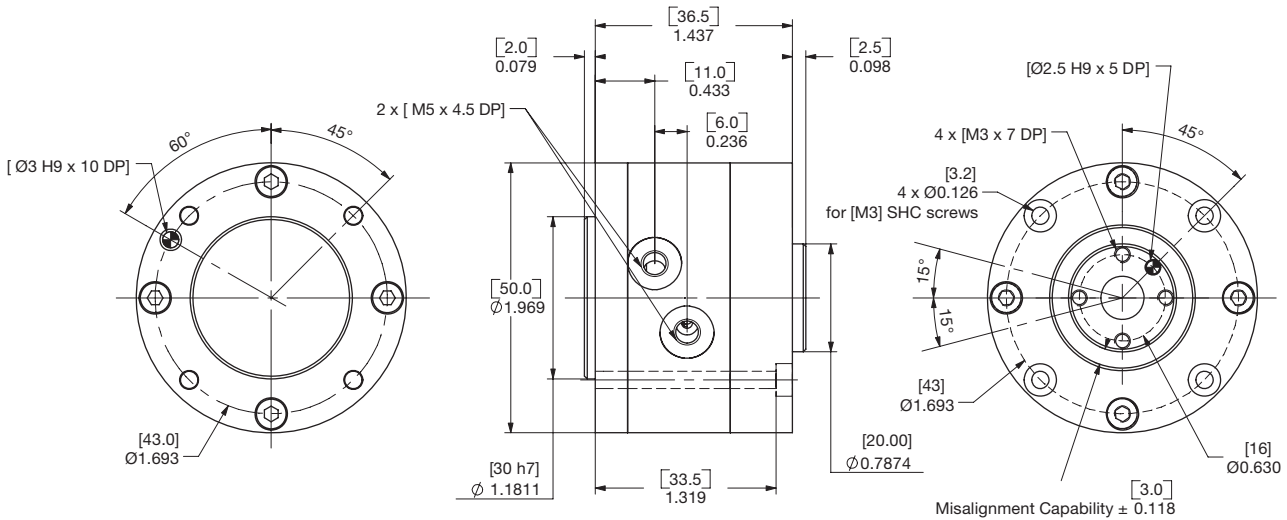


### CH-50-P Specification:

**Centering Force @ 7 bar [100 psi]:** 322 N [74 lbs]  
**Max. Payload:** 2 Kg [4.4 lbs]  
**Misalignment Capability:**  $\pm 3$  mm [ $\pm 0.12$  in]  
**Weight:** 0.195 Kg [0.43 lbs]  
**Cylinder Bore:** 34 mm [1.34 in]  
**Displacement:** 5.2 cm<sup>3</sup> [0.32 in<sup>3</sup> lbs]  
**Actuation:** 0.07 sec [0.07 sec]  
**Repeatability:**  $\pm 0.02$  mm [ $\pm 0.0008$  in]  
**Angular Repeatability:**  $\pm 10$  mm

### Loading Capacity (View A):

**Max. Tensile T:** 75 N [17 lb]  
**Max. Compressive C:** 75 N [17 lb]  
**Max. Moment (Mx/My):** 2 Nm [17.7 in-lb]  
**Max. Moment (Mz):** 1 Nm [8.8 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW



DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE



THIRD ANGLE PROJECTION



ALL DOWEL HOLES ARE SF (SLIP FIT).  
LOCATIONAL TOLERANCE  
 $\pm 0.0005^\circ$  OR [ $\pm 0.13$ MM]



METRIC THREADS  
COURSE PITCH

IMPERIAL ([IN.])  
0.00 =  $\pm 0.01$   
0.000 =  $\pm 0.005$   
0.0000 =  $\pm 0.0005$

METRIC (MM)  
[0] = [ $\pm 0.25$ ]  
[0.0] = [ $\pm 0.13$ ]  
[0.00] = [ $\pm 0.13$ ]



### CH-80-P Specification:

Centering Force @ 7 bar [100 psi]: 1035 N [232 lbs]

Max. Payload: 8 Kg [17.6 lbs]

Misalignment Capability:  $\pm 5$  mm [ $\pm 0.20$  in]

Weight: 0.750 Kg [1.65 lbs]

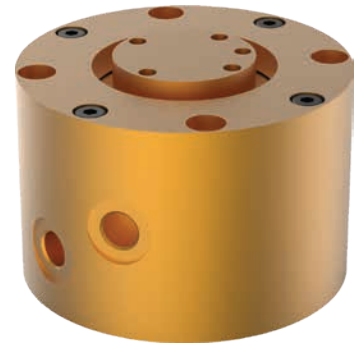
Cylinder Bore: 60 mm [2.37 in]

Displacement: 26.8 cm<sup>3</sup> [1.64 in<sup>3</sup> lbs]

Actuation: 0.08 sec [0.08 sec]

Repeatability:  $\pm 0.02$  mm [ $\pm 0.0008$  in]

Angular Repeatability:  $\pm 10$  mm



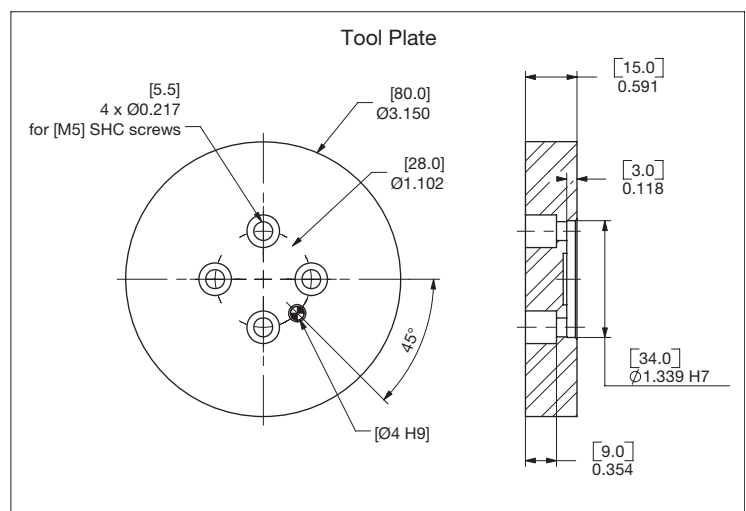
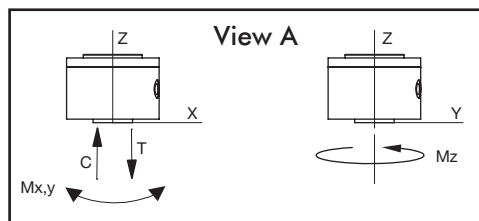
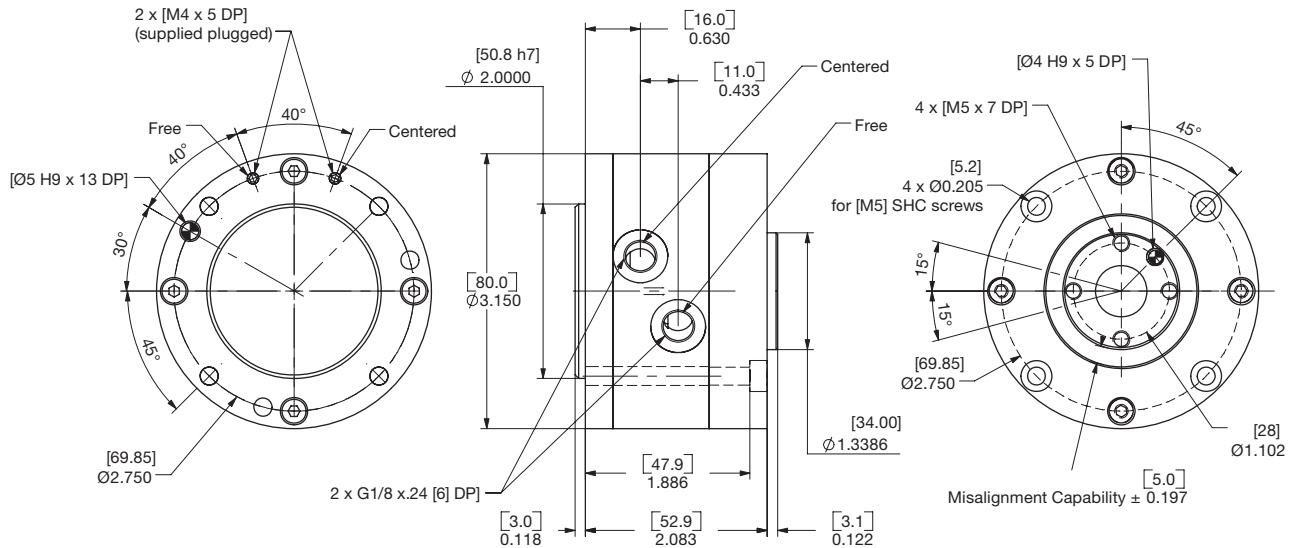
### Loading Capacity (View A):

Max. Tensile T: 160 N [36 lb]

Max. Compressive C: 160 N [36 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>): 8 Nm [71 in-lb]

Max. Moment (M<sub>z</sub>): 6 Nm [53 in-lb]

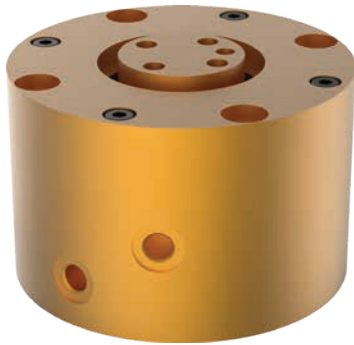


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

|   |   |   |
|---|---|---|
|   |   |   |
| DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE | THIRD ANGLE PROJECTION  | ALL DOWEL HOLES ARE SF (SLIP FIT). LOCAL TOLERANCE $\pm 0.0005$ " OR [ $\pm 0.13$ MM] |
|   | IMPERIAL ([ IN. ])  | METRIC (MM)   |
| METRIC THREADS COURSE PITCH                 | 0.00 = $\pm 0.01$<br>0.000 = $\pm 0.005$<br>0.0000 = $\pm 0.0005$ | [0] = [ $\pm 0.25$ ]<br>[0.0] = [ $\pm 0.13$ ]<br>[0.00] = [ $\pm 0.13$ ]             |

# CH-110-P

## Cylindrical Horizontal Compliance Device | Technical Information | Dimensions



### CH-110-P Specification:

Centering Force @ 7 bar [100 psi]: 1660 N [373 lbs]

Max. Payload: 14 Kg [30.8 lbs]

Misalignment Capability:  $\pm 6.5$  mm [ $\pm 0.25$  in]

Weight: 2.10 Kg [4.6 lbs]

Cylinder Bore: 76 mm [3.0 in]

Displacement: 56 cm<sup>3</sup> [3.42 in<sup>3</sup> lbs]

Actuation: 0.1 sec [0.1 sec]

Repeatability:  $\pm 0.04$  mm [ $\pm 0.0016$  in]

Angular Repeatability:  $\pm 15$  mm

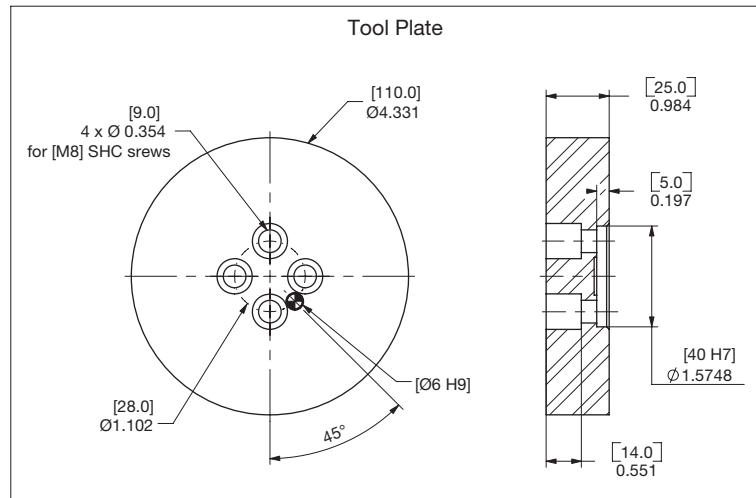
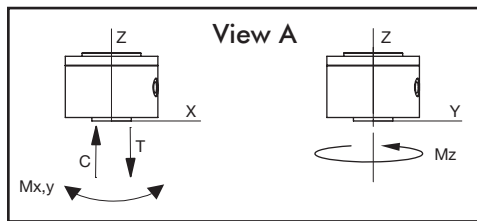
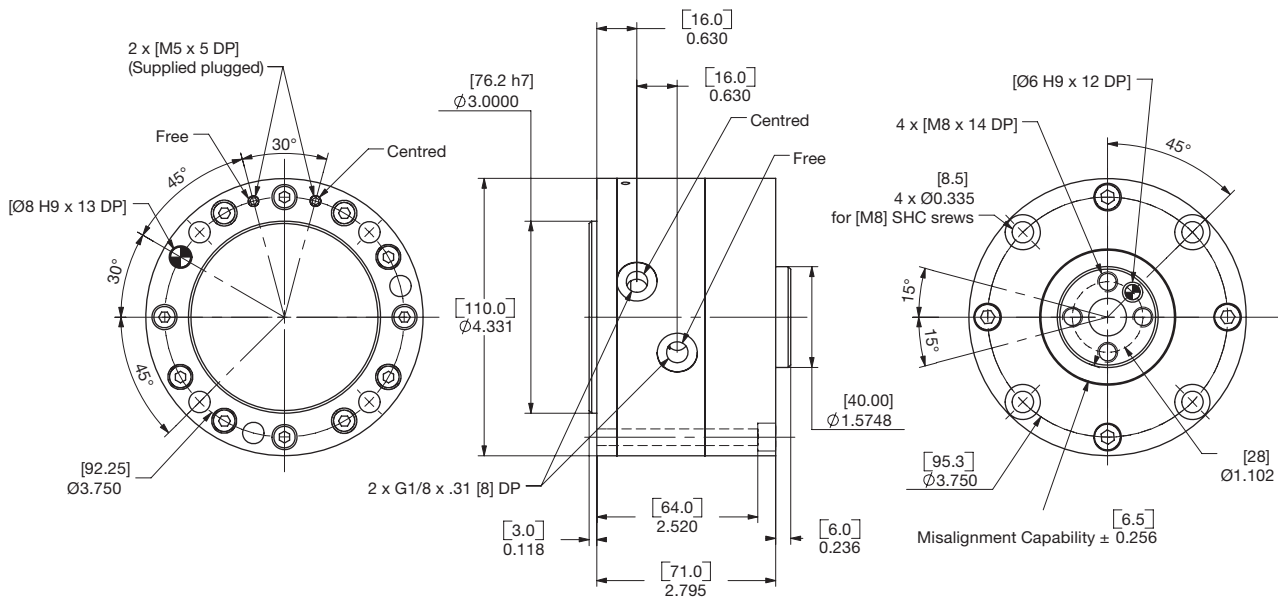
### Loading Capacity (View A):

Max. Tensile T: 190 N [43 lb]

Max. Compressive C: 190 N [43 lb]

Max. Moment (Mx/My): 12 Nm [106 in-lb]

Max. Moment (Mz): 18 Nm [159 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

|   |   |   |
|---|---|---|
|   |   |   |
| DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE | THIRD ANGLE PROJECTION  | ALL DOWEL HOLES ARE SF (SLIP FIT). LOCATIONAL TOLERANCE $\pm 0.0005^\circ$ OR [ $\pm 0.013$ MM] |
|   | IMPERIAL ([IN.])  | METRIC (MM)   |
| METRIC THREADS COURSE PITCH                 | 0.00 = $\pm 0.01$<br>0.000 = $\pm 0.005$<br>0.0000 = $\pm 0.0005$ | [0] = [ $\pm 0.25$ ]<br>[0.0] = [ $\pm 0.13$ ]<br>[0.00] = [ $\pm 0.13$ ]                       |

### CH-140-P Specification:

Centering Force @ 7 bar [100 psi]: 3170 N [712 lbs]

Max. Payload: 30 Kg [66.1 lbs]

Misalignment Capability:  $\pm 8$  mm [ $\pm 0.31$  in]

Weight: 4.31 Kg [9.5 lbs]

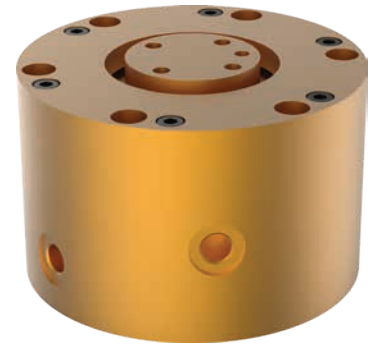
Cylinder Bore: 105 mm [4.13 in]

Displacement: 148 cm<sup>3</sup> [9.03 in<sup>3</sup> lbs]

Actuation: 0.02 sec [0.02 sec]

Repeatability:  $\pm 0.06$  mm [ $\pm 0.0024$  in]

Angular Repeatability:  $\pm 20$  mm



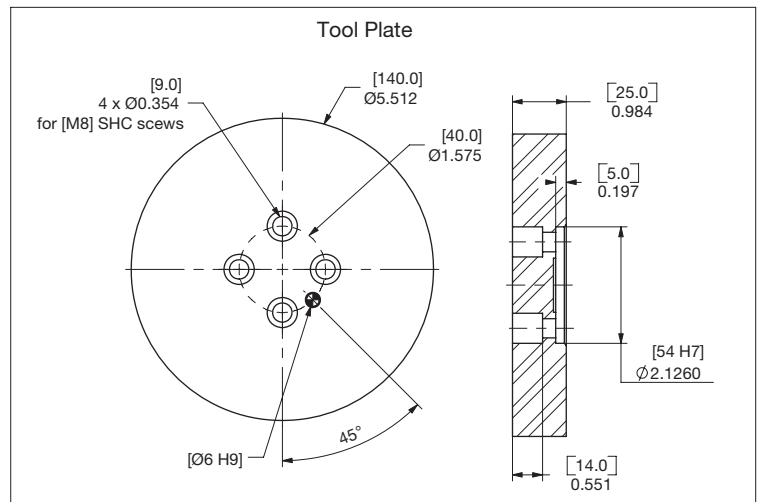
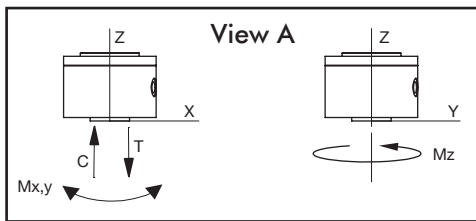
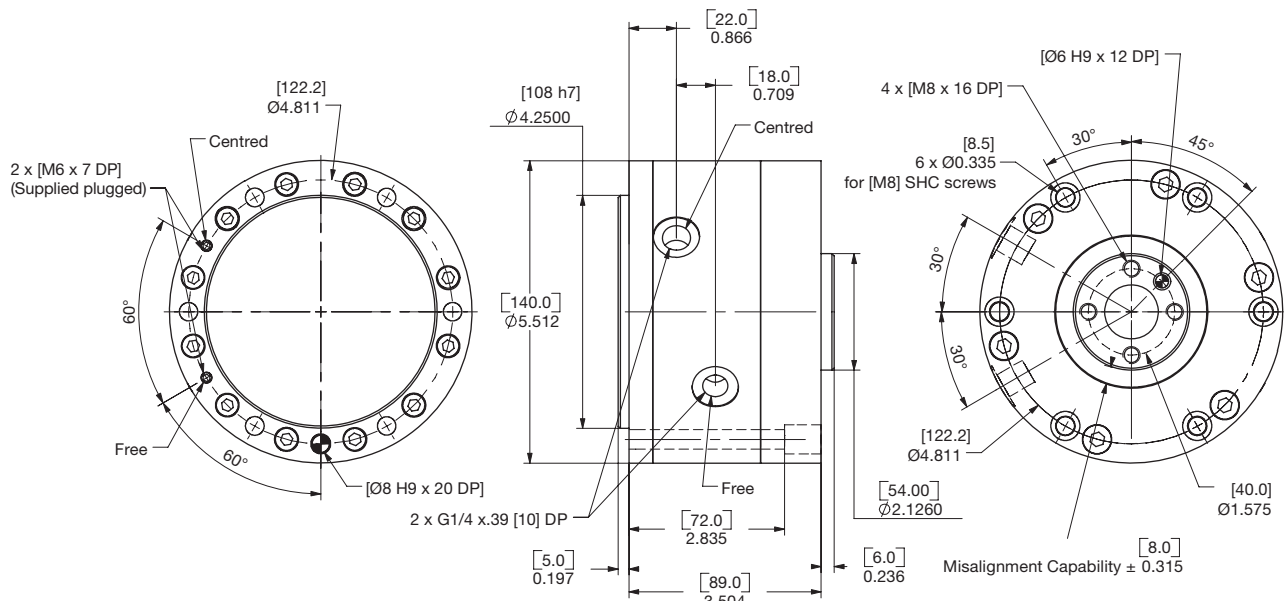
### Loading Capacity (View A):

Max. Tensile T: 225 N [50 lb]

Max. Compressive C: 225 N [50 lb]

Max. Moment (M<sub>x</sub>/M<sub>y</sub>): 19 Nm [168 in-lb]

Max. Moment (M<sub>z</sub>): 20 Nm [177 in-lb]

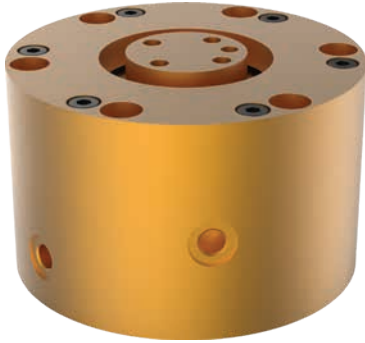


UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

|  |  |  |
|--|--|--|
| <p>DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE</p> | <p>THIRD ANGLE PROJECTION</p>  | <p>ALL DOWEL HOLES ARE SF (SLIP FIT).<br/>LOCATIONAL TOLERANCE<br/><math>\pm 0.005</math>" OR [<math>\pm 0.13</math>MM]</p>    |
| <p>METRIC THREADS<br/>COURSE PITCH</p>             | <p>IMPERIAL ([IN.])</p> <p>0.00 = <math>\pm .01</math><br/>0.000 = <math>\pm .005</math><br/>0.0000 = <math>\pm .0005</math></p> | <p>METRIC (MM)</p> <p>[0] = [<math>\pm .25</math>]<br/>[0.0] = [<math>\pm .13</math>]<br/>[0.00] = [<math>\pm .013</math>]</p> |

# CH-165-P

## Cylindrical Horizontal Compliance Device | Technical Information | Dimensions



### CH-165-P Specification:

Centering Force @ 7 bar [100 psi]: 4140 N [931 lbs]

Max. Payload: 40 Kg [88.2 lbs]

Misalignment Capability:  $\pm 12$  mm [ $\pm 0.47$  in]

Weight: 8.7 Kg [19.2 lbs]

Cylinder Bore: 120 mm [4.72 in]

Displacement: 236 cm<sup>3</sup> [14.40 in<sup>3</sup> lbs]

Actuation: 0.36 sec [0.36 sec]

Repeatability:  $\pm 0.06$  mm [ $\pm 0.0024$  in]

Angular Repeatability:  $\pm 20$  mm

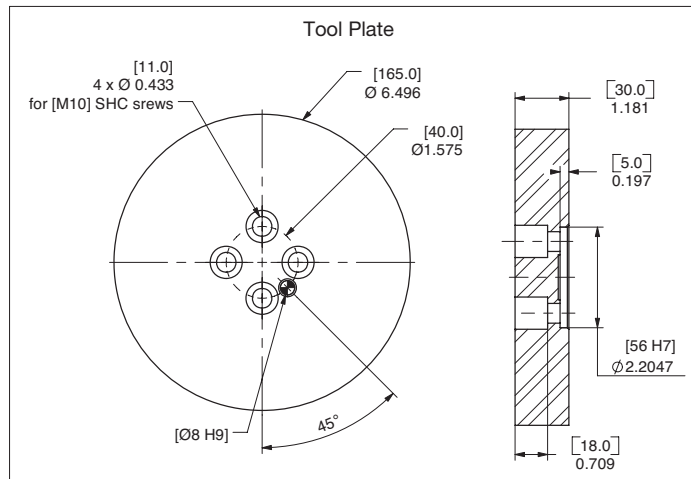
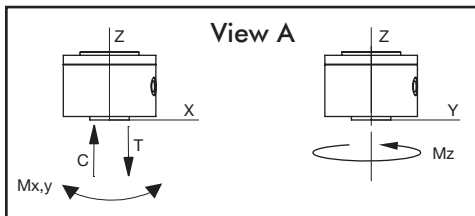
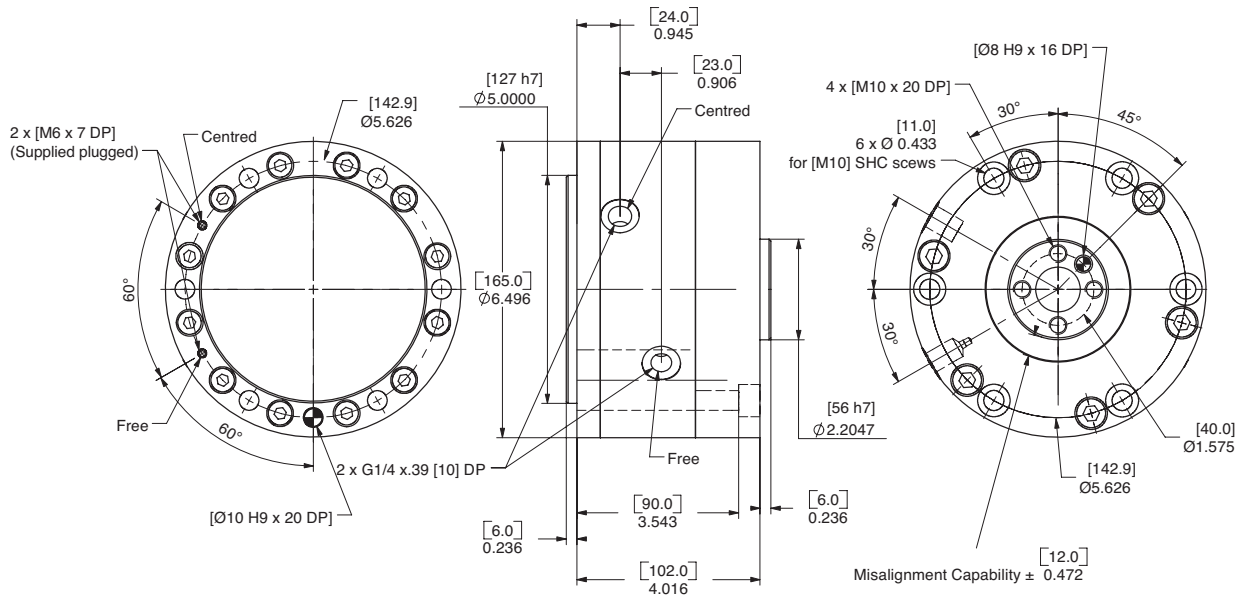
### Loading Capacity (View A):

Max. Tensile T: 230 N [52 lb]

Max. Compressive C: 230 N [52 lb]

Max. Moment (Mx/My): 23Nm [203 in-lb]

Max. Moment (Mz): 28 Nm [248 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

|   |  |   |
|---|--|---|
|   |  |   |
| DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE | THIRD ANGLE PROJECTION   | ALL DOWEL HOLES ARE SF (SLIP FIT). LOCATIONAL TOLERANCE $\pm .0005^\circ$ OR [ $\pm .013$ MM] |
|   | IMPERIAL ([IN.])   | METRIC (MM)   |
| METRIC THREADS COURSE PITCH                 | 0.00 = $\pm .01$<br>0.000 = $\pm .005$<br>0.0000 = $\pm .0005$ | [0] = [ $\pm .25$ ]<br>[0.0] = [ $\pm .13$ ]<br>[0.00] = [ $\pm .013$ ]                       |

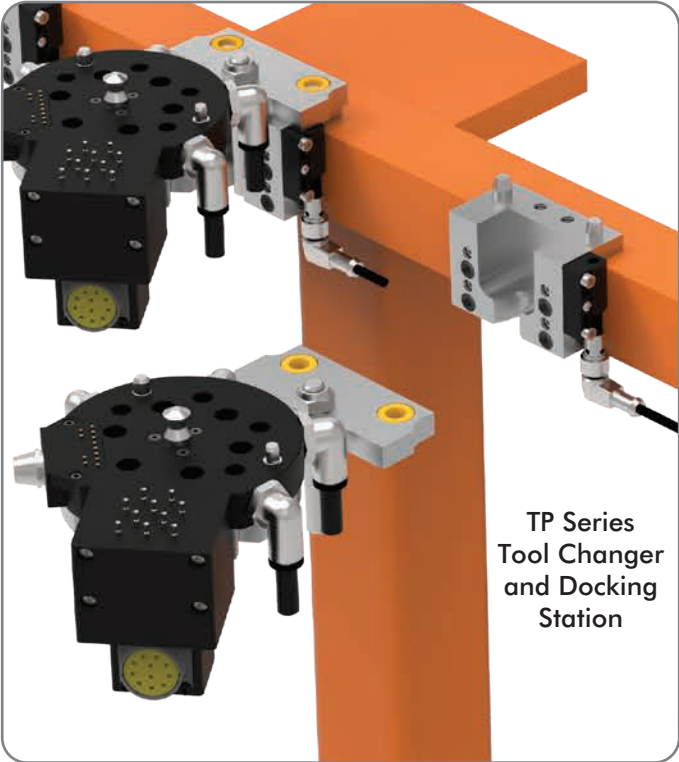
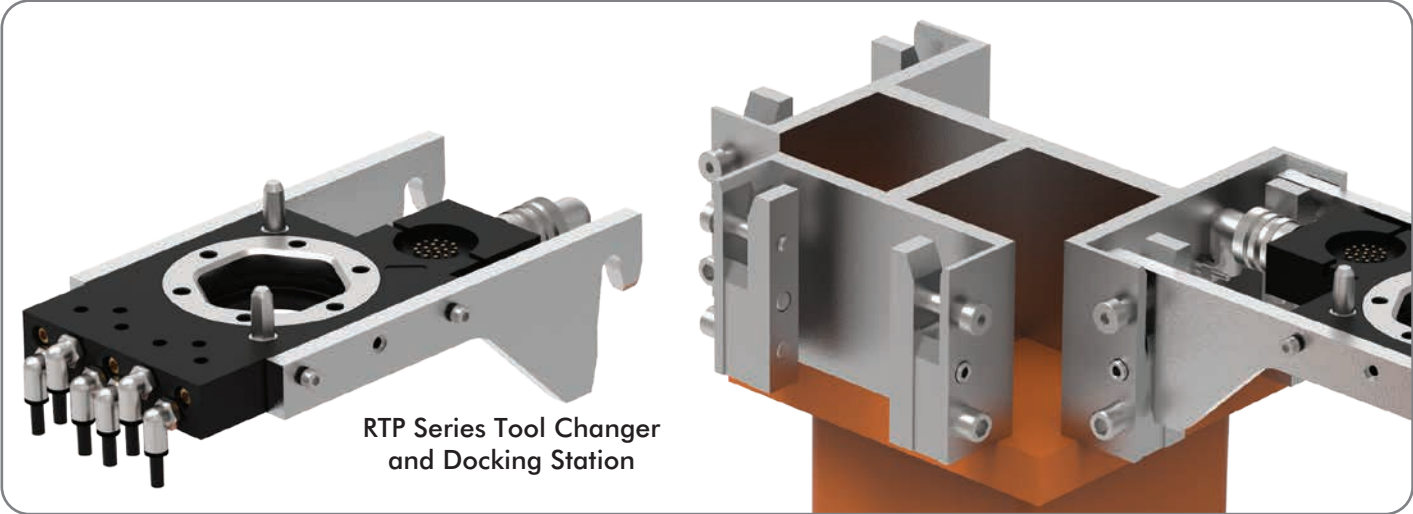
# ROBOTIC TOOLING SOLUTIONS

## Tool Changer Docking Station

Destaco offers custom and standard Docking Stations to fit customers needs. Please contact Destaco Sales for more information.


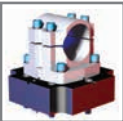

**Key Features:**

- Allows for quick changing of tooling
- Reducing machine down-time
- Safely stores tooling when not in use
- Standard or custom stations



# ROBOT ADAPTER MOUNTS

## Table of Contents

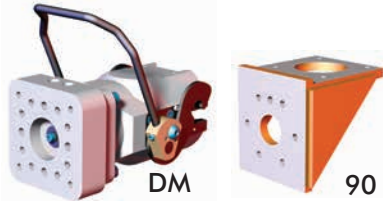
|  |  |      |
|--|--|------|
|  | Adaptor Mount Assemblies and Components..... | 3-28 |
|  | Mid-Mount Flanges .....                      | 29   |
|  | Tooling Mounting Blocks.....                 | 38   |



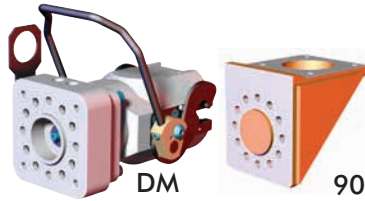
# ROBOT ADAPTER MOUNTS

Robot Automation Adaptors | Selection Guide - Manual Tool Changers RDN-25 Series

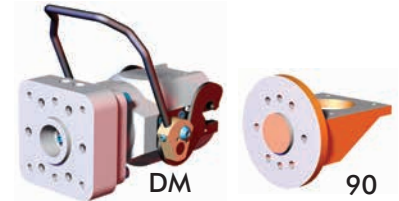
STYLE 1 (ACMX58)



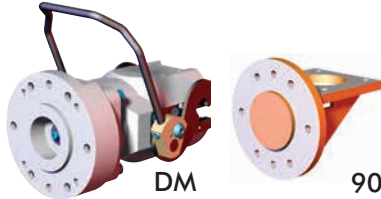
STYLE 2 (FA500)



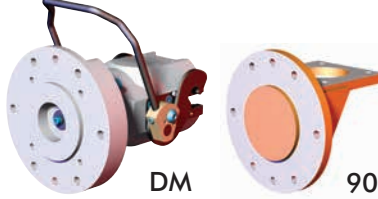
STYLE 3 (KW150)



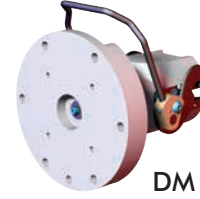
STYLE 4 (FA900)



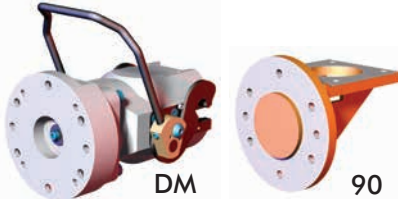
STYLE 5 (KA760)



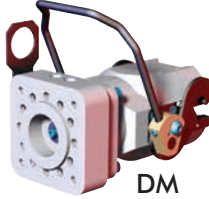
STYLE 6 (MMNY300)



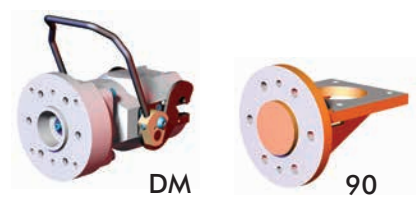
STYLE 7 (FA430I)



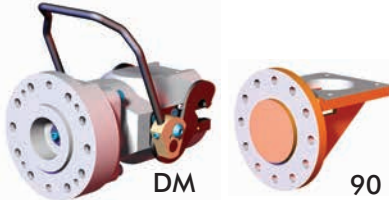
STYLE 8 (FA420)



STYLE 9 (ABB44)



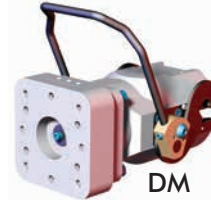
STYLE 10 (KWZ165)



STYLE 11 (KWUT120)



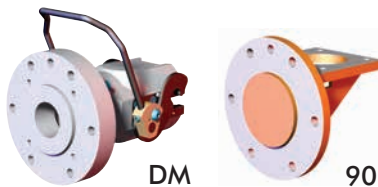
STYLE 12 (FA710)



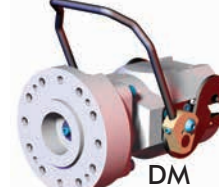
STYLE 14 (MMK100)



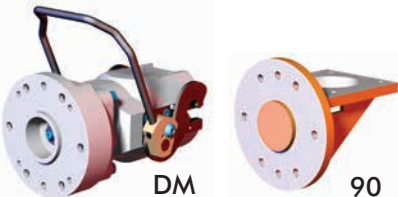
STYLE 15 (KA660)



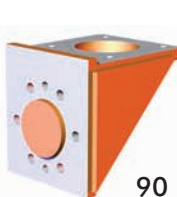
STYLE 16 (FA2000)



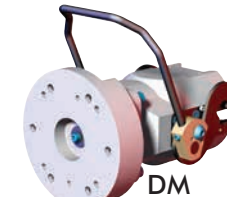
STYLE 18 (MMHP165-125)



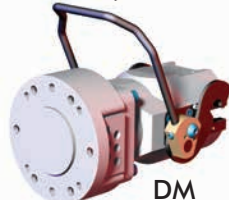
STYLE 19 (MMHP165-92)



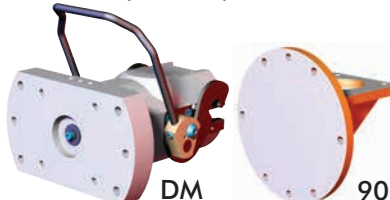
STYLE 21 (EOAMC30)



STYLE 22 (FA900-SSM)



STYLE 23 (MD350)



STYLE 24 (SA000)



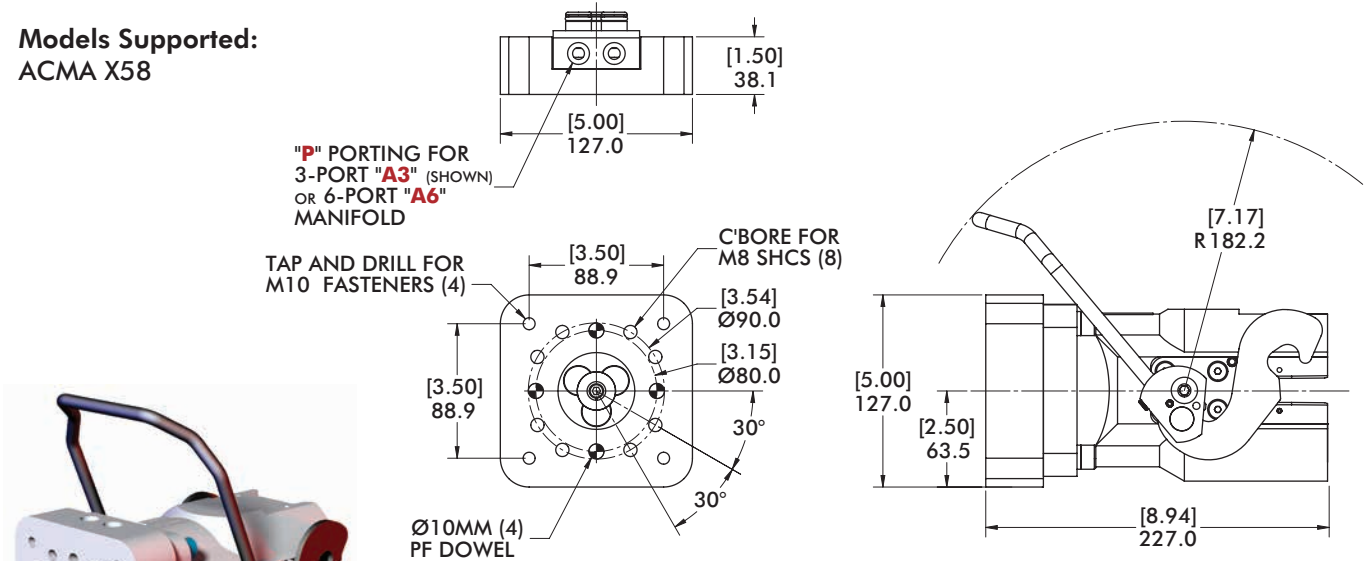
# ROBOT ADAPTER MOUNTS

Robot Automation Adaptors | Selection Guide - Manual Tool Changers RDN-25 Series

| 250 SERIES ROBOT ADAPTOR SELECTION GUIDE |             |                   |           |           |                   |          |         |                  |           |          |
|--|-------------|-------------------|-----------|-----------|-------------------|----------|---------|------------------|-----------|----------|
| ADAPTOR MOUNTS                           |             | MOUNTING PATTERN  |           |           | DOWELS            |          |         | PILOT            |           | DWG PAGE |
| STYLE (MODEL)                            | TYPE AVAIL. | BOLT CIRCLE       | BOLT SIZE | BOLTS QTY | BOLT CIRCLE       | DWL SIZE | DWL QTY | DIAMETER (Ø)     | DEPTH     |          |
| STYLE 1 (ACMX58)                         | DM/90       | Ø90mm [Ø3.54"]    | M8        | 8         | Ø80mm [Ø3.15"]    | 10mm     | 4       | N/A              | N/A       | 4        |
| STYLE 2 (FA500)                          | DM/90       | Ø90mm [Ø3.54"]    | M10       | 8         | Ø90mm [Ø3.54"]    | 10mm     | 4       | Ø59.5mm [Ø2.34"] | 4.8 [.19] | 5        |
| STYLE 3 (KW150)                          | DM/90       | Ø92mm [Ø3.62"]    | M10       | 6         | Ø92mm [Ø3.62"]    | 9mm      | 2       | Ø54mm [Ø2.13"]   | 6.4 [.25] | 6        |
| STYLE 4 (FA900)                          | DM/90       | Ø125mm [Ø4.92"]   | M10       | 6         | Ø125mm [Ø4.92"]   | 10mm     | 2       | Ø79.5mm [Ø3.13"] | 6.4 [.25] | 7        |
| STYLE 5 (KA760)                          | DM/90       | Ø160mm [Ø6.30"]   | M10       | 6         | Ø160mm [Ø6.30"]   | 10mm     | 2       | Ø99.9mm [Ø3.94"] | 6.4 [.25] | 8        |
| STYLE 6 (MMNY300)                        | DM          | Ø200mm [Ø7.87"]   | M12       | 6         | Ø200mm [Ø7.87"]   | 12mm     | 1       | N/A              | N/A       | 9        |
| STYLE 7 (FA430I)                         | DM/90       | Ø125mm [Ø4.92"]   | M10       | 6         | Ø125mm [Ø4.92"]   | 10mm     | 2       | Ø79.5mm [Ø3.13"] | 6.4 [.25] | 10       |
| STYLE 8 (FA420)                          | DM          | Ø92mm [Ø3.62"]    | M10       | 8         | Ø92mm [Ø3.62"]    | 10mm     | 4       | Ø79.5mm [Ø3.13"] | 4.8 [.19] | 11       |
| STYLE 9 (ABB44)                          | DM/90       | Ø100mm [Ø3.94"]   | M10       | 6         | Ø100mm [Ø3.94"]   | 8mm      | 2       | Ø61.9mm [Ø2.44"] | 6.4 [.25] | 12       |
| STYLE 10 (KWZ165)                        | DM/90       | Ø125mm [Ø4.92"]   | M10       | 10        | Ø125mm [Ø4.92"]   | 10mm     | 2       | Ø79.5mm [Ø3.13"] | 6.4 [.25] | 13       |
| STYLE 11 (KWUT120)                       | 90          | Ø120mm [Ø4.72"]   | M8        | 8         | Ø120mm [Ø4.92"]   | 8mm      | 2       | N/A              | N/A       | 14       |
| STYLE 12 (FA710)                         | DM          | Ø100mm [Ø3.94"]   | M8        | 6         | Ø100mm [Ø3.94"]   | 8mm      | 2       | N/A              | N/A       | 15       |
| STYLE 14 (MMK100)                        | 90          | Ø125mm [Ø4.92"]   | M10       | 6         | Ø125mm [Ø4.92"]   | 10mm     | 2       | Ø61mm [Ø2.40"]   | 6.4 [.25] | 16       |
| STYLE 15 (KA660)                         | DM/90       | Ø160mm [Ø6.30"]   | M12       | 6         | Ø160mm [Ø6.30"]   | 12mm     | 1       | Ø99mm [Ø3.90"]   | 6.4 [.25] | 17       |
| STYLE 16 (FA2000)                        | DM          | Ø125mm [Ø4.92"]   | M10       | 10        | Ø125mm [Ø4.92"]   | 10mm     | 2       | Ø79.5mm [Ø3.13"] | 6.4 [.25] | 18       |
| STYLE 18 (MMHP165)                       | DM/90       | Ø125mm [Ø4.92"]   | M10       | 6         | Ø125mm [Ø4.92"]   | 10mm     | 2       | Ø62.5mm [Ø2.46"] | 6.4 [.25] | 19       |
| STYLE 19 (MMHP165)                       | 90          | Ø92mm [Ø3.62"]    | M10       | 6         | Ø125mm [Ø4.92"]   | 9mm      | 2       | Ø62.5mm [Ø2.46"] | 6.4 [.25] | 20       |
| STYLE 21 (EOAMC30)                       | DM          | Ø127mm [Ø5.00"]   | 3/8-16    | 6         | Ø108mm [Ø4.25"]   | .25"(in) | 2       | N/A              | N/A       | 21       |
| STYLE 22 (FA900-SSM)                     | DM          | Ø125mm [Ø4.92"]   | M10       | 6         | Ø125mm [Ø4.92"]   | 10mm     | 2       | Ø79.5mm [Ø3.13"] | 4.8 [.19] | 21       |
| STYLE 23 (MD350)                         | DM/90       | Ø187.3mm [Ø7.38"] | 3/8-16    | 4         | Ø187.3mm [Ø7.38"] | 3/8      | 2       | N/A              | N/A       | 22       |
| STYLE 24 (SA000)                         | DM          | Ø69.5mm [Ø2.74"]  | M10       | 4         | N/A               | N/A      | N/A     | N/A              | N/A       | 23       |

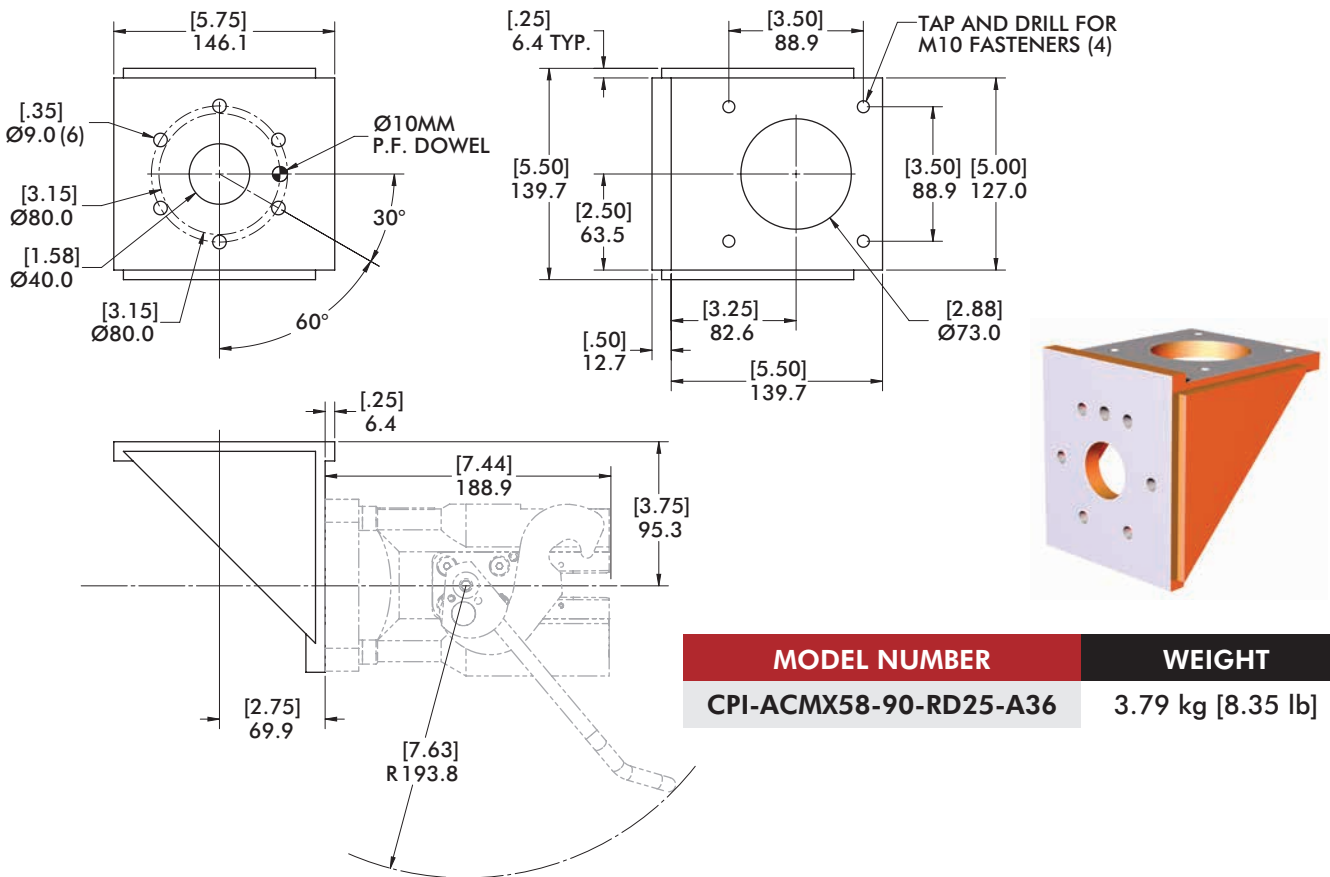
### Style 01 - ACMX58 90° Robot Adaptor (Ø90mm Bolt Circle/Ø80mm Dowel Circle)

**Models Supported:**  
ACMA X58



| MODEL NUMBER          | PORTING | # OF PORTS | WEIGHT           |
|-----------------------|---------|------------|------------------|
| CPI-ACMX58-DM-RD25-A3 | 3/8 NPT | 3 (2/1)    | .75 kg [1.66 lb] |
| CPI-ACMX58-DM-RD25-A6 | 1/8 NPT | 6 (3/3)    | .79 kg [1.74 lb] |

### Style 01 - ACMX58 90° Robot Adaptor (Ø90mm Bolt Circle/Ø80mm Dowel Circle)



| MODEL NUMBER           | WEIGHT            |
|------------------------|-------------------|
| CPI-ACMX58-90-RD25-A36 | 3.79 kg [8.35 lb] |

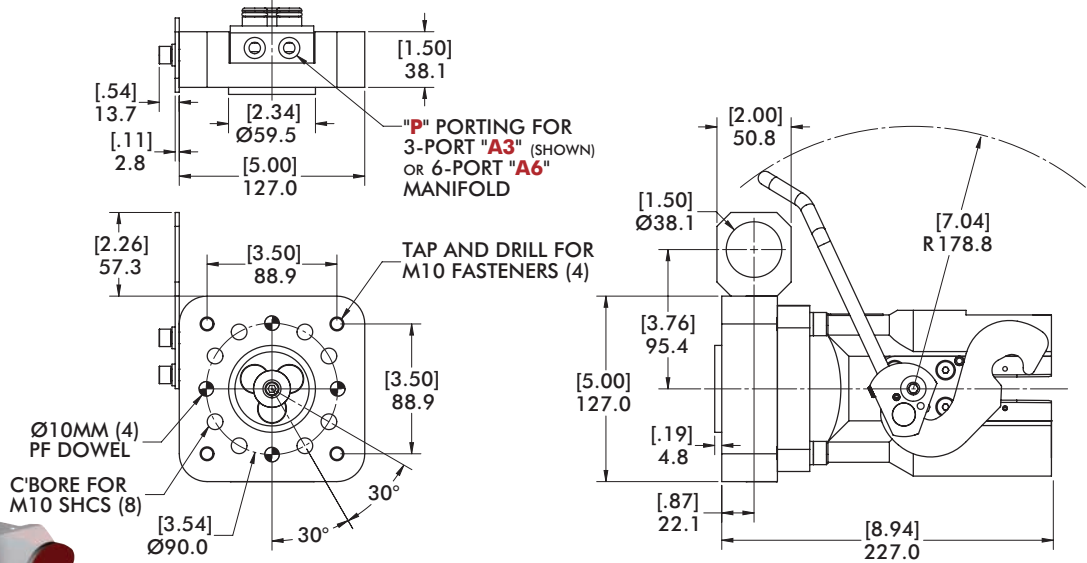
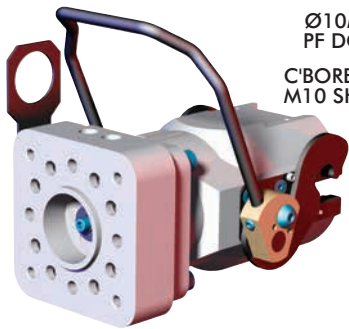
# FA500

## Robot Automation Adaptors | Dimensions

### Style 02 - FA500 Direct Mount Adaptor (Ø90mm Bolt Circle)

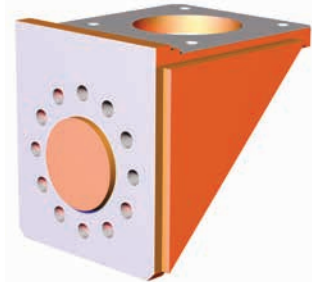
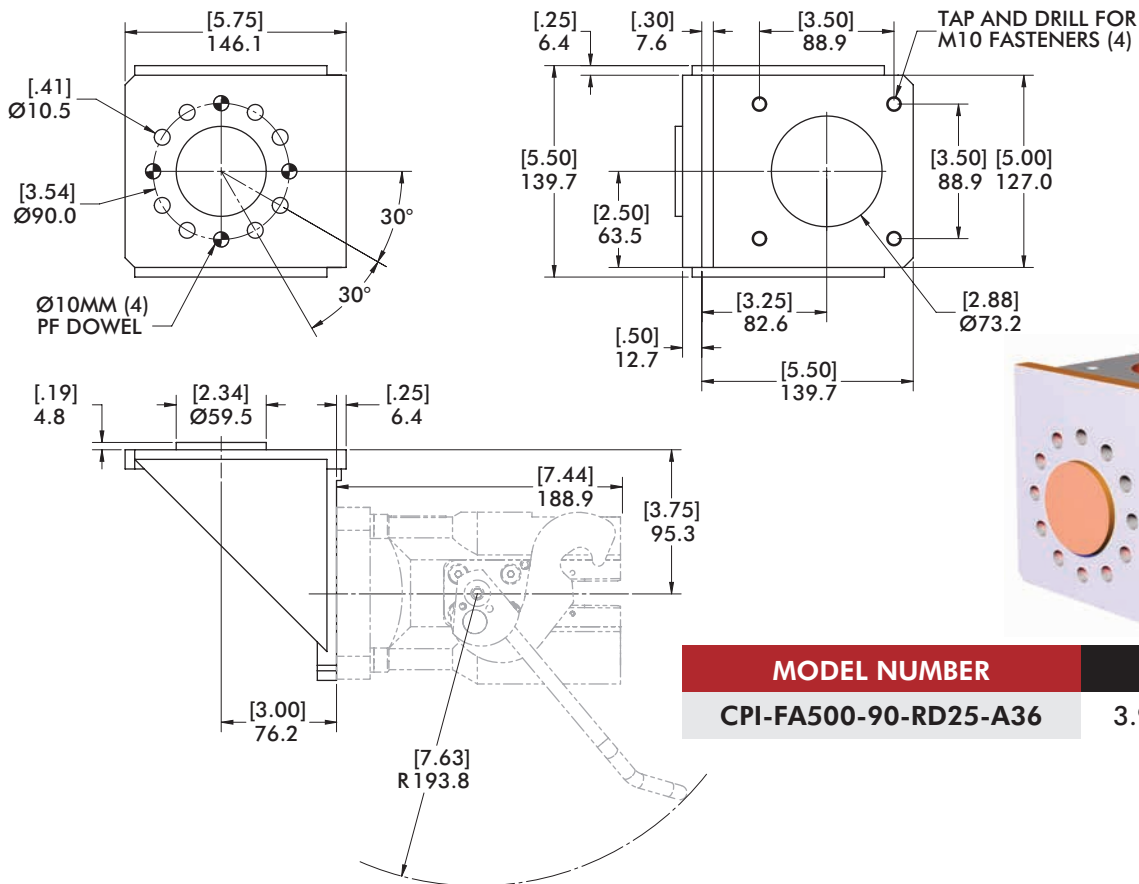
**Models Supported:**

- FANUC M-400
- FANUC M-500
- FANUC S-420 (WITH FANUC FLANGE)



| MODEL NUMBER         | PORTING | # OF PORTS | WEIGHT            |
|----------------------|---------|------------|-------------------|
| CPI-FA500-DM-RD25-A3 | 3/8 NPT | 3 (2/1)    | 1.46 kg [3.21 lb] |
| CPI-FA500-DM-RD25-A6 | 1/8 NPT | 6 (3/3)    | 1.50 kg [3.30 lb] |

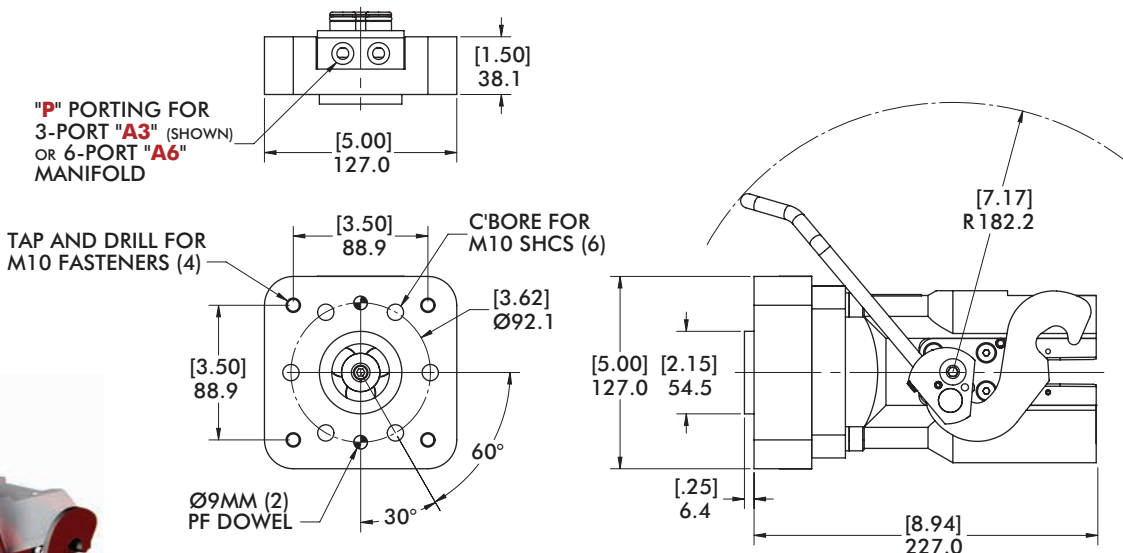
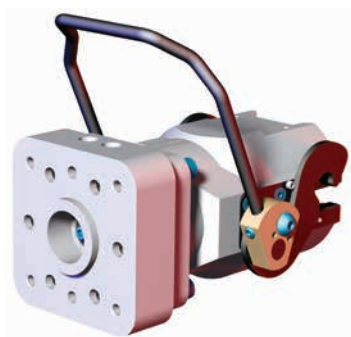
### Style 02 - FA500 90° Robot Adaptor (Ø90mm Bolt Circle)



| MODEL NUMBER          | WEIGHT            |
|-----------------------|-------------------|
| CPI-FA500-90-RD25-A36 | 3.98 kg [8.77 lb] |

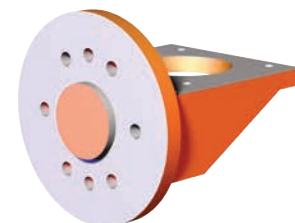
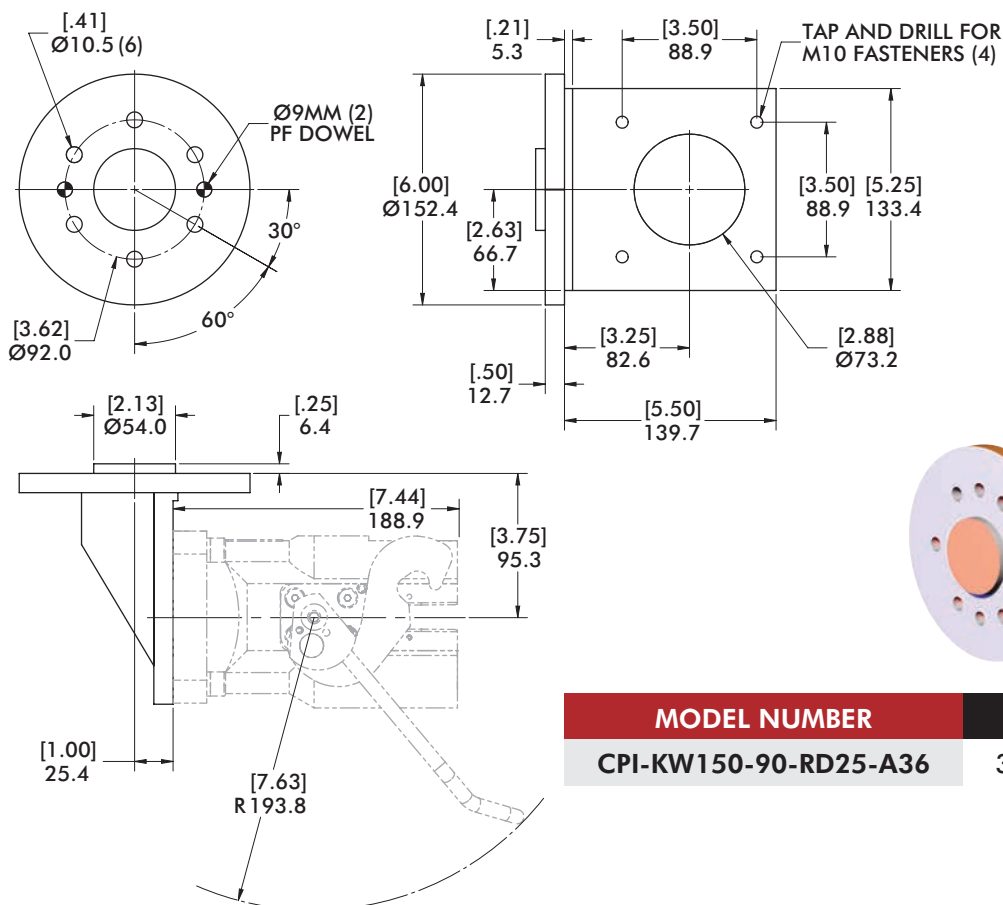
### Style 03 - KW150 90° Robot Adaptor (Ø92mm Bolt Circle)

**Models Supported:**  
 KAWASAKI UX100  
 KAWASAKI UX120  
 KAWASAKI UX150



| MODEL NUMBER         | PORTING | # OF PORTS | WEIGHT            |
|----------------------|---------|------------|-------------------|
| CPI-KW150-DM-RD25-A3 | 3/8 NPT | 3 (2/1)    | 1.45 kg [3.19 lb] |
| CPI-KW150-DM-RD25-A6 | 1/8 NPT | 6 (3/3)    | 1.49 kg [3.28 lb] |

### Style 03 - KW150 90° Robot Adaptor (Ø92mm Bolt Circle)



| MODEL NUMBER          | WEIGHT            |
|-----------------------|-------------------|
| CPI-KW150-90-RD25-A36 | 3.63 kg [8.01 lb] |



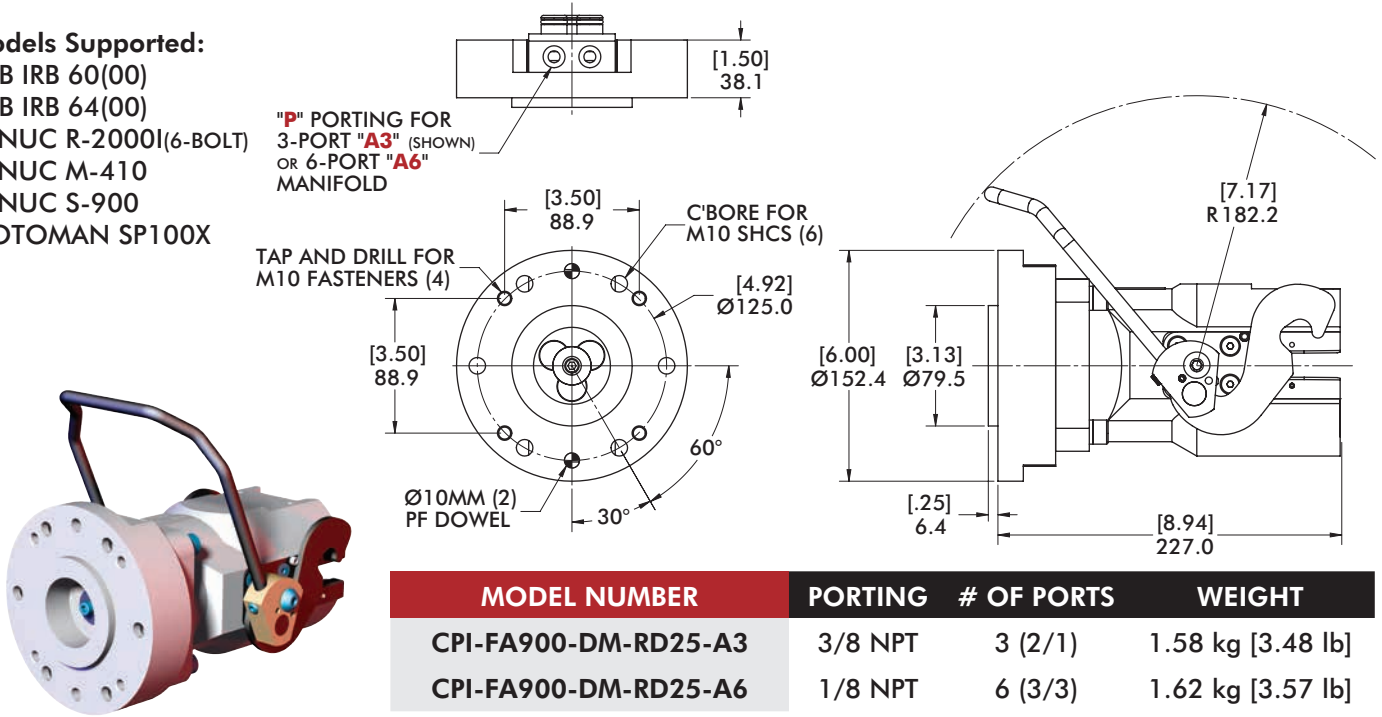
# FA900

## Robot Automation Adaptors | Dimensions

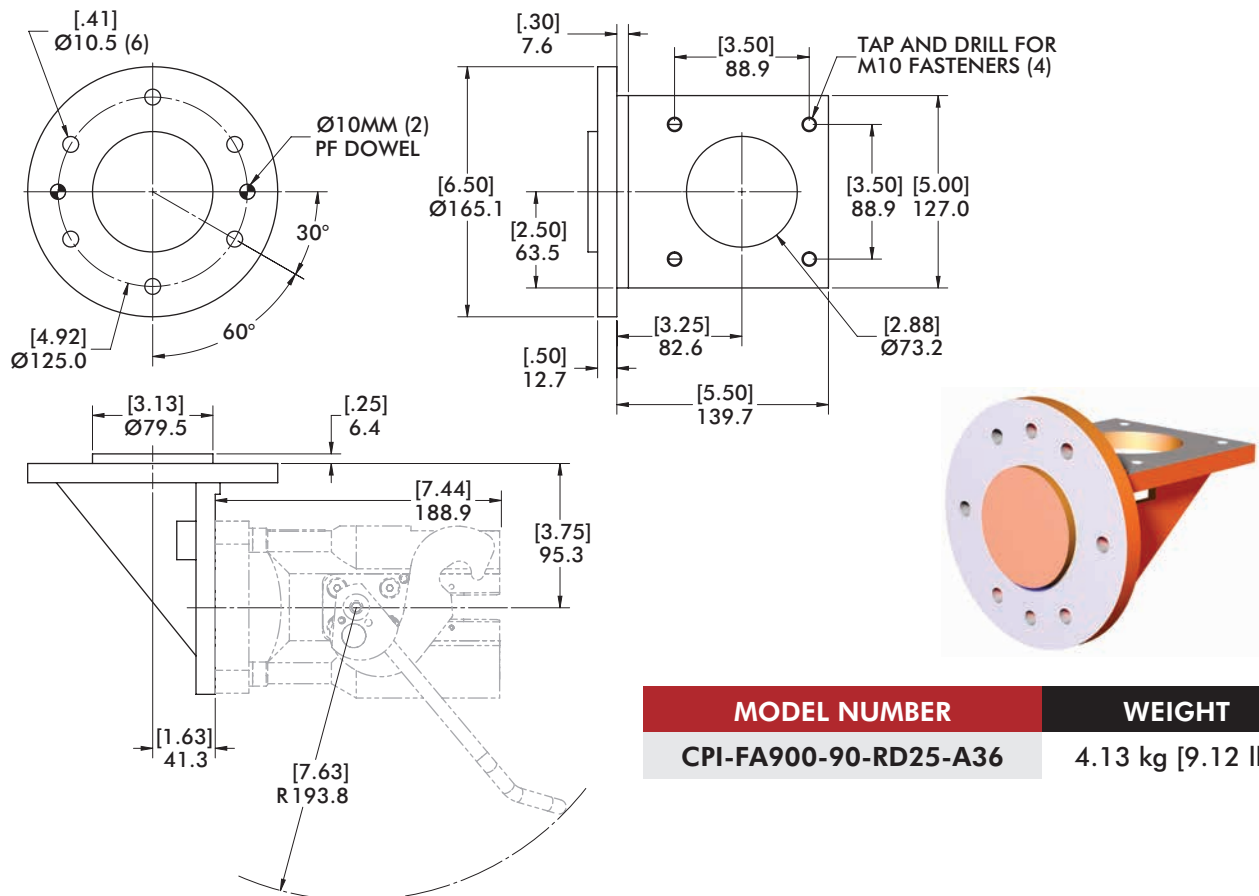
### Style 04 - FA900 Direct Mount Adaptor (Ø125mm Bolt Circle)

#### Models Supported:

- ABB IRB 60(00)
- ABB IRB 64(00)
- FANUC R-2000I(6-BOLT)
- FANUC M-410
- FANUC S-900
- MOTOMAN SP100X



### Style 04 - FA900 90° Robot Adaptor (Ø125mm Bolt Circle)

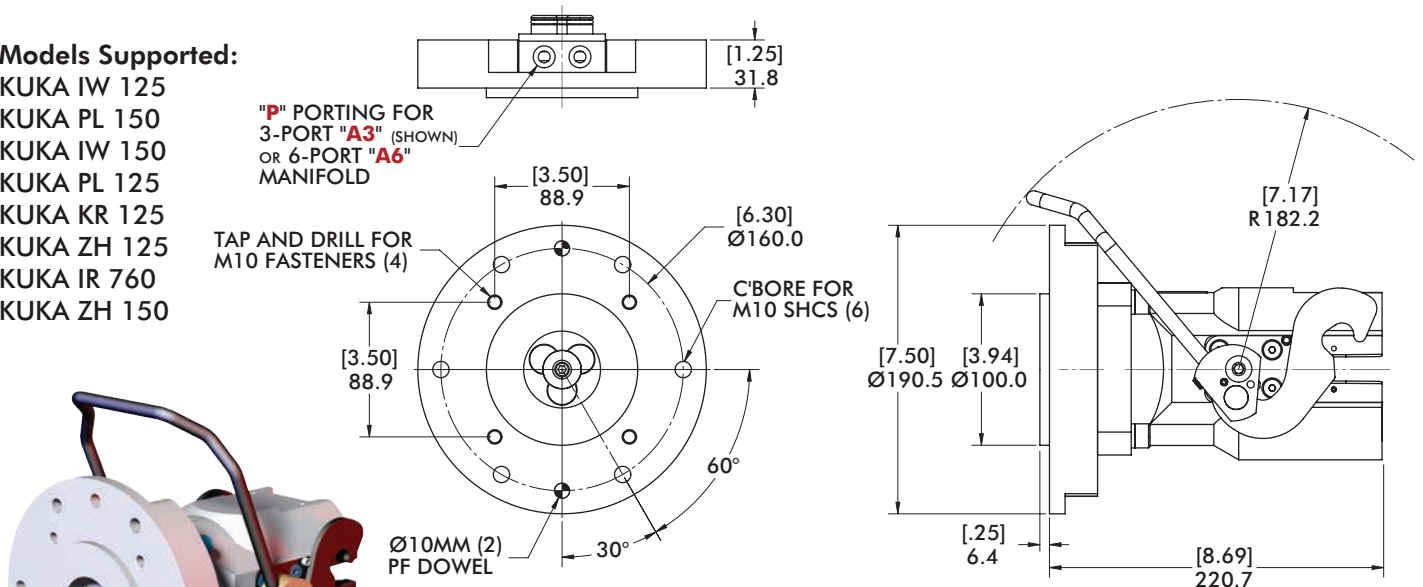




### Style 05 - KA760 Direct Mount Adaptor (Ø160mm Bolt Circle)

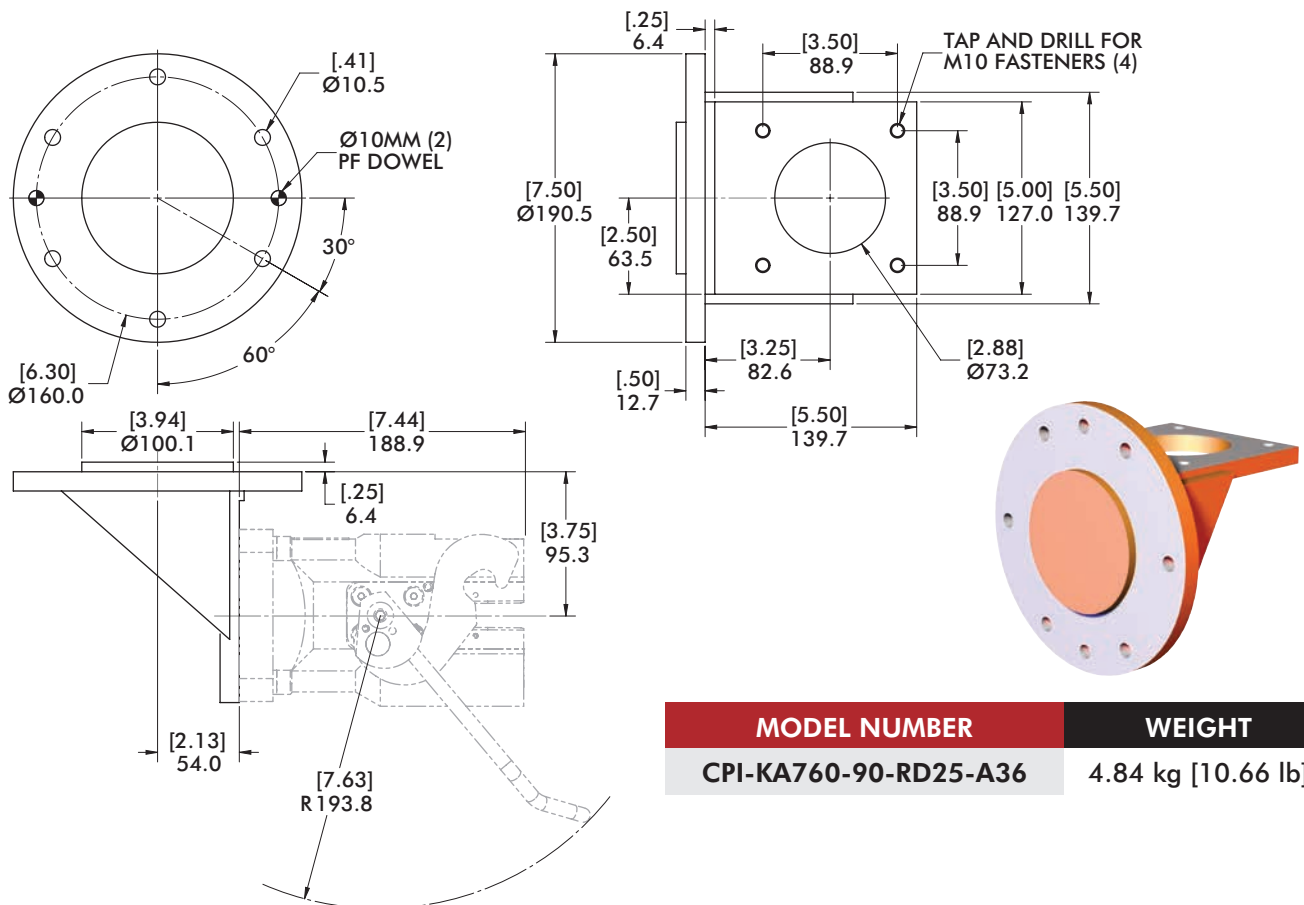
**Models Supported:**

- KUKA IW 125
- KUKA PL 150
- KUKA IW 150
- KUKA PL 125
- KUKA KR 125
- KUKA ZH 125
- KUKA IR 760
- KUKA ZH 150



| MODEL NUMBER         | PORTING | # OF PORTS | WEIGHT            |
|----------------------|---------|------------|-------------------|
| CPI-KA760-DM-RD25-A3 | 3/8 NPT | 3 (2/1)    | 2.12 kg [4.66 lb] |
| CPI-KA760-DM-RD25-A6 | 1/8 NPT | 6 (3/3)    | 2.15 kg [4.75 lb] |

### Style 05 - KA760 90° Robot Adaptor (Ø160mm Bolt Circle)



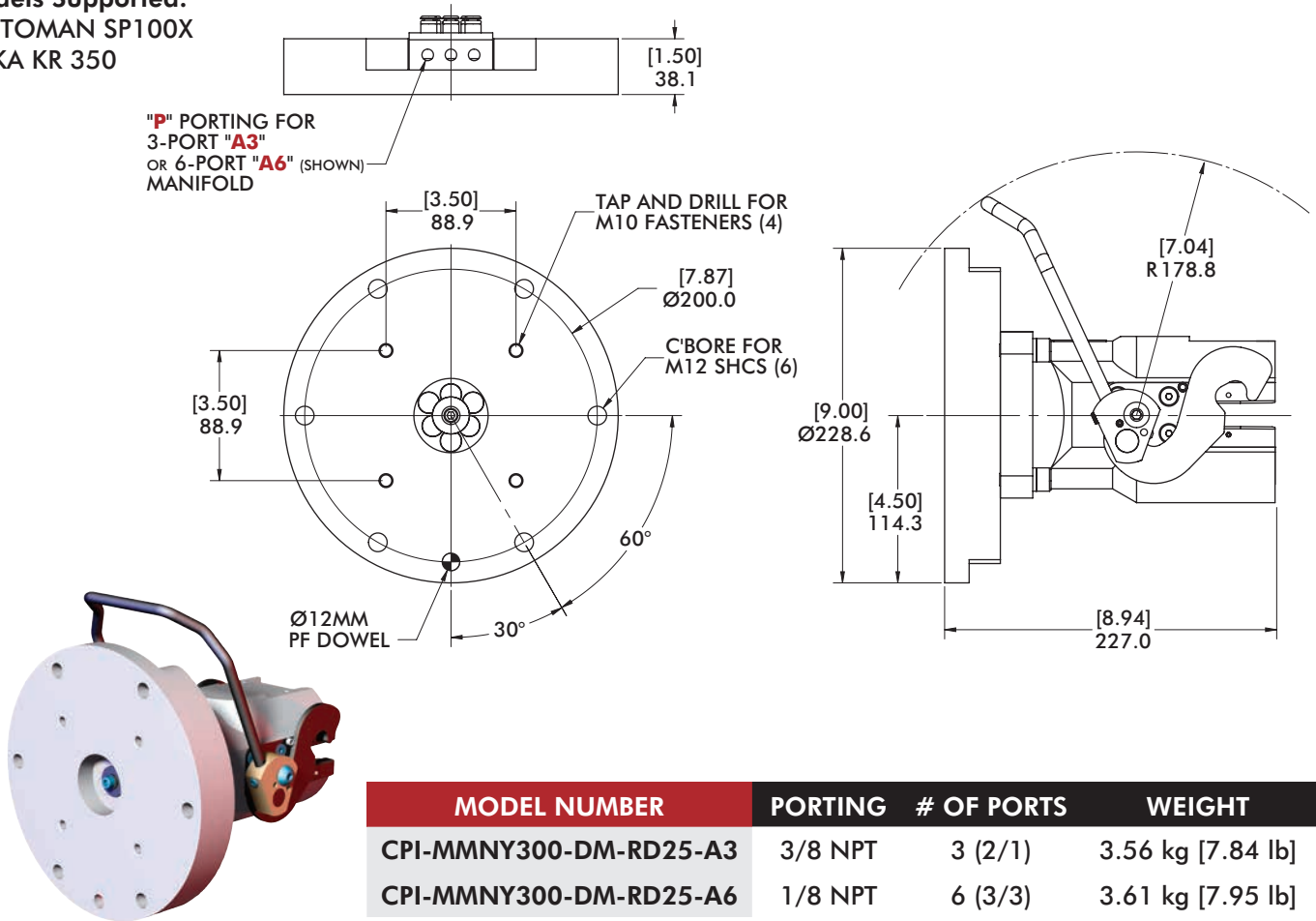
| MODEL NUMBER          | WEIGHT             |
|-----------------------|--------------------|
| CPI-KA760-90-RD25-A36 | 4.84 kg [10.66 lb] |

# MMNY300

## Robot Automation Adaptors | Dimensions

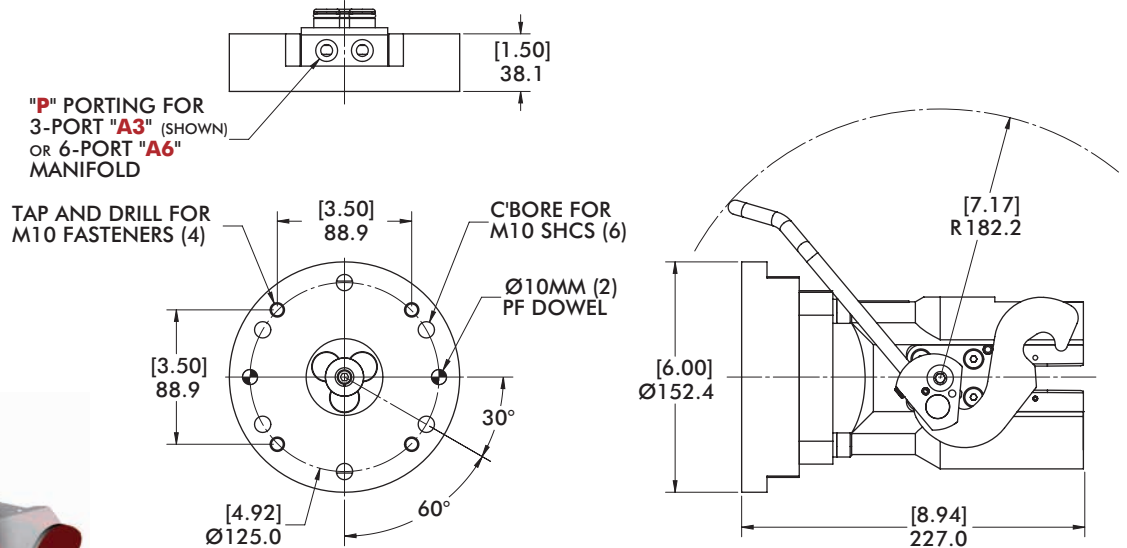
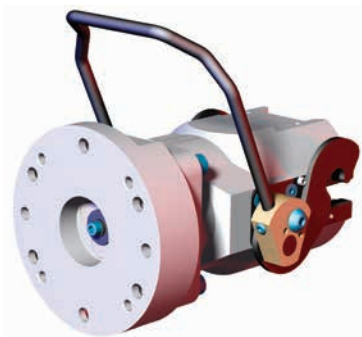
### Style 06 - MMNY300 Direct Mount Adaptor (Ø200mm Bolt Circle)

**Models Supported:**  
MOTOMAN SP100X  
KUKA KR 350



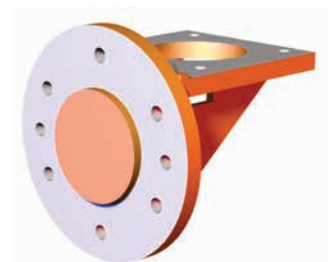
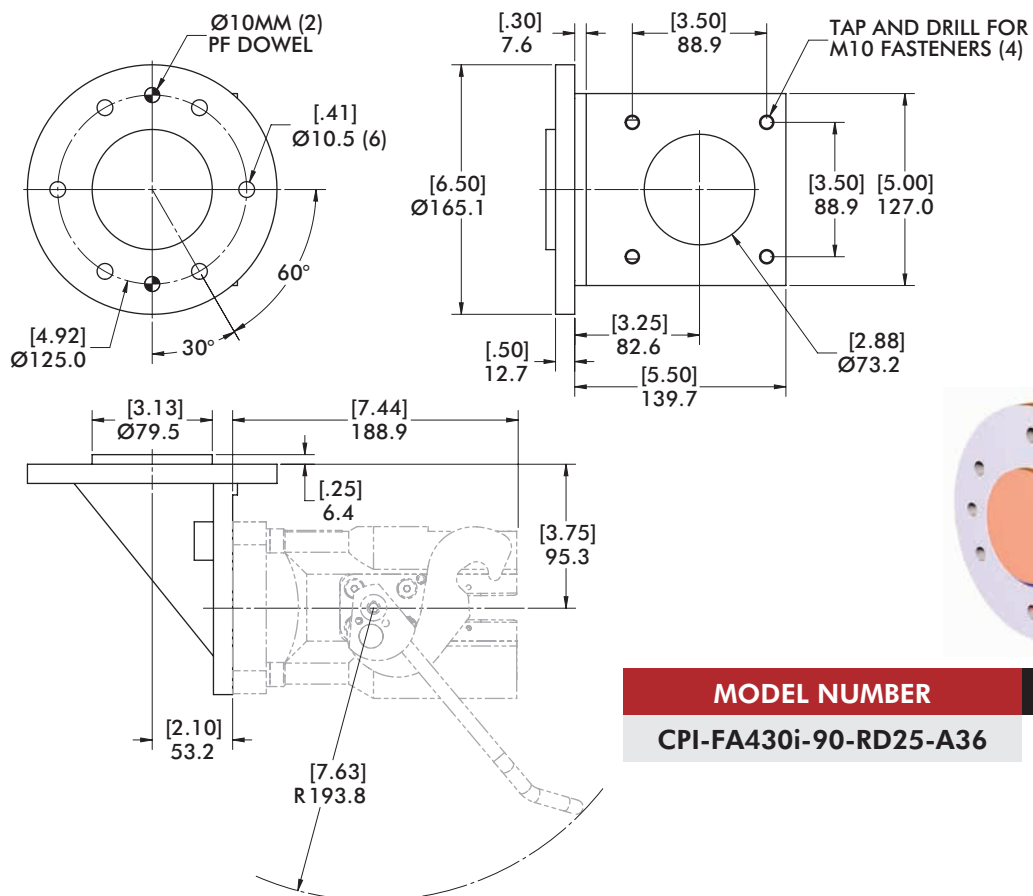
### Style 07 - FA430i Direct Mount Adaptor (Ø125mm Bolt Circle)

**Models Supported:**  
FANUC S430i



| MODEL NUMBER          | PORTING | # OF PORTS | WEIGHT            |
|-----------------------|---------|------------|-------------------|
| CPI-FA430i-DM-RD25-A3 | 3/8 NPT | 3 (2/1)    | 1.52 kg [3.36 lb] |
| CPI-FA430i-DM-RD25-A6 | 1/8 NPT | 6 (3/3)    | 1.56 kg [3.44 lb] |

### Style 07 - FA430i 90° Robot Adaptor (Ø125mm Bolt Circle)



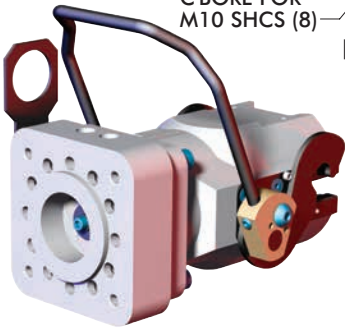
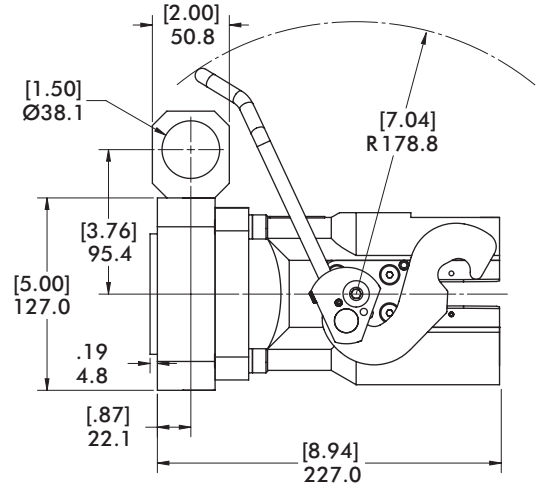
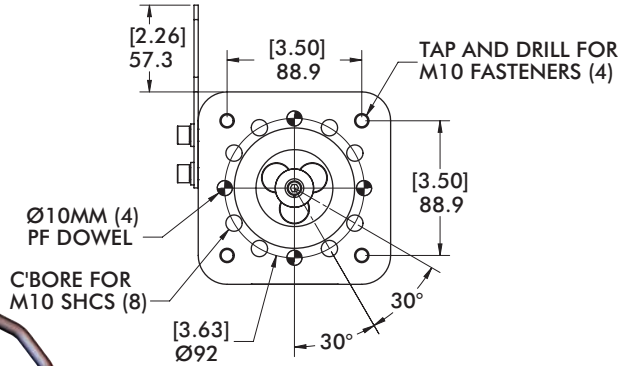
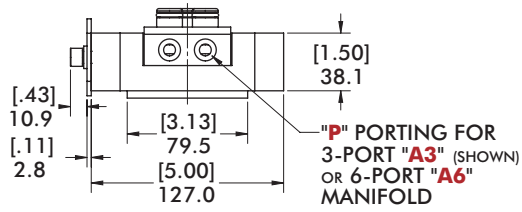
| MODEL NUMBER           | WEIGHT            |
|------------------------|-------------------|
| CPI-FA430i-90-RD25-A36 | 4.13 kg [9.12 lb] |

# FA420

## Robot Automation Adaptors | Dimensions

### Style 08 - FA420 Direct Mount Adaptor (Ø92mm Bolt Circle)

**Models Supported:**  
FANUC S420 (WITH  
SPECIAL FLANGE)

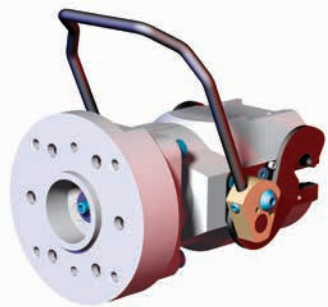
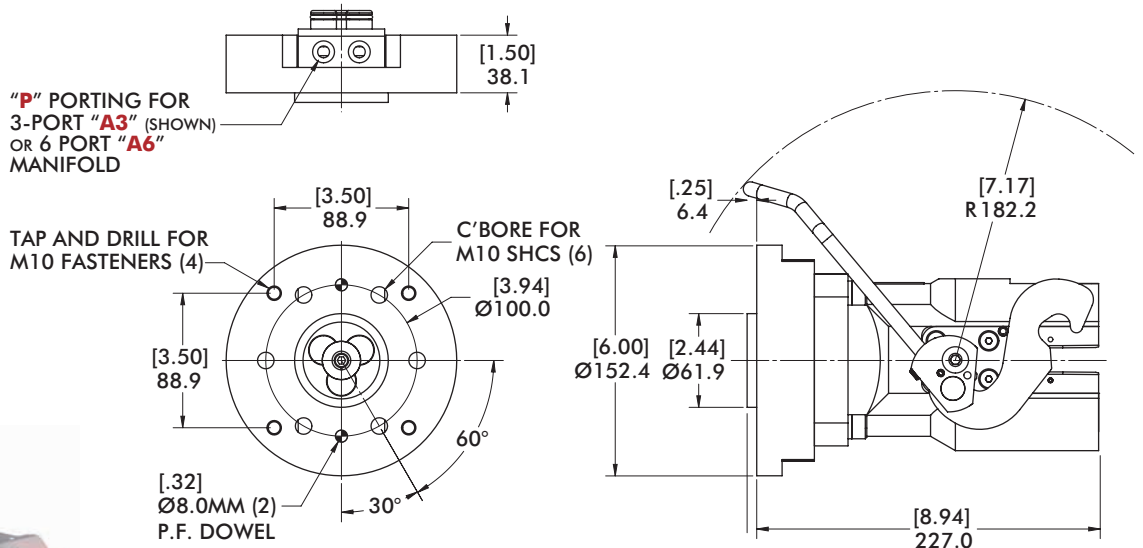


| MODEL NUMBER             | PORTING | # OF PORTS | WEIGHT            |
|--------------------------|---------|------------|-------------------|
| CPI-FA420-DM-RD25-A3-SPC | 3/8 NPT | 3 (2/1)    | 1.48 kg [3.27 lb] |
| CPI-FA420-DM-RD25-A6-SPC | 1/8 NPT | 6 (3/3)    | 1.52 kg [3.35 lb] |

### Style 09 - ABB44 Direct Mount Adaptor (Ø100mm Bolt Circle)

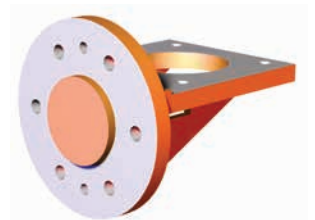
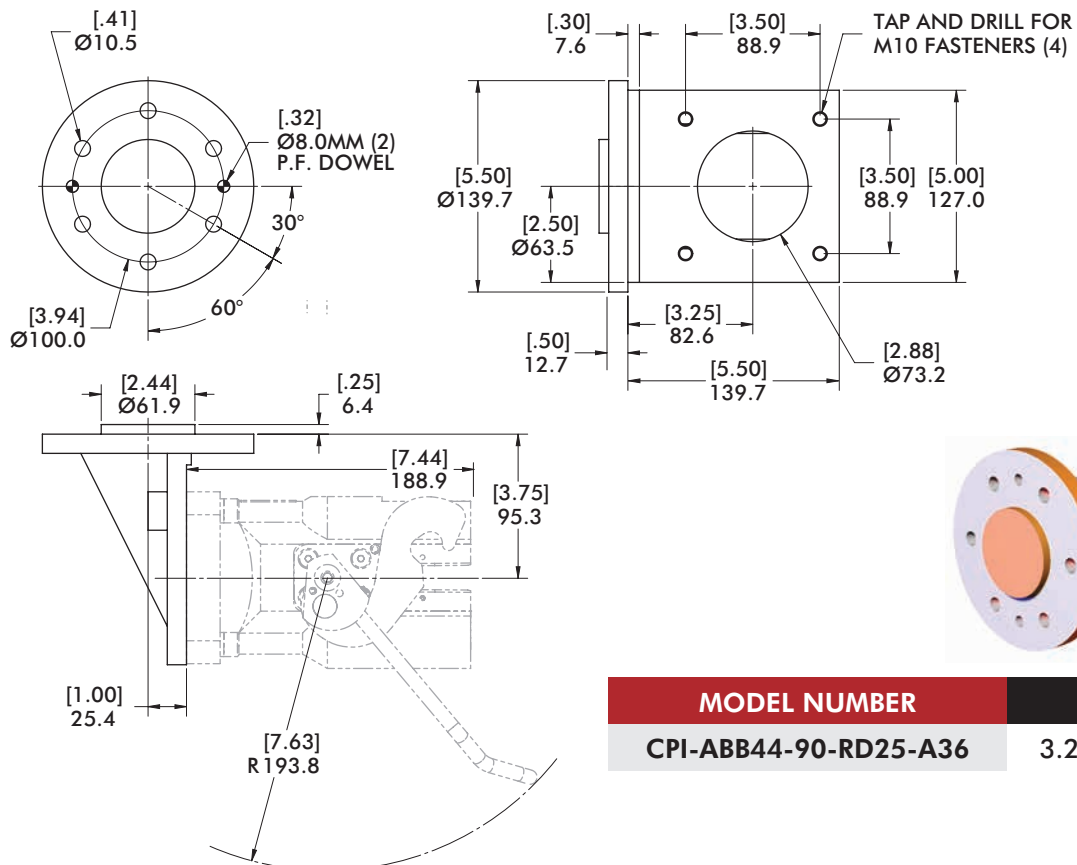
#### Models Supported:

- ABB IRB 4400/S
- ABB IRB 4400/60
- ABB IRB 4400/45
- ABB IRB 4400/L30



| MODEL NUMBER         | PORTING | # OF PORTS | WEIGHT            |
|----------------------|---------|------------|-------------------|
| CPI-ABB44-DM-RD25-A3 | 3/8 NPT | 3 (2/1)    | 1.57 kg [3.47 lb] |
| CPI-ABB44-DM-RD25-A6 | 1/8 NPT | 6 (3/3)    | 1.61 kg [3.55 lb] |

### Style 09 - ABB44 90° Robot Adaptor (Ø100mm Bolt Circle)



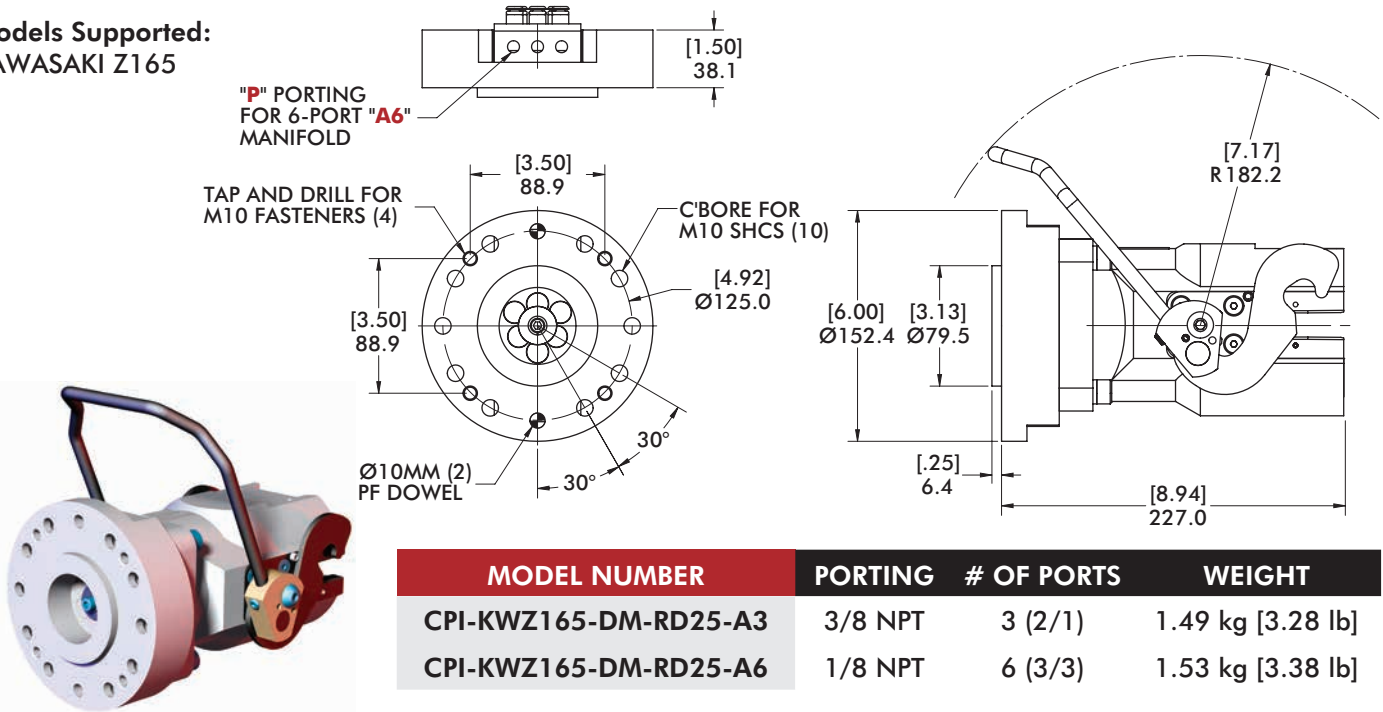
| MODEL NUMBER          | WEIGHT            |
|-----------------------|-------------------|
| CPI-ABB44-90-RD25-A36 | 3.24 kg [7.15 lb] |

# KWZ165

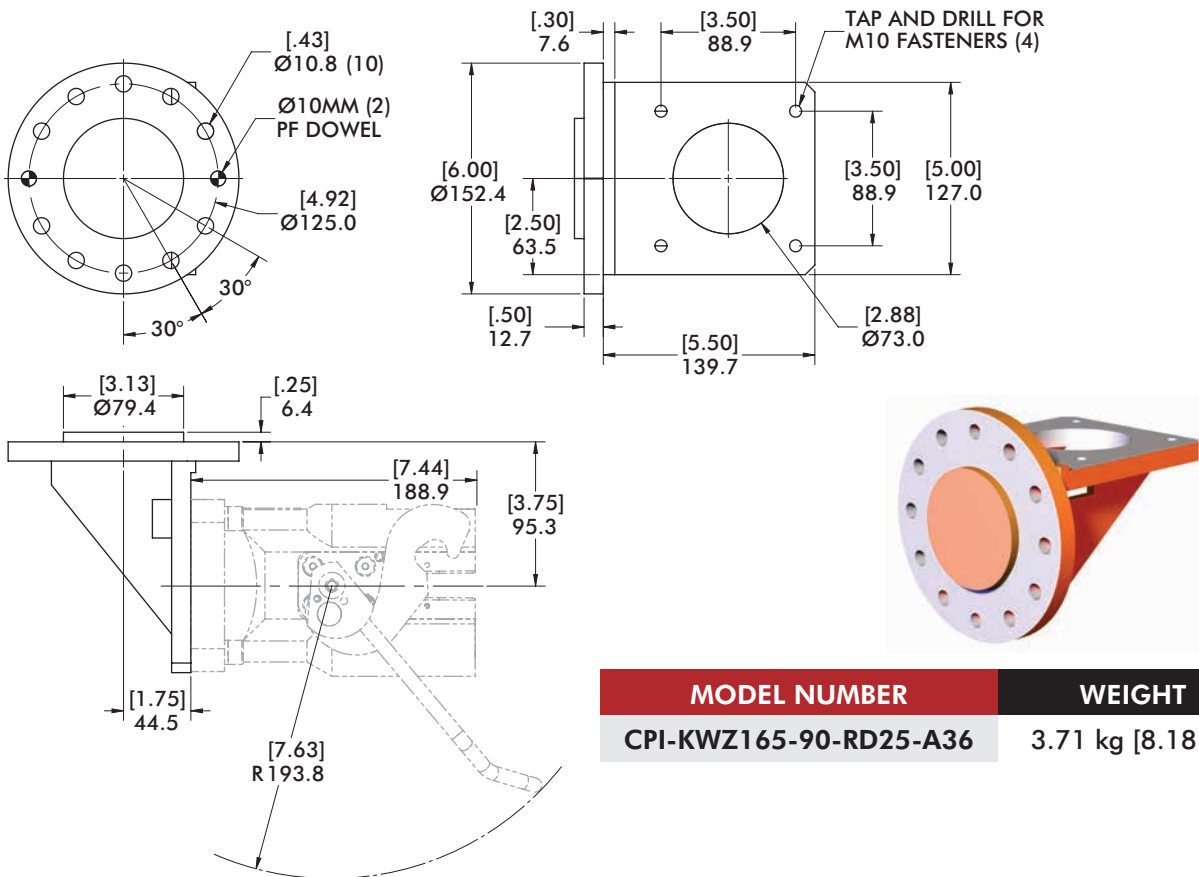
## Robot Automation Adaptors | Dimensions

### Style 10 - KWZ165 Direct Mount Adaptor (Ø125mm Bolt Circle)

Models Supported:  
KAWASAKI Z165

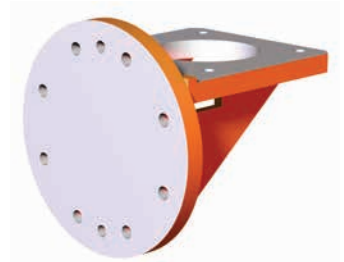
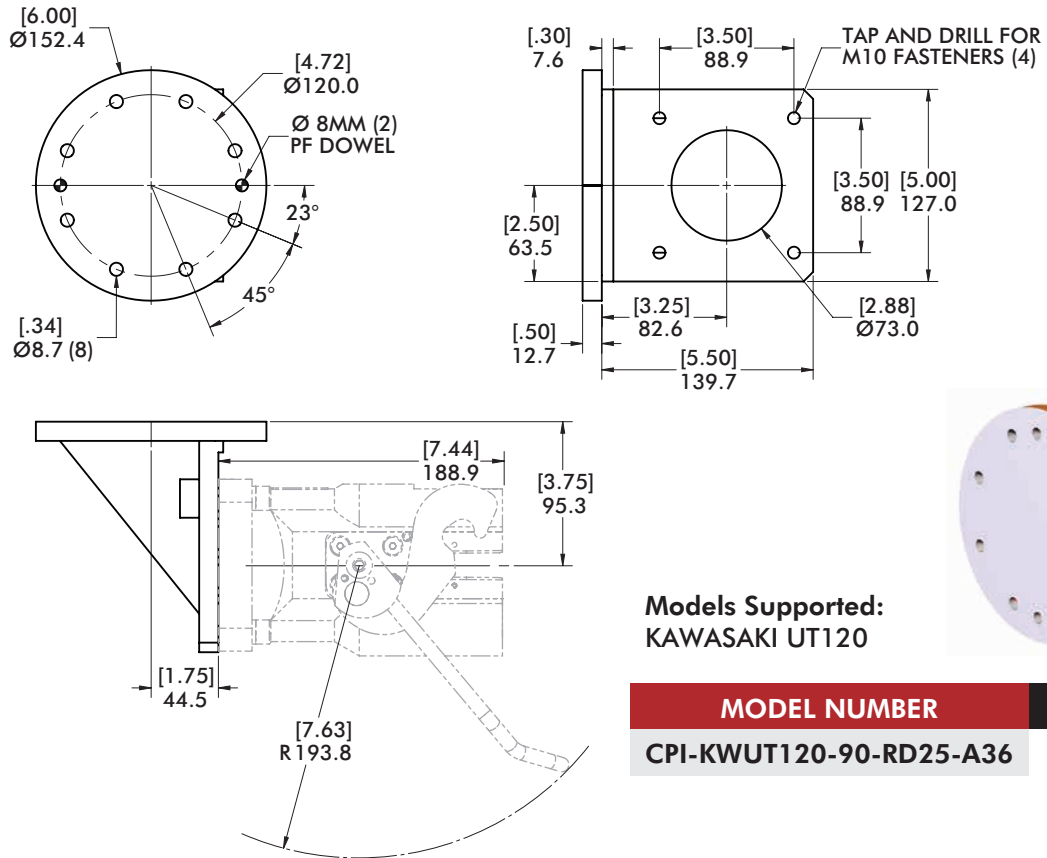


### Style 10 - KWZ165 90° Robot Adaptor (Ø125mm Bolt Circle)





### Style 11 - KWUT120 90° Adaptor (Ø120mm Bolt Circle)



**Models Supported:**  
KAWASAKI UT120

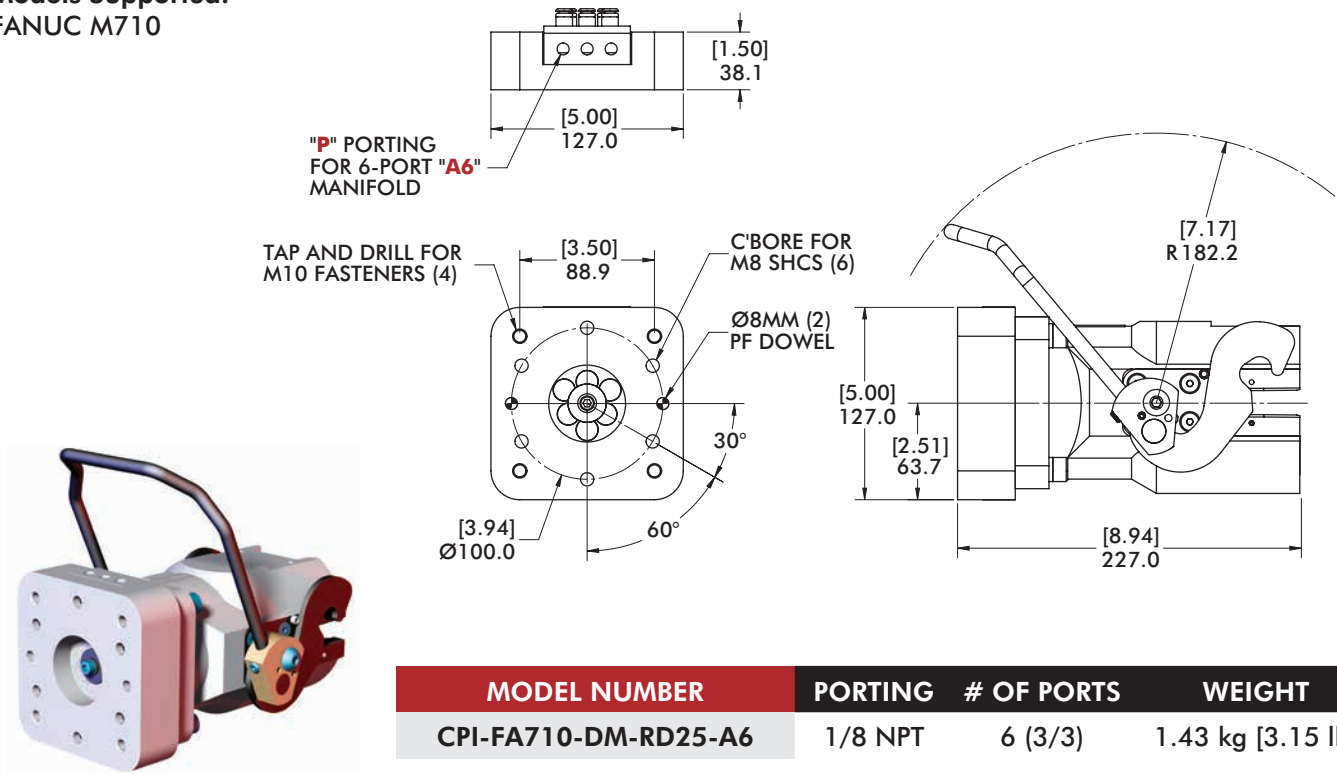
| MODEL NUMBER            | WEIGHT            |
|-------------------------|-------------------|
| CPI-KWUT120-90-RD25-A36 | 3.58 kg [7.90 lb] |

# FA710

## Robot Automation Adaptors | Dimensions

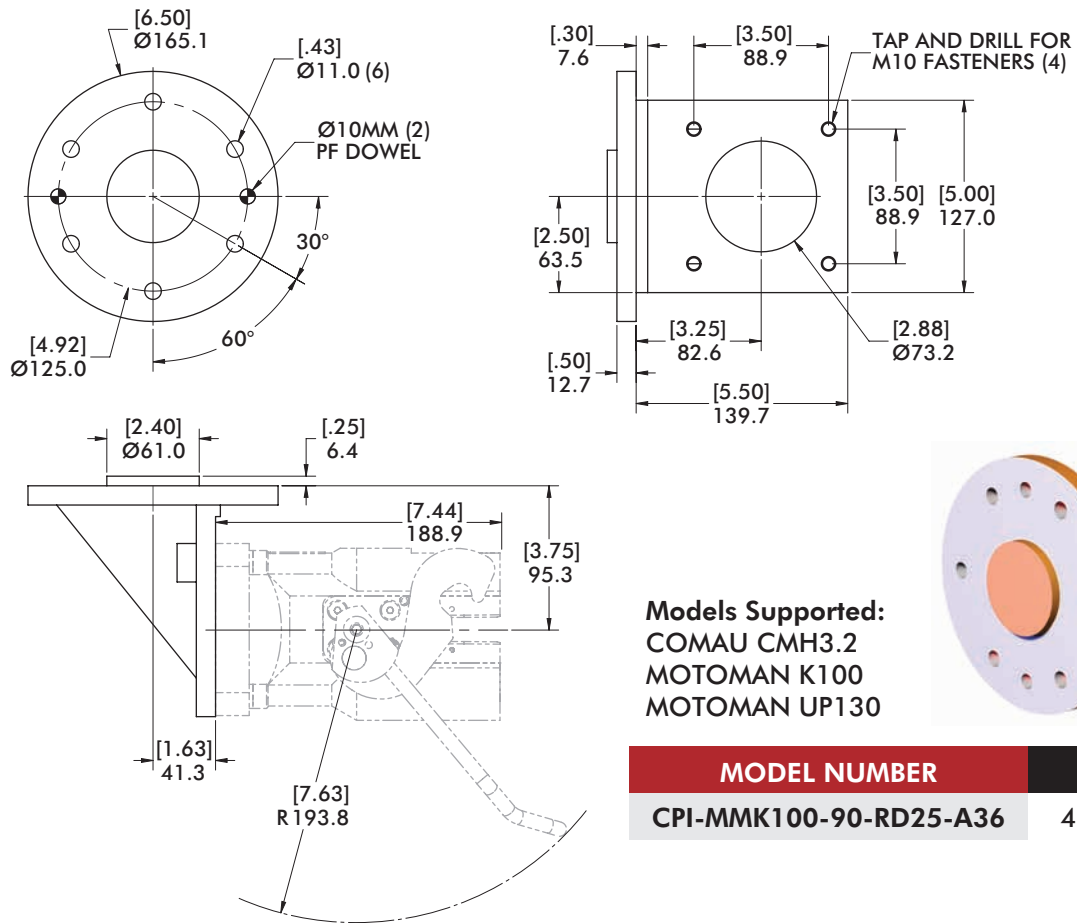
### Style 12 - FA710 Direct Mount Adaptor (Ø100mm Bolt Circle)

**Models Supported:**  
FANUC M710

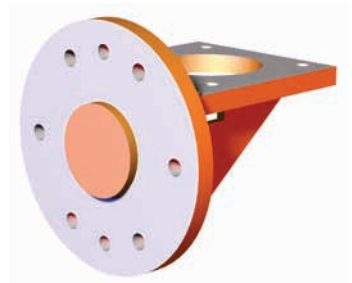


| MODEL NUMBER         | PORTING | # OF PORTS | WEIGHT            |
|----------------------|---------|------------|-------------------|
| CPI-FA710-DM-RD25-A6 | 1/8 NPT | 6 (3/3)    | 1.43 kg [3.15 lb] |

### Style 14 - MMK100 90° Adaptor (Ø125mm Bolt Circle)



**Models Supported:**  
 COMAU CMH3.2  
 MOTOMAN K100  
 MOTOMAN UP130



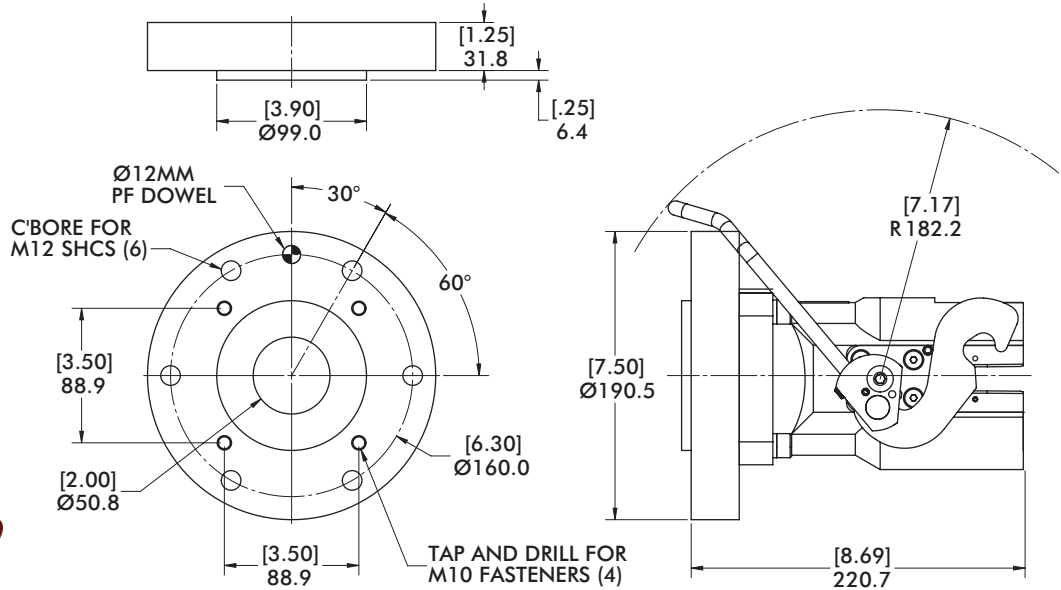
| MODEL NUMBER           | WEIGHT            |
|------------------------|-------------------|
| CPI-MMK100-90-RD25-A36 | 4.03 kg [8.88 lb] |

# KA660

## Robot Automation Adaptors | Dimensions

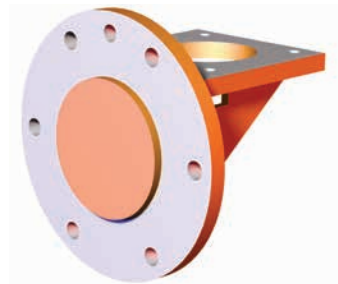
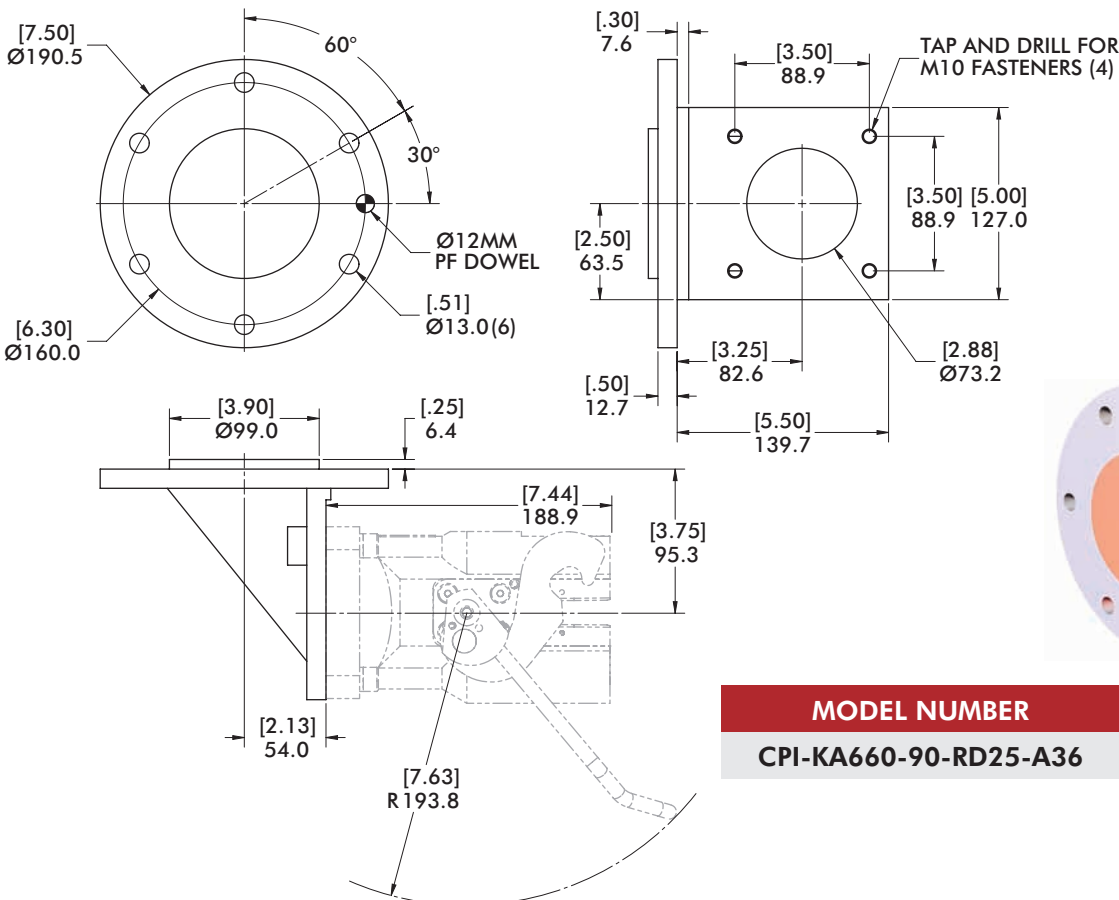
### Style 15 - KA660 Direct Mount Adaptor (Ø160mm Bolt Circle)

**Models Supported:**  
KUKA 660



| MODEL NUMBER         | PORTING | # OF PORTS | WEIGHT            |
|----------------------|---------|------------|-------------------|
| CPI-KA660-DM-RD25-00 | N/A     | N/A        | 2.23 kg [4.92 lb] |

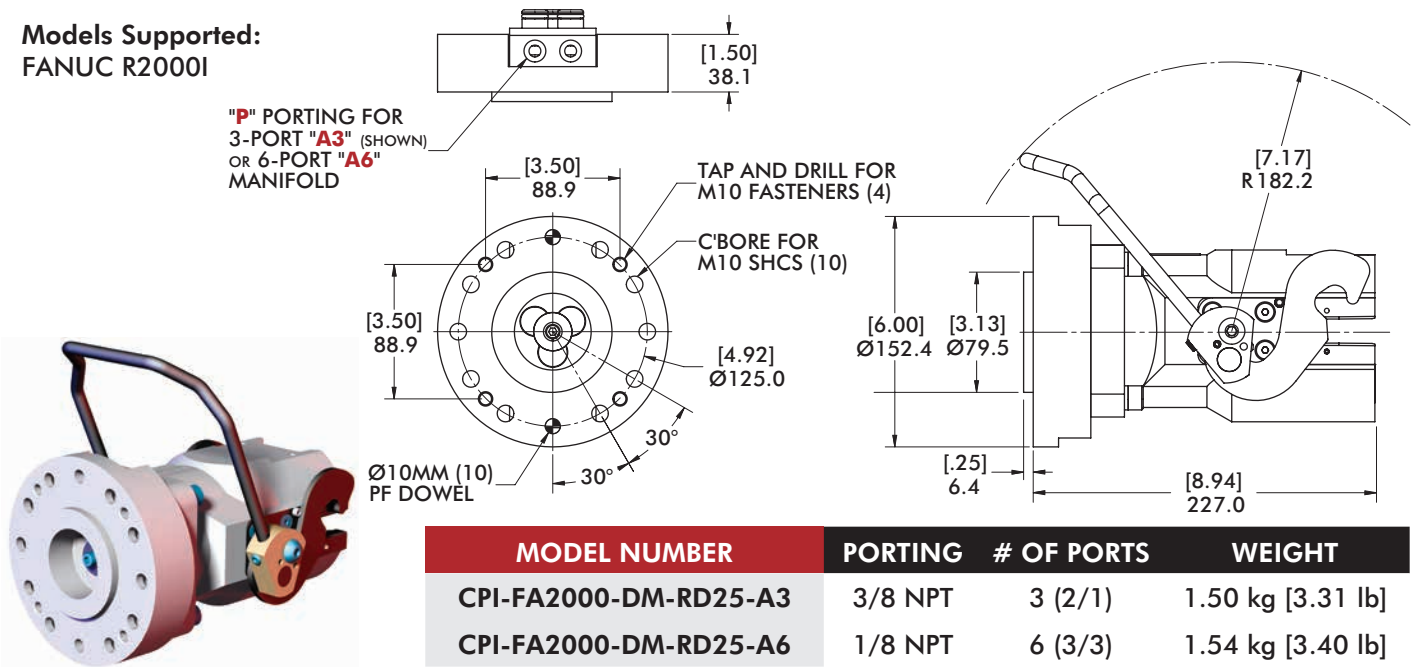
### Style 15 - KA660 90° Robot Adaptor (Ø160mm Bolt Circle)



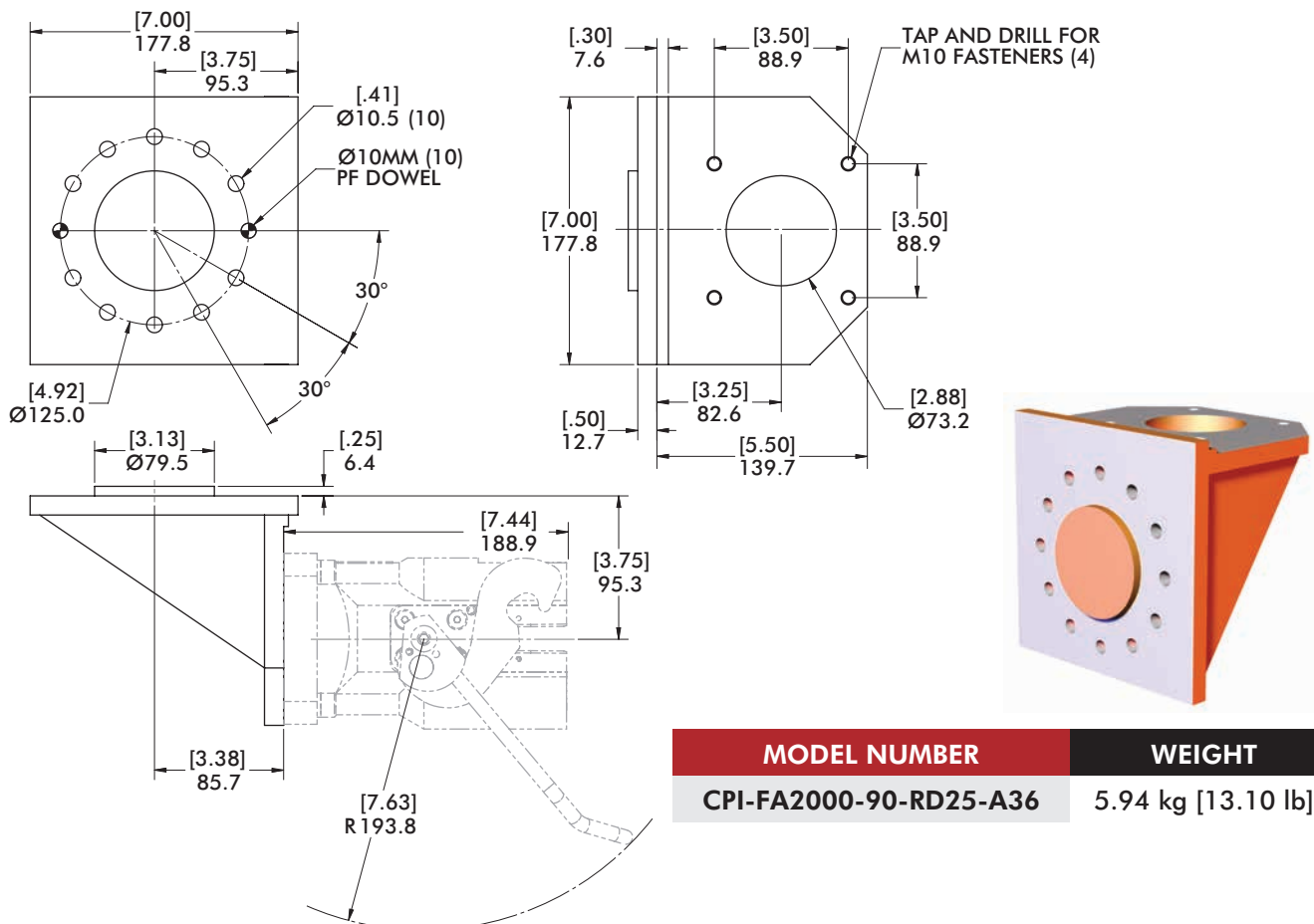
| MODEL NUMBER          | WEIGHT             |
|-----------------------|--------------------|
| CPI-KA660-90-RD25-A36 | 4.95 kg [10.91 lb] |

### Style 16 - FA2000 Direct Mount Adaptor (Ø125mm Bolt Circle)

**Models Supported:**  
FANUC R2000I



### Style 16 - FA2000 90° Robot Adaptor (Ø125mm Bolt Circle)

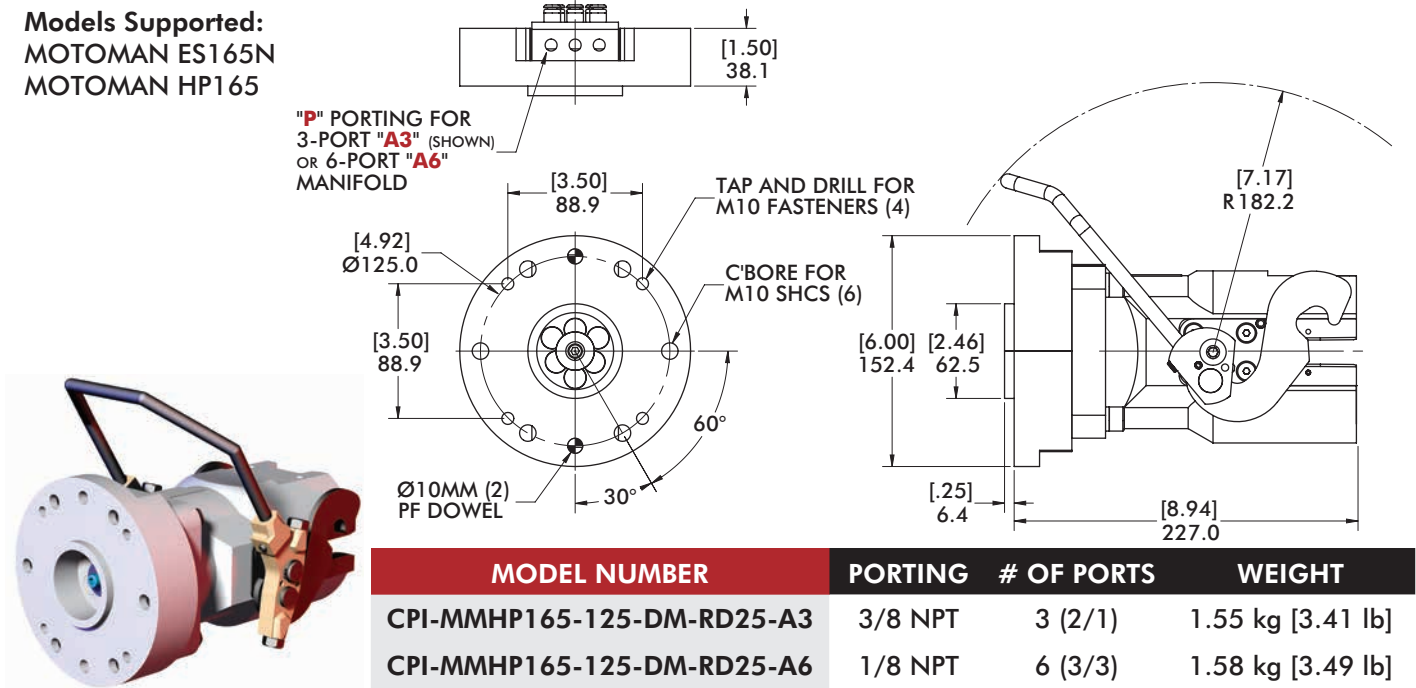


# MMHP165

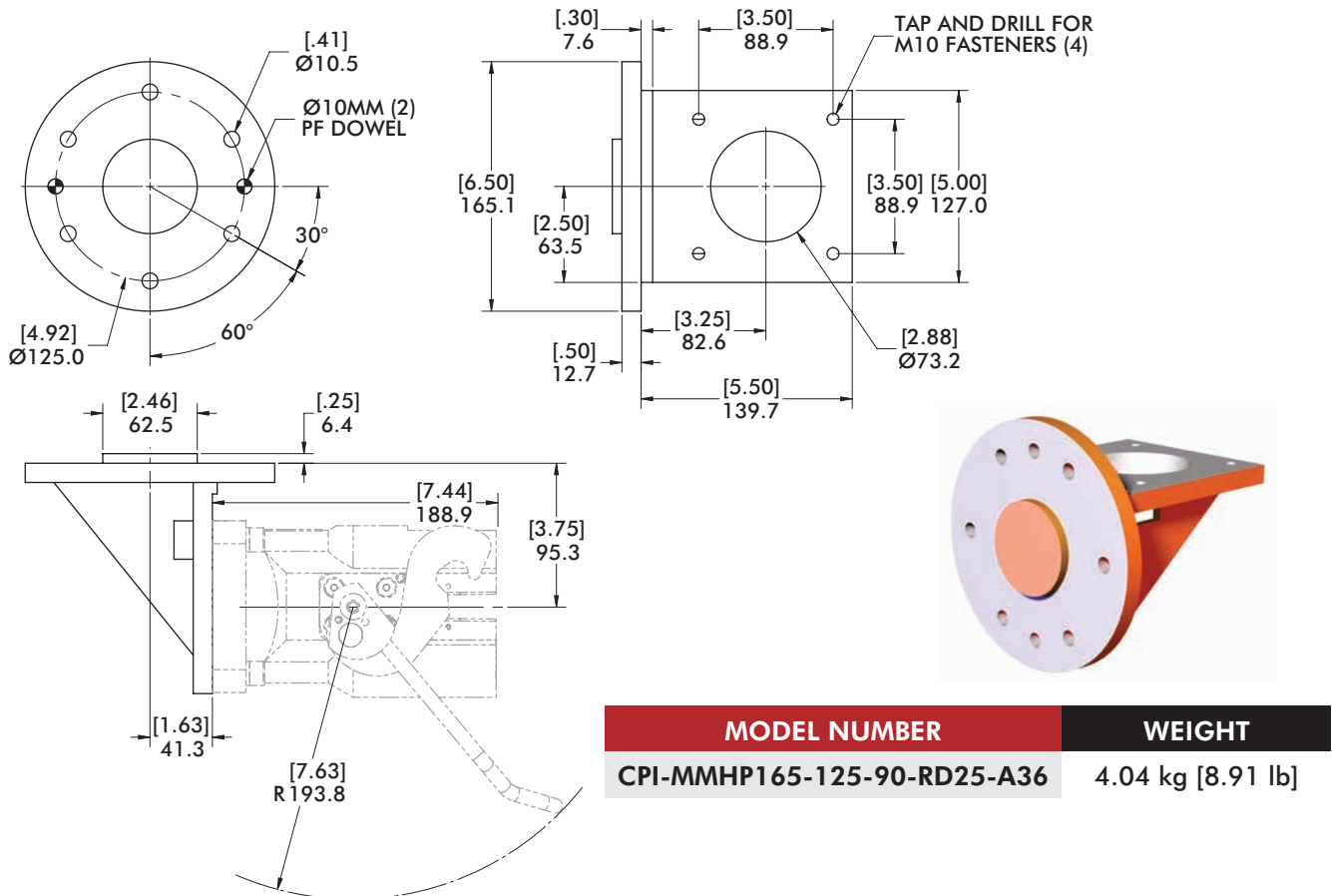
## Robot Automation Adaptors | Dimensions

### Style 15 - KA660 Direct Mount Adaptor (Ø160mm Bolt Circle)

**Models Supported:**  
MOTOMAN ES165N  
MOTOMAN HP165



### Style 15 - KA660 90° Robot Adaptor (Ø125mm Bolt Circle)

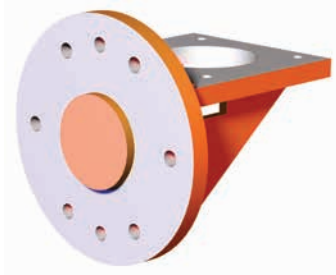
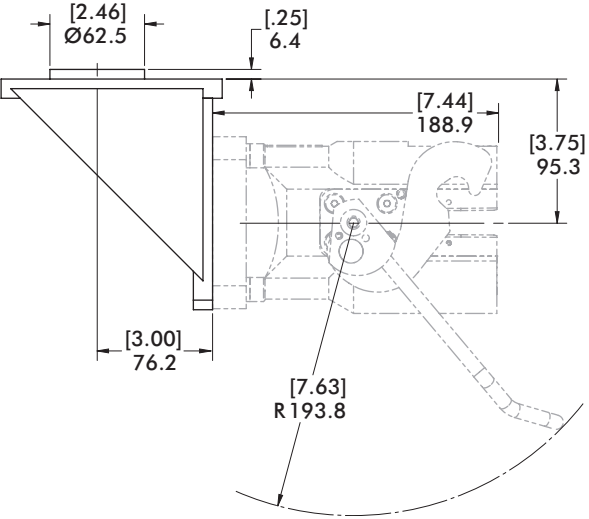
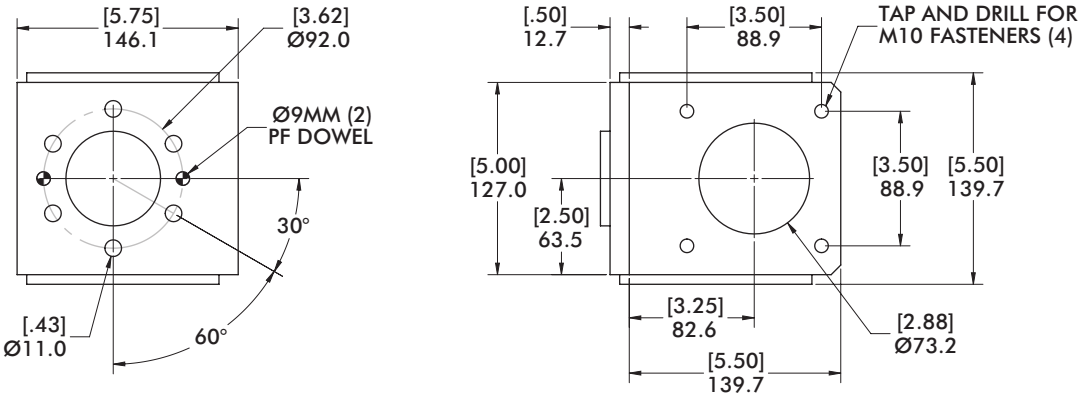




# MMHP165

## Robot Automation Adaptors | Dimensions

### Style 19 - MMHP165 90° Adaptor (Ø92mm Bolt Circle)



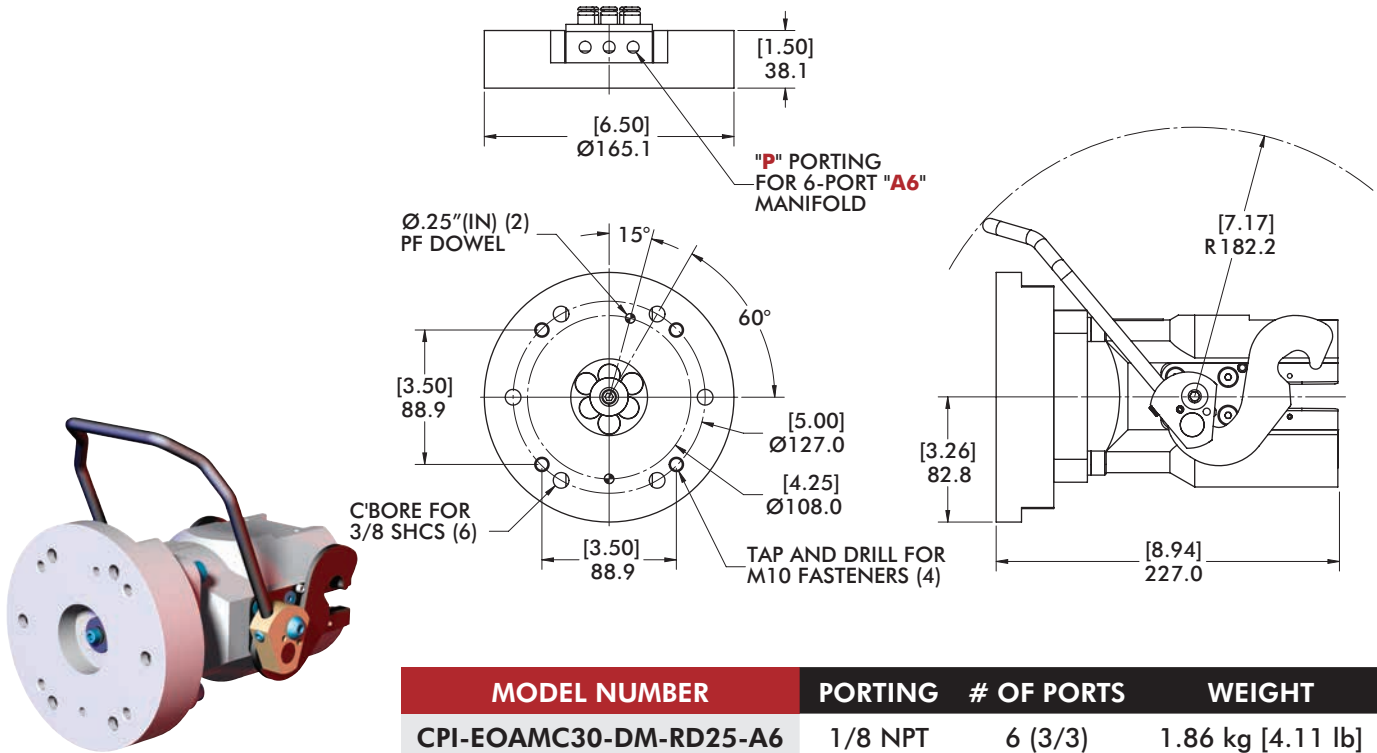
**Models Supported:**  
 HP165  
 ES165N

| MODEL NUMBER               | WEIGHT            |
|----------------------------|-------------------|
| CPI-MMHP165-92-90-RD25-A36 | 4.03 kg [8.89 lb] |

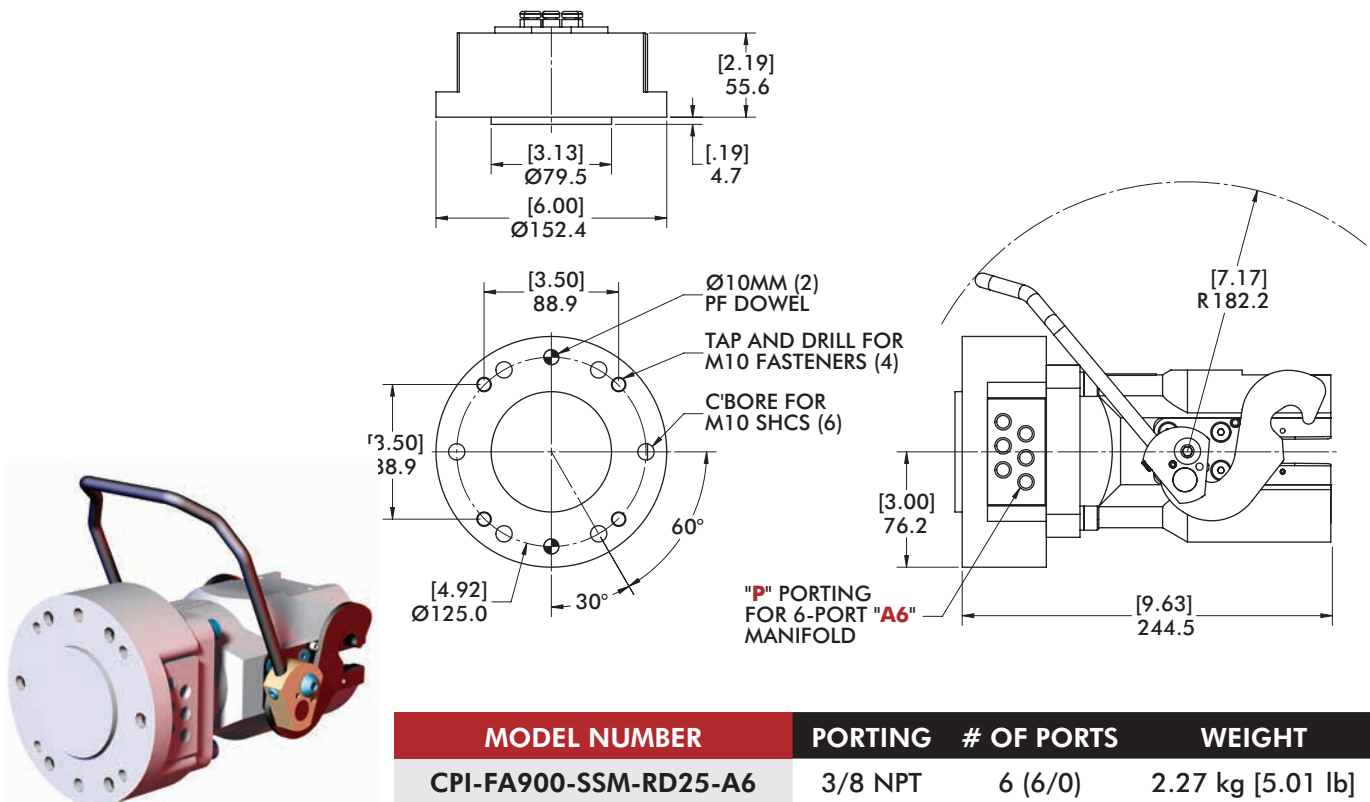
# EOAMC30, FA900-SSM

Robot Automation Adaptors | Dimensions

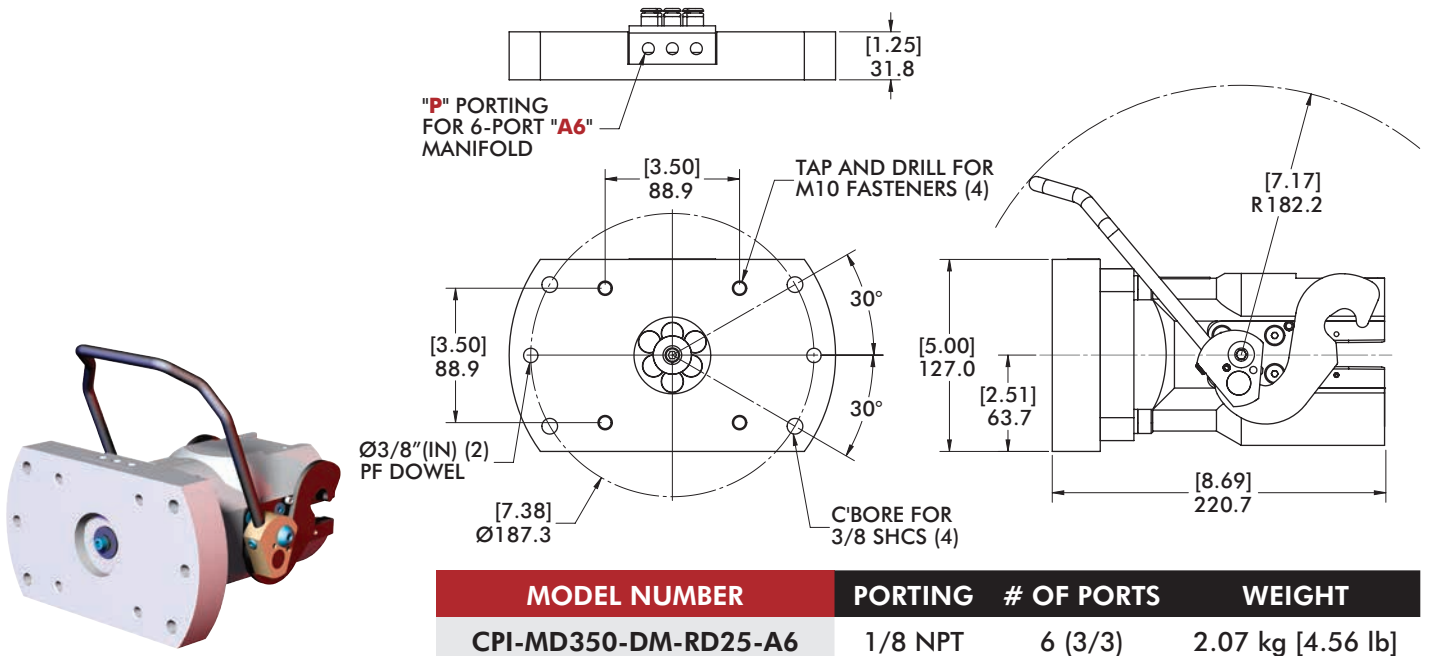
Style 21 - **EOAMC30** Direct Mount Adaptor (Ø127mm Bolt Circle/Ø108mm Dowel Circle)



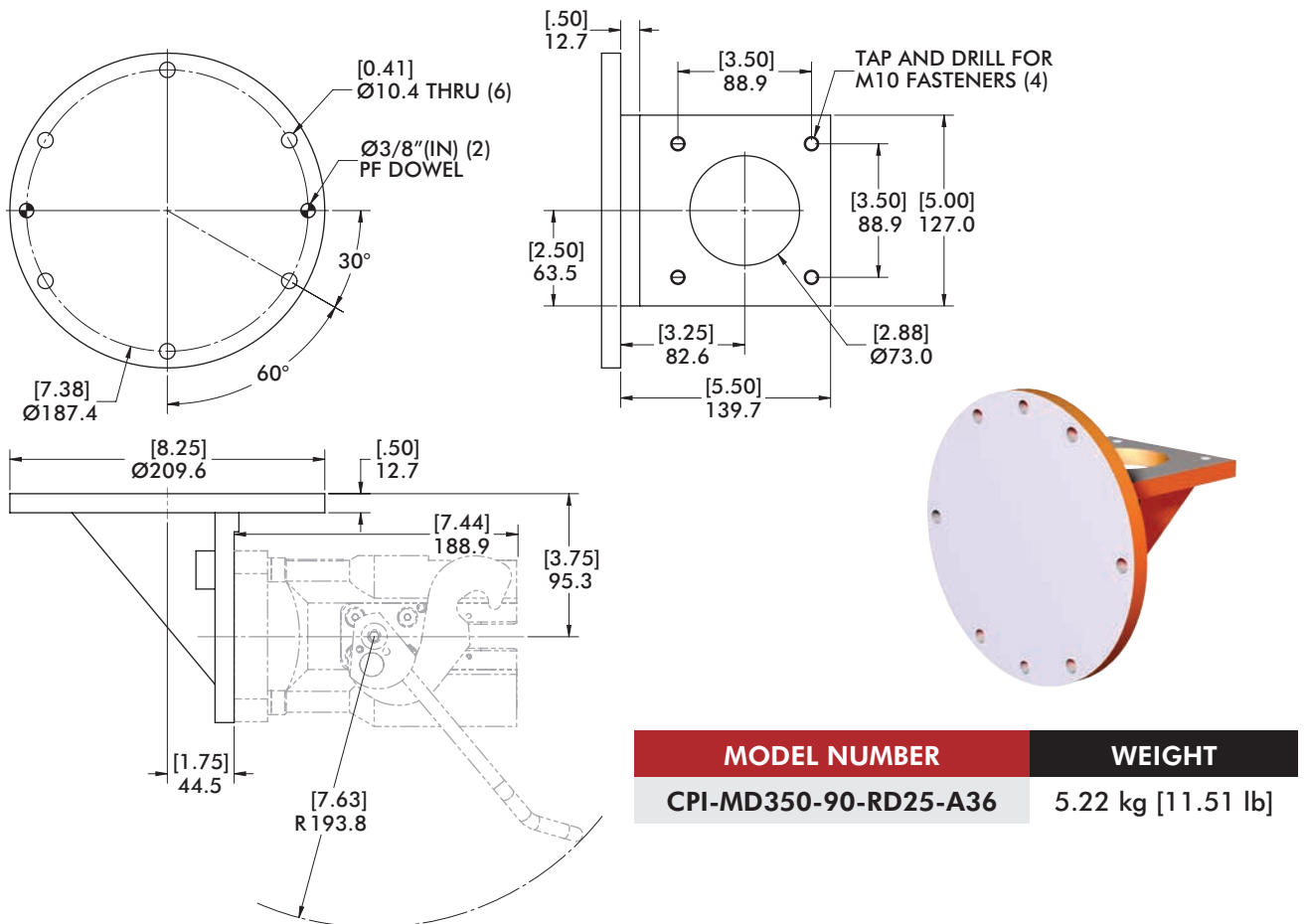
Style 22 - **FA900-SSM** Direct Mount Adaptor (Ø125mm Bolt Circle)



### Style 23 - MD350 Direct Mount Adaptor - Ø187.3mm Bolt Circle



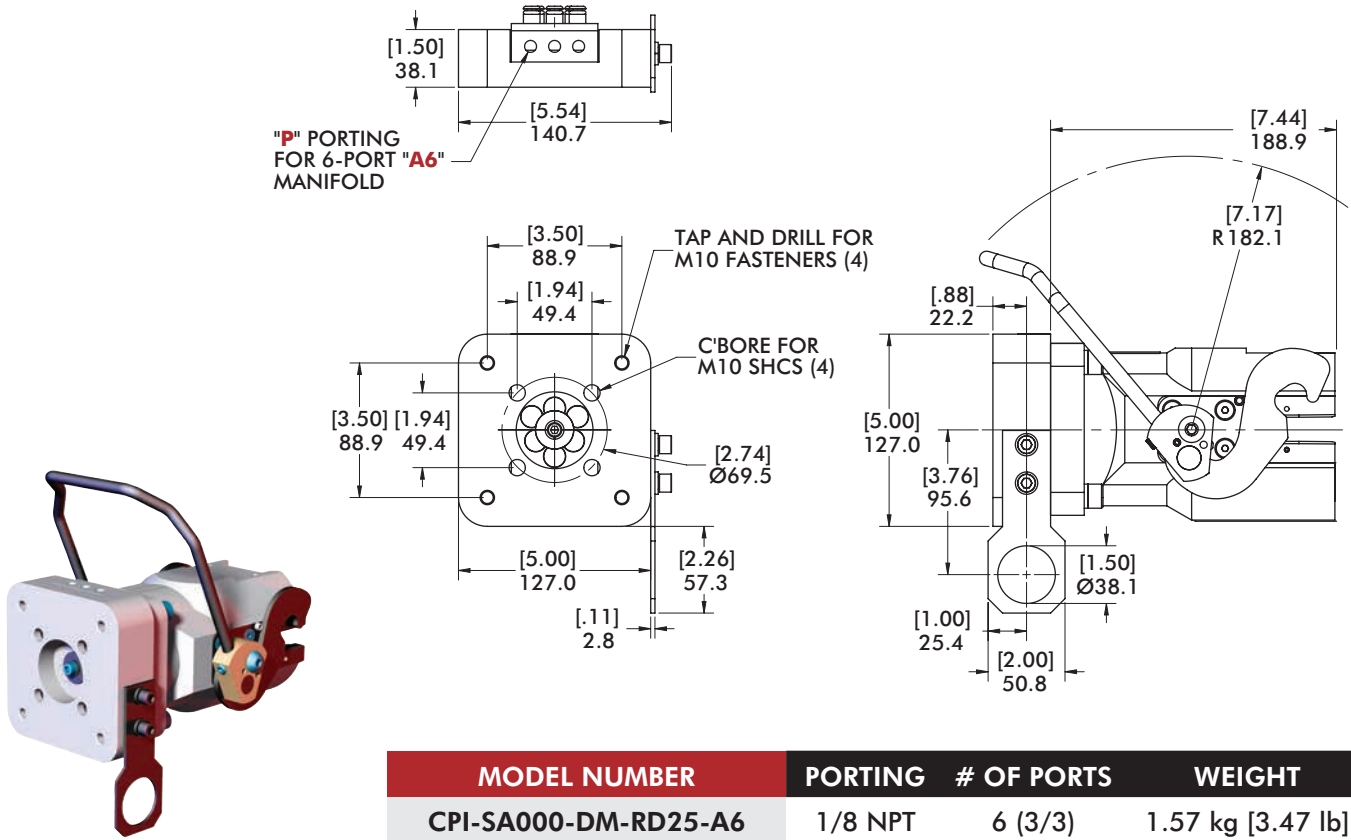
### Style 23 - MD350 90° Robot Adaptor



# SA000

## Robot Automation Adaptors | Dimensions

### Style 24 - SA000 Direct Mount Adaptor - Ø69.5mm Bolt Circle

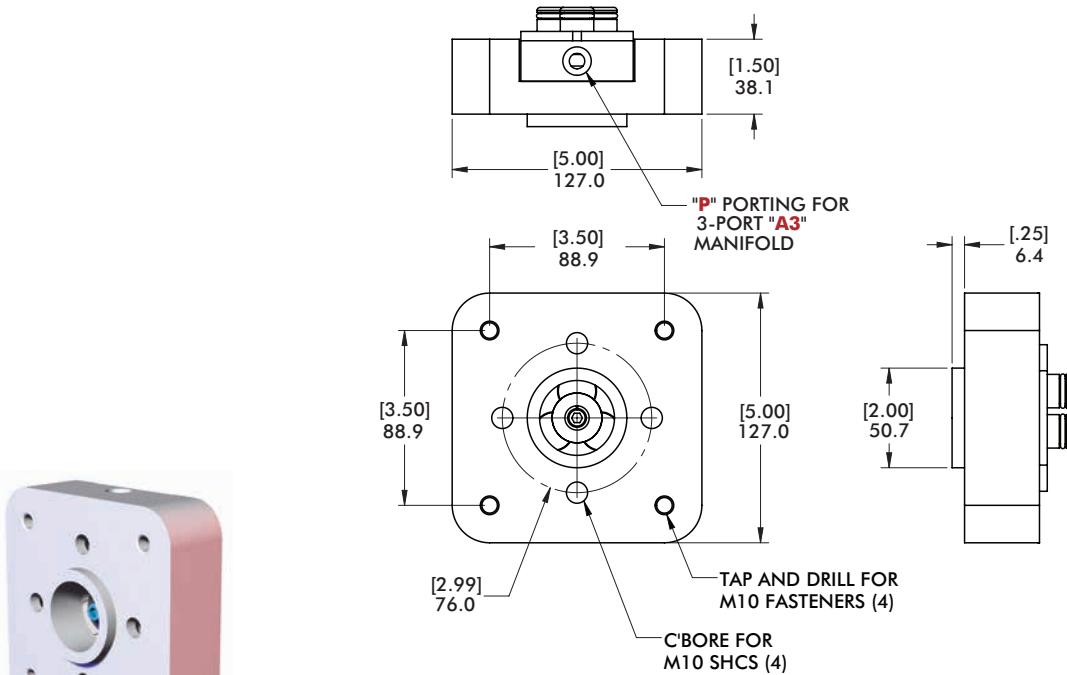


| MODEL NUMBER         | PORTING | # OF PORTS | WEIGHT            |
|----------------------|---------|------------|-------------------|
| CPI-SA000-DM-RD25-A6 | 1/8 NPT | 6 (3/3)    | 1.57 kg [3.47 lb] |

# CM975XL, CHM32

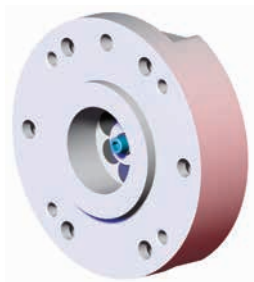
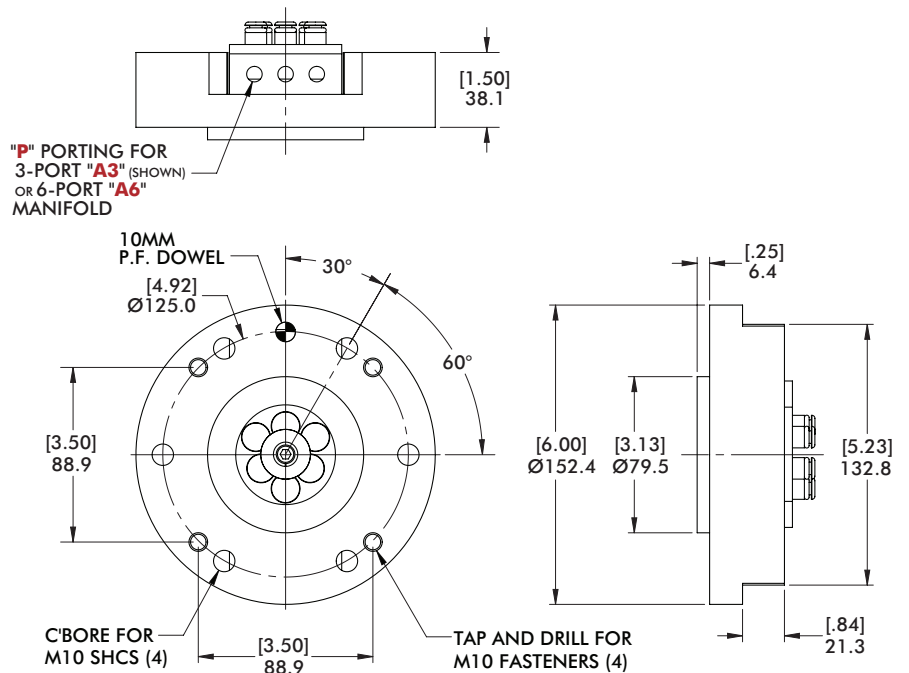
Robot Automation Adaptors | Dimensions

## CM975XL Direct Mount Adaptor - Ø76mm Bolt Circle



| MODEL NUMBER           | PORTING | # OF PORTS | WEIGHT            |
|------------------------|---------|------------|-------------------|
| CPI-CM675XL-DM-RD25-A3 | 3/8 NPT | 3 (2/1)    | 1.47 kg [3.24 lb] |

## CHM32 Direct Mount Adaptor - Ø125mm Bolt Circle

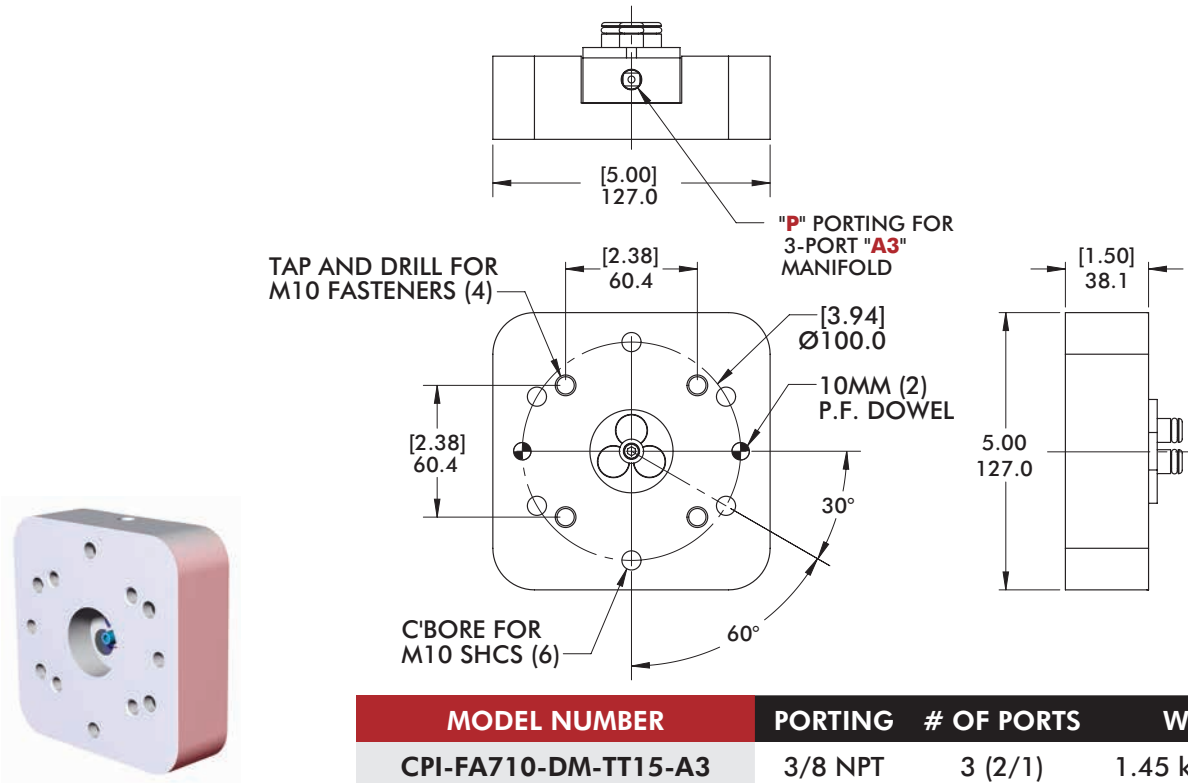


| MODEL NUMBER         | PORTING | # OF PORTS | WEIGHT            |
|----------------------|---------|------------|-------------------|
| CPI-CHM32-DM-RD25-A3 | 3/8 NPT | 3 (2/1)    | 2.38 kg [5.25 lb] |
| CPI-CHM32-DM-RD25-A6 | 1/8 NPT | 6 (3/3)    | 2.42 kg [5.34 lb] |

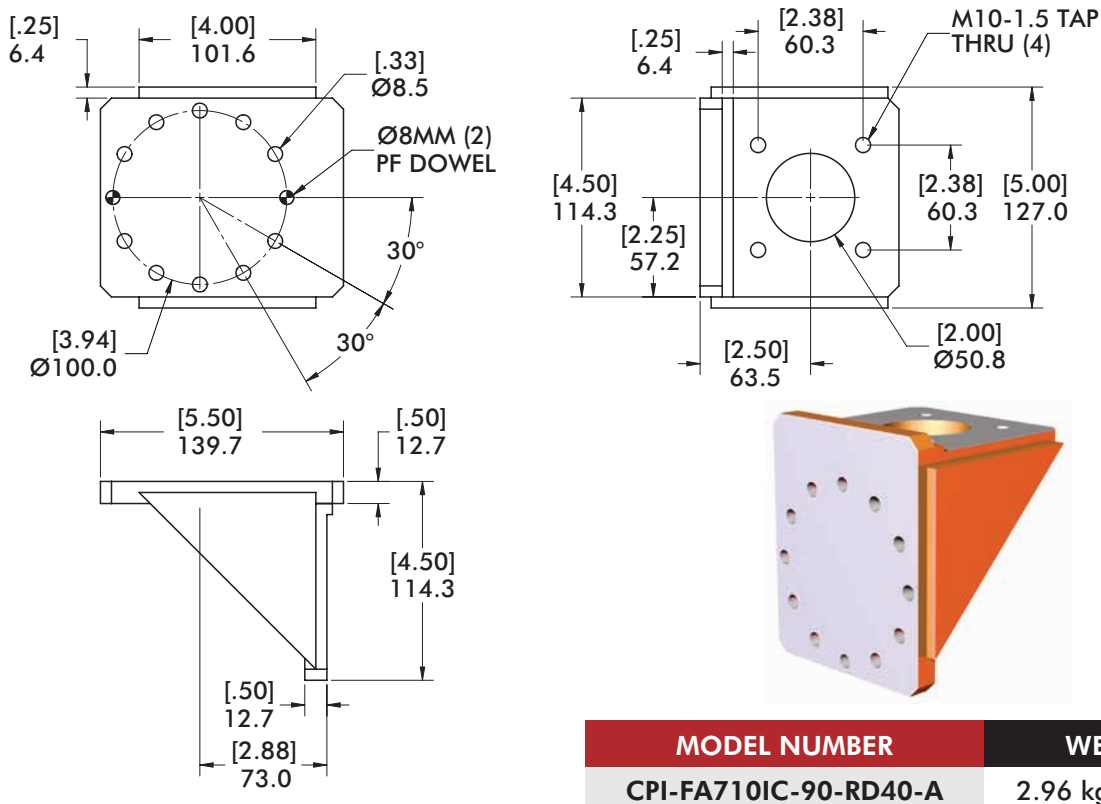
# FA710, FA710IC

## Robot Automation Adaptors | Dimensions

### FA710IC 90° Robot Adaptor - Ø100mm Bolt Circle



### FA710IC 90° Robot Adaptor - Ø100mm Bolt Circle

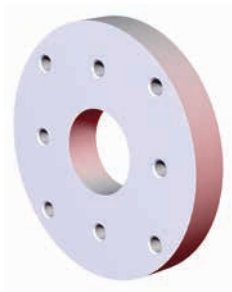
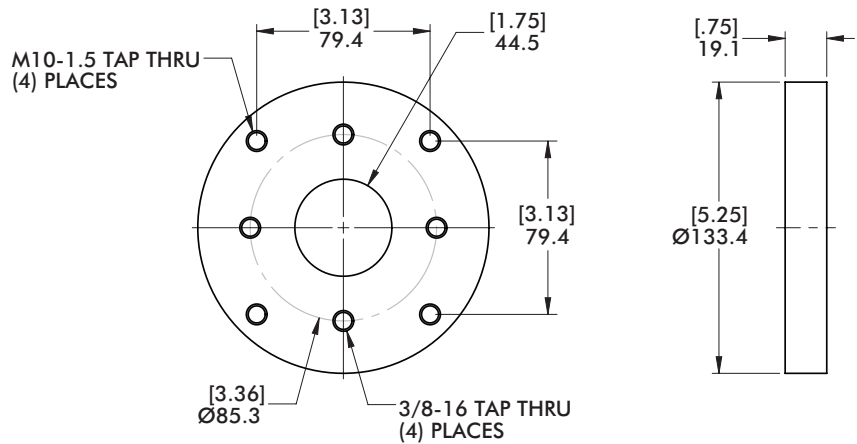




# TDA-150F, TDA-250F

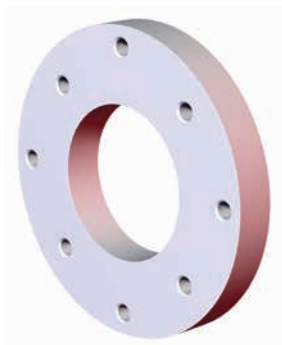
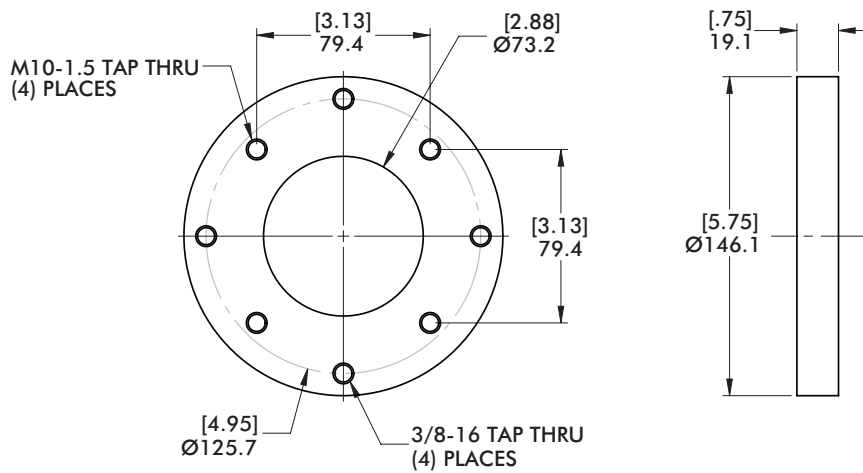
Robot Automation Adaptors | Dimensions

## TDA-150F Direct Mount Adaptor Plate - Ø85mm Bolt Circle



| MODEL NUMBER      | WEIGHT           |
|-------------------|------------------|
| CPI-TDA-150F-312F | .62 kg [1.36 lb] |

## TDA-250F Direct Mount Adaptor Plate - Ø125mm Bolt Circle

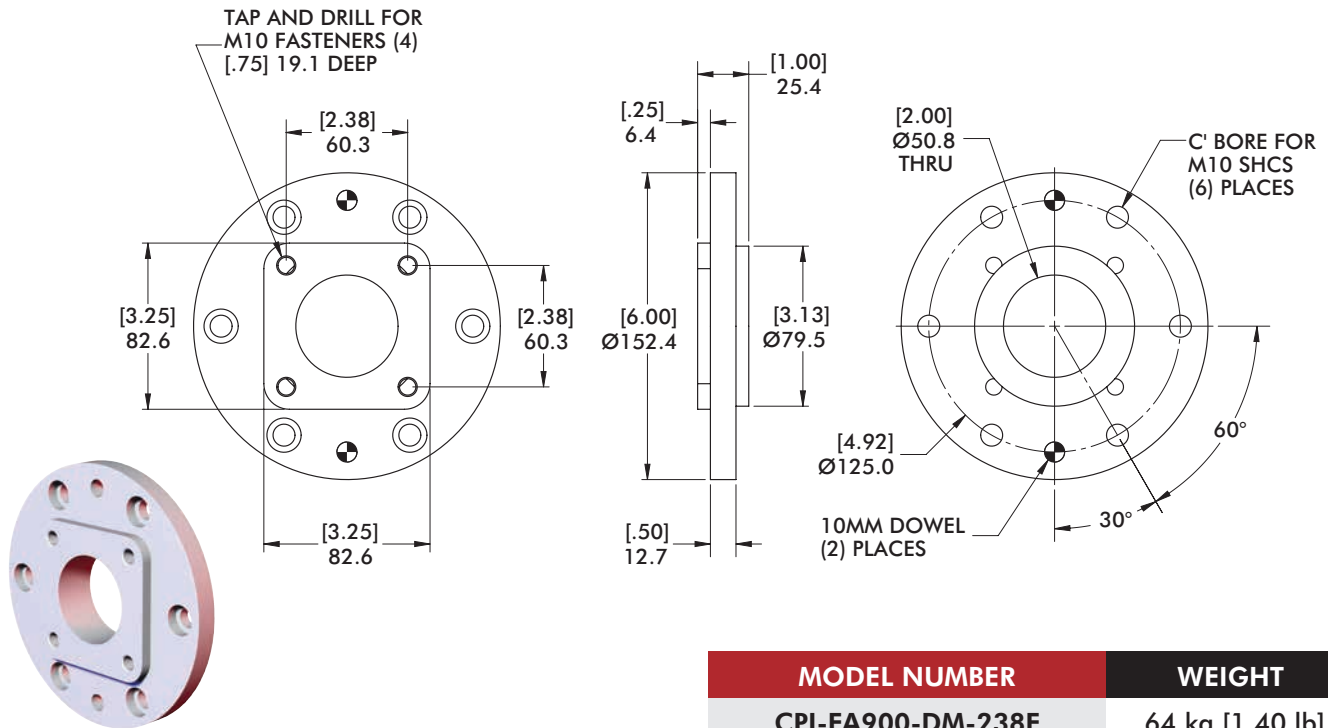


| MODEL NUMBER      | WEIGHT           |
|-------------------|------------------|
| CPI-TDA-250F-312F | .63 kg [1.38 lb] |

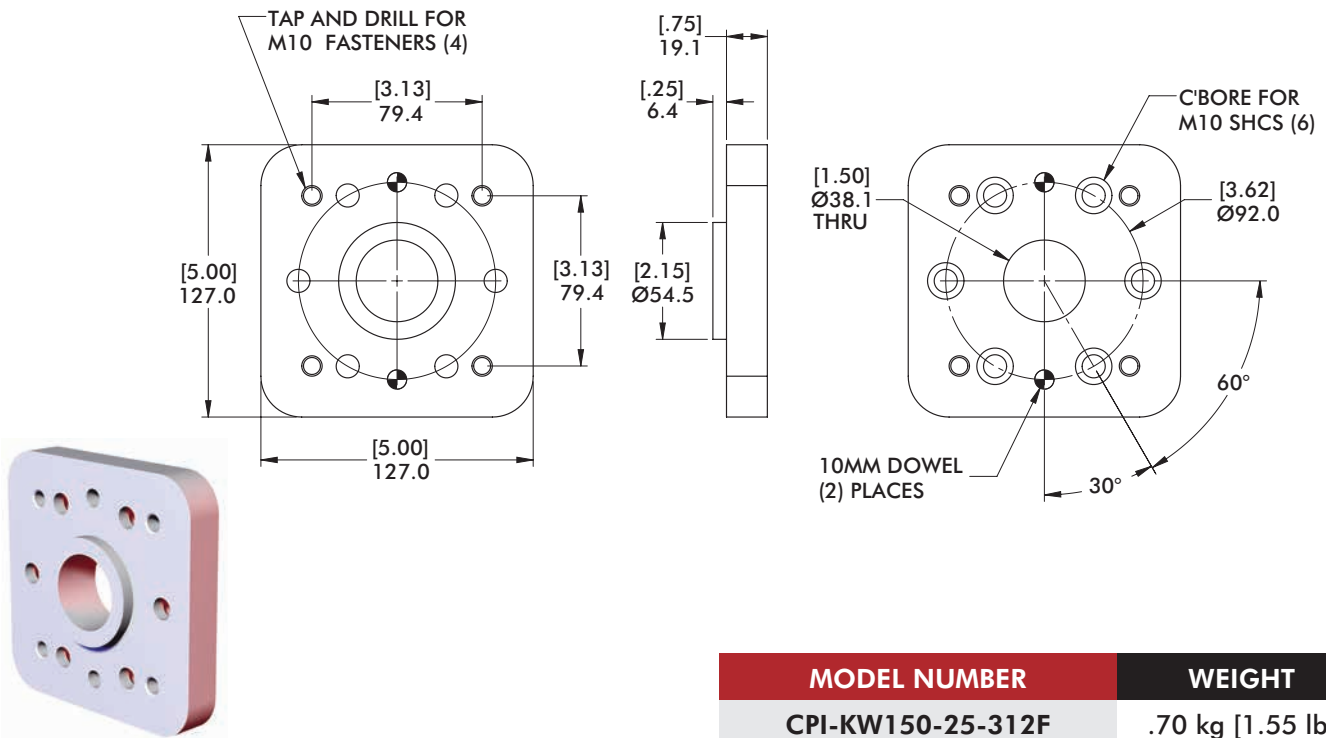
# FA900, KW150

## Robot Automation Adaptors | Dimensions

### FA900 Direct Mount Adaptor Plate - Ø125mm Bolt Circle



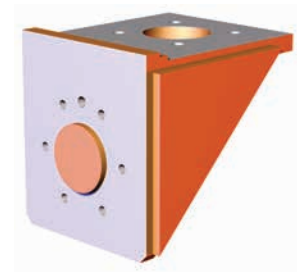
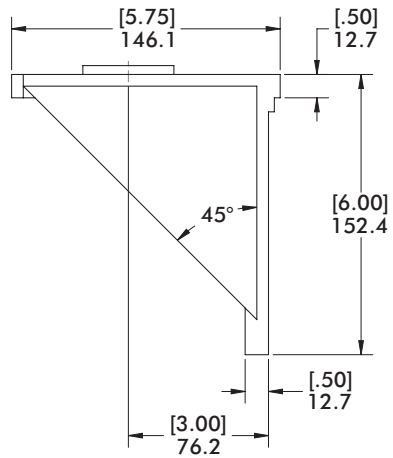
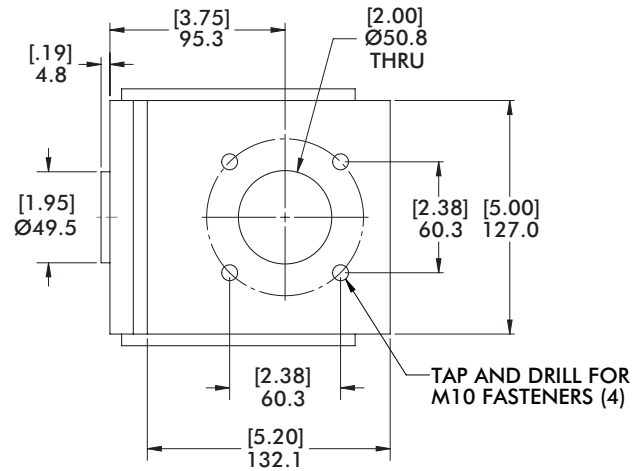
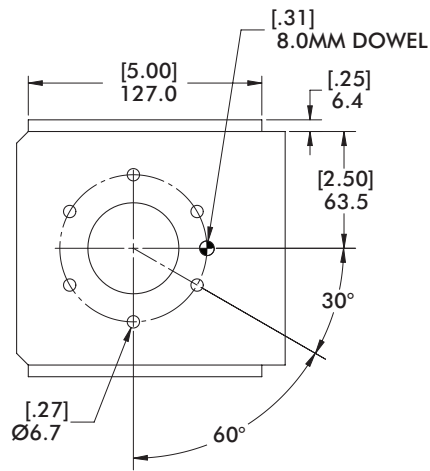
### KW150 Direct Mount Adaptor Plate - Ø92mm Bolt Circle



# KWFS45N

Robot Automation Adaptors | Dimensions

90° Degree Robot Adaptor to 40mm Disk

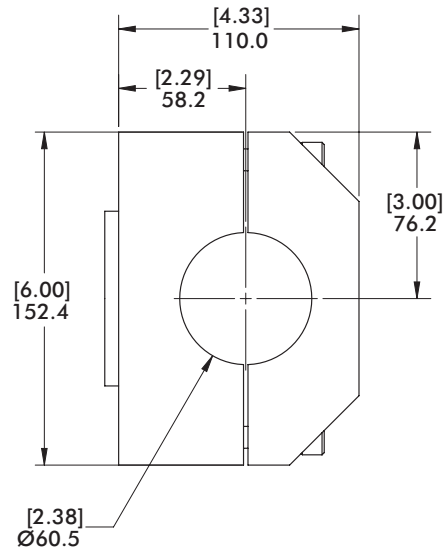
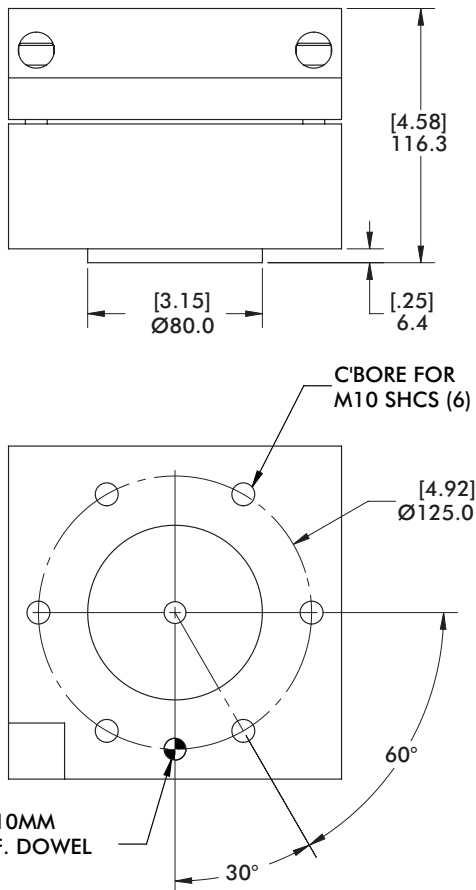
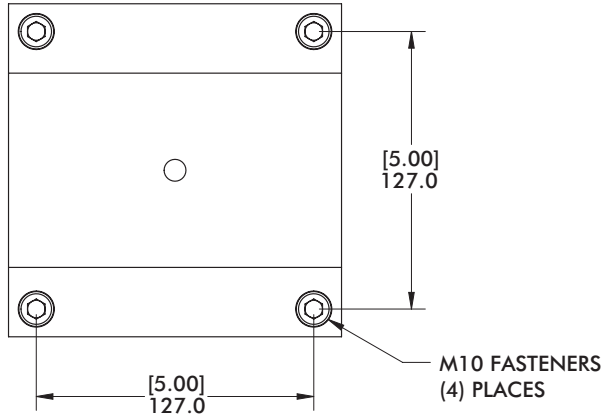


| MODEL NUMBER            | WEIGHT            |
|-------------------------|-------------------|
| CPI-KWFS45N-90-TTN40-A3 | 4.24 kg [9.34 lb] |

# CL-LAN

## Robot Automation Adaptors | Dimensions

Ø125mm Bolt Circle



**MODEL NUMBER**

**WEIGHT**

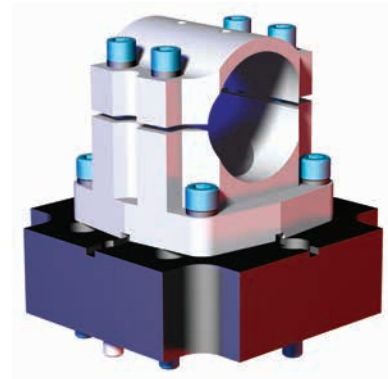
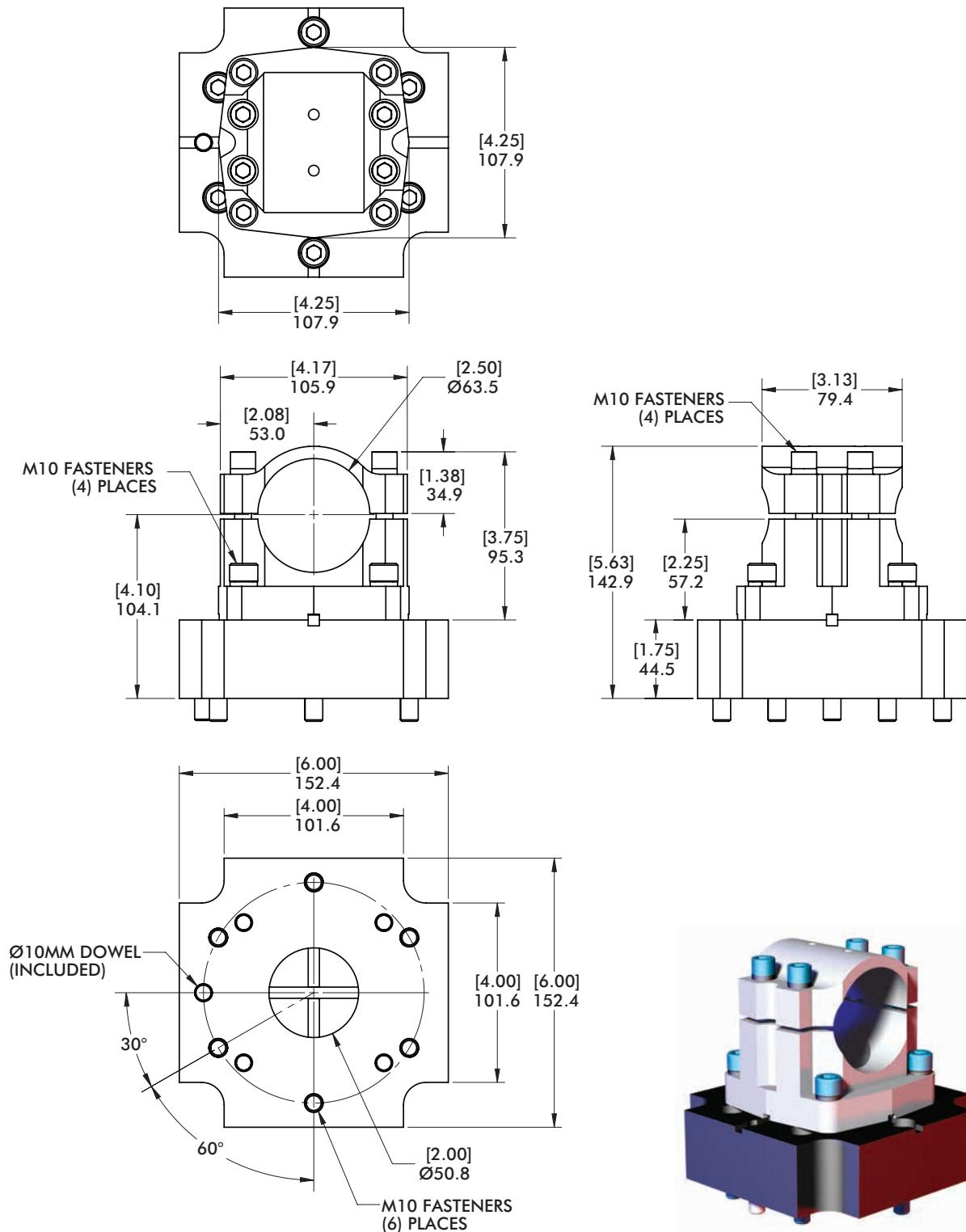
**CPI-CL-LAN-EOL**

**5.25 kg [11.58 lb]**

# ATI-151

Robot Automation Adaptors | Dimensions

90° Medium Duty - Ø125mm Bolt Circle

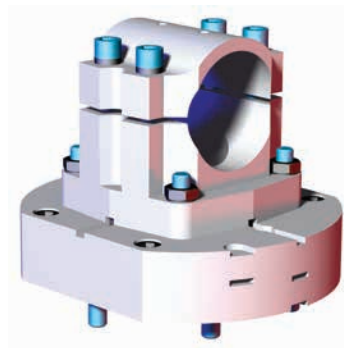
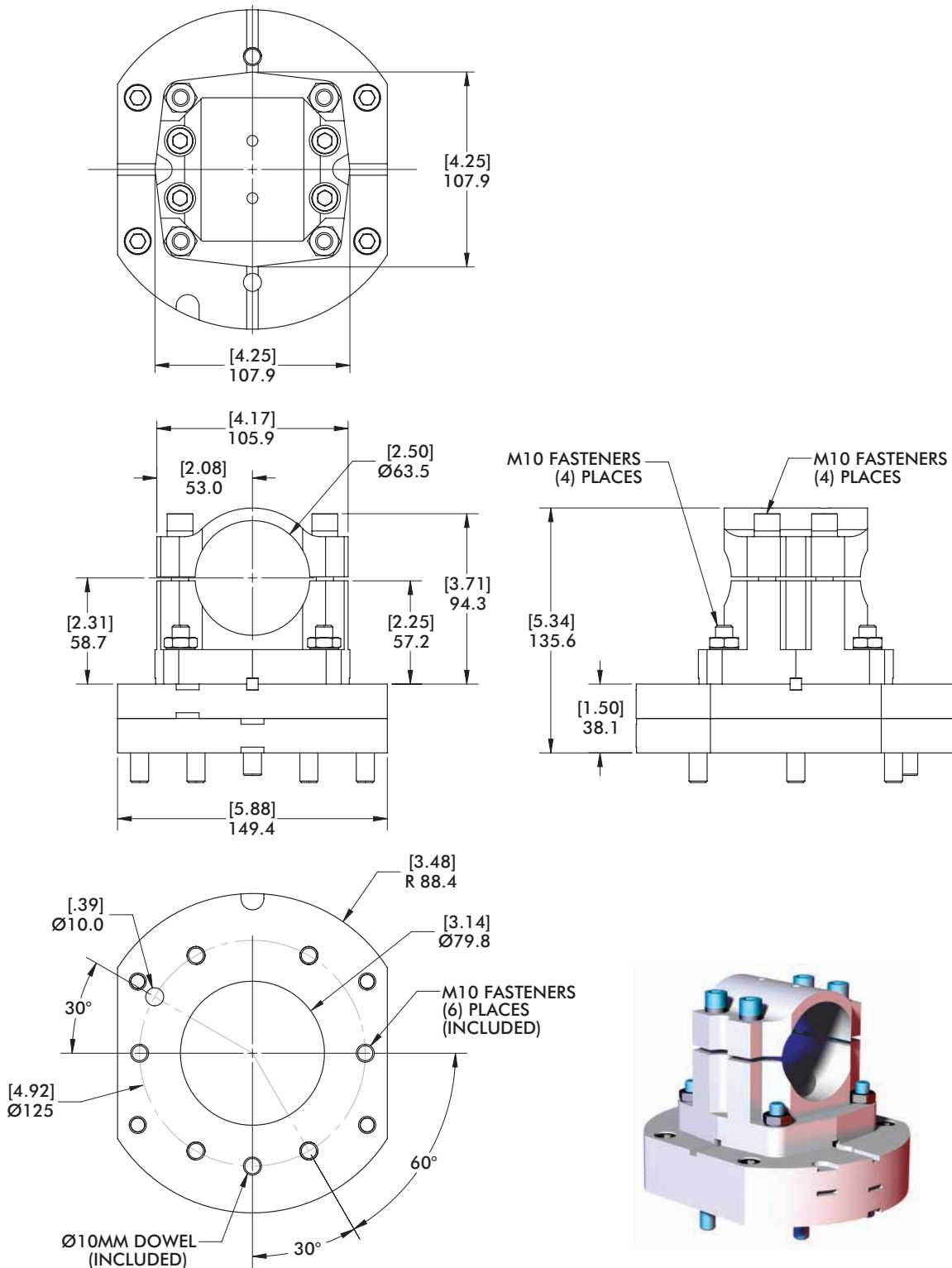


| MODEL NUMBER      | WEIGHT            |
|-------------------|-------------------|
| CPI-ATI-151-90-WT | 3.64 kg [8.03 lb] |

# ATI-90

## Robot Automation Adaptors | Dimensions

### Light Duty - Ø125mm Bolt Circle



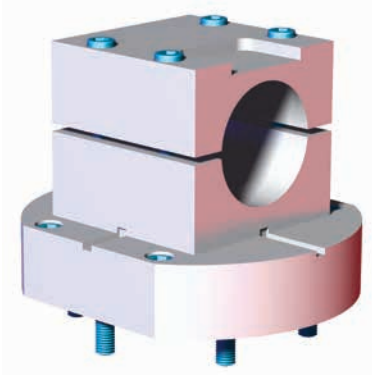
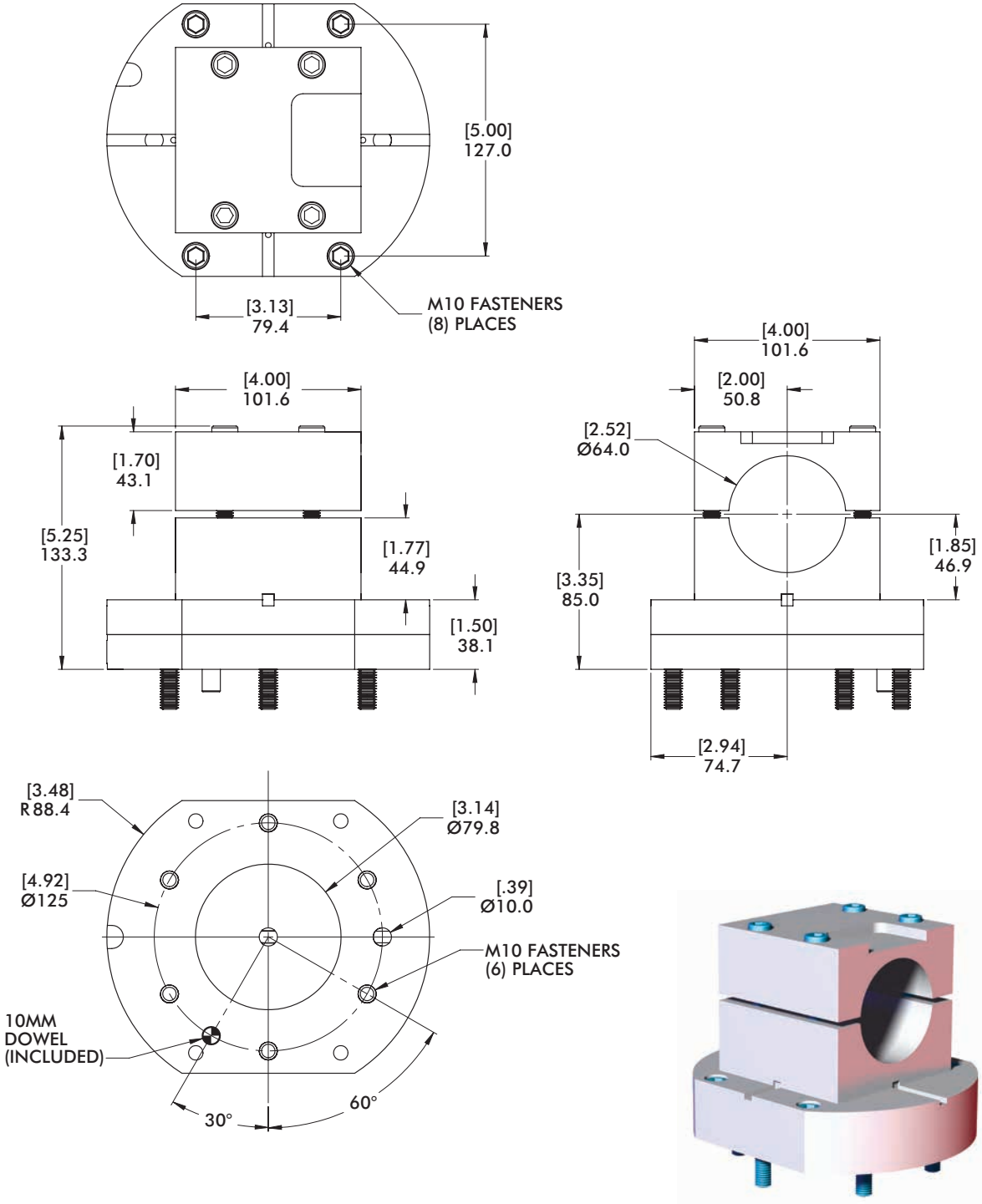
| MODEL NUMBER | WEIGHT            |
|--------------|-------------------|
| CPI-ATI-90   | 3.55 kg [7.82 lb] |



# ATI-90-SP

## Robot Automation Adaptors | Dimensions

### 90° Light Duty - Ø125mm Bolt Circle

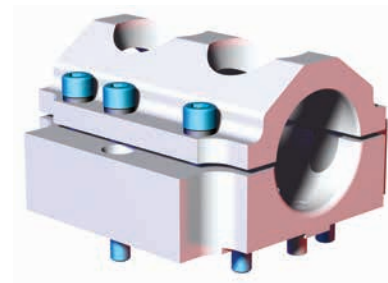
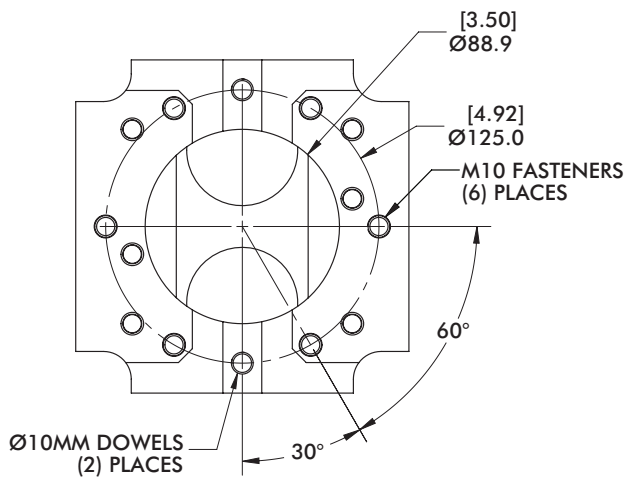
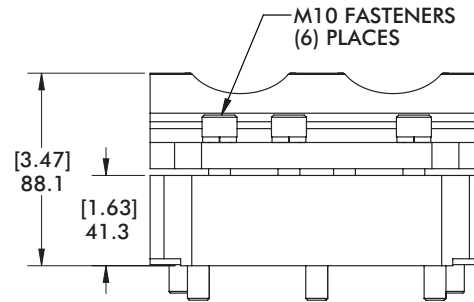
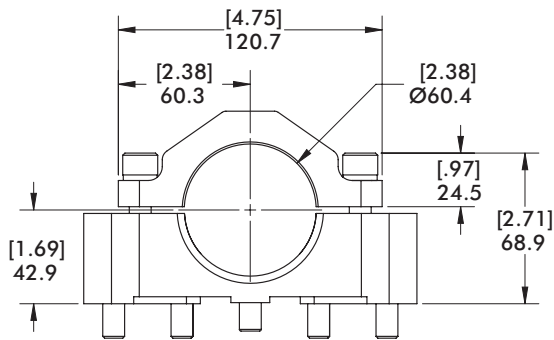
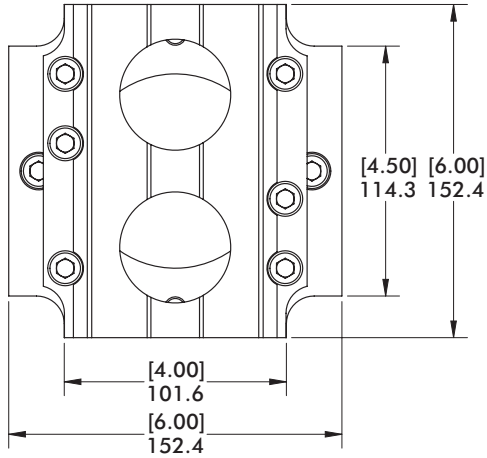


| MODEL NUMBER  | WEIGHT            |
|---------------|-------------------|
| CPI-ATI-90-SP | 3.64 kg [8.03 lb] |

# ATI-201-60

## Robot Automation Adaptors | Dimensions

Ø125mm Bolt Circle



**MODEL NUMBER**

**WEIGHT**

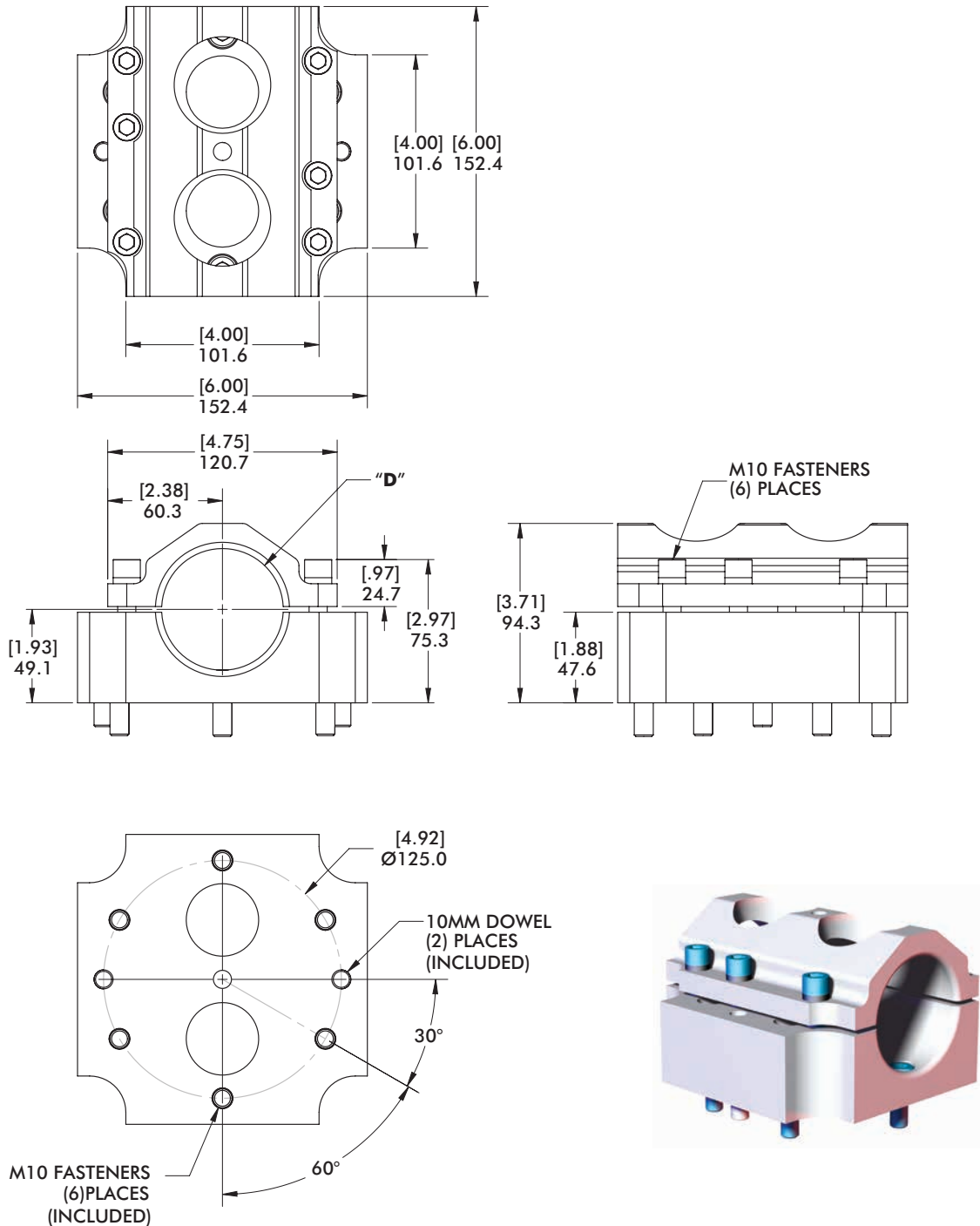
CPI-ATI-201-60

2.29 kg [5.06 lb]

# ATI-201-XXX-90

Robot Automation Adaptors | Dimensions

Ø125mm Bolt Circle Dowels

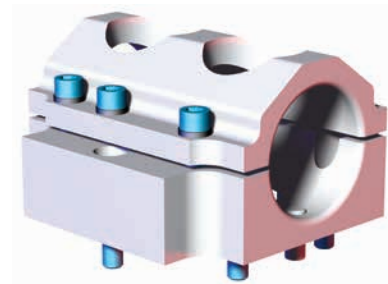
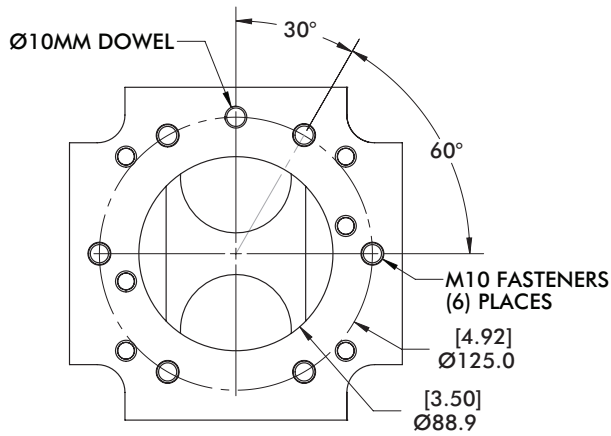
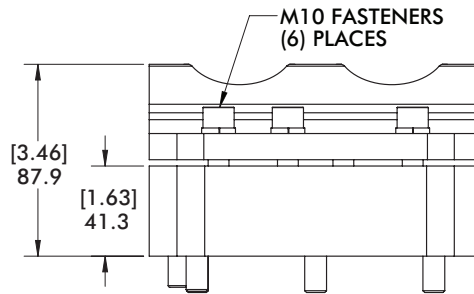
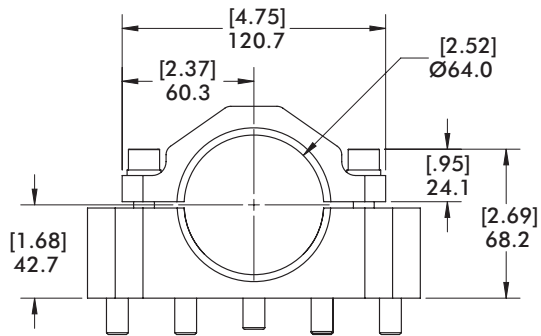
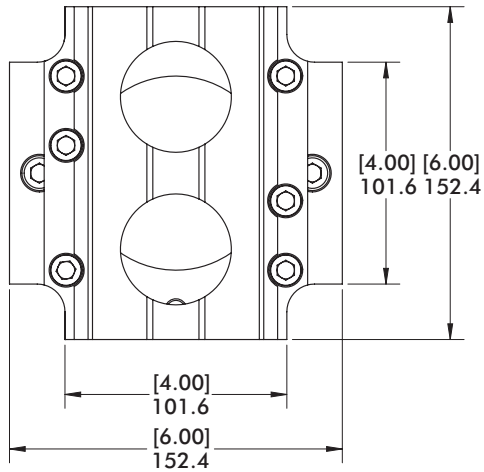


| MODEL NUMBER       | (Ø) "D"   | (Ø) ACTUAL             | WEIGHT            |
|--------------------|-----------|------------------------|-------------------|
| CPI-ATI-201-60-90  | 60mm      | 60.45±.08 [2.380±.003] | 1.27 kg [2.80 lb] |
| CPI-ATI-201-250-90 | 2.50"(in) | 63.96±.08 [2.518±.003] | 1.27 kg [2.80 lb] |

# ATI-201-90-HD

## Robot Automation Adaptors | Dimensions

Ø125mm Bolt Circle



**MODEL NUMBER**

**WEIGHT**

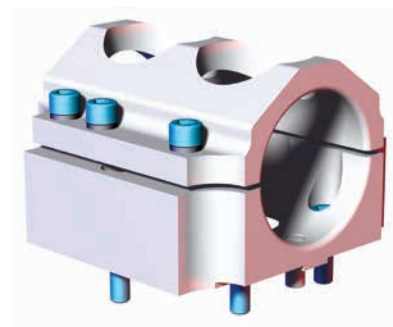
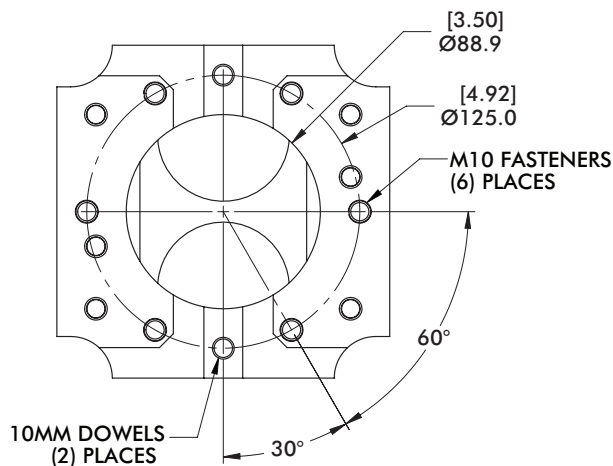
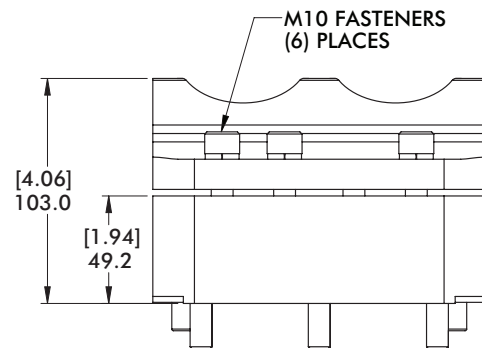
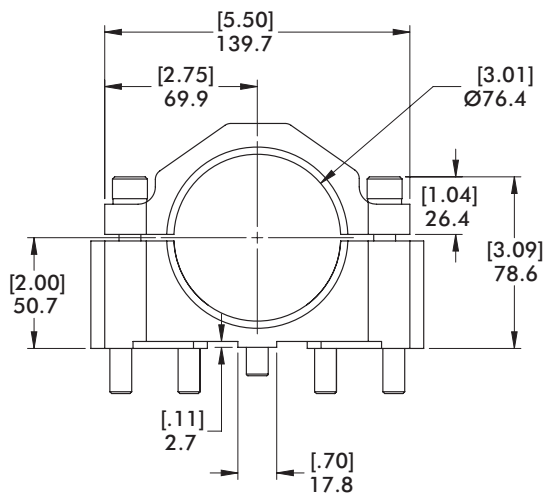
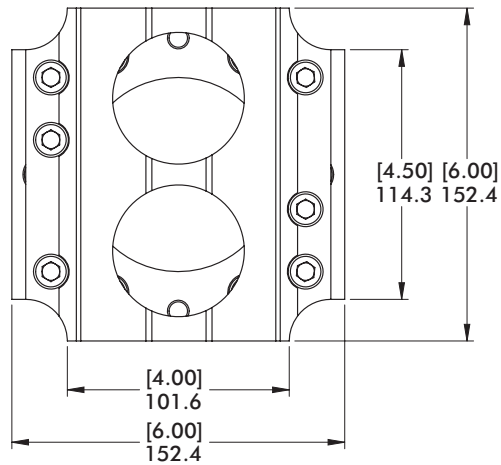
CPI-ATI-201-90-HD

2.17 kg [4.77 lb]

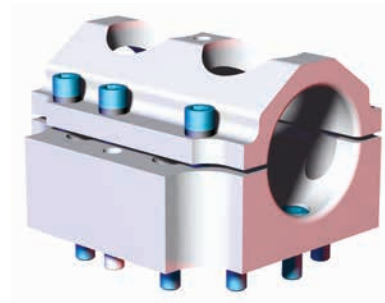
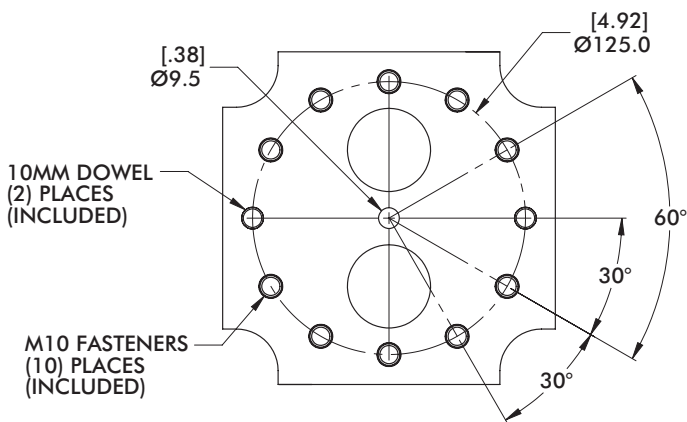
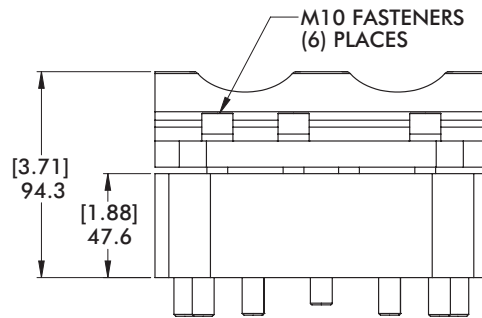
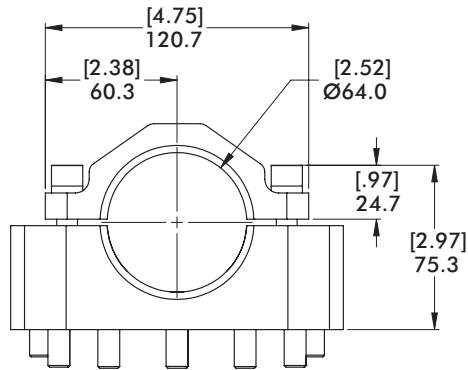
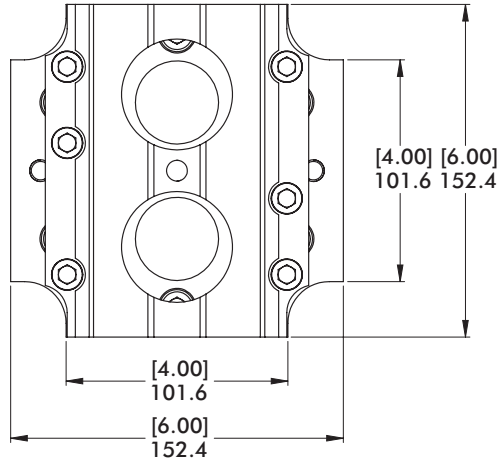
# ATI-150-90-3HD

Robot Automation Adaptors | Dimensions

Ø125mm Bolt Circle



| MODEL NUMBER       | WEIGHT            |
|--------------------|-------------------|
| CPI-ATI-201-90-3HD | 2.50 kg [5.52 lb] |



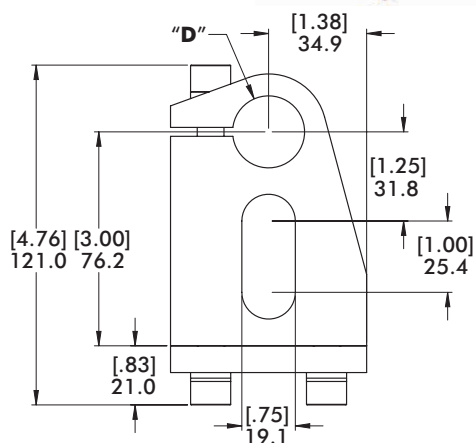
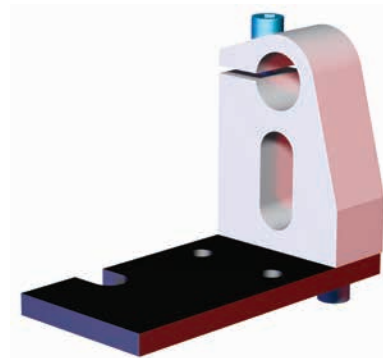
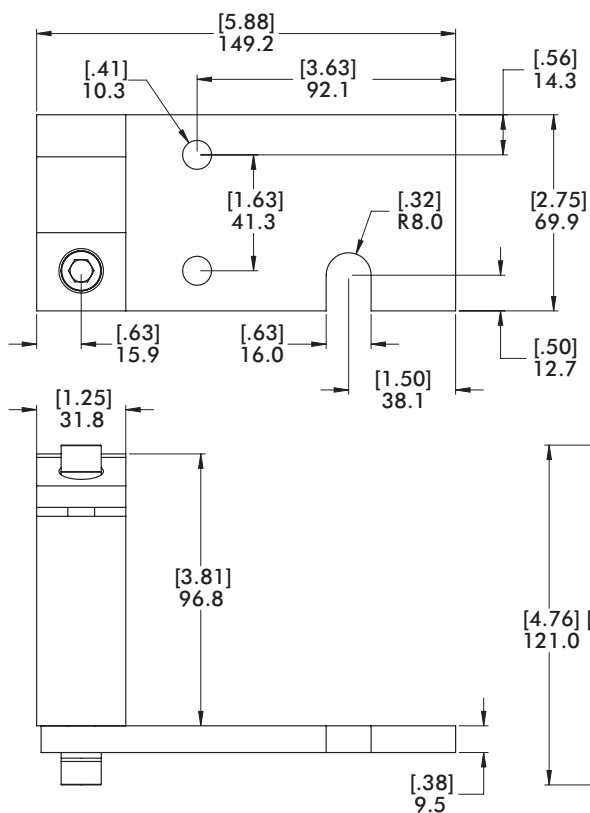
**MODEL NUMBER**

**WEIGHT**

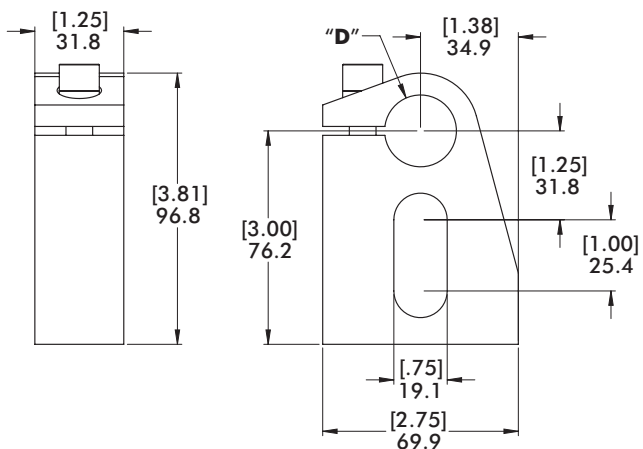
CPI-ATI-201-250-90-10S

2.17 kg [4.77 lb]





| MODEL NUMBER   | (Ø) "D"   | (Ø) ACTUAL             | WEIGHT    |
|----------------|-----------|------------------------|-----------|
| CPI-NAV-25-CM  | 25mm      | 25.25±.08 [0.994±.003] | [2.60 lb] |
| CPI-NAV-100-CM | 1.00"(in) | 25.65±.08 [1.010±.003] | 1.18 kg   |

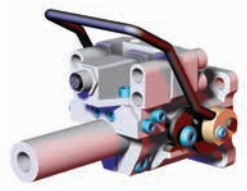


DRILL AND TAP FOR  
M10-1.50 .75 DEEP (2)

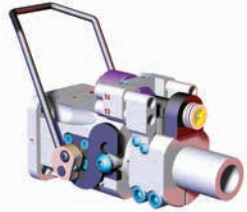
| MODEL NUMBER   | (Ø) "D"   | (Ø) ACTUAL             | WEIGHT   |
|----------------|-----------|------------------------|----------|
| CPI-NAV-25-BL  | 25mm      | 25.25±.08 [0.994±.003] | [.89 lb] |
| CPI-NAV-100-BL | 1.00"(in) | 25.65±.08 [1.010±.003] | .40 kg   |

# MANUAL TOOL CHANGERS

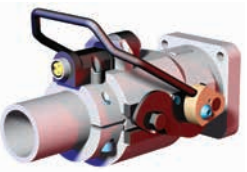
## Features & Benefits



|   |   |
|---|---|
| <b>Quick Disconnect for 25mm/1.00 in. Tubes</b> |   |
| Housing .....                                   | 4 |
| Air/Electric Connections.....                   | 6 |
| Bayonet .....                                   | 8 |
| Air/Electric Connections.....                   | 9 |



|   |    |
|---|----|
| <b>Quick Disconnect for 40mm/1.50 in. Tubes</b> |    |
| Housing .....                                   | 10 |
| Air/Electric Connections.....                   | 13 |
| Bayonet .....                                   | 19 |
| Air/Electric Connections.....                   | 20 |



|   |    |
|---|----|
| <b>Quick Disconnect for 60mm/2.50 in. Tubes</b> |    |
| Housing .....                                   | 26 |
| Air/Electric Connections.....                   | 27 |
| Bayonet .....                                   | 31 |
| Air/Electric Connections.....                   | 32 |



|                          |           |
|--------------------------|-----------|
| <b>Idle Station.....</b> | <b>37</b> |
|--------------------------|-----------|

# RDN/RDC SERIES

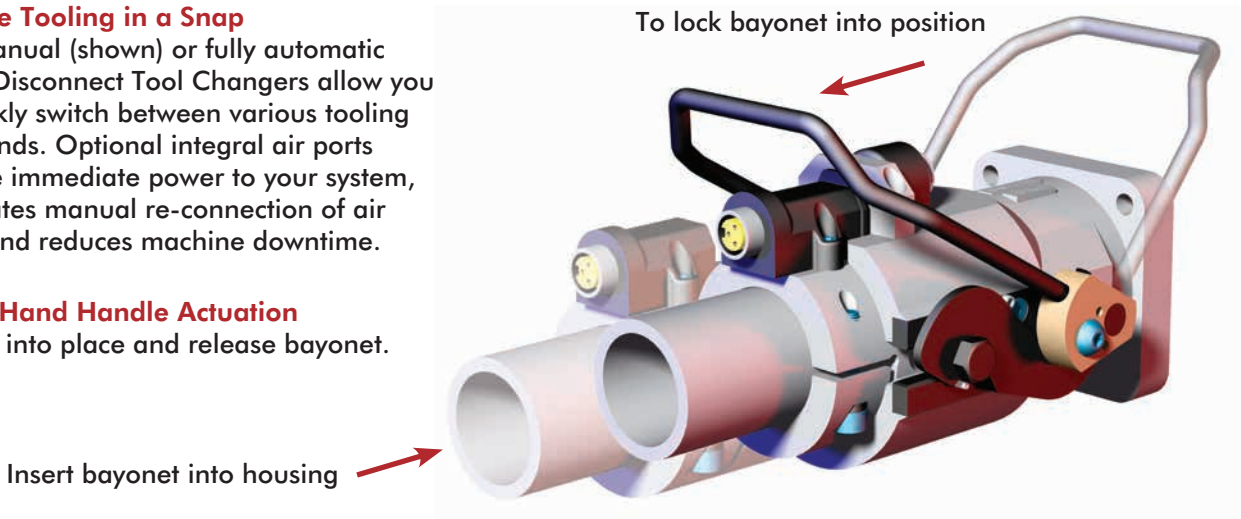
## Table of Contents

### Change Tooling in a Snap

Our manual (shown) or fully automatic Quick Disconnect Tool Changers allow you to quickly switch between various tooling in seconds. Optional integral air ports provide immediate power to your system, eliminates manual re-connection of air lines, and reduces machine downtime.

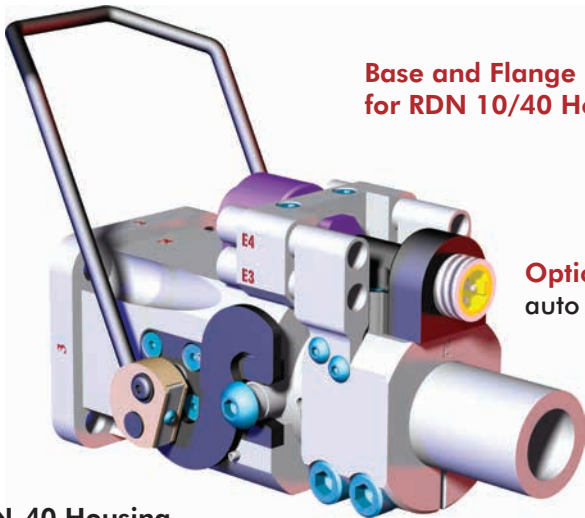
### Single Hand Handle Actuation

To lock into place and release bayonet.



### RDN/RDC Features

(Handle in release position)



Base and Flange mounting for RDN 10/40 Housing

RDN-40 Housing  
RDC-40/15 Bayonet  
for Ø40mm/1.50"(in)  
Tooling Boom/Tubes

Internal urethane bumpers ensures a tight interface between the robot and tool sides

Air & electrical connections stay properly sequenced when tool is removed.

Additional electrical connectors available  
RDN-40 and RDH electrical connectors must be ordered separately from Housing/Bayonet.

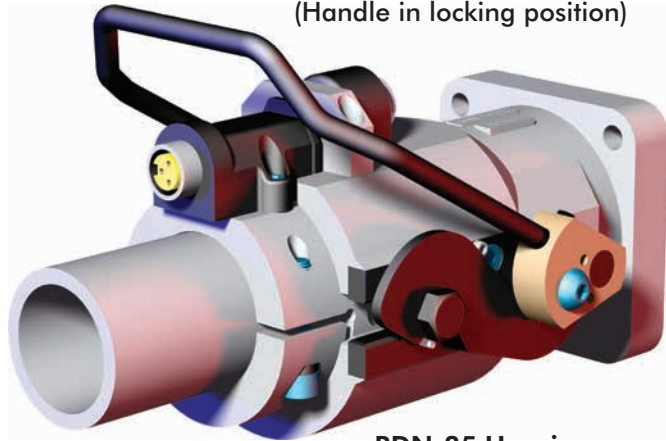
(Handle in locking position)



RDN-10 Housing  
RDC-10/25M Bayonet  
for Ø25mm/1.00"(in)  
Tooling Boom/Tubes

Optional air port modules auto disconnect when handle is released

(Handle in locking position)



RDN-25 Housing  
RDC-60/25 Bayonet  
for Ø60mm/2.50"(in)  
Tooling Boom/Tubes

# BAYONETS FOR MANUAL TOOL CHANGERS

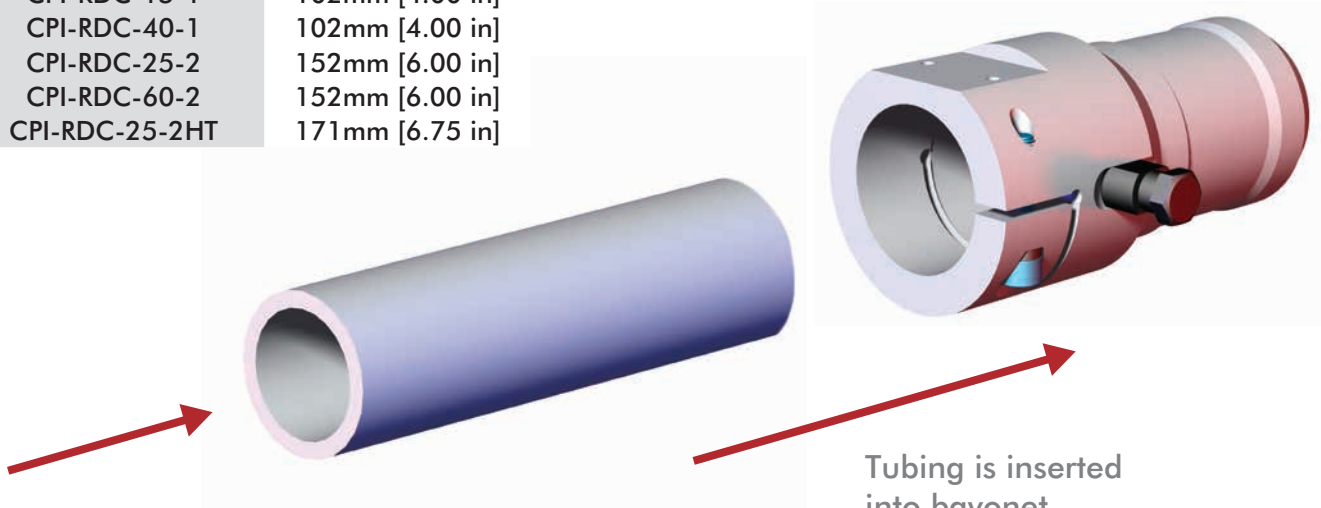
Manual Tool Changers | Bayonet & Boom Assembly Procedure | Product Overview

## Overview:

The internal surface of the bayonet is tapered to lock the tubing in the position during hi-torque operations. Tubing must be inserted the proper distance to completely engage the taper.

## Procedure:

| Part Number    | Depth           |
|----------------|-----------------|
| CPI-RDC-10-1   | 70mm [2.75 in]  |
| CPI-RDC-25M-1  | 70mm [2.75 in]  |
| CPI-RDC-15-1   | 102mm [4.00 in] |
| CPI-RDC-40-1   | 102mm [4.00 in] |
| CPI-RDC-25-2   | 152mm [6.00 in] |
| CPI-RDC-60-2   | 152mm [6.00 in] |
| CPI-RDC-25-2HT | 171mm [6.75 in] |



It is helpful to tap on the end of the tubing with a mallet until the tubing is seated firmly against the taper

Tubing is inserted into bayonet

# RDN-10 DISCONNECT HOUSINGS

## Manual Tool Changers | Flange Style Housing for RDC-10 Series Bayonets | Product Overview

### Features:

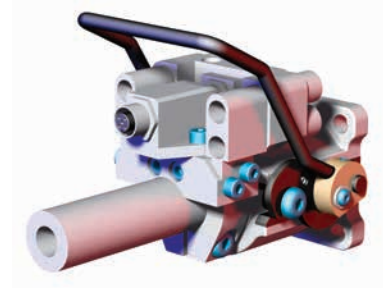
- 50.8mm [2.00 in.] Sq. Flange Mntg.
- Steel handle actuation allows quick and accurate installation, pulling the bayonet into a fixed position within the housing. This action also engages optional air and electric connectors
- Internal urethane rings eliminate vibration and seat the bayonet securely

### Specifications:

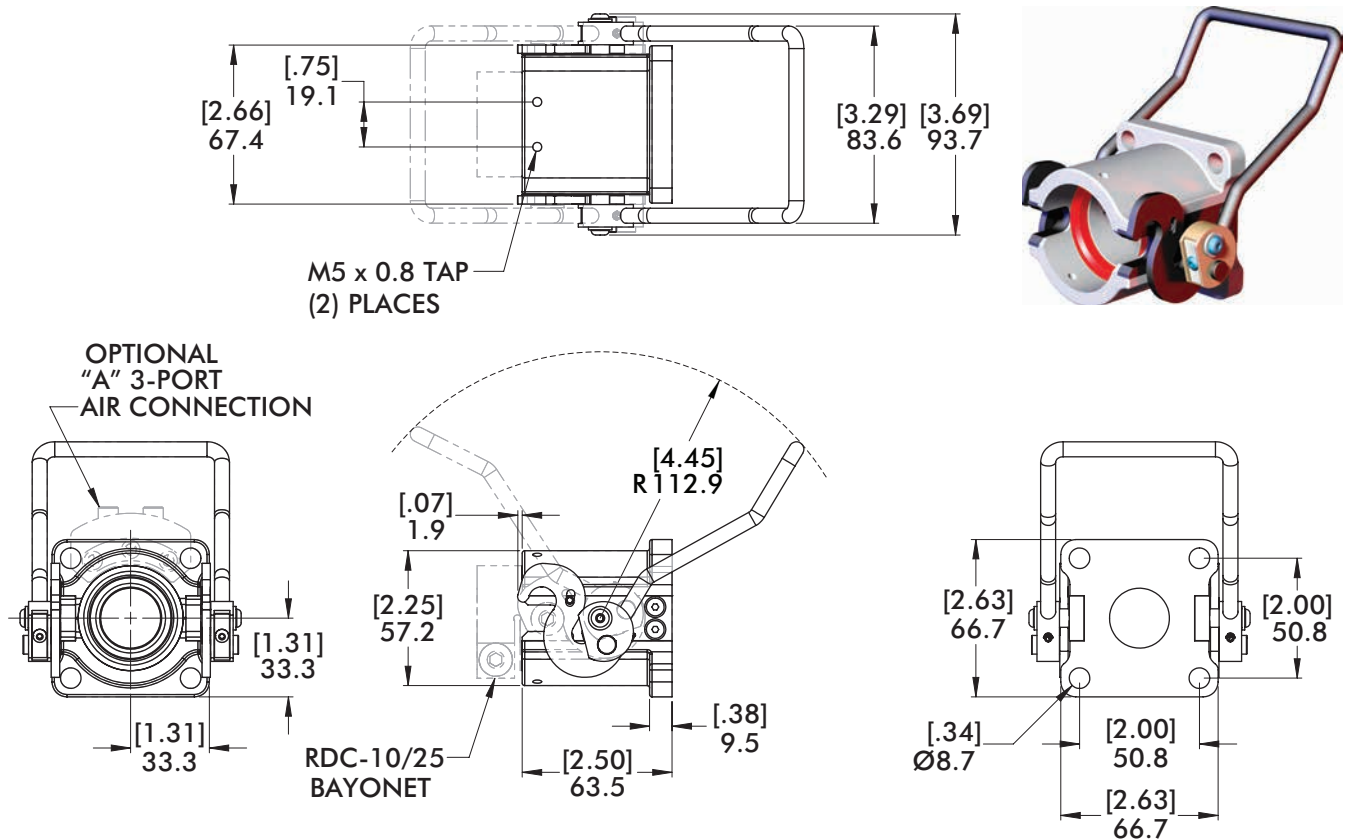
**Max. Static Product Load:**  
47 N\*m [35 ft-lb]

**Material:**  
Body: Aluminum  
Knuckles: Brass  
Handle and Hooks: Steel  
Inserts: Urethane

**Weight:**  
0.63 kg [1.4 lb]



### Dimensions

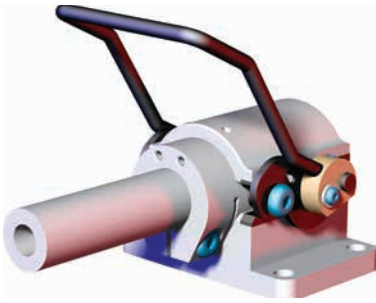


### How To Order

|     | Model   | Mounting                        | Air Port Connection   | Electrical Connection                                       |
|-----|---|---------------------------------|---|---|
| CPI | <b>RDN-10</b>   | <b>1F</b>                       | <b>4AS</b>  | <b>5E</b>   |
|     |   |                                 |   |   |
|     | "RDN-10"<br>Ø25mm/1.00"<br>Quick<br>Disconnect<br>Housing | "1F"<br>Flange Type<br>Mounting | "A" (3-Port Connector)<br>"5A" (5-Port Connector)<br>"4AS" (4-Port Connector)<br>(Leave blank for No Options) | "5E" (5-Pin Connector)<br>(Only available for "4AS" Option) |

# RDN-10 HOUSINGS

Manual Tool Changers | Base Mount Style for RDC-10 Series Bayonets | Product Overview



### Specifications:

**Max. Static Product Load:** 47 N\*m [35 ft-lb]

### Material:

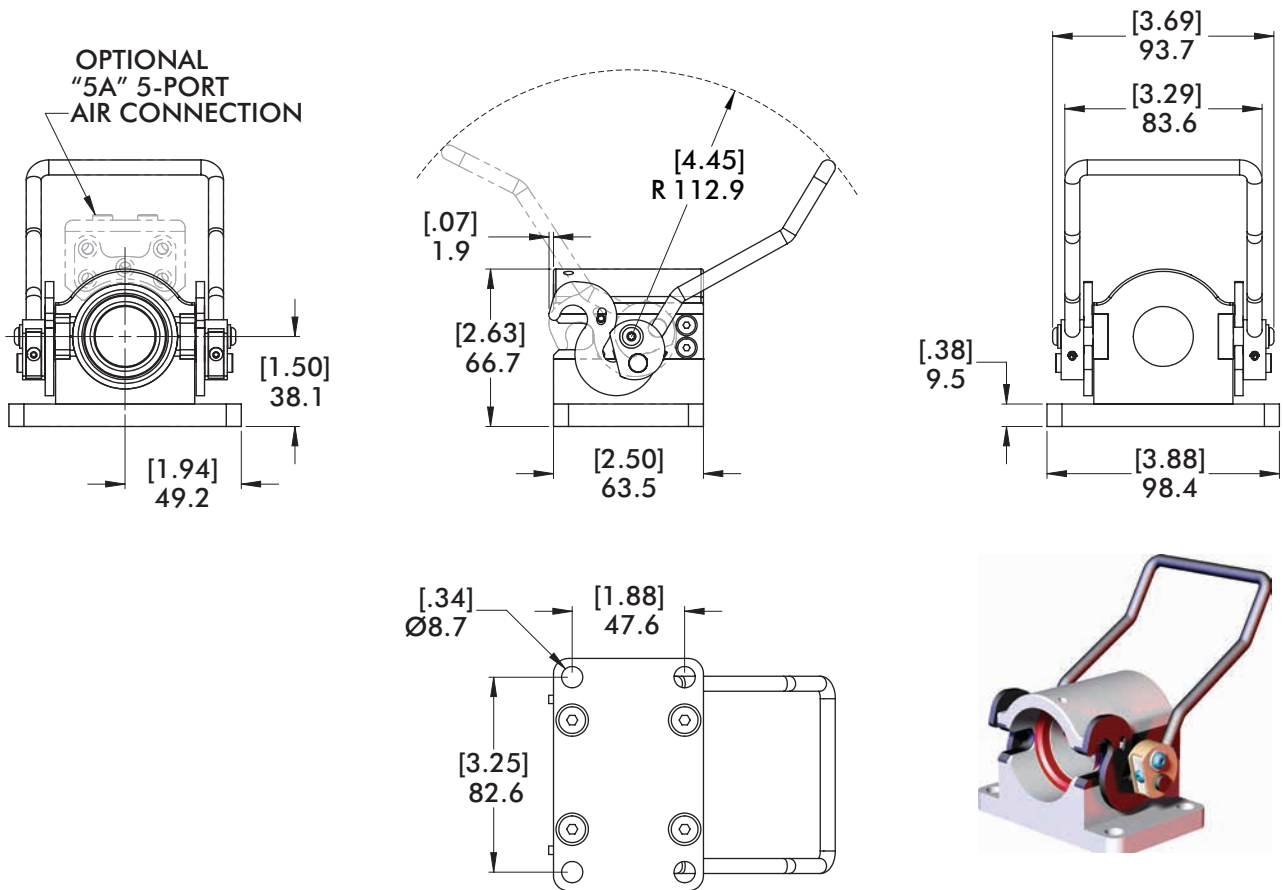
Body: Aluminum  
Knuckles: Brass  
Handle and Hooks: Steel  
Inserts: Urethane

**Weight:** 0.82 kg [1.8 lb]

### Features:

- 47.6mm x 82.6mm [1.88 in. x 3.25 in.] Base Mounting.
- Steel handle actuation allows quick and accurate installation, pulling the bayonet into a fixed position within the housing. This action also engages optional air and electric connectors
- Internal urethane rings eliminate vibration and seat the bayonet securely

## Dimensions



## How To Order

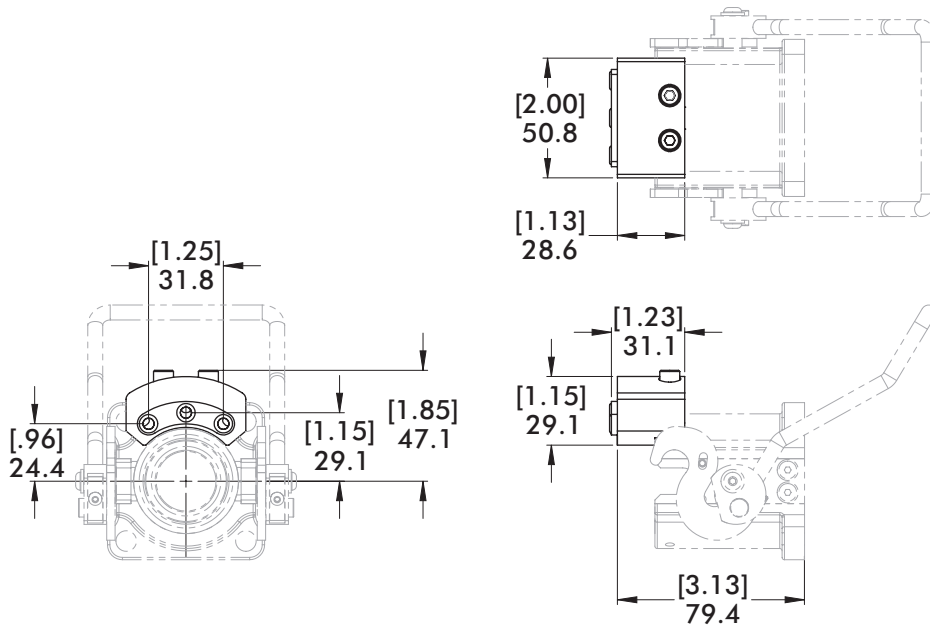
|     | Model   | Mounting                          | Air Port Connection   | Electrical Connection   |
|-----|---|-----------------------------------|---|---|
| CPI | <b>RDN-10</b>   | <b>1B</b>                         | <b>4AS</b>  | <b>5E</b>   |
|     | <br>"RDN-10"<br>Ø25mm/1.00"<br>Quick<br>Disconnect<br>Housing | <br>"1B"<br>Base Type<br>Mounting | <br>"A" (3-Port Connector)<br>"5A" (5-Port Connector)<br>"4AS" (4-Port Connector)<br>(Leave blank for No Options) | <br>"5E" (5-Pin Connector)<br>(Only available for "4AS" Option) |



# AIR MANIFOLDS

Manual Tool Changers | RDN-10 Disconnect Series | Dimensions

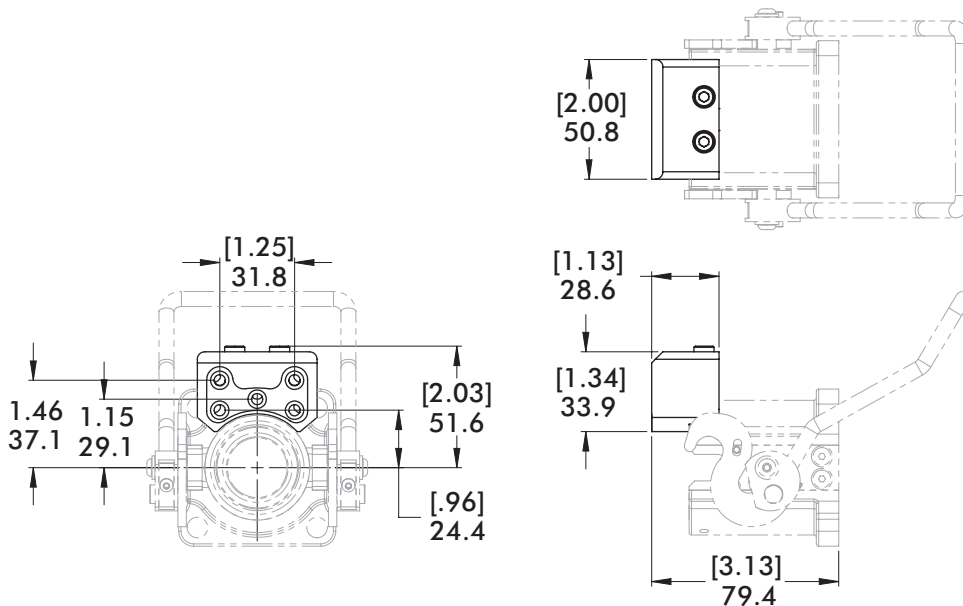
## 1A 3-Port Air Connection



REPLACEMENT PART

RDN-10-8

## 5A 5-Port Air Connection



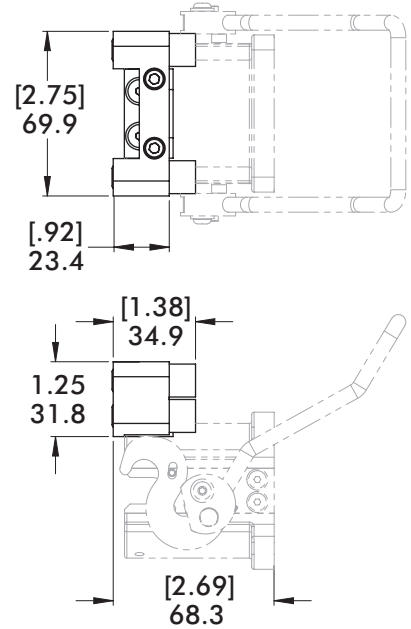
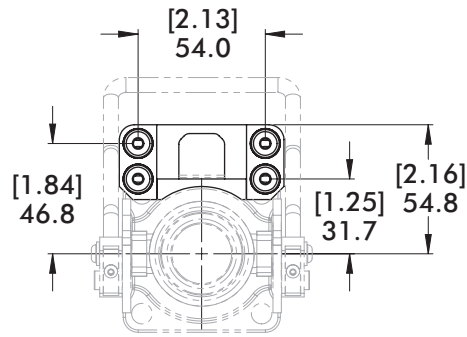
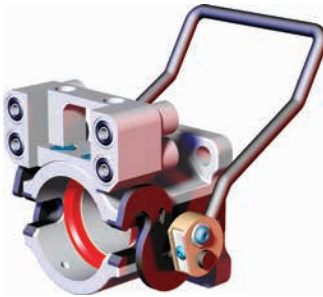
REPLACEMENT PART

RDN-10-9

# AIR MANIFOLDS WITH OR WITHOUT ELECTRICAL CONNECTIONS

Manual Tool Changers | RDN-10 Disconnect Series | Dimensions

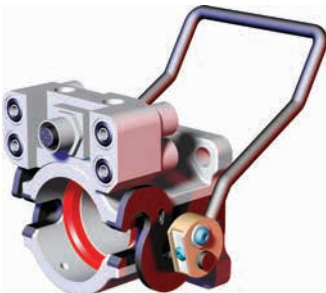
## 4AS 4-Port Air Connection with Shutoff



**REPLACEMENT PART**  
CPI-RDN-10-4AS

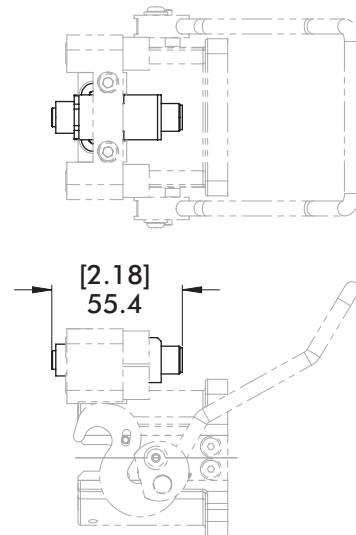
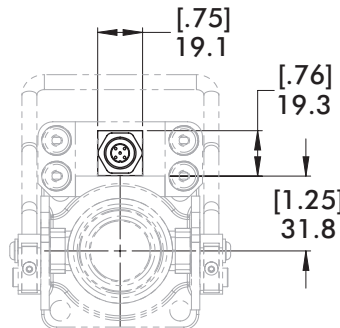
**Air fittings**  
(4) Needed  
RDN-AS-U18

## 5E 5-Pin Micro Electric Connection



See Page 17 for  
Pin Configuration

**REPLACEMENT PART**  
CPI-RDH-F5S-5MCM



# RDC-10/25 SERIES BAYONETS

Manual Tool Changers | 25mm or 1.0" Booms | Product Overview

## Features:

- Used in conjunction with the Quick Disconnect Housing to provide efficient mode of changing tools manually.
- (2) Hardened alignment pins allows quick and accurate installation into the bayonet.

## Specifications:

**Max. Static Product Load:**

47 N\*m [35 ft-lb]

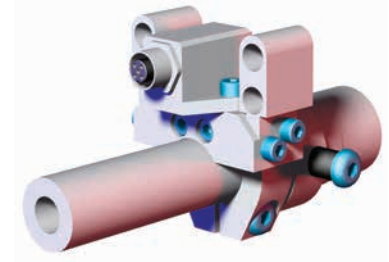
**Material:**

Body: Aluminum

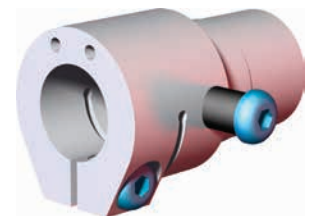
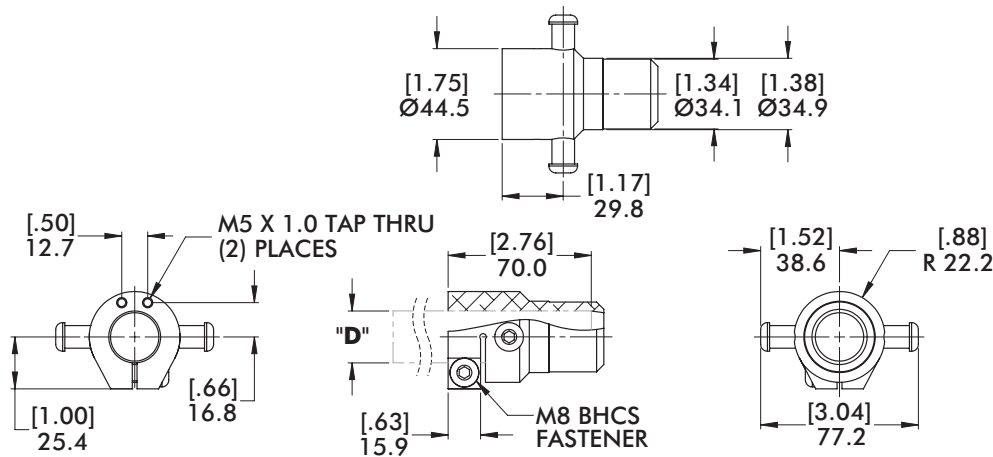
Pins: Steel

**Weight:**

0.23 kg [0.5 lb]



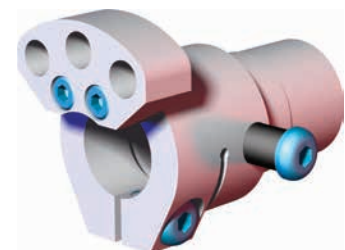
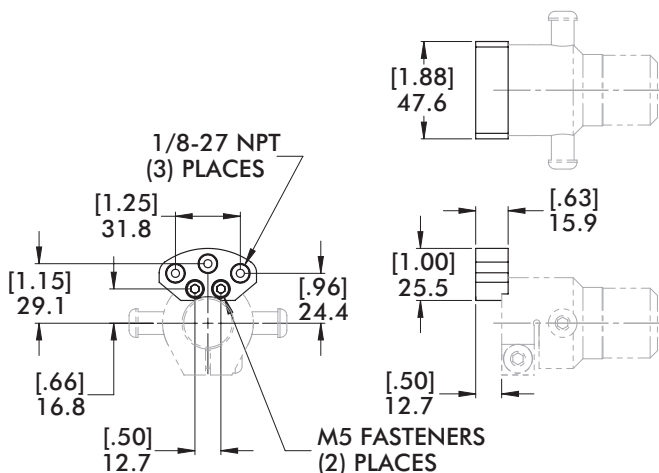
## Dimensions



## How To Order

| CPI | Model                          | Boom/Tube (Ø) "D"            | Air Port Connection  | Electrical Connection   |
|-----|--------------------------------|------------------------------|--|---|
|     | <b>RDC</b>                     | <b>10</b>                    | <b>4AS</b>   | <b>5E</b>   |
|     | "RDC" Quick Disconnect Bayonet | "10" 1.00"(in)<br>"25M" 25mm | "1"<br>"1A"<br>"5A"<br>"4AS"<br>"1-4AS"  | "5E" (5-Pin Connector)<br>(Only available for "4AS or 1-4AS" Options) |
|     |                                |                              | No Options<br>(3-Port Connector)<br>(5-Port Connector)<br>(4-Port Connector-Imperial Only)<br>(4-Port Connector-Metric Only) |   |

## 1A 3-Port Air Connection



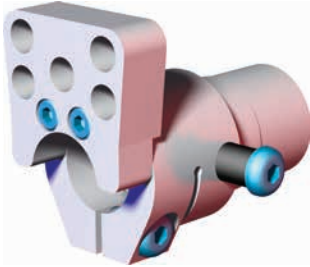
**REPLACEMENT PART**

**RDC-10-3**

# AIR MANIFOLDS WITH OR WITHOUT ELECTRICAL CONNECTIONS

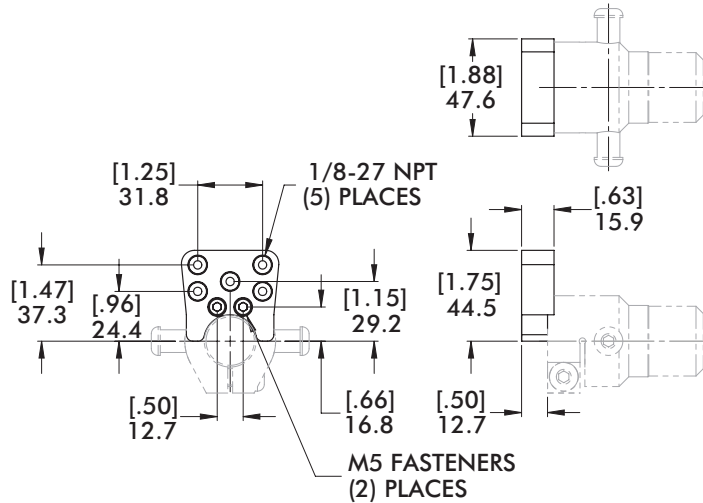
Manual Tool Changers | RDC-10/25 Series Bayonets | Dimensions

## 5A 5-Port Air Connection

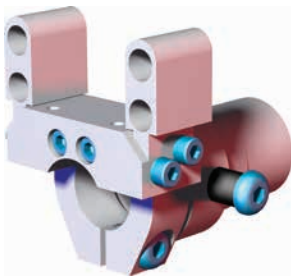


**REPLACEMENT PART**

**RDC-10-5**



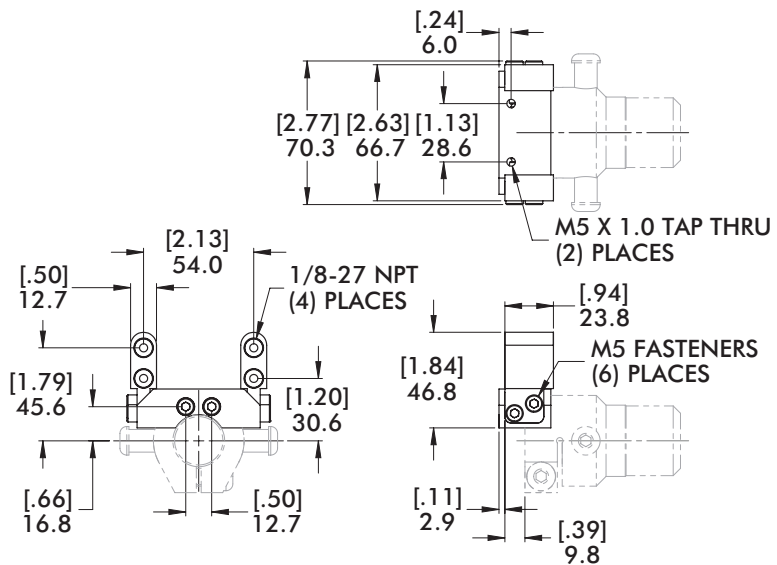
## 4AS 4-Port Air Connection with Shutoff



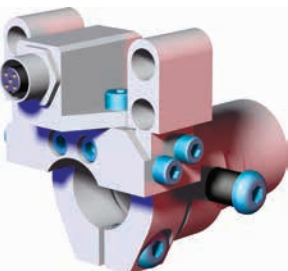
(2) Required

**REPLACEMENT PART**

**RDC-10-4**



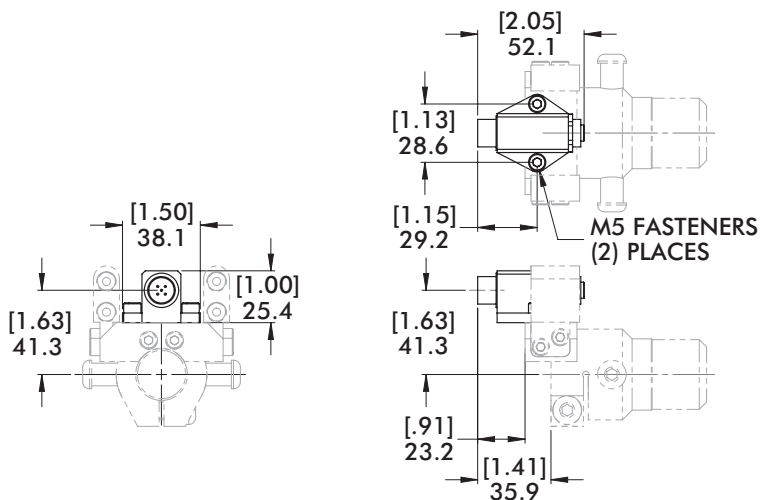
## 5E 5-Pin Micro Electric Connection



See Page 23 for Pin Configuration

**REPLACEMENT PART**

**CPI-RDB-M5P-5MCF**



# RDN-40 DISCONNECT HOUSINGS

Manual Tool Changers | Flange Style Housing for RDC-40/150 Series Bayonets | Product Overview

## Features:

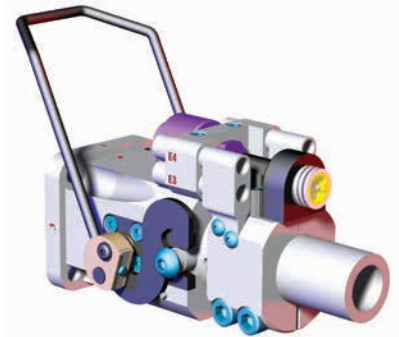
- 60.3mm [2.38 in.] Sq. Flange Mntg.
- Steel handle actuation allows quick and accurate installation, pulling the bayonet into a fixed position within the housing. This action also engages optional air and electric connectors.
- Internal urethane rings eliminate vibration and seat the bayonet securely.

## Specifications:

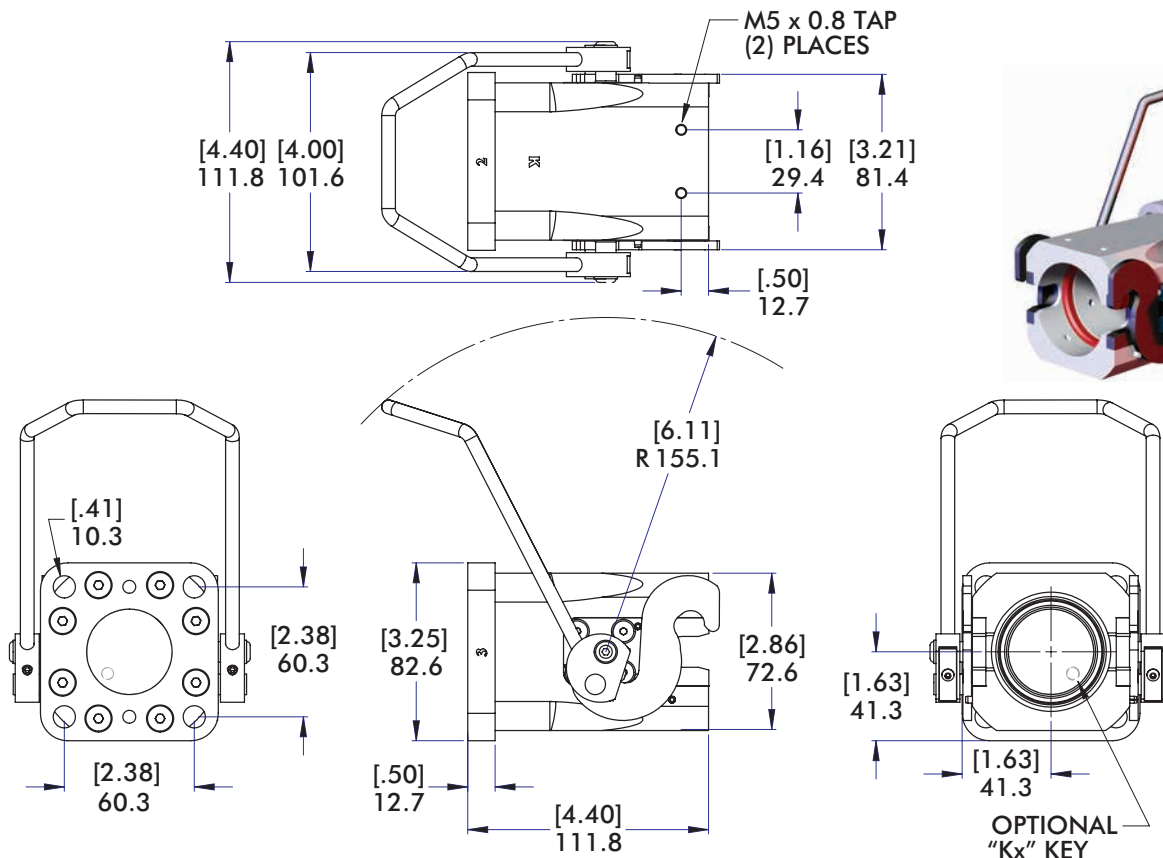
**Max. Static Product Load:**  
305 N\*m [225 ft-lb]

**Material:**  
Body: Aluminum  
Knuckles: Brass  
Handle and Hooks: Steel  
Inserts: Urethane

**Weight:**  
1.5 kg [3.3 lb]



## Dimensions



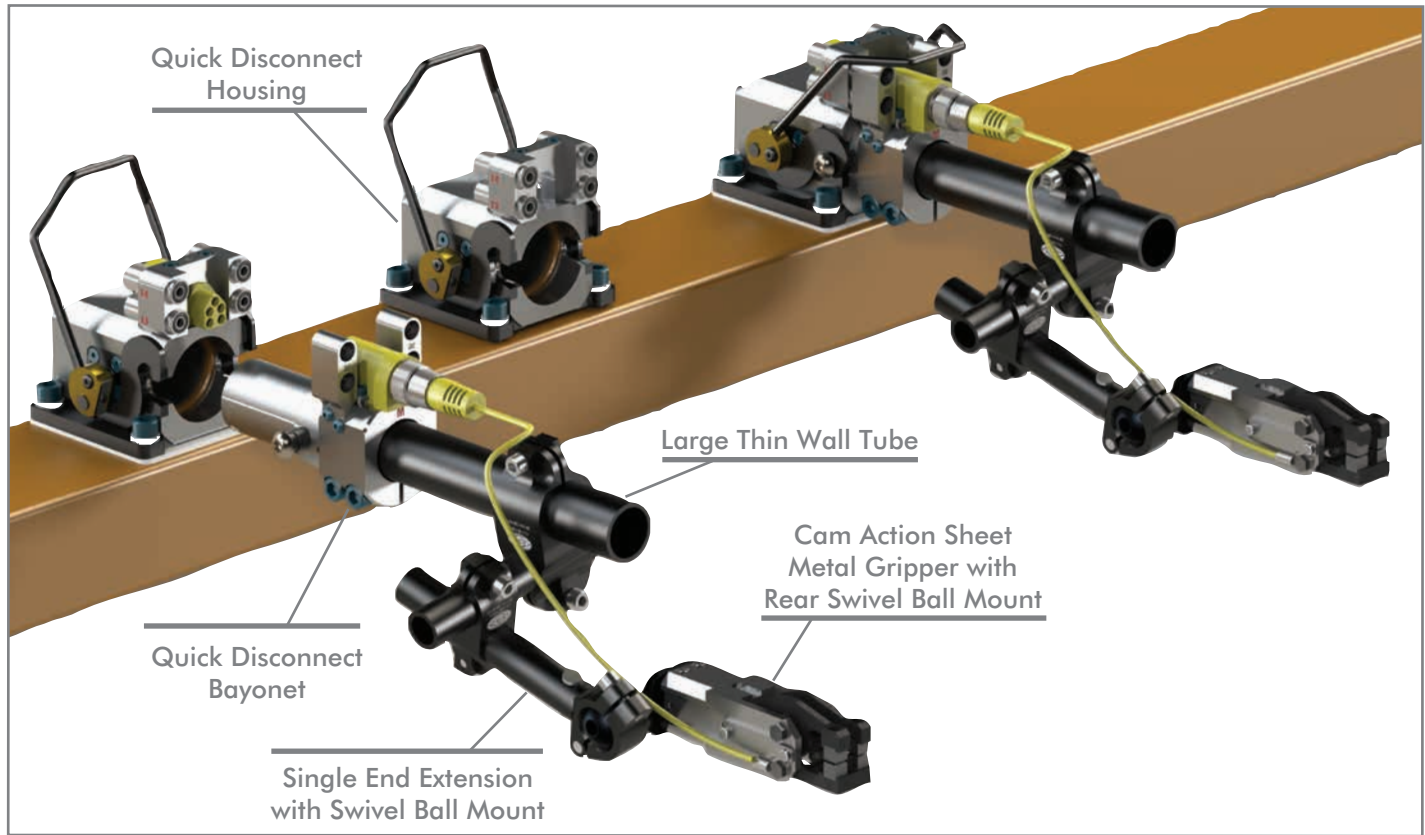
## How To Order

| Model   | Mounting                            | Air Port Connection  | Key Position   | Electrical Connection   | Add for "E4" or "E6" Air Port Connection Only |
|---|-------------------------------------|--|--|---|---|
| CPI — <b>RDN-40</b>   | — <b>1F</b>                         | — <b>S4</b>  | — <b>K2</b>  | — <b>MC</b>   | — <b>HF</b>                                   |
| <br>"RDN-40"<br>Ø40mm/1.50"<br>Quick<br>Disconnect<br>Housing | <br>"1F"<br>Flange Type<br>Mounting | <br>"S4" (4-Port Internal)<br>"E4" (4-Port External)<br>"E6" (6-Port External)<br>"SE4" (4-Port Int & Ext)<br>(Leave blank for No Options) | <br>"K1 (1-4)"<br>"VWK (1-16)"<br>(Leave blank for No Options) | <br>"MC" (Micro 5-Pin)<br>"MN" (Mini 3-Pin)<br>(Leave blank for No Options) |   |

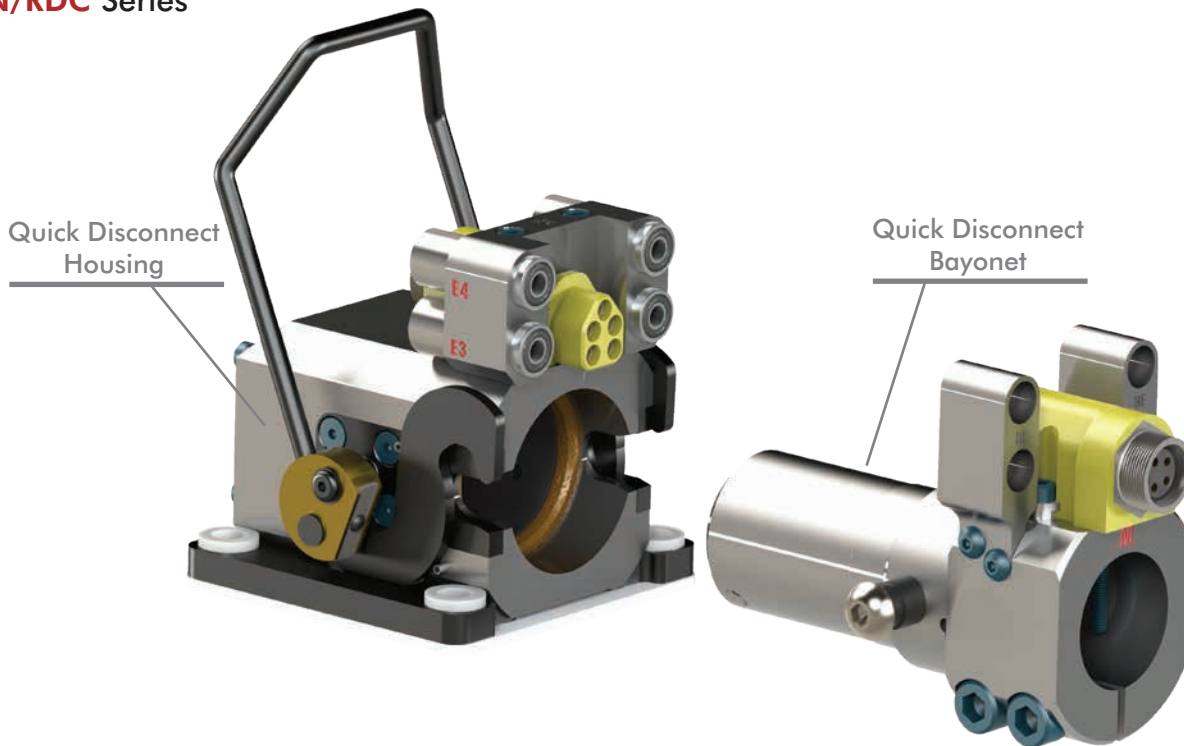


# RDN-40 BASE MOUNT DISCONNECT HOUSINGS

Manual Tool Changers | Tri-Axis Rail Tooling Example



## RDN/RDC Series

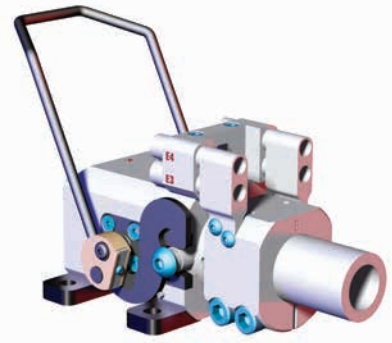


| Model Number                 | Description  |
|------------------------------|--|
| CPI-RDN-40-JB-E4-5MNM-HF-INS | Quick Disconnect Housing with 4-Port High Flow Air, 5-Pin Electric, Insulation |
| CPI-RDC-15-E4-5MNF-HF        | Quick Disconnect Bayonet with 4-Port High Flow Air, 5-Pin Electric             |



# RDN-40 DISCONNECT HOUSINGS

Manual Tool Changers | Base Mount Housing for RDC-40/150 Series Bayonets | Product Overview



### Specifications:

**Max. Static Product Load:**  
305 N\*m [225 ft-lb]

### Material:

Body: Aluminum  
Knuckles: Brass  
Handle and Hooks: Steel  
Inserts: Urethane

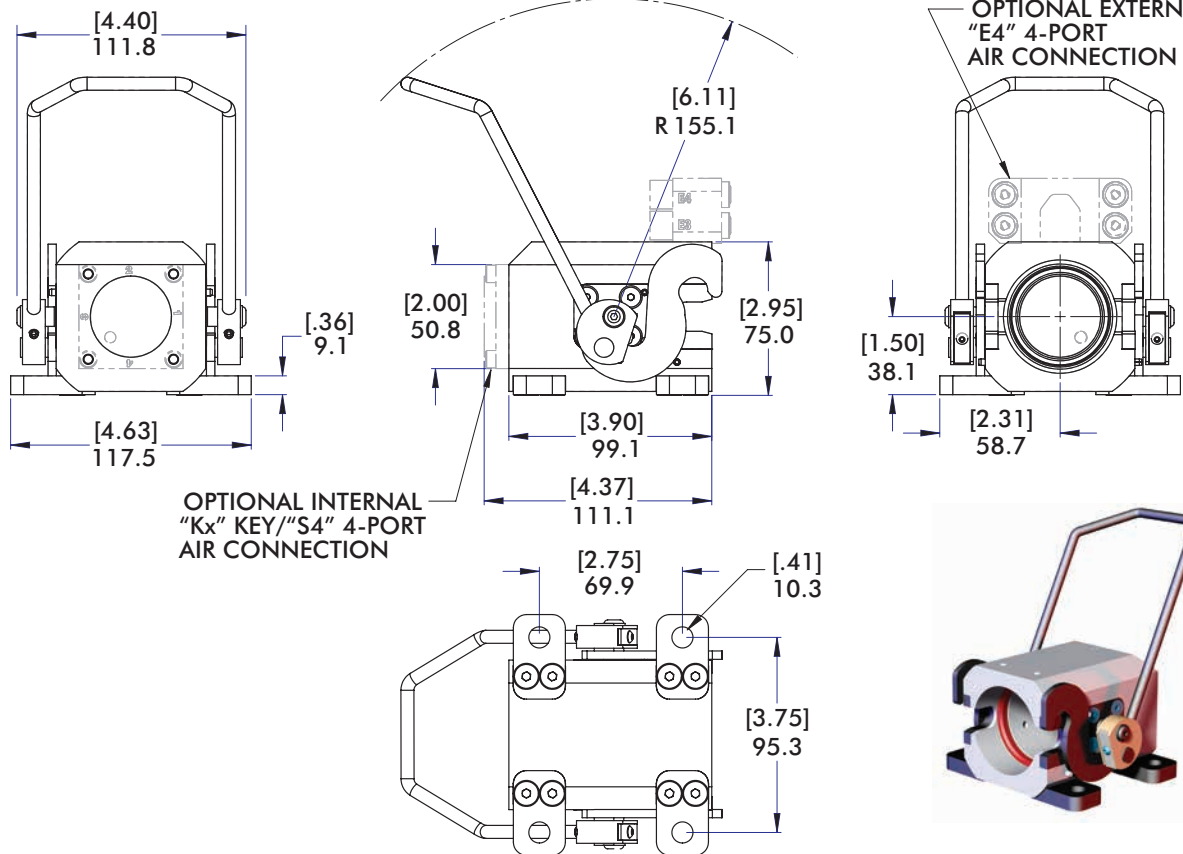
### Weight:

1.4 kg [3.1 lb]

### Features:

- 70mm x 95.3mm [2.75 in. x 3.75 in.] Base Mounting.
- Steel handle actuation allows quick and accurate installation, pulling the bayonet into a fixed position within the housing. This action also engages optional air and electric connectors.
- Internal urethane rings eliminate vibration and seat the bayonet securely.

## Dimensions, How To Order



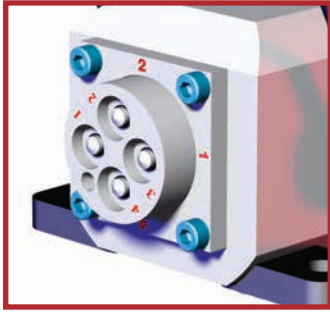
## How To Order

| Model   | Mounting                          | Air Port Connection               | Key Position   | Electrical Connection   |   |
|---|-----------------------------------|-----------------------------------|--|---|---|
| CPI — <b>RDN-40</b> —   | <b>1B</b> —                       | <b>S4</b> —                       | <b>K2</b> —  | <b>MC</b> —   | <b>HF</b>   |
| <br>"RDN-40"<br>Ø40mm/1.50"<br>Quick<br>Disconnect<br>Housing | <br>"1B"<br>Base Type<br>Mounting | <br>"S4"<br>"E4"<br>"E6"<br>"SE4" | <br>"K (1-4)"<br>"VWK (1-16)"<br>(Leave blank for<br>No Options) | <br>"MC" (Micro 5-Pin)<br>"MN" (Mini 3-Pin)<br>(Leave blank for No Options) | — Add for<br>"E4" or "E6"<br>Air Port<br>Connection<br>Only |
|   |                                   | (Leave blank for No Options)      |  |   |   |

# TOOLING ERROR PROOF KEY AND AIR PORTS

Manual Tool Changers | RDN-40 Flange Mount Disconnect Housings | Dimensions

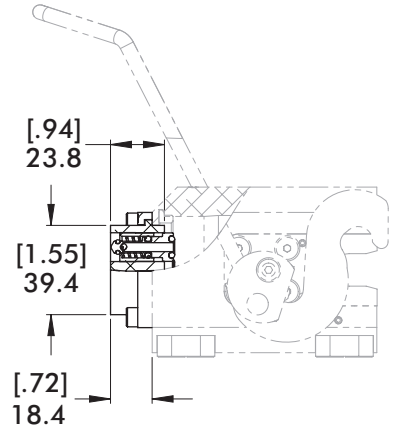
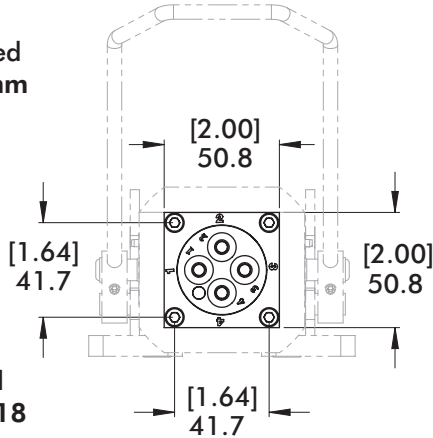
## S4 4-Port Internal Air Connection for Base Style Mounting



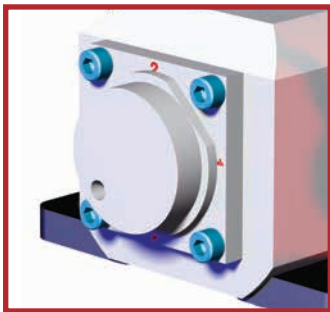
**REPLACEMENT PART**  
RDN-40-10-IAB

**Dowels**  
(1) Needed  
M6 x 25mm

**Air fittings**  
(4) Needed  
RDN-SAS-U18

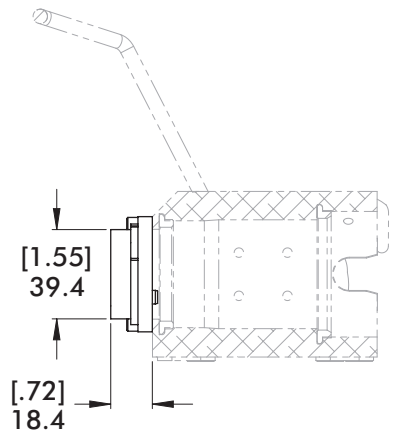
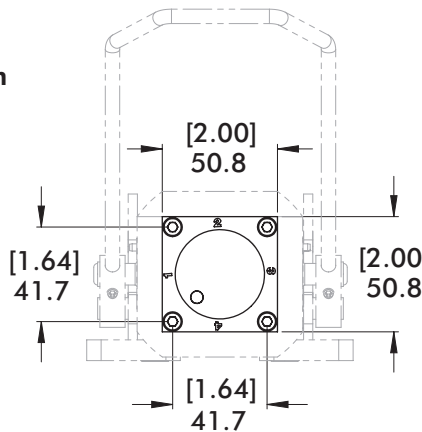


## Kx Locating Key for Base Style Mounting

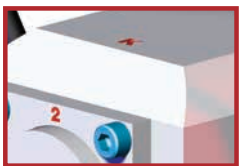


**REPLACEMENT PART**  
RDN-40-10-IKB

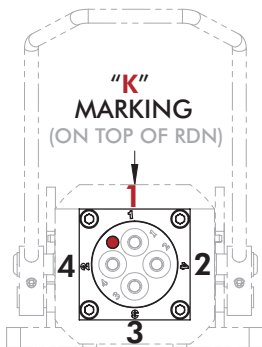
**Dowels**  
(1) Needed  
M6 x 25mm



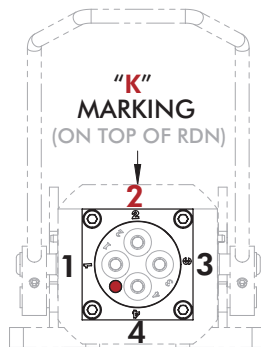
## S4 and Kx Internal Key Position for Base Style Mounting



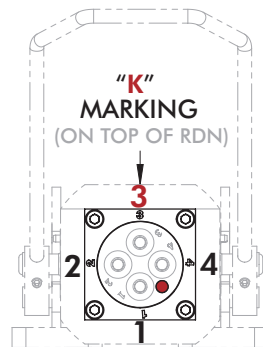
**BASE MOUNT RING**  
(1) Needed  
RDN-40-3-MR



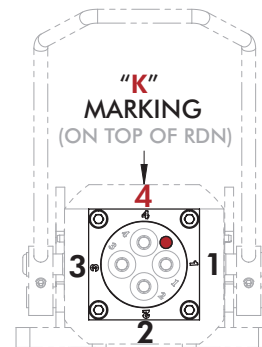
"K1" POSITION



"K2" POSITION



"K3" POSITION

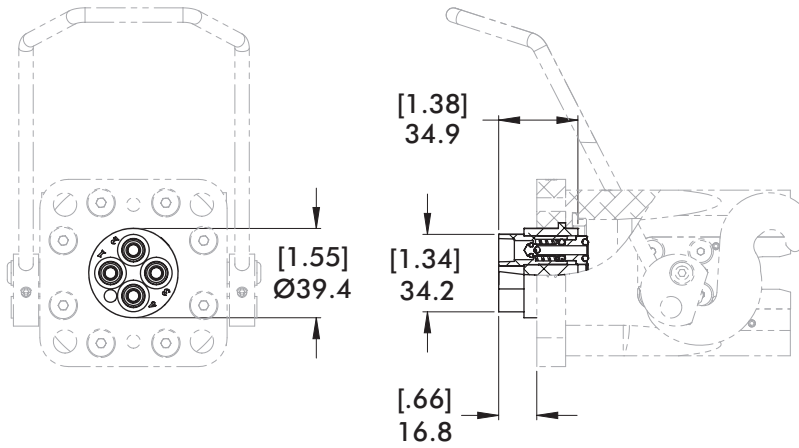


"K4" POSITION

# TOOLING ERROR PROOF KEY AND AIR PORTS

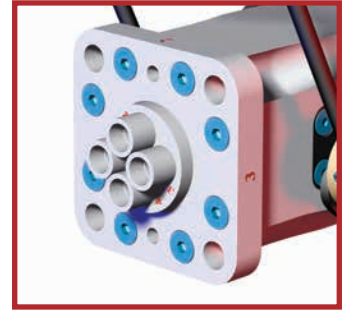
Manual Tool Changers | RDN-40 Flange Mount Disconnect Housings | Mounting

## S4 4-Port Internal Air Connection for Flange Style Mounting



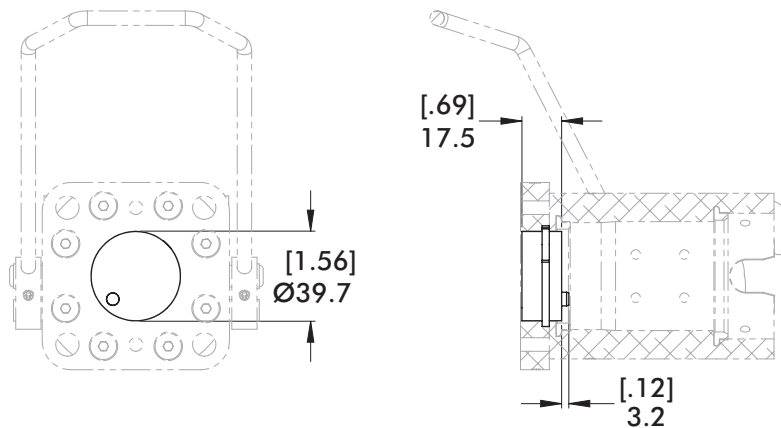
**Dowels**  
(1) Needed  
M6 x 25mm

**Air fittings**  
(4) Needed  
RDN-AS-U18



**REPLACEMENT PART**  
RDN-40-10-IAB

## Kx Locating Key for Flange Style Mounting

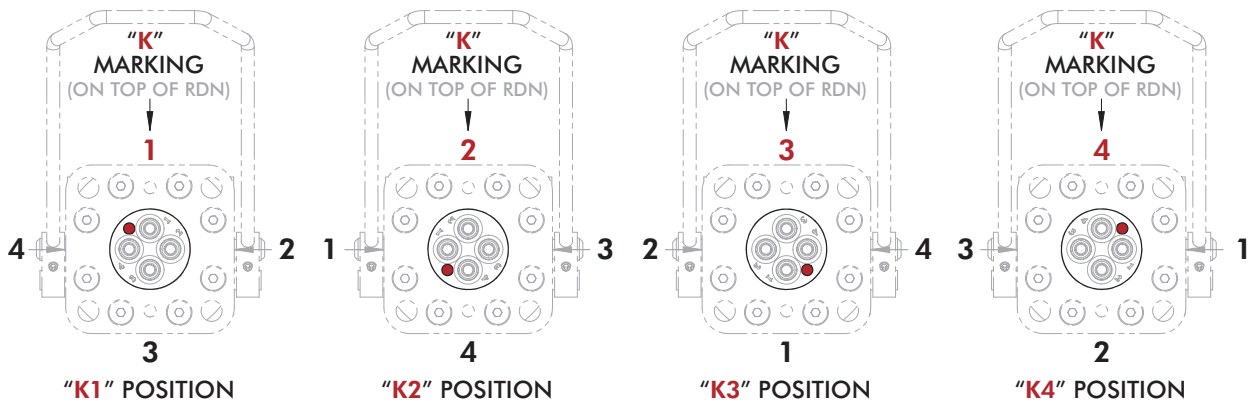
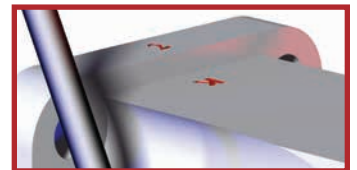


**Dowels**  
(1) Needed  
M6 x 25mm



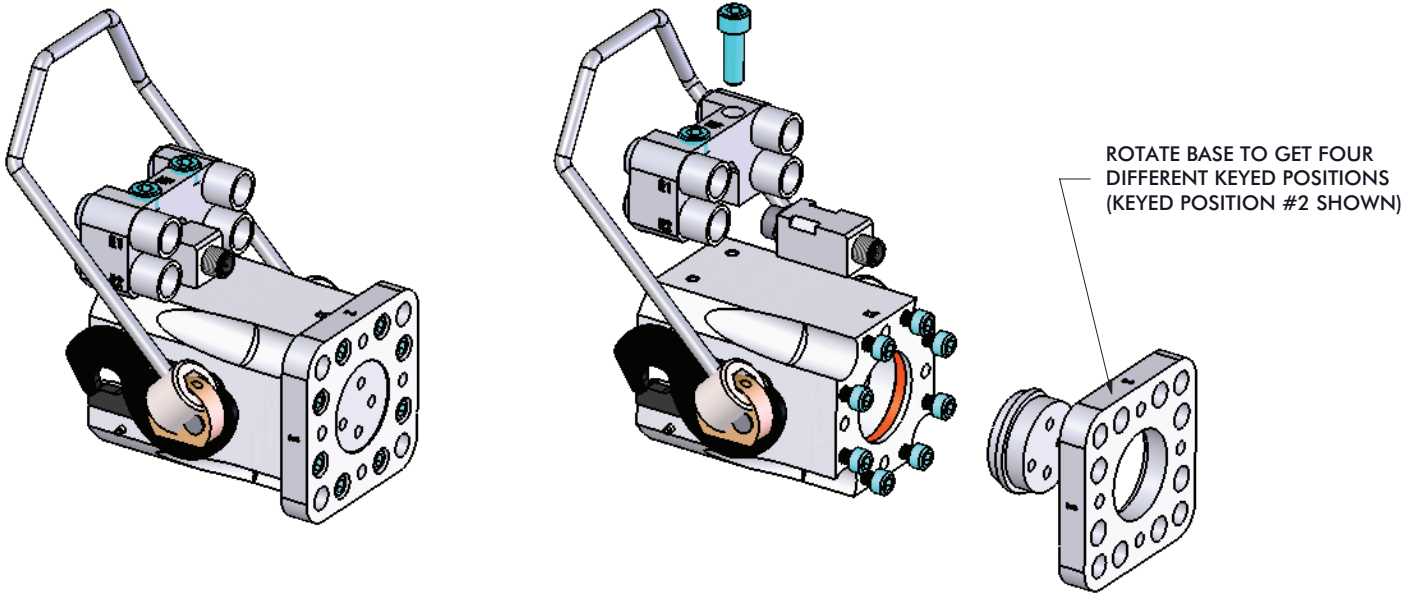
**REPLACEMENT PART**  
RDN-40-10-IKB

## S4 and Kx Internal Key Position for Flange Style Mounting

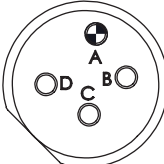
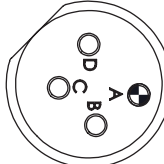
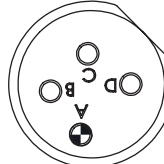
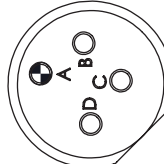
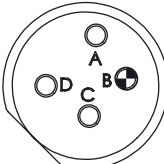
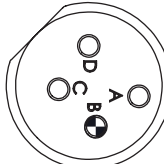
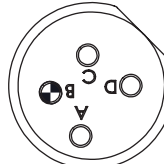
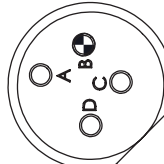
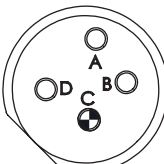
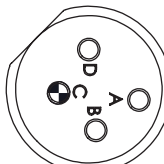
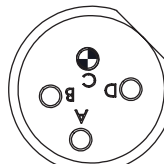
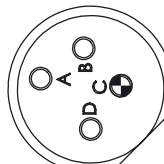
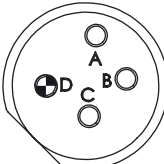
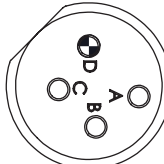
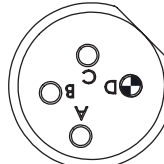
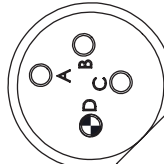


# TOOLING ERROR PROOF KEY POSITIONS

Manual Tool Changers | Key Position Callout Chart



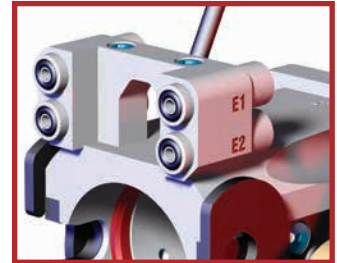
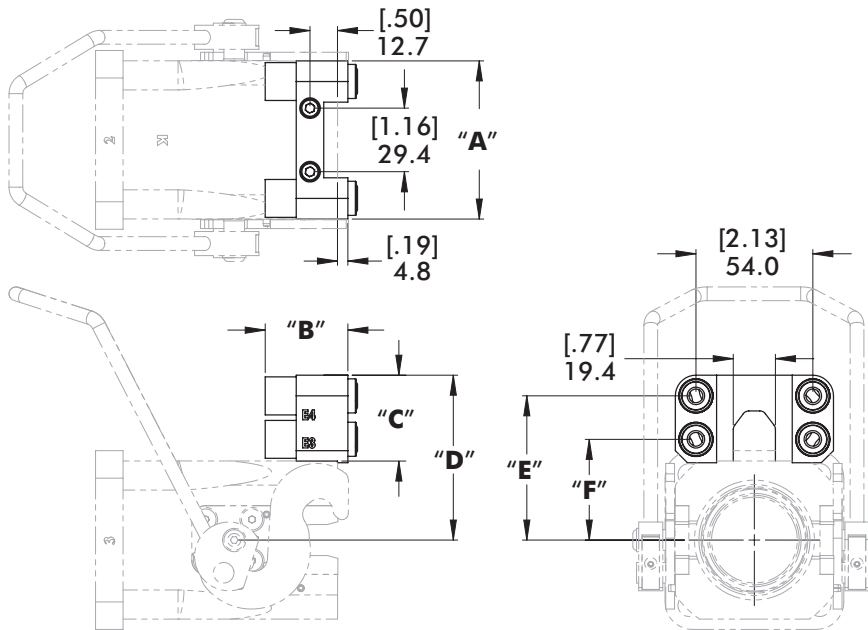
VIEWED FROM FRONT OF HOUSING

|                 | POSITION #1   | POSITION #2   | POSITION #3   | POSITION #4  |
|-----------------|---|---|---|--|
| DOWEL IN HOLE A | <br>VWK1 | <br>VWK5 | <br>VWK9  | <br>VWK13 |
| DOWEL IN HOLE B | <br>VWK2 | <br>VWK6 | <br>VWK10 | <br>VWK14 |
| DOWEL IN HOLE C | <br>VWK3 | <br>VWK7 | <br>VWK11 | <br>VWK15 |
| DOWEL IN HOLE D | <br>VWK4 | <br>VWK8 | <br>VWK12 | <br>VWK16 |

# AIR PORTS

## Manual Tool Changers | RDN-40 Series Disconnect Housing | Dimensions

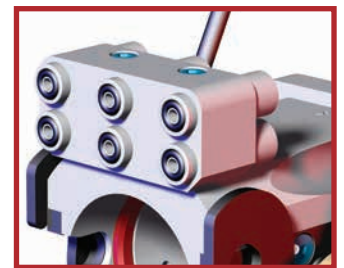
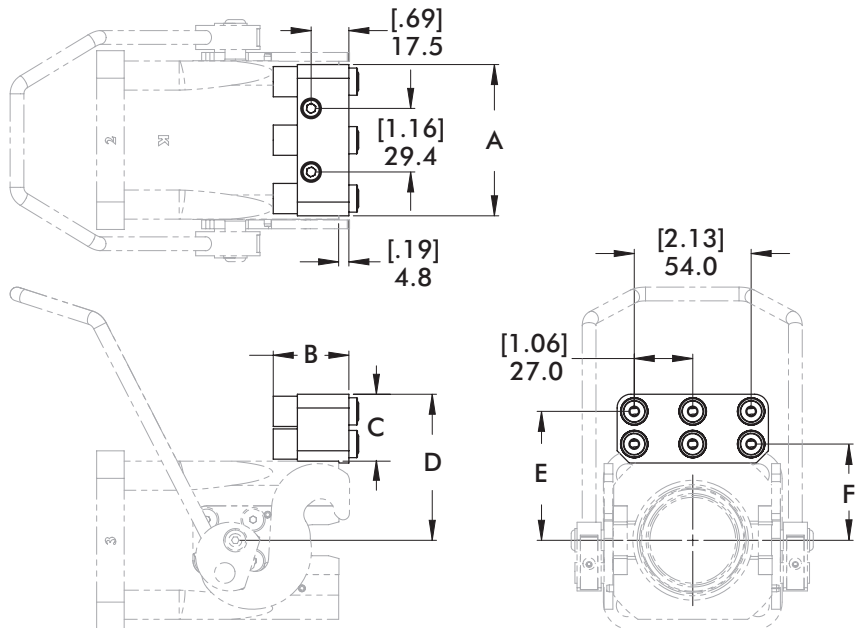
### E4 4-Port External Air Connection



**Air fittings**  
(4) Included  
RDN-AS-U18-Standard  
RDN-AS-U14-High Flow

| ORDER OPTION   | REPLACEMENT PART  | "A"            | "B"            | "C"            | "D"            | "E"            | "F"            | WEIGHT               |
|--|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------|
| "E4" (Standard High Flow)<br>(Replacement for "E4" Legacy Applications only) | CPI-RDN-40-4AS-HF | [2.88]<br>73.0 | [1.50]<br>38.1 | [1.56]<br>39.6 | [3.00]<br>76.1 | [2.62]<br>66.6 | [1.83]<br>46.5 | [0.38 lb]<br>0.23 kg |
|  | CPI-RDN-40-4AS    | [2.75]<br>69.9 | [1.38]<br>34.9 | [1.22]<br>31.0 | [2.66]<br>67.5 | [2.34]<br>59.5 | [1.75]<br>44.4 | [0.23 lb]<br>0.10 kg |

### E6 6-Port External Air Connection



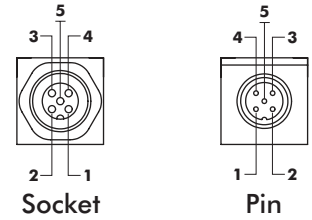
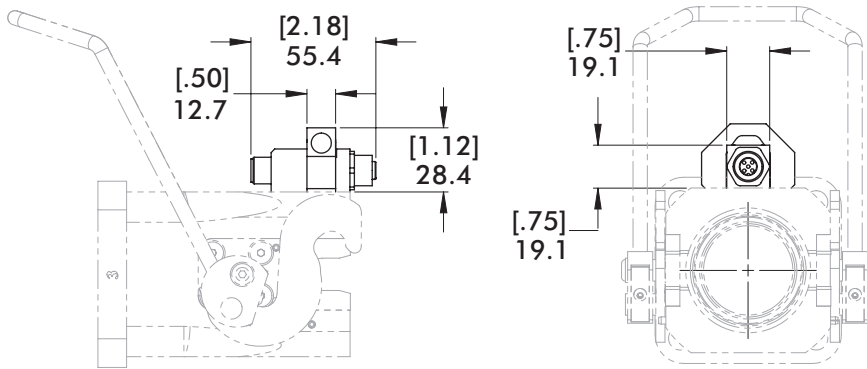
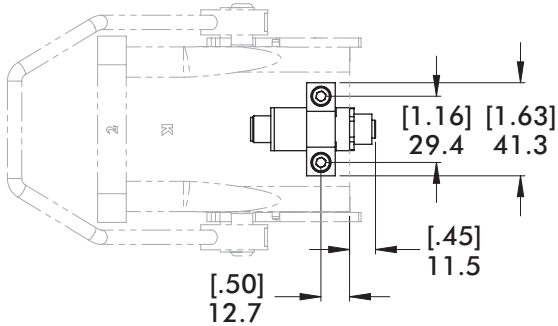
**Air fittings**  
(6) Included  
RDN-AS-U18-Standard  
RDN-AS-U14-High Flow

| ORDER OPTION   | REPLACEMENT PART    | "A"            | "B"            | "C"            | "D"            | "E"            | "F"            | WEIGHT               |
|--|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------|
| "E6" (Standard High Flow)<br>(Replacement for "E6" Legacy Applications only) | CPI-RDN-40-10-6P-HF | [3.00]<br>76.2 | [1.5]<br>38.1  | [1.59]<br>40.5 | [3.03]<br>76.9 | [2.69]<br>68.3 | [1.87]<br>47.5 | [0.54 lb]<br>0.25 kg |
|  | RDN-40-10-6AS       | [2.75]<br>69.9 | [1.38]<br>34.9 | [1.22]<br>31   | [2.66]<br>67.5 | [2.43]<br>59.5 | [1.75]<br>44.4 | [0.37 lb]<br>0.17 kg |

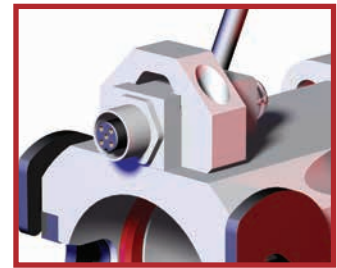
# ELECTRICAL CONNECTIONS

Manual Tool Changers | RDN-40 Series Disconnect Housings | Dimensions

## MC 5-Pin Micro Electric Connection



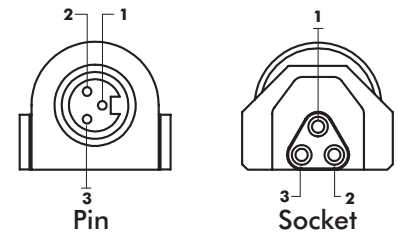
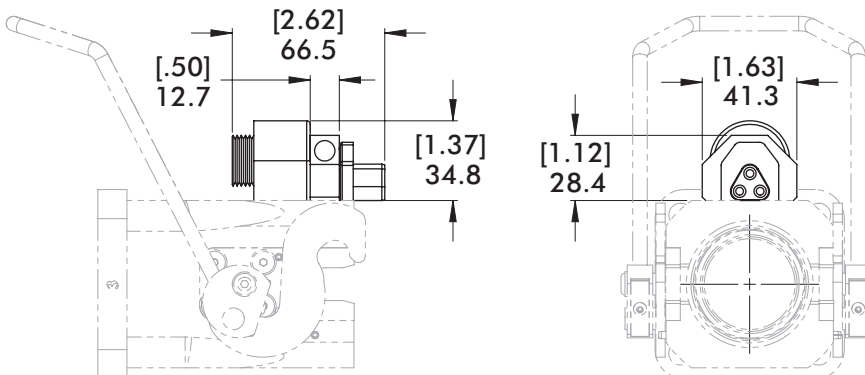
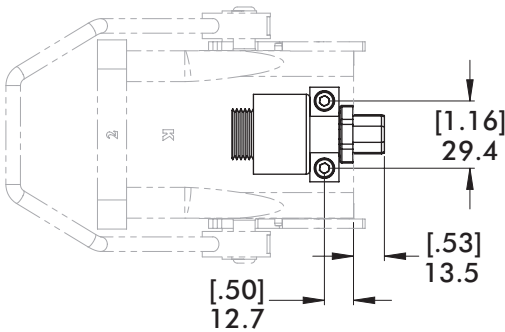
|           |        |
|-----------|--------|
| SOCKET #1 | PIN #1 |
| SOCKET #2 | PIN #2 |
| SOCKET #3 | PIN #3 |
| SOCKET #4 | PIN #4 |
| SOCKET #5 | PIN #5 |



### Part Number

|              |                  |
|--------------|------------------|
| Plug & Strap | CPI-RDH-F5S-5MCM |
| Plug         | RDH-F5S-5MCM     |
| Strap        | 540-22005        |

## MN 3-Pin Mini Electric Connection



|           |        |
|-----------|--------|
| SOCKET #1 | PIN #1 |
| SOCKET #2 | PIN #2 |
| SOCKET #3 | PIN #3 |



### REPLACEMENT PART

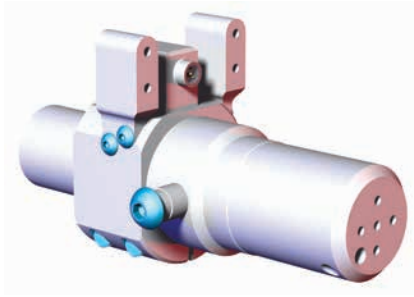
CPI-TTH-F3S-3B3





# RDC SERIES BAYONET

Manual Tool Changers | 40mm / 1.50" Diameter Booms | Product Overview



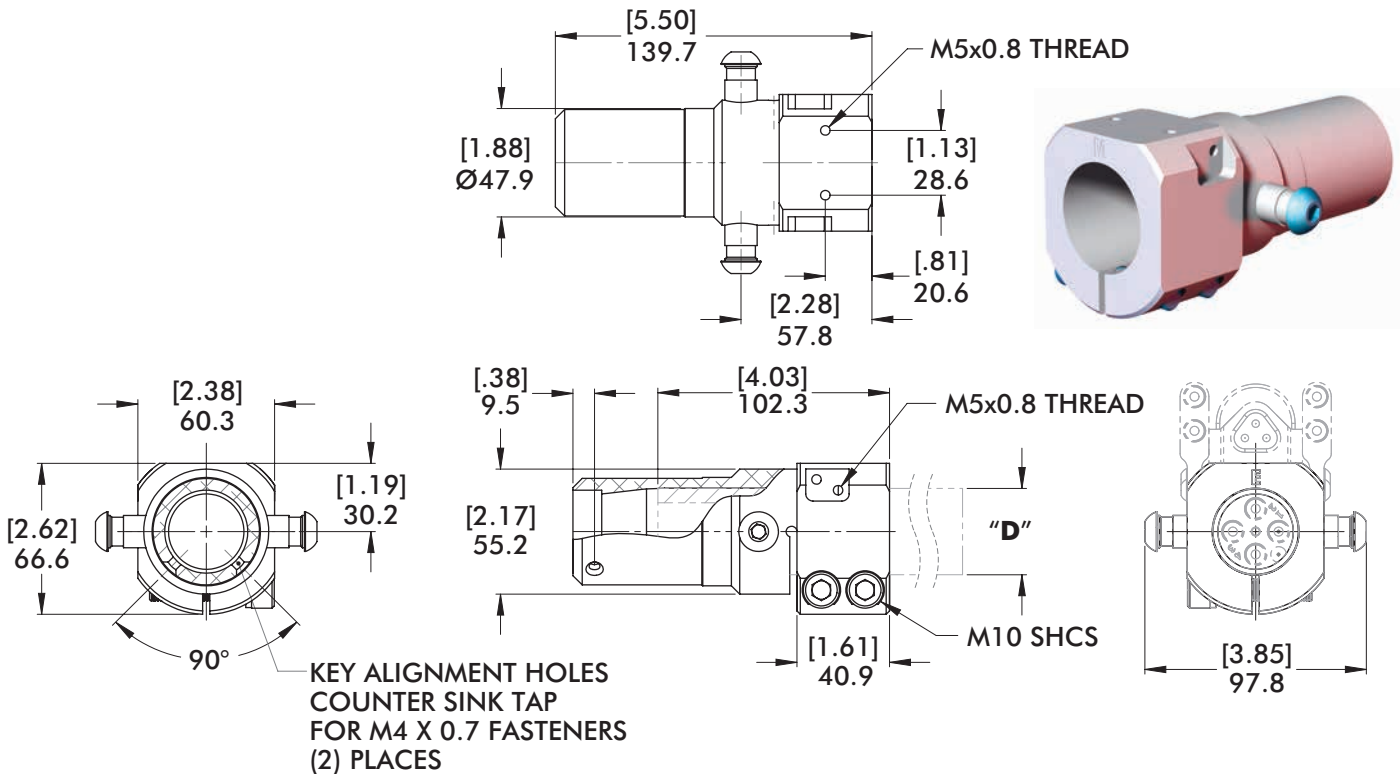
## Features:

- Used in conjunction with the Quick Disconnect Housing to provide efficient mode of changing tools manually.
- (2) Hardened alignment pins allows quick and accurate installation into the housing.
- Optional internal key positioning prevents bayonet from being inserted in the wrong orientation.

## Specifications:

**Max. Static Product Load:**  
305 N\*m [225 ft-lb]  
**Material:**  
Body: Aluminum  
Pins: Steel  
**Weight:**  
0.69 kg [3.5 lb]

## Dimensions



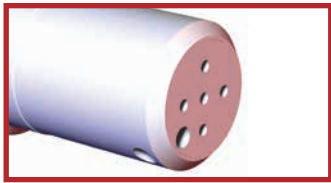
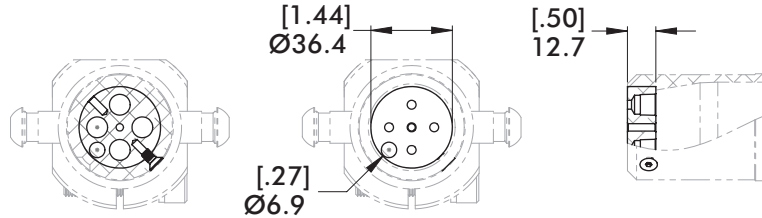
## How To Order

| Model                          | Boom/Tube (Ø) "D"  | Air Port Connection  | Key Position  | Electrical Connection   | Add for "E4" or "E6" Air Port Connection Only |
|--------------------------------|--|--|---|---|---|
| CPI - <b>RDC</b>               | <b>40</b>  | <b>S4</b>  | <b>K1</b>   | <b>MC</b>   | <b>HF</b>                                     |
| "RDC" Quick Disconnect Bayonet | "1510" 1.00" (in)<br>"15" 1.50" (in)<br>"40" 40mm<br>Add "-1" after Boom/Tube (Ø) for No Options | "S4" (4-Port Internal)<br>"E4" (4-Port External)<br>"E6" (6-Port External)<br>"SE4" (4-Port Int & Ext)<br>(Leave blank for No Options) | "K (1-4)"<br>"VWK (1-16)"<br>(Leave blank for No Options) | "MC" (Micro 5-Pin)<br>"MN" (Mini 3-Pin)<br>(Leave blank for No Options) |   |

# TOOLING ERROR PROOF KEYS

Manual Tool Changers | RDC-40/150 Series Bayonets | Dimensions

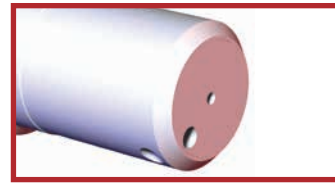
## S4 4-Port Internal Air Connection and Kx Locating Key



"S4" 4-Port Internal Air Connection

**REPLACEMENT PART**

RDC-40-4-IAB

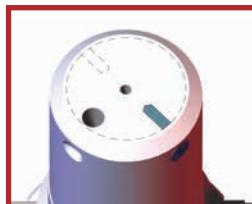
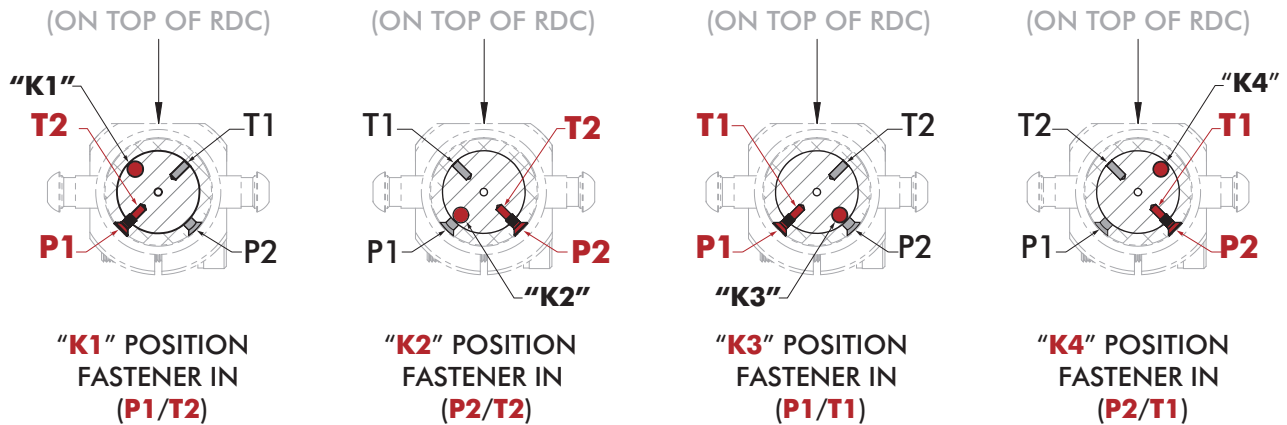


"Kx" Locating Key  
(x) Refers to Position

**REPLACEMENT PART**

RDC-40-4-IKB

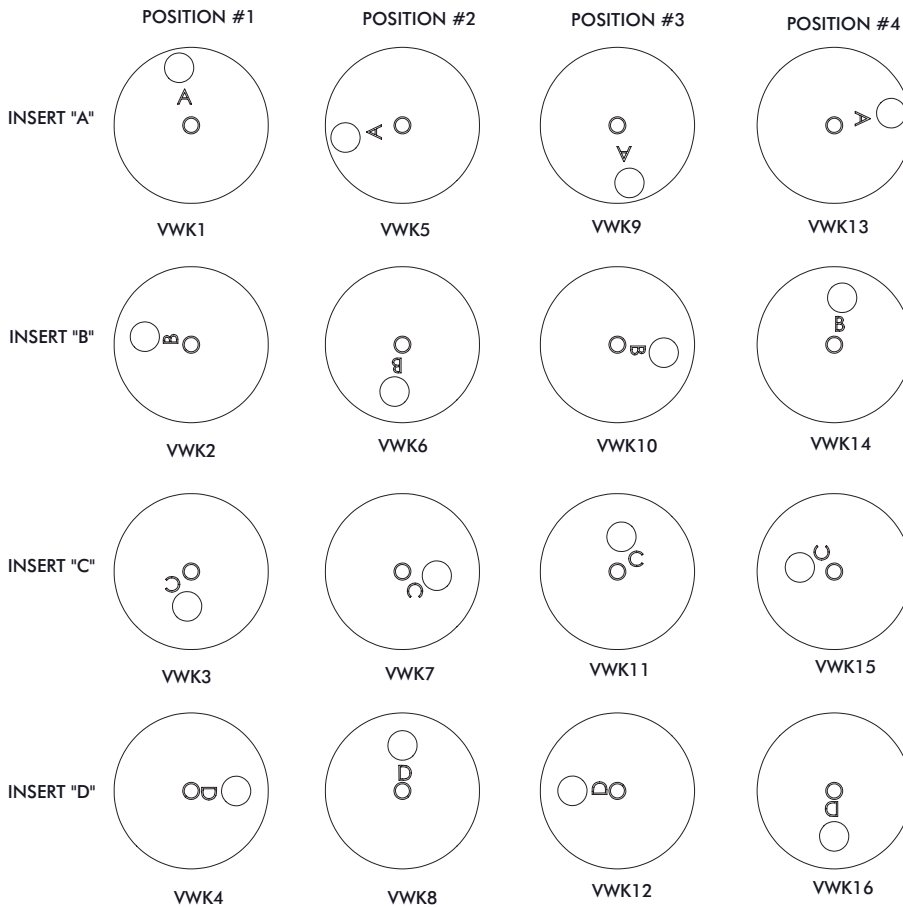
## S4 and Kx Internal Key Position



# TOOLING ERROR PROOF KEY POSITIONS

Manual Tool Changers | RDC-40/150 Series Bayonets

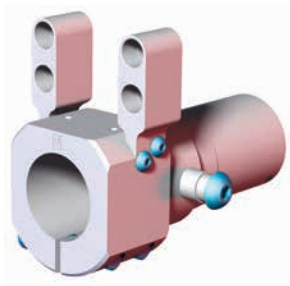
| ASSEMBLY #                | KEY POSITION # | KEY BLOCK #           | INSERT | POSITION |
|---------------------------|----------------|-----------------------|--------|----------|
| CPI-RDC-40-E4-VWK1-MC-HF  | VWK1           | RDC-40-4-IKB-16-KA1-4 | A      | 1        |
| CPI-RDC-40-E4-VWK2-MC-HF  | VWK2           | RDC-40-4-IKB-16-KB1-4 | B      | 1        |
| CPI-RDC-40-E4-VWK3-MC-HF  | VWK3           | RDC-40-4-IKB-16-KC1-4 | C      | 1        |
| CPI-RDC-40-E4-VWK4-MC-HF  | VWK4           | RDC-40-4-IKB-16-KD1-4 | D      | 1        |
| CPI-RDC-40-E4-VWK5-MC-HF  | VWK5           | RDC-40-4-IKB-16-KA1-4 | A      | 2        |
| CPI-RDC-40-E4-VWK6-MC-HF  | VWK6           | RDC-40-4-IKB-16-KB1-4 | B      | 2        |
| CPI-RDC-40-E4-VWK7-MC-HF  | VWK7           | RDC-40-4-IKB-16-KC1-4 | C      | 2        |
| CPI-RDC-40-E4-VWK8-MC-HF  | VWK8           | RDC-40-4-IKB-16-KD1-4 | D      | 2        |
| CPI-RDC-40-E4-VWK9-MC-HF  | VWK9           | RDC-40-4-IKB-16-KA1-4 | A      | 3        |
| CPI-RDC-40-E4-VWK10-MC-HF | VWK10          | RDC-40-4-IKB-16-KB1-4 | B      | 3        |
| CPI-RDC-40-E4-VWK11-MC-HF | VWK11          | RDC-40-4-IKB-16-KC1-4 | C      | 3        |
| CPI-RDC-40-E4-VWK12-MC-HF | VWK12          | RDC-40-4-IKB-16-KD1-4 | D      | 3        |
| CPI-RDC-40-E4-VWK13-MC-HF | VWK13          | RDC-40-4-IKB-16-KA1-4 | A      | 4        |
| CPI-RDC-40-E4-VWK14-MC-HF | VWK14          | RDC-40-4-IKB-16-KB1-4 | B      | 4        |
| CPI-RDC-40-E4-VWK15-MC-HF | VWK15          | RDC-40-4-IKB-16-KC1-4 | C      | 4        |
| CPI-RDC-40-E4-VWK16-MC-HF | VWK16          | RDC-40-4-IKB-16-KD1-4 | D      | 4        |



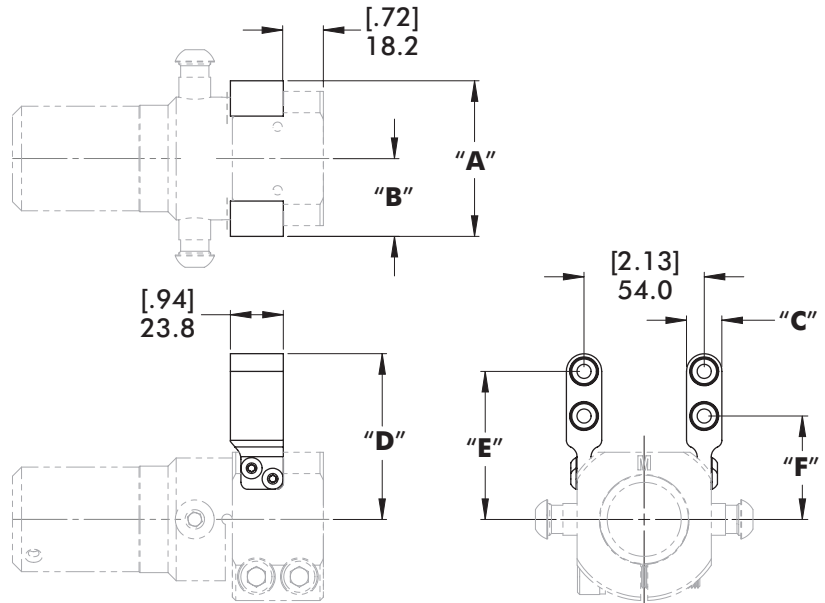
# EXTERNAL AIR MANIFOLDS

Manual Tool Changers | RDC-40/150 Series Bayonets | Dimensions

## 4-Port External Air Connection

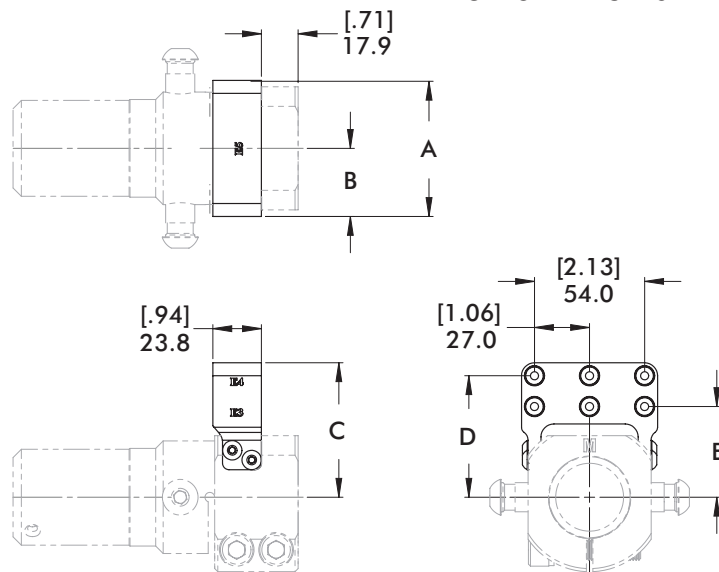
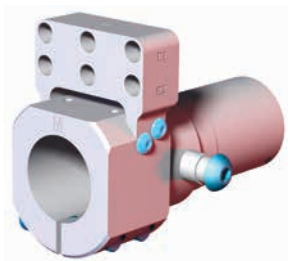


(2) Required



| ORDER OPTION                                    | REPLACEMENT PART | "A"            | "B"            | "C"            | "D"            | "E"            | "F"            | WEIGHT               |
|---|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------|
| "E4" (Standard High Flow)                       | CPI-RDC-40-4-HF  | [2.75]<br>69.9 | [1.38]<br>34.9 | [1.56]<br>39.6 | [3.00]<br>76.1 | [2.62]<br>66.6 | [1.83]<br>46.5 | [2.90 lb]<br>1.32 kg |
| (Replacement for "E4" Legacy Applications only) | CPI-RDC-40-4     | [2.63]<br>66.7 | [1.30]<br>32.9 | [1.22]<br>31.0 | [2.66]<br>67.5 | [2.34]<br>59.5 | [1.75]<br>44.4 | [2.89 lb]<br>1.31 kg |

## 6-Port External Air Connection

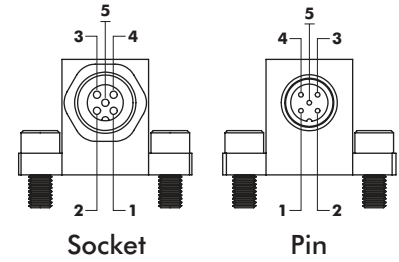
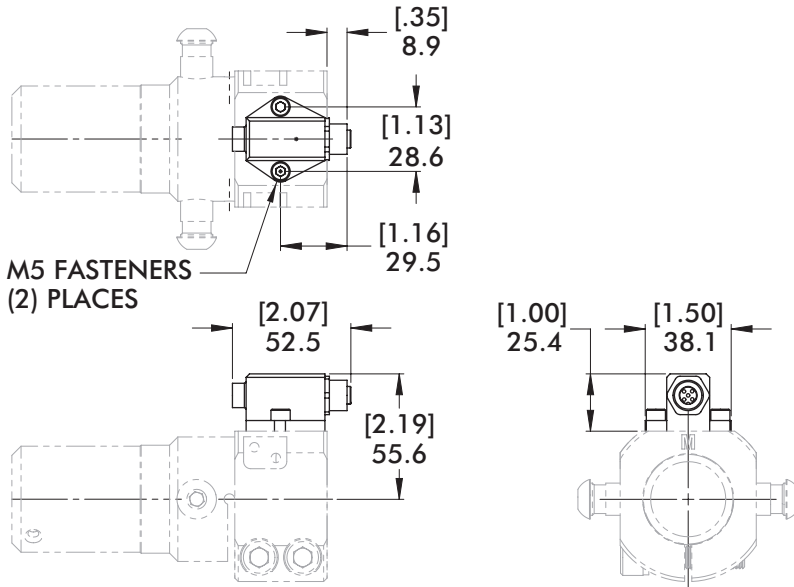


| ORDER OPTION                                    | REPLACEMENT PART | "A"            | "B"            | "C"            | "D"            | "E"            |
|---|------------------|----------------|----------------|----------------|----------------|----------------|
| (Replacement for "E6" Legacy Applications only) | RDC-40-4-6PA     | [2.61]<br>66.3 | [1.31]<br>33.4 | [2.59]<br>65.9 | [2.34]<br>59.6 | [1.75]<br>44.5 |
| "E6" (Standard High Flow)                       | RDC-40-E6-HF     | [2.75]<br>69.9 | [1.38]<br>34.9 | [3.12]<br>79.2 | [2.62]<br>66.5 | [1.83]<br>46.5 |

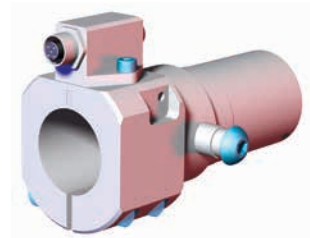
# ELECTRICAL CONNECTORS

Manual Tool Changers | RDC-40/150 Series Bayonets | Dimensions

## MC 5-Pin Micro Electric Connection



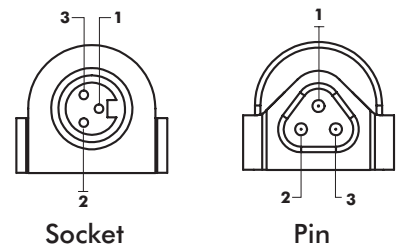
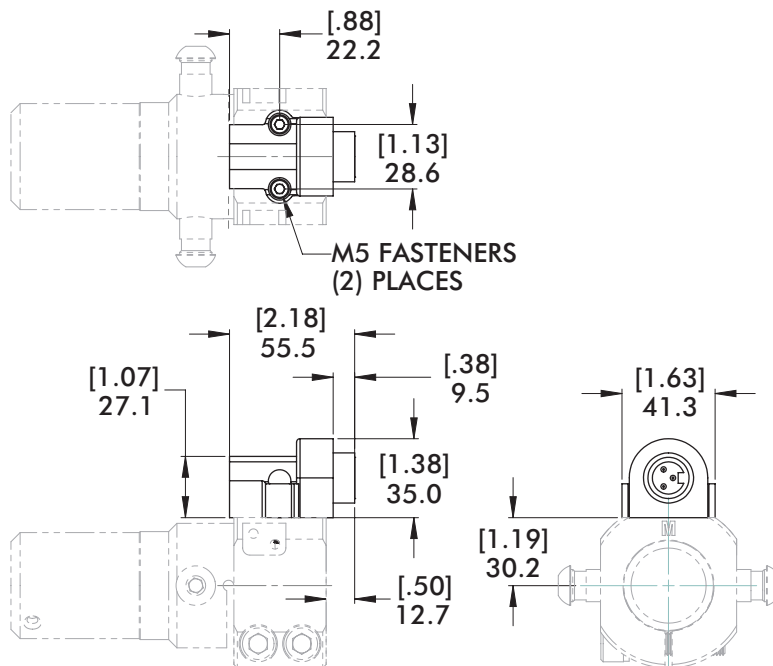
|           |        |
|-----------|--------|
| SOCKET #1 | PIN #1 |
| SOCKET #2 | PIN #2 |
| SOCKET #3 | PIN #3 |
| SOCKET #4 | PIN #4 |
| SOCKET #5 | PIN #5 |



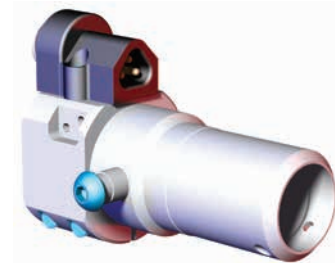
**REPLACEMENT PART**

**CPI-RDB-M5P-5MCF**

## MN 3-Pin Mini Electric Connection



|           |        |
|-----------|--------|
| SOCKET #1 | PIN #1 |
| SOCKET #2 | PIN #2 |
| SOCKET #3 | PIN #3 |



**REPLACEMENT PART**

**CPI-TTB-M3P-3B3**



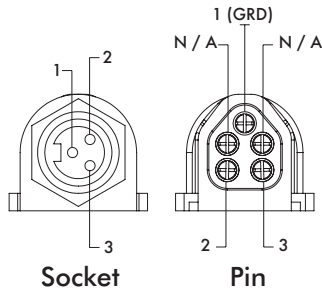
# ELECTRICAL CONNECTORS

Manual Tool Changers | RDC-40/150 Series Bayonets | Dimensions

## MNF 5-Pin Mini Electric Connection

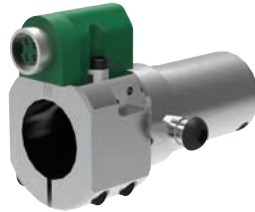


CPI-RDC-40-M5P-3MNF

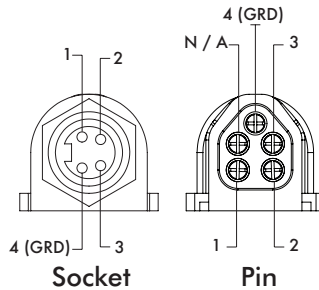


|           |       |        |
|-----------|-------|--------|
| SOCKET #1 | GREEN | PIN #1 |
| SOCKET #2 | BLACK | PIN #2 |
| SOCKET #3 | WHITE | PIN #3 |
|           |       | N / A  |
|           |       | N / A  |

PLUG COLOR: BLACK

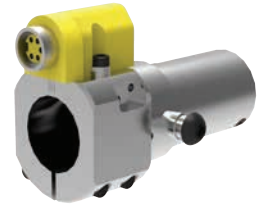


CPI-RDC-40-M5P-4MNF

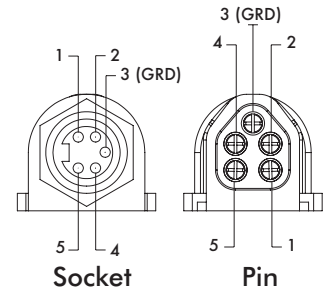


|           |       |        |
|-----------|-------|--------|
| SOCKET #1 | BLACK | PIN #1 |
| SOCKET #2 | WHITE | PIN #2 |
| SOCKET #3 | RED   | PIN #3 |
| SOCKET #4 | GREEN | PIN #4 |
|           |       | N / A  |

PLUG COLOR: GREEN

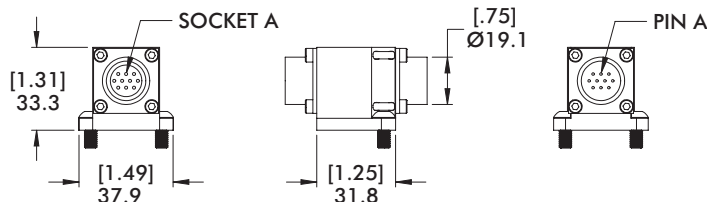
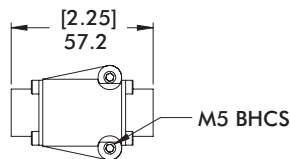
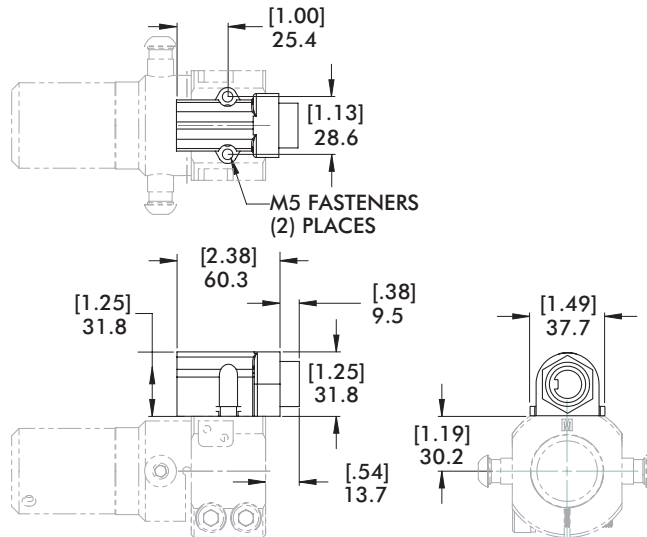


CPI-RDC-40-M5P-5MNF



|           |        |        |
|-----------|--------|--------|
| SOCKET #1 | WHITE  | PIN #1 |
| SOCKET #2 | RED    | PIN #2 |
| SOCKET #3 | GREEN  | PIN #3 |
| SOCKET #4 | ORANGE | PIN #4 |
| SOCKET #5 | BLACK  | PIN #5 |

PLUG COLOR: YELLOW



## 10-Pin Electric Connection

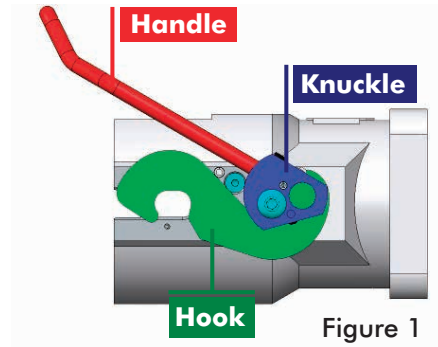


REPLACEMENT PART

CPI-RDC-40-5-10

# RDN-25 SERIES DISCONNECT HOUSING

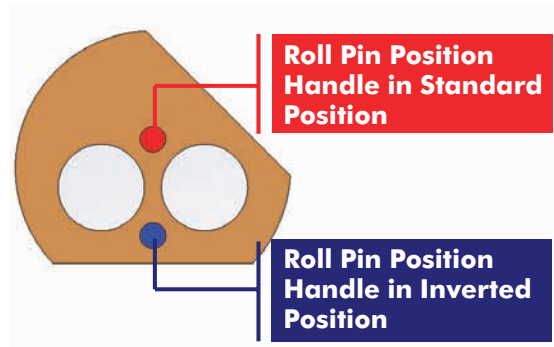
Manual Tool Changers | Instructions for Inverting the Disconnect Locking Handle



If the handle of the Quick Disconnect Housing interferes with other equipment, it can be inverted and accessed from below the housing. In the inverted position, the hooks and housing remain in the upright position.

1. Loosen the set screw at the base of the handle in each knuckle.
2. Unscrew the button head screw from each knuckle, then remove the handle. (See Figure 1)
3. Slide knuckles and hooks off the main body of the housing. (See Figure 1)
4. Slide hook off each knuckle.
5. Remove the roll pin in each knuckle and insert a 3/16 x 5/16 pin into the hole for the inverted handle position, as shown. (See Figure 2)
6. Rotate each knuckle 180° from previous position and reinstall the hooks. Return the knuckle/hook sub-assembly to the housing.
7. Reinstall handle in the inverted position and tighten set screws. (See Figure 3)

Figure 2 - Housing Knuckle



To order RDN-25 housing with handle in Inverted Position, add "-INV" to the end of order number

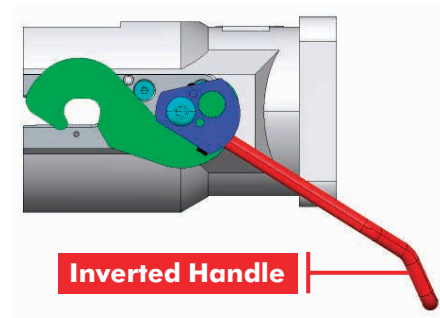
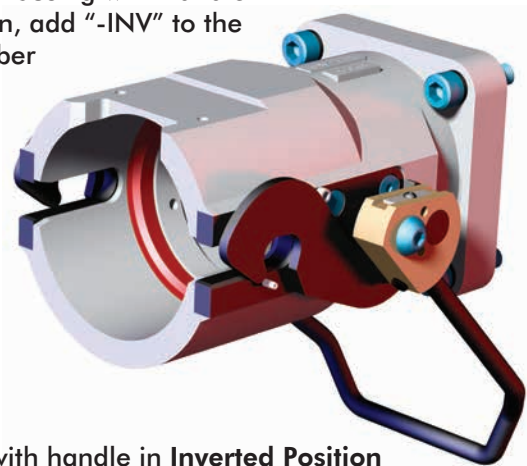


Figure 3

# RDN-25 DISCONNECT HOUSING

Manual Tool Changers | RDC-25/60 Series Bayonets | Product Overview

## Features:

- 89mm [3.50 in.] Sq. Flange Mtng.
- Steel handle actuation allows quick and accurate installation, pulling the bayonet into a fixed position within the housing. This action also engages optional air and electric connectors.
- Internal urethane rings eliminate vibration and seat the bayonet securely.

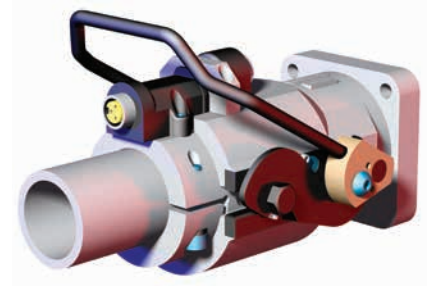
## Specifications:

**Max. Static Product Load:**  
949 N\*m [700 ft-lb]

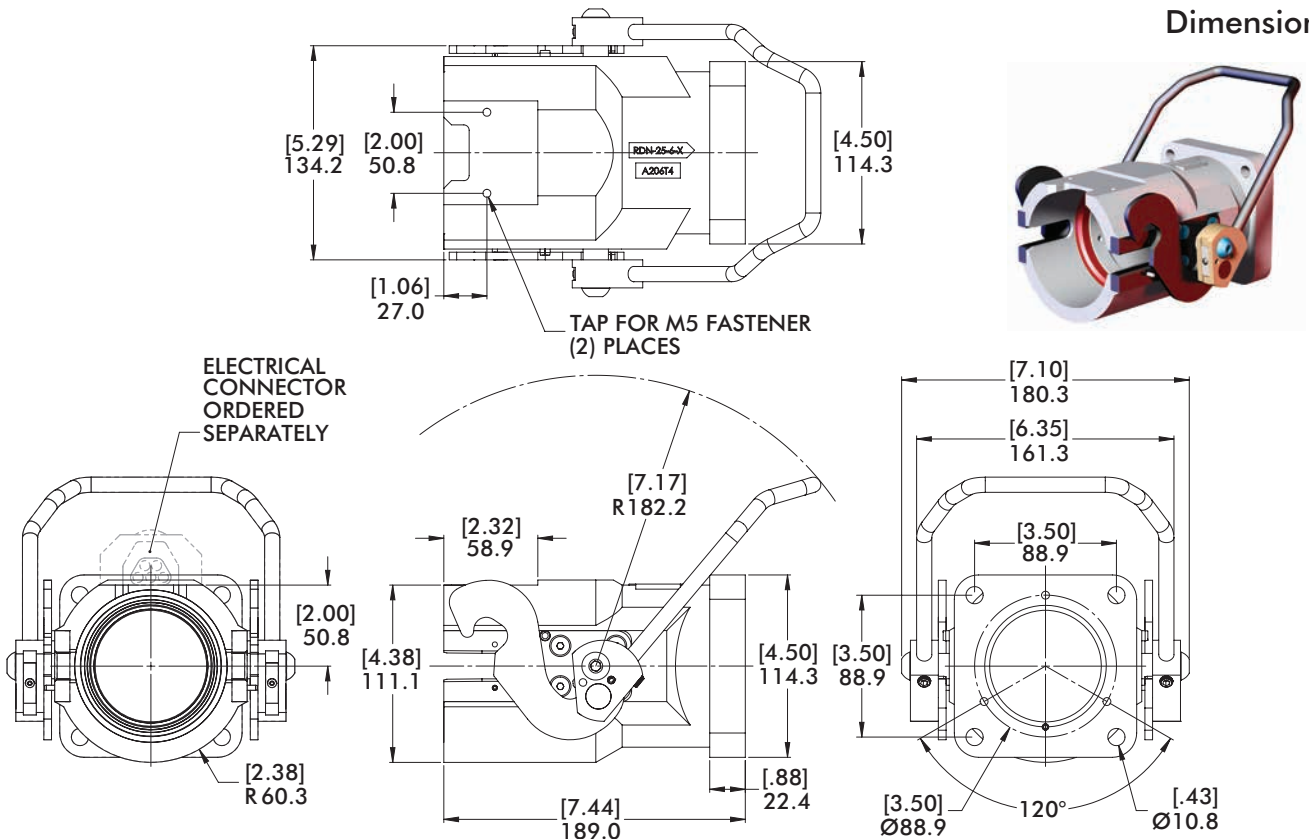
### Material:

Body: Aluminum  
Knuckles: Brass  
Handle and Hooks: Steel  
Inserts: Urethane

**Weight:**  
4.00 kg [8.90 lb]



## Dimensions



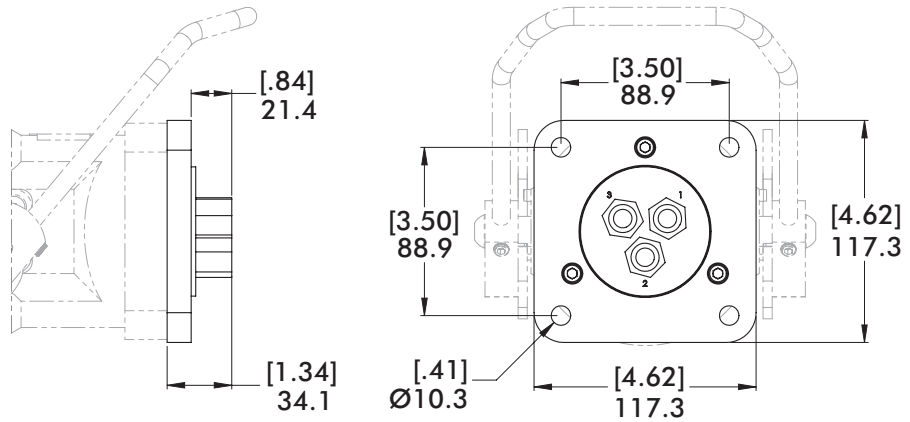
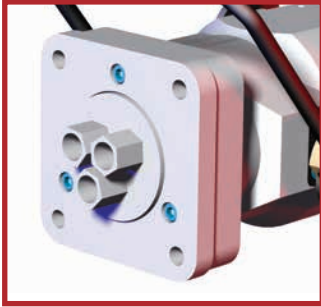
## How To Order

| Model   | Air Port Connection A3 (3 Port) or A6 (6-Port)<br>"O(x)" = (Qty) of Open Ports / "S(x)" = (Qty) of Shutoff Ports  | Electrical Mounting  |
|---|---|--|
| <b>CPI</b> — <b>RDN-25-6</b>                                    | <b>A3-O1-S2</b>   | <b>EL10</b>  |
| <br>"RDN-25-6"<br>Ø60mm/2.50"<br>Quick<br>Disconnect<br>Housing | <br>"A3-O0-S3" (0)Open-(3)Shutoff    "A6-O0-S6" (0)Open-(6)Shutoff<br>"A3-O1-S2" (1)Open-(2)Shutoff    "A6-O1-S5" (1)Open-(5)Shutoff<br>"A3-O2-S1" (2)Open-(1)Shutoff    "A6-O2-S4" (2)Open-(4)Shutoff<br>"A3-O3-S0" (3)Open-(0)Shutoff    "A6-O3-S3" (3)Open-(3)Shutoff<br>"A6-O4-S2" (4)Open-(2)Shutoff<br>"A6-O5-S1" (5)Open-(1)Shutoff<br>"A6-O6-S0" (6)Open-(0)Shutoff | <br>Mounting<br>for Large<br>Connectors<br>(Leave blank for<br>Standard<br>Mounting) |

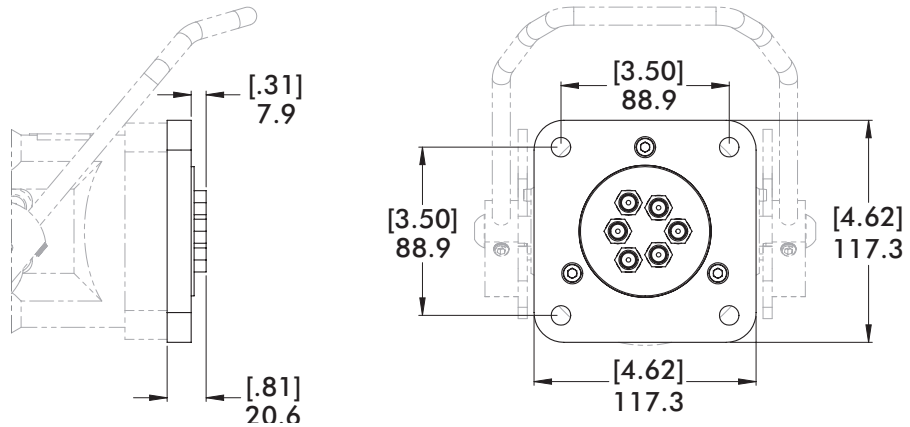
# AIR PORTS AND ELECTRICAL CONNECTIONS

Manual Tool Changers | RDN-25 Flange Mount Disconnect Housings | Dimensions

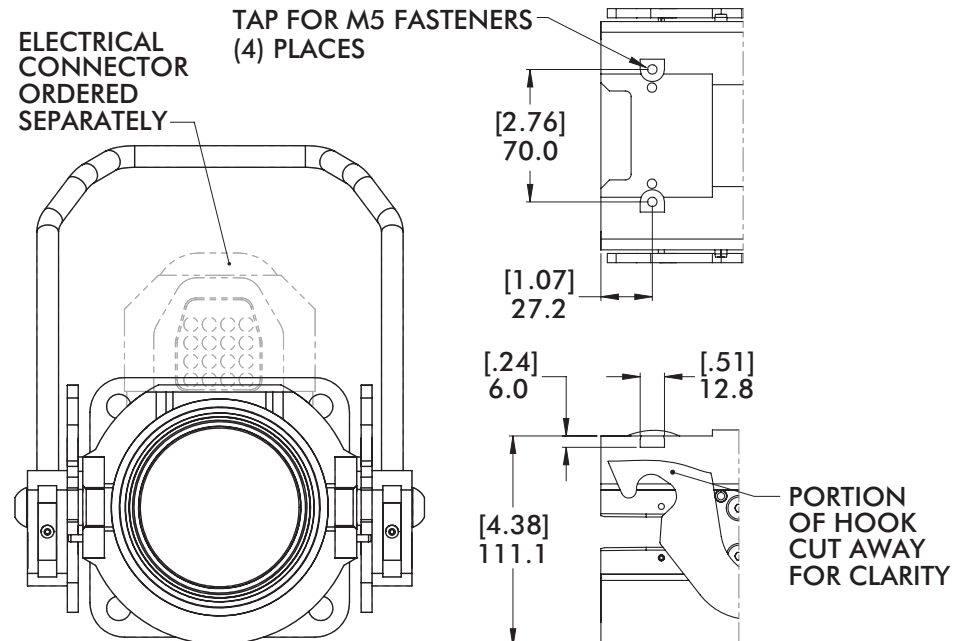
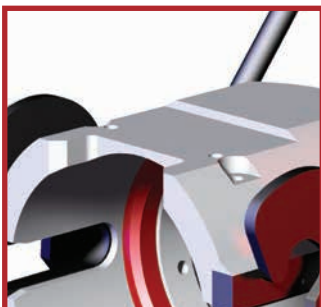
## A3 3-Port Internal Air Connection with Shutoff Option



## A6 6-Port Internal Air Connection with Shutoff Option

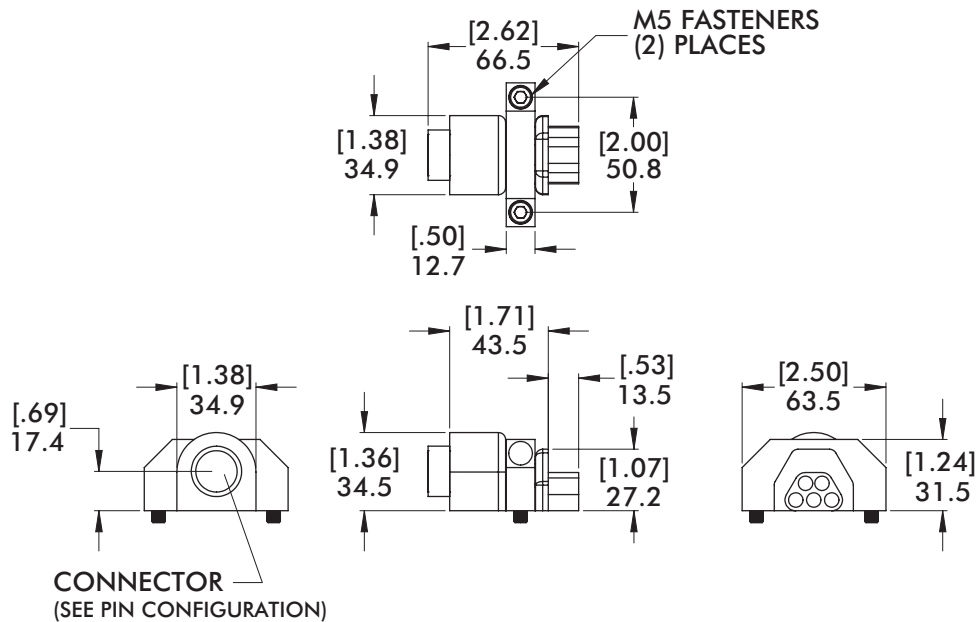


## EL10 Mounting for Large Electric Connection

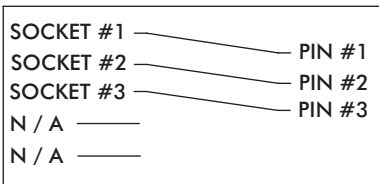
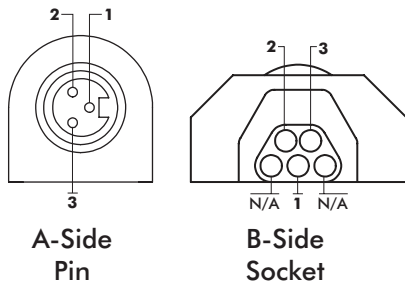


# ELECTRICAL CONNECTIONS

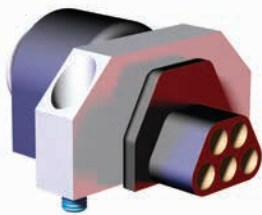
Manual Tool Changers | RDN-25 Series Disconnect Housings | Dimensions



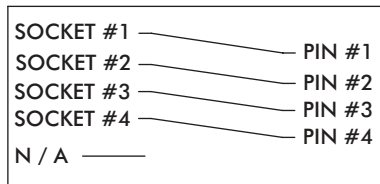
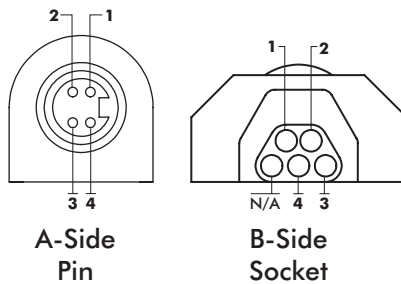
## 5 Pin Connectors for Housing - Standard Pin Configurations



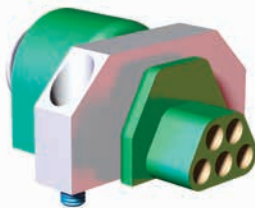
| 3-Pin to 5-Pin Connector |                                 |
|--------------------------|---------------------------------|
| A-Side                   | 3-Pin, Single Key               |
| B-Side                   | 5-Pin, Male Plug, Female Socket |



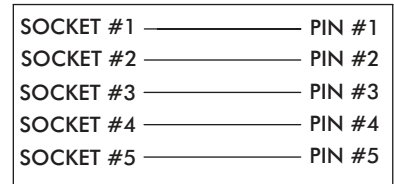
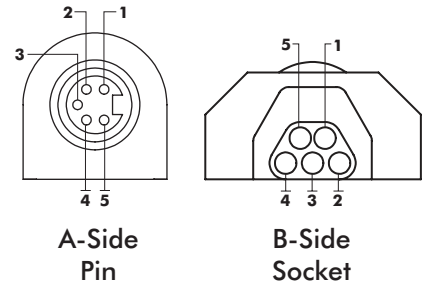
**MODEL NUMBER**  
CPI-RDH-F5S-3B3



| 4-Pin to 5-Pin Connector |                                 |
|--------------------------|---------------------------------|
| A-Side                   | 4-Pin, Single Key               |
| B-Side                   | 5-Pin, Male Plug, Female Socket |



**MODEL NUMBER**  
CPI-RDH-F5S-4B4



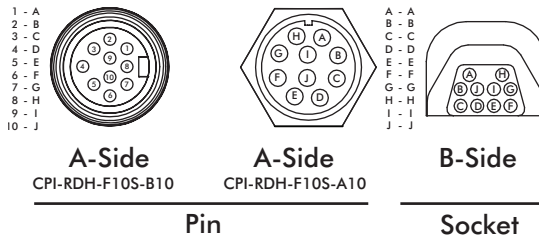
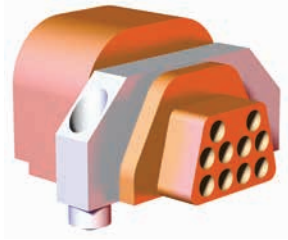
| 5-Pin to 5-Pin Connector |                                 |
|--------------------------|---------------------------------|
| A-Side                   | 5-Pin, Single Key               |
| B-Side                   | 5-Pin, Male Plug, Female Socket |



**MODEL NUMBER**  
CPI-RDH-F5S-5B5

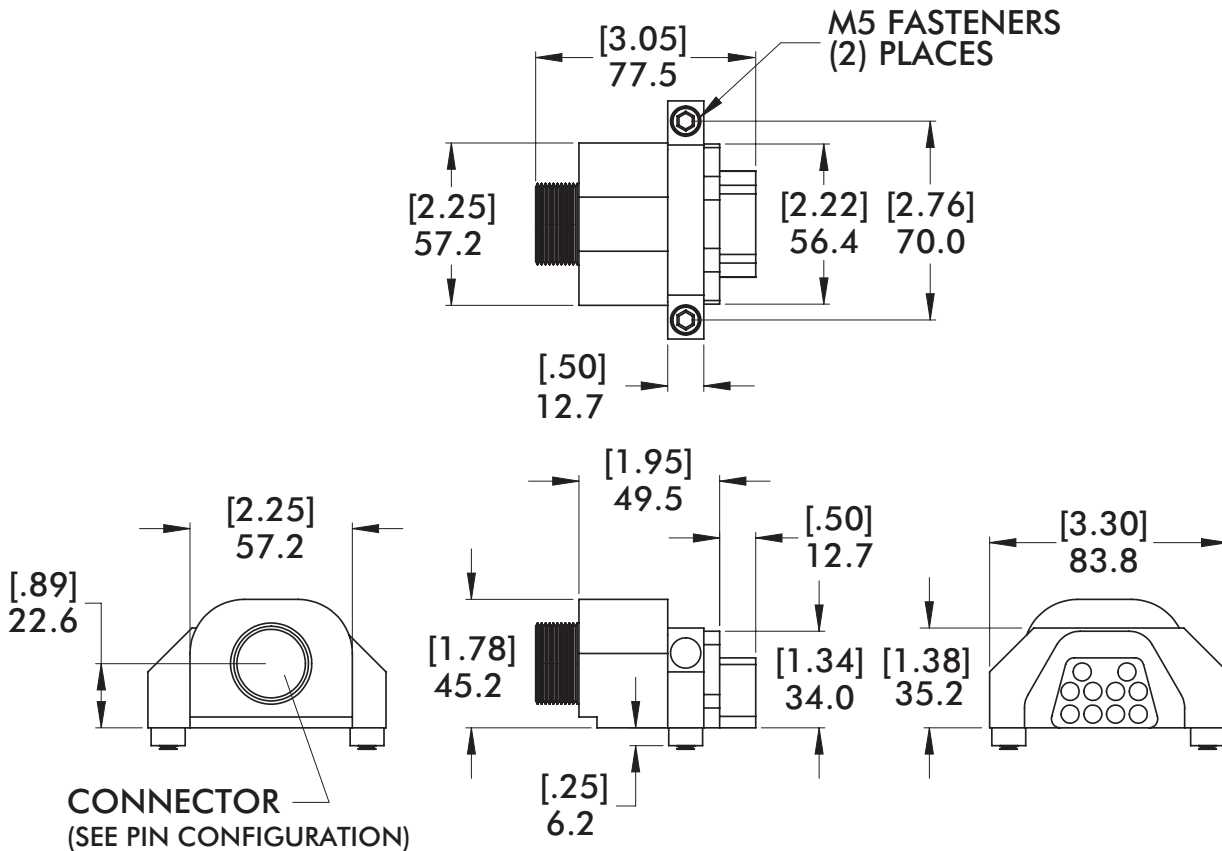
# ELECTRICAL CONNECTIONS

Manual Tool Changers | RDN-25 Series Disconnect Housings | Dimensions



## 10 Pin Configuration

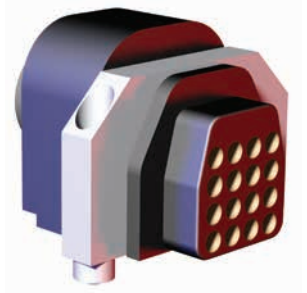
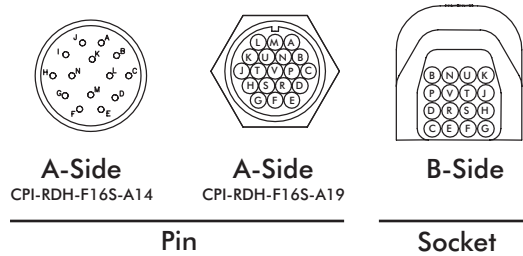
| Model Number     | A-Side | B-Side                              |
|------------------|--------|-------------------------------------|
| CPI-RDH-F10S-A10 | 10-Pin | 10-Pin, Male Plug,<br>Female Socket |
| CPI-RDH-F10S-B10 | 10-Pin |                                     |





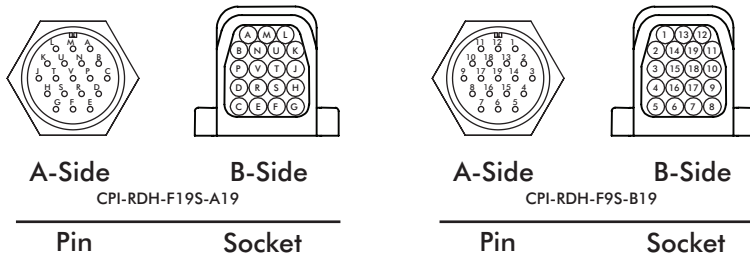
# ELECTRICAL CONNECTIONS

## Manual Tool Changers | RDN-25 Series Disconnect Housings | Dimensions



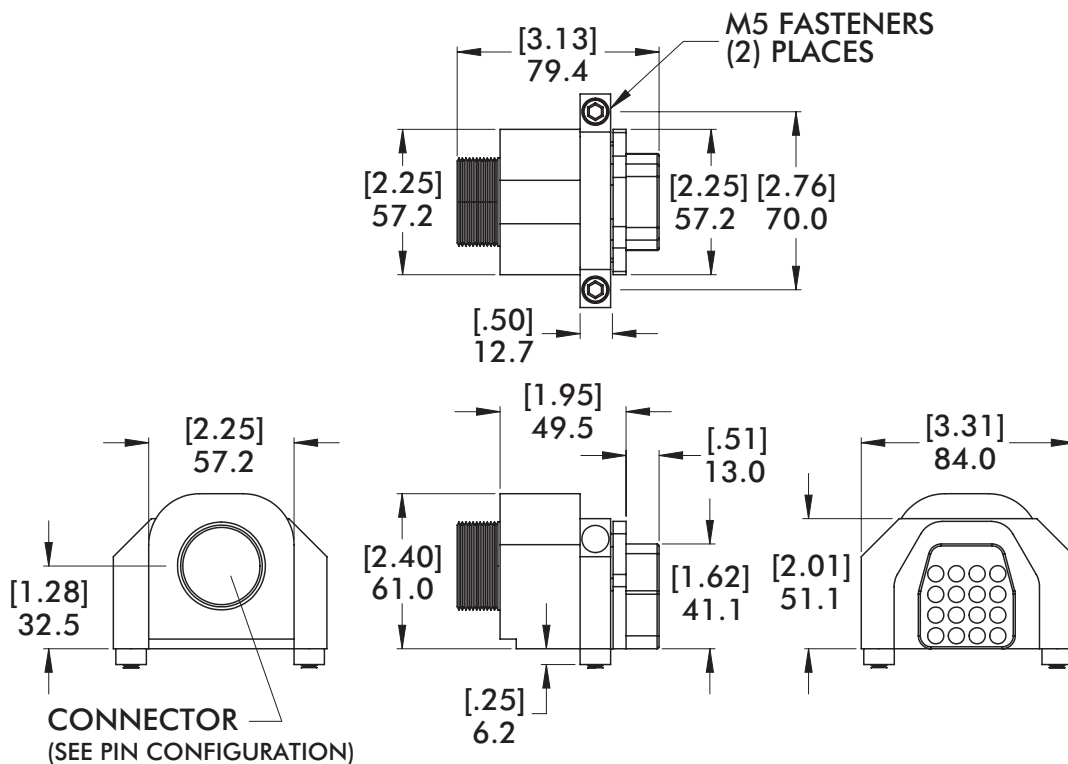
### 16 Pin Configuration

| Model Number     | A-Side | B-Side                              |
|------------------|--------|-------------------------------------|
| CPI-RDH-F16S-A19 | 19-Pin | 16-Pin, Male Plug,<br>Female Socket |
| CPI-RDH-F16S-A14 | 14-Pin |                                     |



### 19 Pin Configuration

| Model Number     | A-Side | B-Side                              |
|------------------|--------|-------------------------------------|
| CPI-RDH-F19S-A19 | 19-Pin | 19-Pin, Male Plug,<br>Female Socket |
| CPI-RDH-F19S-B19 | 19-Pin |                                     |



# RDC SERIES BAYONETS

Manual Tool Changers | 2.5"/60mm Diameter Booms | Product Overview

## Features:

- Used in conjunction with the Quick Disconnect Housing to provide an efficient mode of changing tools manually.
- (2) Hardened alignment pins allows quick and accurate installation into the housing.
- Optional "EL10" machined surface for large electrical connectors.

## Specifications:

**Max. Static Product Load:**

678 N\*m [500 ft-lb]

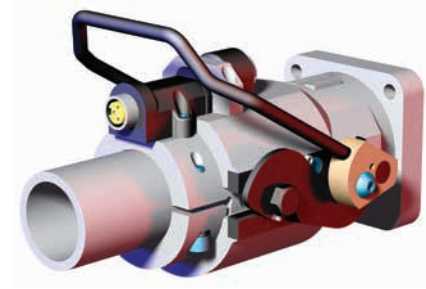
**Material:**

Body: Aluminum

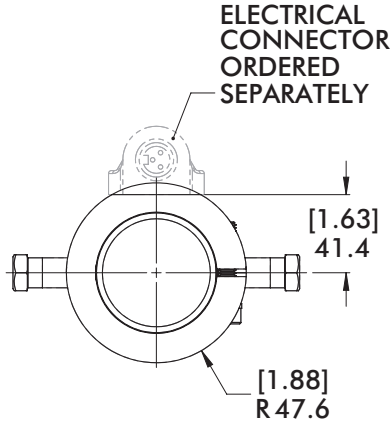
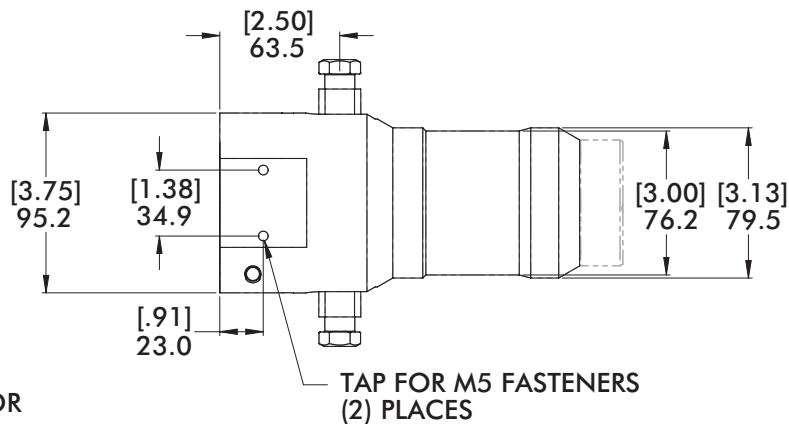
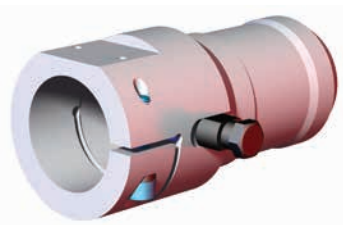
Pins: Steel

**Weight:**

1.6 kg [3.5 lb]



## Dimensions



## How To Order

| CPI | Model                          | Boom/Tube (Ø) "D"            | Version       | Air Port Connection        | Electrical Mounting   |
|-----|--------------------------------|------------------------------|---------------|----------------------------|---|
|     | <b>RDC</b>                     | <b>25</b>                    | <b>2</b>      | <b>A3</b>                  | <b>EL10</b>   |
|     | "RDC" Quick Disconnect Bayonet | "25" 2.50" (in)<br>"60" 60mm | "2" Version 2 | "A3" 3-Port<br>"A6" 6-Port | Mounting for Large Connectors (Leave blank for Standard Mounting) |

# RDC SERIES BAYONETS

Manual Tool Changers | 2.50"/60mm Diameter High Torque Booms | Product Overview

## Features:

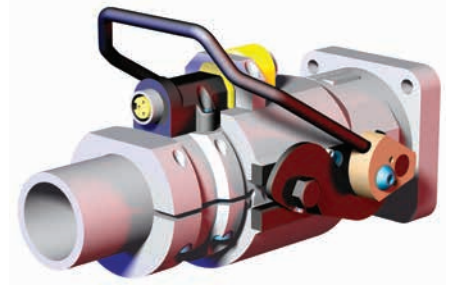
- Extended clamp area increases the holding surface and torque capacity for high speed applications.
- (2) Hardened alignment pins allows quick and accurate installation into the bayonet.
- Optional "EL10" machined surface for large electrical connectors.

## Specifications:

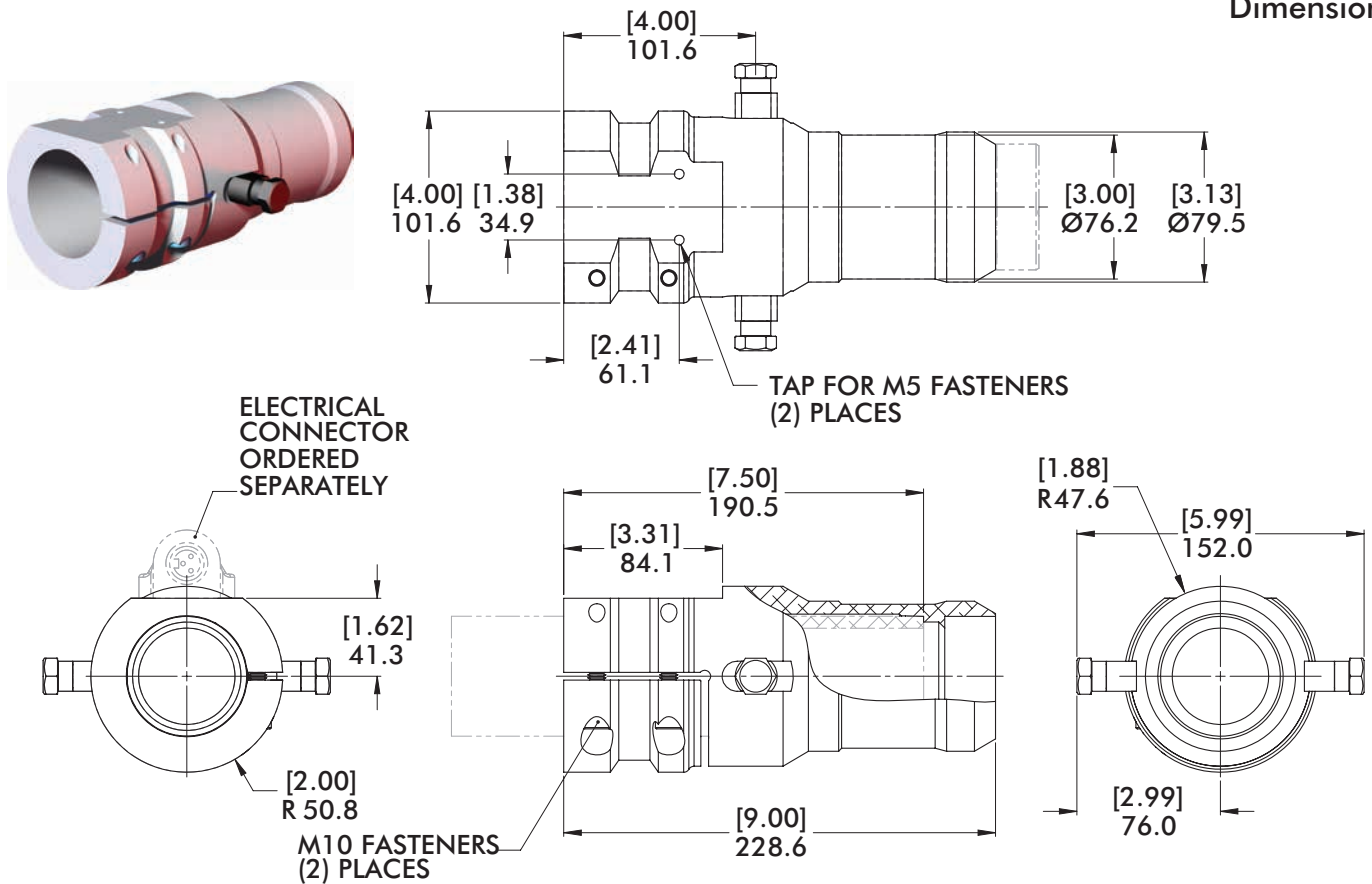
**Max. Static Product Load:**  
949 N\*m [700 ft-lb]

**Material:**  
Body: Aluminum  
Pins: Steel

**Weight:**  
2.1 kg [4.7 lb]



## Dimensions



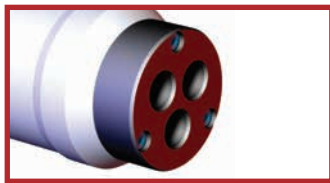
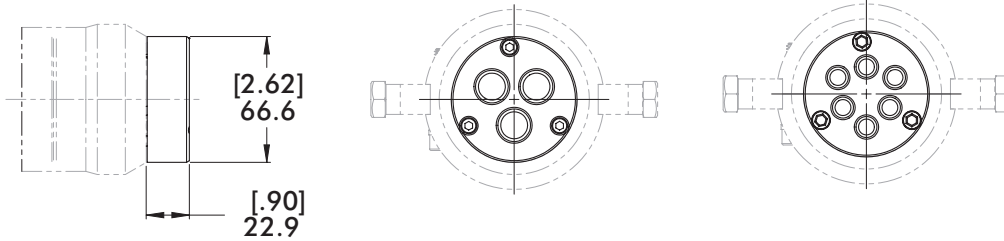
## How To Order

| CPI | Model                             | Boom/Tube (Ø) "D"           | Version                      | Air Port Connection        | Electrical Mounting   |
|-----|-----------------------------------|-----------------------------|------------------------------|----------------------------|---|
|     | <b>RDC</b>                        | <b>25</b>                   | <b>2HT</b>                   | <b>A3</b>                  | <b>EL10</b>   |
|     | "RDC"<br>Quick Disconnect Bayonet | "25" 2.50"(in)<br>"60" 60mm | "2HT"<br>Version 2 Hi-Torque | "A3" 3-Port<br>"A6" 6-Port | Mounting for Large Connectors (Leave blank for Standard Mounting) |

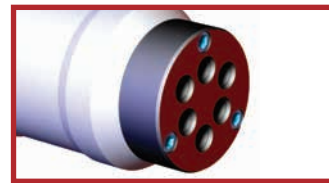
# AIR PORTS AND ELECTRICAL CONNECTIONS

Manual Tool Changers | RDC-25/60 Series Bayonets | Dimensions

## A3 3-Port/A6 6-Port Internal Air Connection



"A3" 3-Port Internal Air Connection



"A6" 6-Port Internal Air Connection

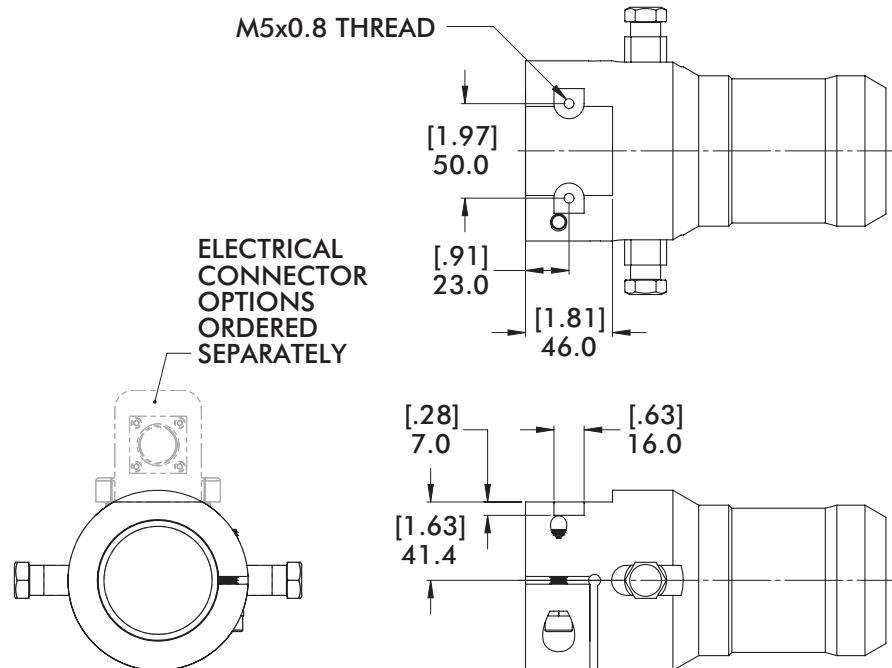
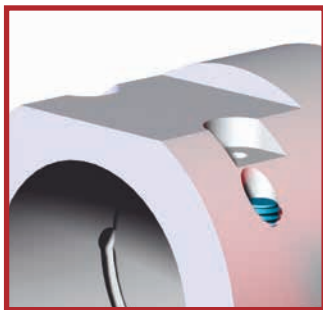
### REPLACEMENT PART

CPI-BC-250-3-U38 (3/8 NPT ports)  
CPI-BC-60-3-G38 (G3/8 ports)

### REPLACEMENT PART

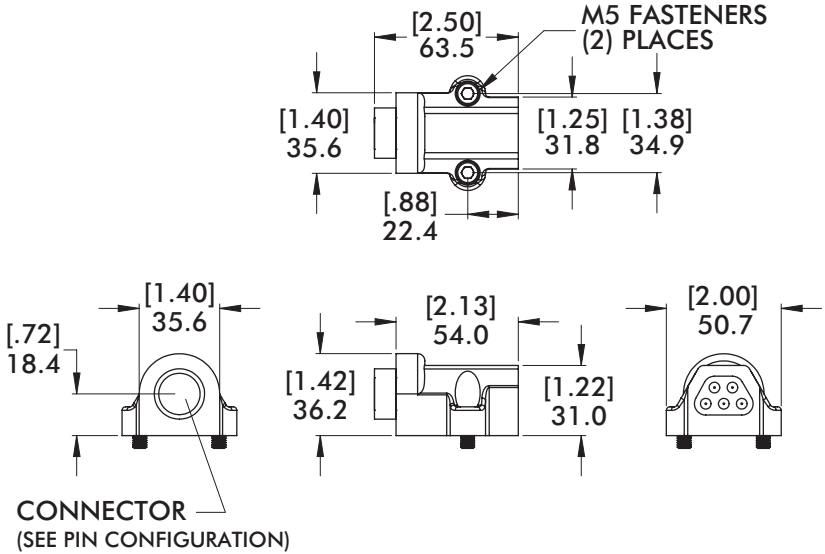
CPI-BC-250-6-U18 (1/8 NPT ports)  
CPI-BC-60-6-G18 (G1/8 ports)

## EL10 Mounting for Large Electric Connection

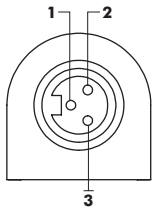


# ELECTRICAL CONNECTIONS

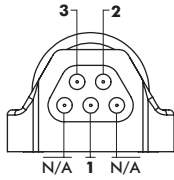
Manual Tool Changers | RDC-25/60 Series Bayonets | Dimensions



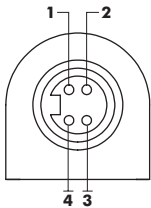
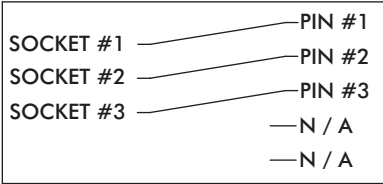
## 5 Pin Connectors for Bayonet (Tool Side)- Standard Pin Configurations



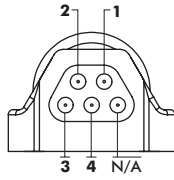
A-Side Socket



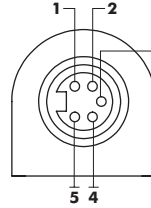
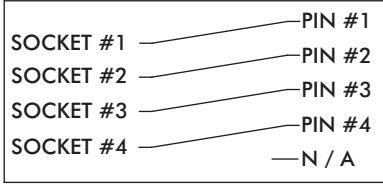
B-Side Pin



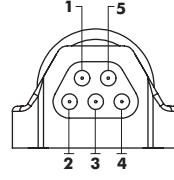
A-Side Socket



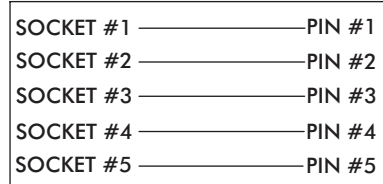
B-Side Pin



A-Side Socket



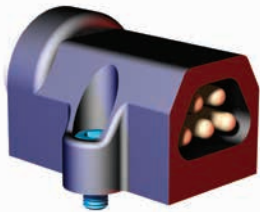
B-Side Pin



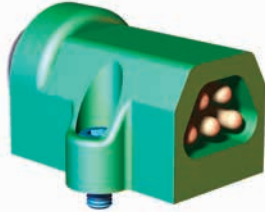
| 3-Pin to 5-Pin Connector |                              |
|--------------------------|------------------------------|
| A-Side                   | 3-Pin, Single Key            |
| B-Side                   | 5-Pin, Male Pin, Female Plug |

| 4-Pin to 5-Pin Connector |                              |
|--------------------------|------------------------------|
| A-Side                   | 4-Pin, Single Key            |
| B-Side                   | 5-Pin, Male Pin, Female Plug |

| 5-Pin to 5-Pin Connector |                              |
|--------------------------|------------------------------|
| A-Side                   | 5-Pin, Single Key            |
| B-Side                   | 5-Pin, Male Pin, Female Plug |



**MODEL NUMBER**  
CPI-RDB-M5P-3B3



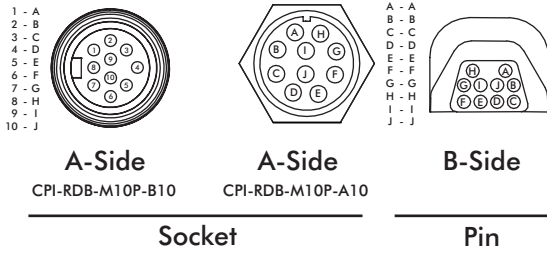
**MODEL NUMBER**  
CPI-RDB-M5P-4B4



**MODEL NUMBER**  
CPI-RDB-M5P-5B5

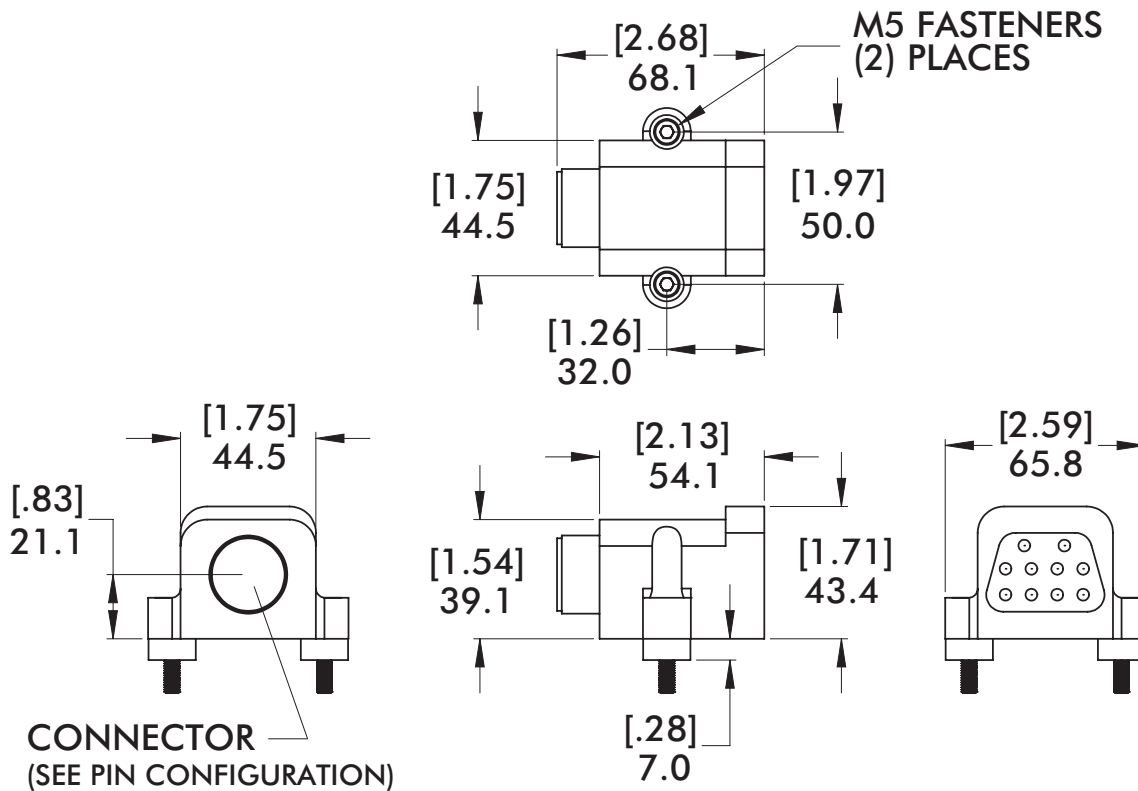
# ELECTRICAL CONNECTIONS

Manual Tool Changers | RDC-25/60 Series Bayonets | Dimensions



## 10 Pin Configuration

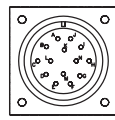
| Model Number     | A-Side | B-Side            |
|------------------|--------|-------------------|
| CPI-RDB-M10P-A10 | 10-Pin | 10-Pin, Male Pin, |
| CPI-RDB-M10P-B10 | 10-Pin | Female Plug       |





# ELECTRICAL CONNECTIONS

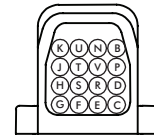
## Manual Tool Changers | RDC-25/60 Series Bayonets | Dimensions



A-Side  
CPI-RDB-M16P-A14



A-Side  
CPI-RDB-M16P-A19



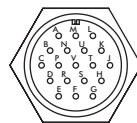
B-Side

Socket

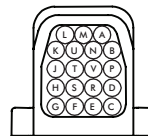
Pin

### 16 Pin Configuration

| Model Number     | A-Side | B-Side                           |
|------------------|--------|----------------------------------|
| CPI-RDB-M16P-A19 | 19-Pin | 16-Pin, Male Pin,<br>Female Plug |
| CPI-RDB-M16P-A14 | 14-Pin |                                  |



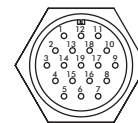
A-Side  
CPI-RDB-M19P-A19



B-Side

Socket

Pin



A-Side



B-Side

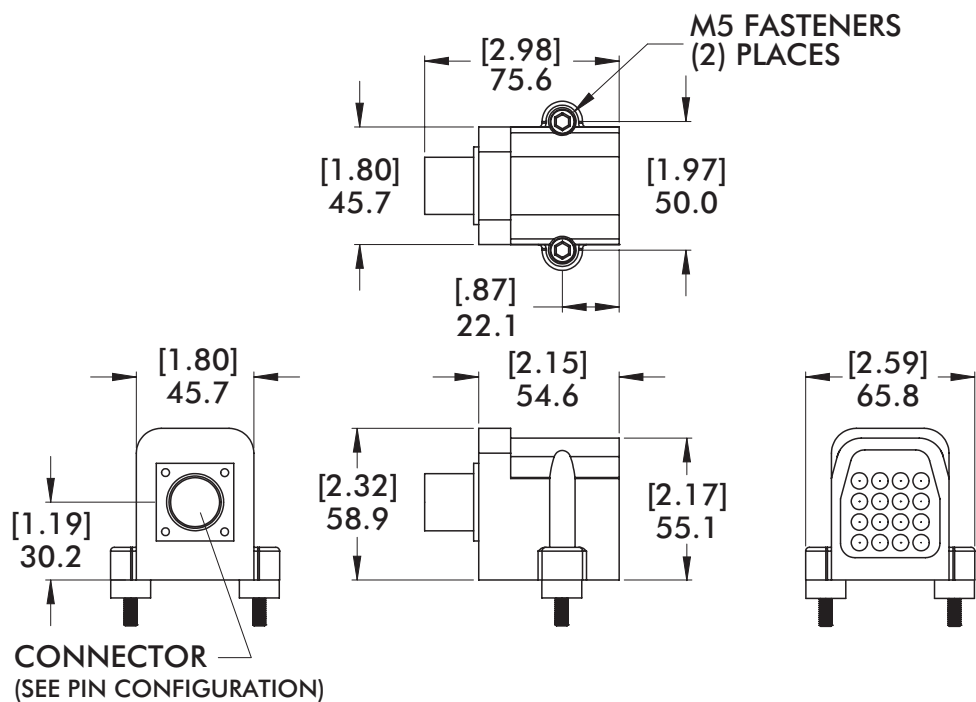
CPI-RDB-M19P-B19

Socket

Pin

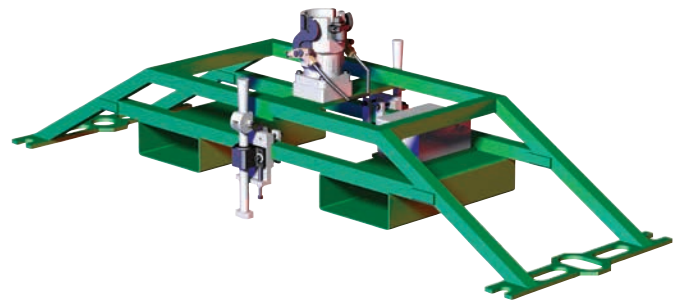
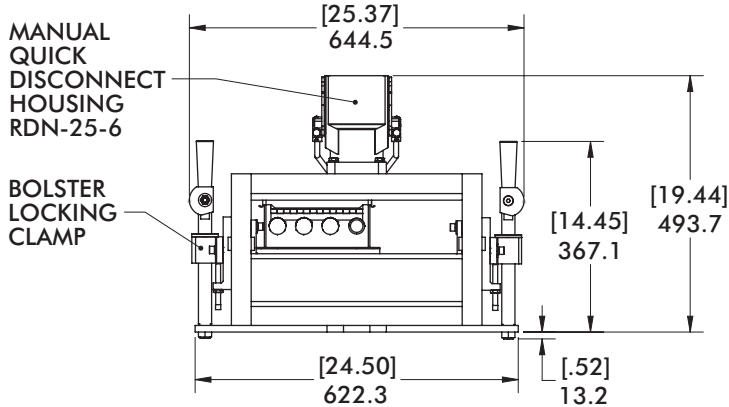
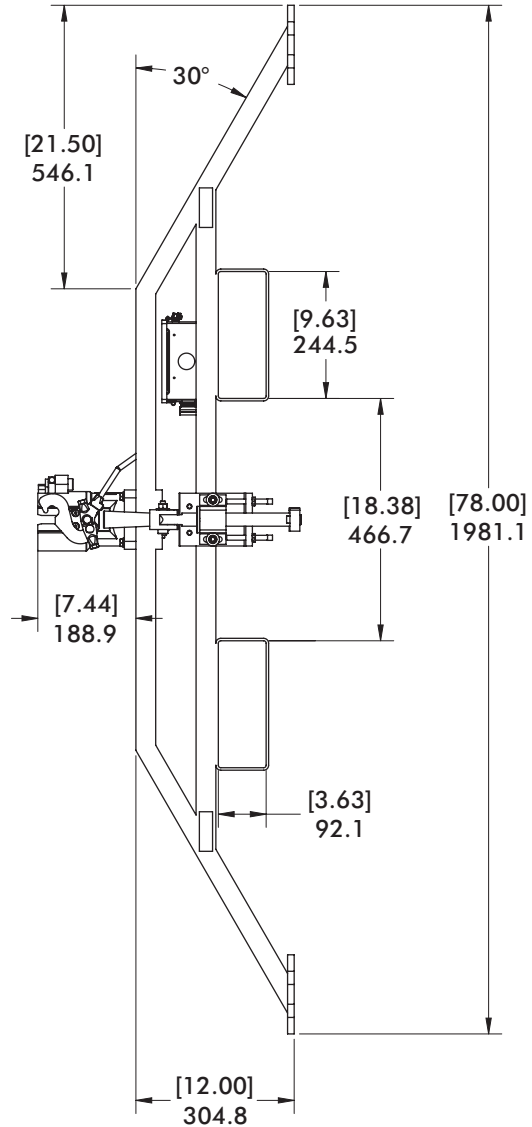
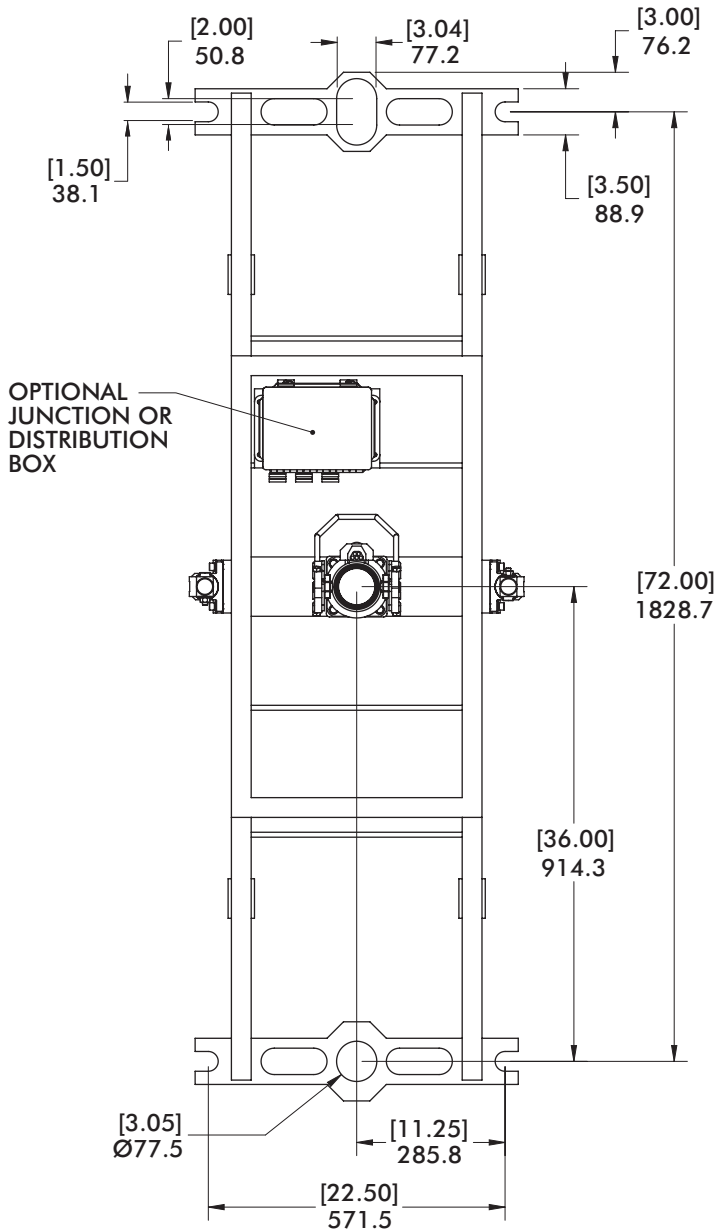
### 19 Pin Configuration

| Model Number     | A-Side | B-Side                           |
|------------------|--------|----------------------------------|
| CPI-RDB-M19P-A19 | 19-Pin | 19-Pin, Male Pin,<br>Female Plug |
| CPI-RDB-M19P-B19 | 19-Pin |                                  |

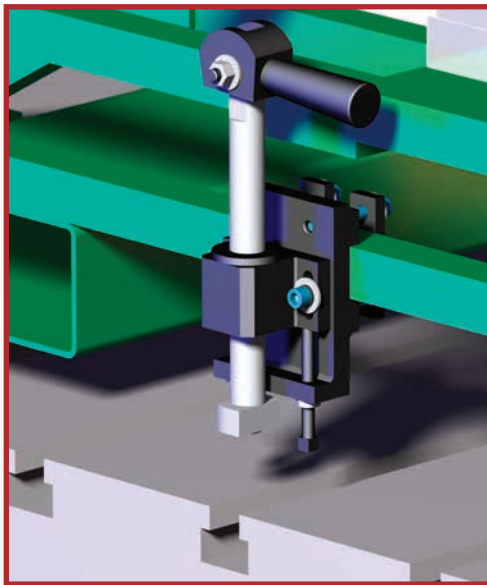
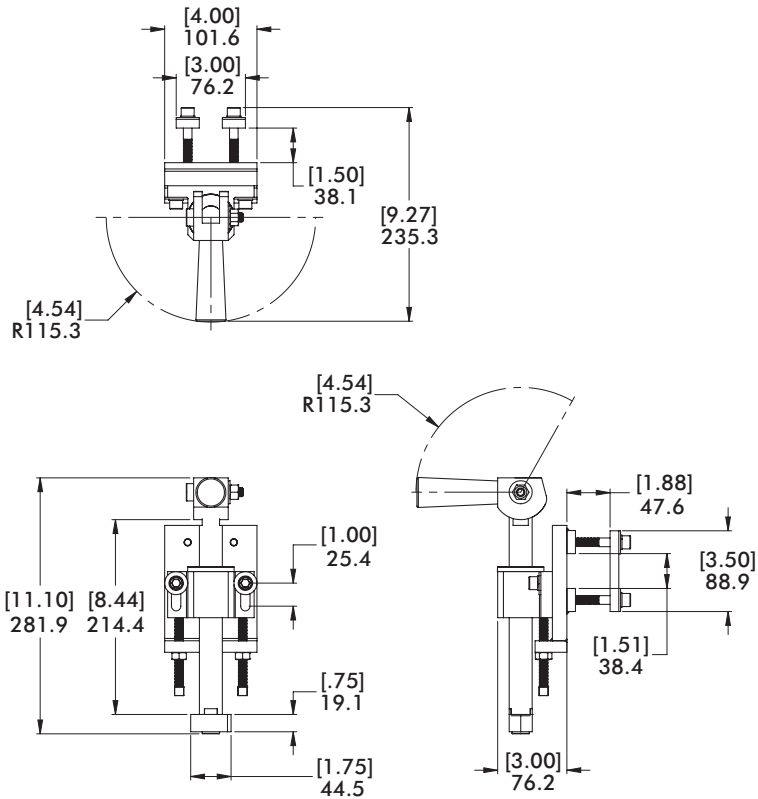


# IDLE STATION

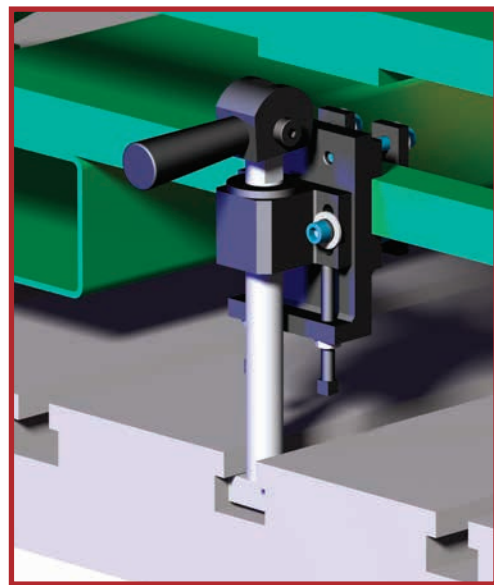
Automation Adaptors | (1) RDN-25-6 Disconnect Housings with Ability to be Fixed to Bolster | Dimensions



| MODEL NUMBER | WEIGHT               |
|--------------|----------------------|
| CPI-PNS-ASSY | 85.41 kg [188.30 lb] |



Stored Position



In Use, Locked into Bolster

**MODEL NUMBER**

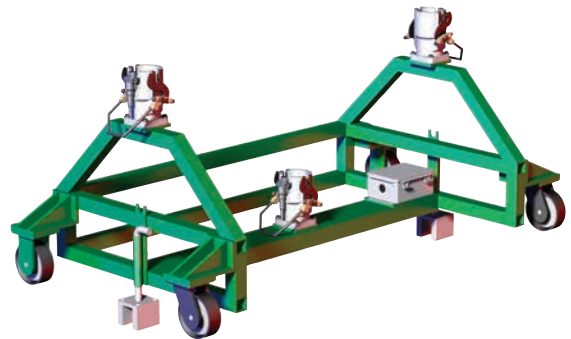
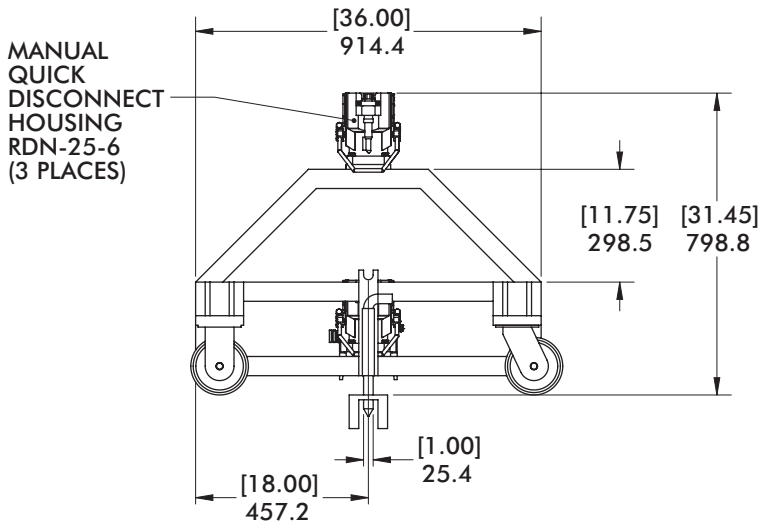
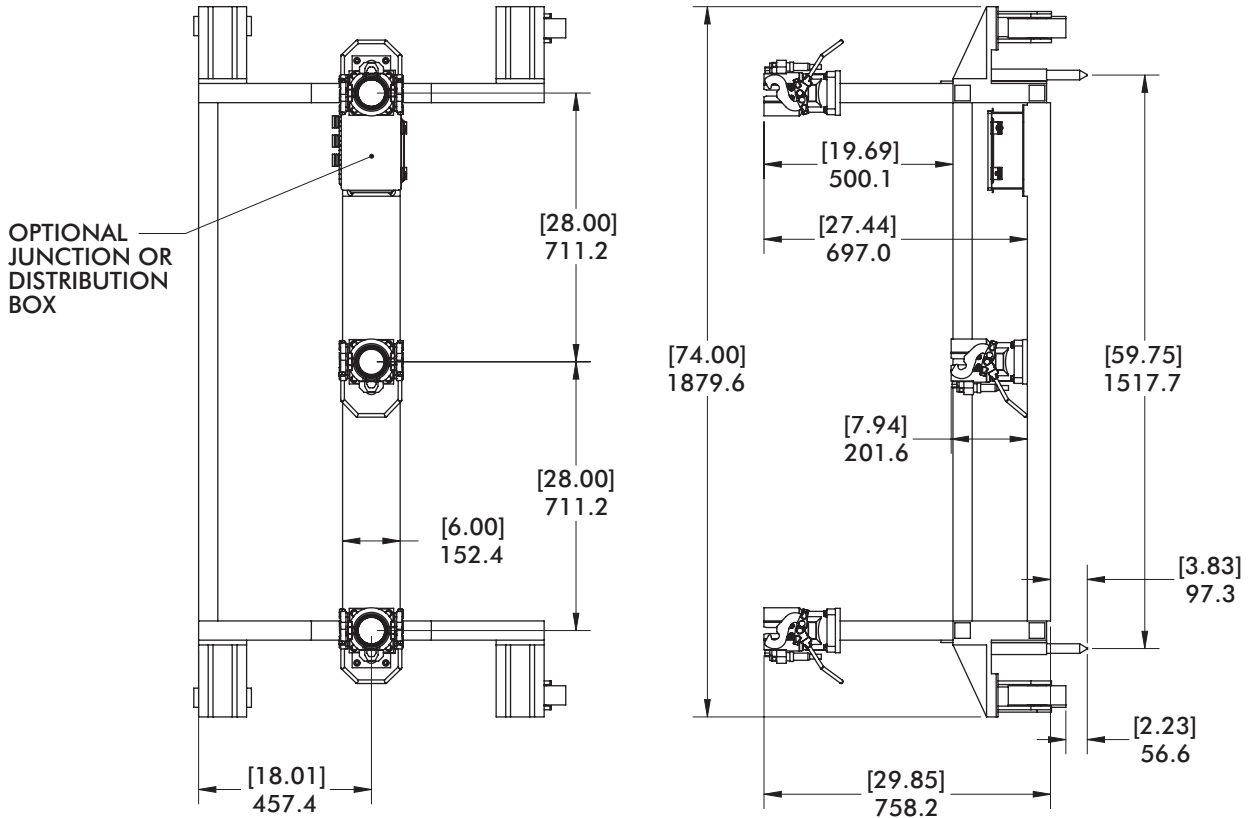
**WEIGHT**

CPI-BLC-100-15-6

5.50 kg [12.12 lb]

# IDLE STATION

Automation Adaptors | (3) RDN-25-6 Disconnect Housings and Mobile Flexibility | Dimensions



**MODEL NUMBER**

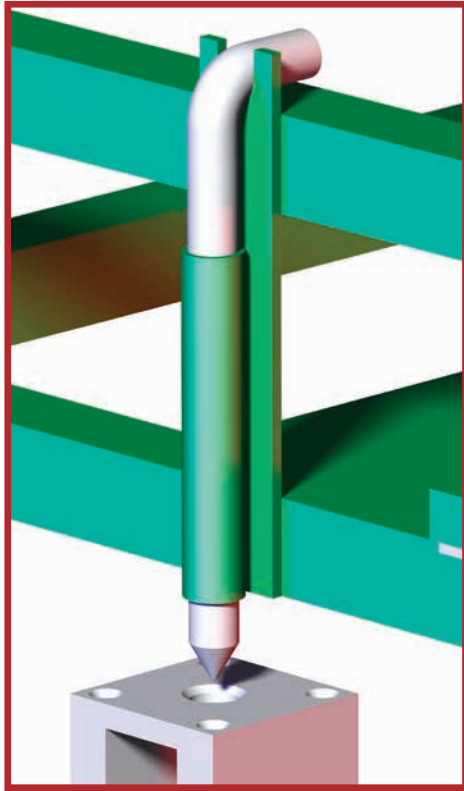
**WEIGHT**

**CPI-INS-ASSY**

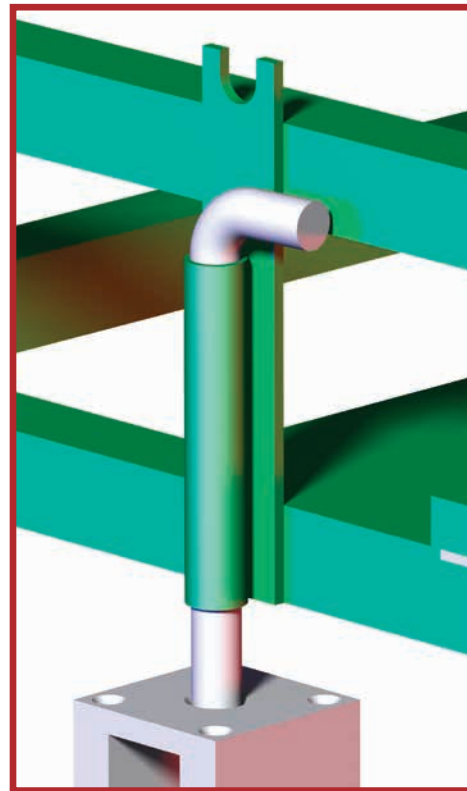
**182.67 kg [402.73 lb]**

# LOCKING PINS IDLE STATIONS

Automation Adaptors | Locking Pin | Operating Procedure



Stored Position



Engaged Position