End Effectors

Tool Changers | End-of-Arm Tooling | Vacuum Products
DESTACO, a Dover company, is a global leader in the design and manufacture of high-performance automation, workholding and remote-handling solutions. The company serves customers in a variety of end-markets, including the automotive, life sciences, consumer packaged goods, aerospace, industrial and nuclear sectors.

Built on a legacy of more than 100 years, DESTACO offers a comprehensive portfolio of products designed to engineer precise movement, placement and control solutions that drive productivity and uptime for manufacturers around the world. The DESTACO family of products consists of industry-leading brands such as DESTACO Manual Clamps, Power Clamps, and End Effectors; CAMCO™ and Ferguson™ Indexers; Robohand™ Grippers; and CRL™ Manipulators and Transfer Ports.

DESTACO is based in Auburn Hills, Michigan, U.S.A. The company has more than 800 employees with 13 locations, in 9 countries, across the Americas, Europe and Asia.

DESTACO is part of Dover Corporation, a diversified global manufacturer with annual revenues of $7 billion. The company delivers innovative equipment and components, specialty systems and support services through four major operating segments: Energy, Engineered Systems, Fluids, and Refrigeration & Food Equipment. Headquartered in Downers Grove, IL, (NYSE: DOV)

More information is available at destaco.com and dovercorporation.com
Focusing all of our Resources

New Product Development
DESTACO has dedicated resources to design and build the next generation of products and solutions

Customer Service and Technical Support
DESTACO has industry leading global support to address any product and application concerns you may have

Design Tools
DESTACO provides an extensive CAD library, sizing software, and online tools to support our global customers

Our Insight Working for You

Application Engineering
We utilize our expertise and complete portfolio of products to create solutions that fit our customers’ needs and applications

Custom Solutions
If our off-the-shelf solutions don’t fit, we will partner with our customers to develop products that will

Building a Strong Brand
DESTACO has grown since 1915 through product development and acquired strong product brands to offer a comprehensive portfolio of products for automation, workholding, and containment solutions.
DESTACO end effectors are designed to help you move parts faster in today’s production line by using high strength, lightweight aluminum modular components, durable vacuum cups and the fastest venturis on the market.

destaco.com
CUSTOM END EFFECTOR SOLUTIONS

Custom Solutions for End Effector Tooling Systems

DESTACO has several families of end effector components that are designed to be used together to create an unlimited number of material handling solutions to fit any application and market. Below are examples of solutions designed to customer specified design criteria. If there is no part that fits your needs, we will partner with you to design a part that fits.

Contact us today to get started on your custom application: solutions@destaco.com

Markets

- Transportation
- Aerospace
- Industrial
- Food & Packaging
- Consumer Goods

Applications

- Press Room/Stamping
- Assembly
- Welding
- Hot Forming
- Plastic Injection Molding
- CNC/Machining
Custom Solutions for End Effector Tooling Systems

DESTACO offers three levels of modifications for customizing our end effector systems to fit our customers’ specified applications. Depending on the severity of the modifications, quoting times may take longer.

Level 1 Modifications:
Standard product design with minimal modifications to existing catalog product.

- Custom mounting
- Non-standard controls
- Special coatings
- Complete design and build
- Quotes within 2 days*

Level 2 Modifications:
Application of standard components with the addition of custom designed or modifications to standard parts.

- Detailed concept or model required
- Oversized or custom mounting
- Non-standard tooling or brackets
- Complete design and build
- Quotes within 3 days*

Level 3 Modifications:
Custom applications that may consist of a combination of standard products or a complete custom design.

- Turn-key application
- Complete design and build
- Quotes within 5 days*

(*) Based on all customer supplied information ie. Part models, system layout (if required) robot or automation.
# AUTOMATIC TOOL CHANGERS

Table of Contents

<table>
<thead>
<tr>
<th>Component</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQC/RTP</td>
<td>3</td>
</tr>
<tr>
<td>QC/TP</td>
<td>21</td>
</tr>
<tr>
<td>RHC</td>
<td>37</td>
</tr>
<tr>
<td>CH (Horizontal Compliance Device)</td>
<td>47</td>
</tr>
</tbody>
</table>
**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

**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.

---

**DESTACO Automatic Tool Changers** allows multiple tooling applications to be achieved using one robot with exceptional repeatability, high rigidity and load capacity.

Each Series offers:

- Durable locking components
- Heavy-duty locking spring mechanisms on certain models
- Optional air, electric and fluid ports module
- Available in NPT, BSPP, and BSPT
- ISO pattern for direct robot arm mount
- Different models and sizes available to handle light-duty to heavy-duty applications.
RQC/RTP SERIES
Automatic Tool Changers | Features and Benefit

Additional Optional Air, Fluid, Electrical Modules are Available.
Air and fluid ports modules are available in NPT, BSPP, and BSPT (See Page 17)

Optional 6 Port Pneumatic Module
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

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 (4) Self-Sealing Air Ports Module
(sizes 800 & 1200 only)

Robot Side

Tool Side

Robot Half Adaptor 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 Half Adaptor

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

Locating Pins

Dimensions and technical information are subject to change without notice
RQC/RTP SERIES

Automatic Tool Changers | Technical Information

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

RQC-200/RTP-200

Robot Adaptor Module
Tool Adaptor Module

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

RQC-400/RTP-400

Robot Adaptor Module
Tool Adaptor Module

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

RQC-800/RTP-800

Robot Adaptor Module
Tool Adaptor Module

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

RQC-1200/RTP-1200

Robot Adaptor Module
Tool Adaptor Module

Dimensions and technical information are subject to change without notice
RQC-200/RTP-200
Automatic Tool Changers | Module Usage Illustrations

**RQC-200**
Robot Adaptor Module
with Optional Modules
(Robot Side)

**RTP-200**
Tool Adaptor Module
with Optional Modules
(Tool Side)

---

Dimensions and technical information are subject to change without notice
### RQC-200/RTP-200

**Automatic Tool Changers | Ordering Information**

<table>
<thead>
<tr>
<th>Base Model</th>
<th>Model Size</th>
<th>Port Options (RQC-only)</th>
<th>Port Options (RQC-only)</th>
<th>Sensing (RQC-only)</th>
<th>Side A MODULES</th>
<th>Side B MODULES</th>
<th>Side C MODULES</th>
<th>Side D MODULES</th>
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<tr>
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<td>0</td>
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<tr>
<td>RTP</td>
<td>90 kg [200 lb] Max. Payload</td>
<td>N</td>
<td>1/8 NPT</td>
<td>L0</td>
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<td>0</td>
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<td>1/8 BSPP</td>
<td>LP</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>1/8 BSPT</td>
<td>CP</td>
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<td>CD</td>
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</table>

***Requires E19 or G19 module mounted on Side C.***

**Optional Electrical, Air and Vacuum Modules can be ordered with Base Model**

See below for Module Description

(See Page 5 for Illustrated Module Use Configuration)

<table>
<thead>
<tr>
<th>Side A</th>
<th>Side B</th>
<th>Side C</th>
<th>Side D</th>
<th>Order Code</th>
<th>Optional Modules</th>
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<tr>
<td></td>
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<td>⬤</td>
<td>⬤</td>
<td>0</td>
<td>No Module</td>
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<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
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<td>19 pin, 3 Amp, 48 VDC Module w/Turck M12 Conn, w/o Cordset</td>
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<tr>
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<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>G19***</td>
<td>19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable</td>
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<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>FN</td>
<td>6 X 1/8” NPT Air Ports Module, Face Seal, 10 Bar</td>
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<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>FP</td>
<td>6 X 1/8” BSPP Air Ports Module, Face Seal, 10 Bar</td>
</tr>
<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>FT</td>
<td>6 X 1/8” BSPT Air Ports Module, Face Seal, 10 Bar</td>
</tr>
<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>VN</td>
<td>2 X 3/4” Vacuum + 4 X 1/4” Air NPT Ports Module, Face Sealing</td>
</tr>
<tr>
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<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>VP</td>
<td>2 X 3/4” Vacuum + 4 X 1/4” Air BSPP Ports Module, Face Sealing</td>
</tr>
<tr>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>⬤</td>
<td>VT</td>
<td>2 X 3/4” Vacuum + 4 X 1/4” Air BSPT Ports Module, Face Sealing</td>
</tr>
</tbody>
</table>

*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. Modules usage is based on the size of the Base Model and which side the module can be mounted.

Dimensions and technical information are subject to change without notice
RQC-200 (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimension

**Specification:**
- Max. Payload W: 90 Kg [200 lb]
- Cylinder Bore: Ø53mm [2.09in]
- Displacement: 41.3 cm³ [2.52in³]

**Loading Capacity:**
- Max. Tensile T: 1330 N [300 lb]
- Max. Compressive C: 1780 N [400 lb]
- Max. Moment (Mx/My/Mz): 1580 Nm [810 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**

- Dimensions are symmetrical about centerline
- Third angle projection
- All dowel holes are slip fit (SUF/RT)
- Locational tolerances ± 0.005" OR ± 0.13mm
- Metric threads course/pitch
- Imperial (" [IN.])
  - 0.002 = ± 0.01
  - 0.000 = ± 0.005
- Metric (MM)
  - 0.002 = ± 0.01
  - 0.0000 = ± 0.0005

---

Dimensions and technical information are subject to change without notice.
**Specication:**
Max. Payload W: 180 Kg [400 lb]

**Loading Capacity:**
Max. Tensile T: 2670 N [600 lb]
Max. Compressive C: 3560 N [800 lb]
Max. Moment (Mx/My/Mz): 1580 Nm [14000 in.-lb.]

**Dimensions and technical information are subject to change without notice**
RQC-400, 800, 1200/RTP-400, 800, 1200

Automatic Tool Changers | Module Usage Illustrations

**RQC-400**

**Robot Adaptor Module**
with Optional Modules
(Robot Side)

**RTP-400**

**Tool Adaptor Module**
with Optional Modules
(Tool Side)

**RQC-800/RQC-1200**

**Robot Adaptor Module**
with Optional Modules
(Robot Side)

**RTP-800/RTP-1200**

**Tool Adaptor Module**
with Optional Modules
(Tool Side)

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

Dimensions and technical information are subject to change without notice.
RQC-400, 800, 1200/RTP-400, 800, 1200

Automatic Tool Changers | Ordering Information

### Base Model

<table>
<thead>
<tr>
<th>Model Size</th>
<th>Port Options (RQC-only)</th>
<th>Sensing (RQC-only)</th>
<th>Side A MODULES</th>
<th>Side B MODULES</th>
<th>Side C MODULES</th>
<th>Side D MODULES</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQC-400</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RTP-400</td>
<td>800</td>
<td>A</td>
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<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>RQC-1200</td>
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<td>L0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Optional Modules**

- **E19**: 19 pin, 3 Amp, 48 VDC Module w/ Turck M12 Conn, w/o Cordset
- **2E19**: 2x 19 pin, 3 Amp, 48 VDC Module w/ Turck M12 Conn, w/o Cordset
- **G19**: 19 pin, 5 Amp, 120 VDC Module w/ Industrial User Conn., w/o Cable
- **2G19**: 2x 19 pin, 5 Amp, 120 VDC Module w/ Industrial User Conn., w/o Cable
- **N**: 6 X 1/8" NPT Air Ports Module, Face Seal, 10 Bar
- **F**: 6 X 1/8" BSPP Air Ports Module, Face Seal, 10 Bar
- **P**: 6 X 1/4" NPT Air Ports Module, Face Seal, 10 Bar
- **S**: 6 X 1/4" BSPP Air Ports Module, Face Seal, 10 Bar
- **V**: 2 X 3/4" Vacuum + 4 X 1/4" Air NPT Ports Module, Face Sealing
- **H**: 4 X 3/8" NPT Fluid Ports Module, 100 Bar
- **T**: 4 X 3/8" BSP Fluid Ports Module, 100 Bar

### Optional Electrical, Air, Vacuum and Fluid Modules can be ordered with Base Model

See below for Module Description

(See Page 9 for Illustrated Module Use Configuration)

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 Cordset with 2M Cable for CP, CN, and CD (RQC Only)
- **CABL-029**: 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

---

**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-400 (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimension

**Specification:**
- Max. Payload \( W \): 180 Kg [400 lb]
- Cylinder Bore: \( \Omega73 \)mm [2.87in]
- Displacement: 80.9 cm\(^3\) [4.93in\(^3\)]

**Loading Capacity:**
- Max. Tensile \( T \): 2670 N [600 lb]
- Max. Compressive \( C \): 3560 N [800 lb]
- Max. Moment \( (Mx/My/Mz) \): 1580 Nm [14000 in.-lb.]

Dimensions and technical information are subject to change without notice.
**RTP-400 (TOOLING SIDE)**

Automatic Tool Changers | Technical Specifications | Dimension

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

**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**

**METRIC THREADS COURSE PITCH**

**IMPERIAL ([IN.])**

**METRIC ([MM])**

0.00 = ± 0.01
0.000 = ± 0.005
0.0000 = ± 0.0005
0 = ± 0.25
1 = ± 0.13
2 = ± 0.13

---

Dimensions and technical information are subject to change without notice.
RQC-800, RQC-1200 (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimension

**RQC-800 Specification:**
- Max. Payload **W**: 360 Kg [800 lb]
- RQC-800 Cyl. Bore: Ø80mm [3.15in]
- RQC-800 Displacement: 95.6 cm³ [5.83in³]

**Loading Capacity:**
- Max. Tensile **T**: 5340 N [1200 lb]
- Max. Compressive **C**: 7120 N [1600 lb]
- Max. Moment (**M**x/**M**y): 2490 Nm [22000 in.-lb.]

**RQC-1200 Specification:**
- Max. Payload **W**: 550 Kg [1200 lb]
- RQC-1200 Cyl. Bore: Ø95mm [3.74in]
- RQC-1200 Displacement: 153.7 cm³ [9.38in³]

**Loading Capacity:**
- Max. Tensile **T**: 8000 N [1800 lb]
- Max. Compressive **C**: 10700 N [2400 lb]
- Max. Moment (**M**x/**M**y): 3390 Nm [30000 in.-lb.]

Dimensions and technical information are subject to change without notice.

---

**FAILSAFE OPERATION:**

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

**MODEL NUMBER**

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<th></th>
<th><strong>A</strong></th>
<th><strong>B</strong></th>
<th><strong>C</strong></th>
<th><strong>D</strong></th>
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**RQC-1200 Specification:**

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<th><strong>D</strong></th>
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<td>168.0</td>
<td>103.6</td>
<td>57.15</td>
<td>84.15</td>
<td>6.4 kg</td>
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</tbody>
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Dimensions and technical information are subject to change without notice.
RTP-800, RTP-1200 (TOOLING SIDE)

RTP-800 Specification:
Max. Payload W: 360 Kg [800 lb]

Loading Capacity:
Max. Tensile T:
5340 N [1200 lb]
Max. Compressive C:
7120 N [1600 lb]
Max. Moment (Mx/My/Mz):
2490 Nm [22000 in.-lb.]

RTP-1200 Specification:
Max. Payload W: 550 Kg [1200 lb]

Loading Capacity:
Max. Tensile T:
8000 N [1800 lb]
Max. Compressive C:
10700 N [2400 lb]
Max. Moment (Mx/My/Mz):
3390 Nm [30000 in.-lb.]

Dimensions and technical information are subject to change without notice.
**RQC/RTP SERIES**

Automatic Tool Changers | Technical Specifications | Dimension

### 19 Pin Module 3 Amp - 48 VDC

**ROBOT HALF**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
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<tbody>
<tr>
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<tr>
<td>(2) M5 SHCS</td>
<td>[2.28] 58.0</td>
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**TOOL HALF**

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<tr>
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<th>Value</th>
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</thead>
<tbody>
<tr>
<td>FACE SEAL</td>
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</tr>
<tr>
<td>(2) M5 SHCS</td>
<td>[2.28] 58.0</td>
</tr>
</tbody>
</table>

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

---

### 19 Pin Module 5 Amp - 120 VDC

**ROBOT HALF**

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<td>(2) M5 SHCS</td>
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**TOOL HALF**

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<tr>
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<th>Value</th>
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<tr>
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</tr>
<tr>
<td>(2) M5 SHCS</td>
<td>[2.28] 58.0</td>
</tr>
</tbody>
</table>

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

---

**Module kits above include:** 90° Plug Support (without cable), indexing sleeves and hardware.
Reserved Pin Numbers on E19/G19

<table>
<thead>
<tr>
<th>Sensor/Switch</th>
<th>RQC 400</th>
<th>RQC 800 &amp; 1200</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{LP or LN} ) (Inductive)</td>
<td>( R: +10 , \text{to} , 30 , \text{VDC} )</td>
<td>( R: +10 , \text{to} , 30 , \text{VDC} )</td>
</tr>
<tr>
<td>( L )</td>
<td>( L: \text{Common} )</td>
<td>( L: \text{Common} )</td>
</tr>
<tr>
<td>( M )</td>
<td>( M: \text{Lock} )</td>
<td>( M: \text{Lock} )</td>
</tr>
<tr>
<td>( N )</td>
<td>( N: \text{Unlock} )</td>
<td>( N: \text{Unlock} )</td>
</tr>
<tr>
<td>( \text{LD} ) (Dry Contact)</td>
<td>( R: +10 , \text{to} , 30 , \text{VDC} )</td>
<td>( R: +10 , \text{to} , 30 , \text{VDC} )</td>
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</tr>
<tr>
<td>( N )</td>
<td>( N: \text{Unlock} )</td>
<td>( N: \text{Unlock} )</td>
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Module Connecting with Latch/Unlatch Sensors

Pin Numbering

Wire Color on CABL-029 Cordset

<table>
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<tr>
<th>Contact</th>
<th>Wire Color</th>
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<tbody>
<tr>
<td>( R )</td>
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<tr>
<td>( L )</td>
<td>Brown</td>
</tr>
<tr>
<td>( M )</td>
<td>Orange</td>
</tr>
<tr>
<td>( N )</td>
<td>Grey/Brown</td>
</tr>
<tr>
<td>( P )</td>
<td>White</td>
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Lock/Unlock Tool Plate Presence Sensing Options
(with inductive Sensors and Dry Contact Switches)

Dimensions and technical information are subject to change without notice
6 x 1/8” Air Ports Module | Face Seal (for RQC/RTP-200 & RQC/RTP-400)

<table>
<thead>
<tr>
<th>ROBOT HALF</th>
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<tbody>
<tr>
<td>[4.41] 112</td>
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<tr>
<td>[3.5433] 90.00</td>
<td></td>
</tr>
<tr>
<td>[0.25] 86.5 MINI</td>
<td>[0.26] 86.5 MINI</td>
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<tr>
<td>(6) FACE SEAL AIR PORTS</td>
<td>(6) FACE SEAL AIR PORTS</td>
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<tr>
<td>[3.31] 84</td>
<td>[3.5433] 90.00</td>
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<tr>
<td>[0.31] 8</td>
<td>[0.315] 9</td>
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<tr>
<td>(8) X “A” (SEE TABLE)</td>
<td>(8) X “A” (SEE TABLE)</td>
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<tr>
<td>[2.13] 44.5</td>
<td>[1.81] 46.0</td>
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<td>[0.07] 1.8</td>
<td>[0.25] 2.0</td>
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<tr>
<td>(2) INDEXING SLEEVES</td>
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<tr>
<td>[0.32] 3.5</td>
<td>[0.32] 3.5</td>
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<tr>
<td>[1.50] 38.1</td>
<td>[1.50] 38.1</td>
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<tr>
<td>[1.75] 44.5</td>
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<tr>
<td>[2.83] 72</td>
<td>[2.83] 72</td>
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<tr>
<td>[0.39] 10</td>
<td>[0.39] 10</td>
</tr>
<tr>
<td>[0.94] 24</td>
<td>[0.94] 24</td>
</tr>
<tr>
<td>(2) AIR PORTS FOR RQC ACTUATION WHEN MODULE IS MOUNTED ON SIDE “A”</td>
<td>(2) AIR PORTS FOR RQC ACTUATION WHEN MODULE IS MOUNTED ON SIDE “A”</td>
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<table>
<thead>
<tr>
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<th>TOOL HALF</th>
</tr>
</thead>
<tbody>
<tr>
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<td>[5.83] 148.0</td>
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<tr>
<td>[3.5433] 90.00</td>
<td>[3.5433] 90.00</td>
</tr>
<tr>
<td>[0.49] Ø12.5 MINI</td>
<td>[0.49] Ø12.5 MINI</td>
</tr>
<tr>
<td>(6) FACE SEAL AIR PORTS</td>
<td>(6) FREE AIR PORTS</td>
</tr>
<tr>
<td>[2.83] 72</td>
<td>[2.52] 64.0</td>
</tr>
<tr>
<td>[0.39] 10</td>
<td>[0.39] 10</td>
</tr>
<tr>
<td>[0.94] 24</td>
<td>[0.79] 20.0</td>
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<tr>
<td>[1.10] 28</td>
<td>[1.00] 25.4</td>
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<tr>
<td>(2) X “A” (SEE TABLE)</td>
<td>(3) M5 SHCS</td>
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<tr>
<td>[0.32] 3.5</td>
<td>[0.35] 9</td>
</tr>
<tr>
<td>[1.50] 38.1</td>
<td>[1.50] 38.1</td>
</tr>
<tr>
<td>[1.75] 44.5</td>
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<td>[2.83] 72</td>
</tr>
<tr>
<td>[0.39] 10</td>
<td>[0.39] 10</td>
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</tbody>
</table>

6 x 1/4” Air Ports Module | Face Seal (for RQC/RTP-800 & RQC/RTP-1200)

<table>
<thead>
<tr>
<th>ROBOT HALF</th>
<th>TOOL HALF</th>
</tr>
</thead>
<tbody>
<tr>
<td>[5.83] 148.0</td>
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<tr>
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<td>[3.5433] 90.00</td>
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<td>(6) FREE AIR PORTS</td>
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<tr>
<td>[2.83] 72</td>
<td>[2.52] 64.0</td>
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<tr>
<td>[0.39] 10</td>
<td>[0.39] 10</td>
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<tr>
<td>[0.94] 24</td>
<td>[0.79] 20.0</td>
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<tr>
<td>[1.00] 25.4</td>
<td>[1.00] 25.4</td>
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<tr>
<td>(8) X “A” (SEE TABLE)</td>
<td>(3) M5 SHCS</td>
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<tr>
<td>[0.32] 3.5</td>
<td>[0.35] 9</td>
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<tr>
<td>[1.50] 38.1</td>
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<tr>
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</tr>
<tr>
<td>[0.39] 10</td>
<td>[0.39] 10</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MODULE REPLACEMENT FOR RQC-200/400</th>
<th>FOR RQC 800/1200</th>
<th>FOR RTP-200/400</th>
<th>FOR RTP 800/1200</th>
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</thead>
<tbody>
<tr>
<td>FN</td>
<td>KFN-RQC200</td>
<td>KFN-RQC800</td>
<td>KFN-RTP200</td>
</tr>
<tr>
<td>FP</td>
<td>KFP-RQC200</td>
<td>KFP-RQC800</td>
<td>KFP-RTP200</td>
</tr>
<tr>
<td>FT</td>
<td>KFT-RQC200</td>
<td>KFT-RQC800</td>
<td>KFT-RTP200</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
Module kits above include: Couplings, indexing sleeves and hardware.
6 x 1/4” Air Ports Module | Face Seal (for RQC/RTP-800 & RQC/RTP-1200)

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 & RQC/RTP-1200)

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

Dimensions and technical information are subject to change without notice.
6 x 1/4” Air Ports Module | Double Shut-Off Flat Face (SN/SP/ST)
(for RQC/RTP-800 & RQC/RTP-1200)

Module kits above include: Couplings, indexing sleeves and hardware.
**QC/TP SERIES**

Automatic Tool Changers | Features and Benefit

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

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

**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

**Mounting Information**

Dimensions and technical information are subject to change without notice
**QC-TP Series**

**Automatic Tool Changers | Technical Information**

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

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

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

**Dimensions and technical information are subject to change without notice**
QC Series
Robot Adaptor Module
with Optional Modules
(Robot Side)

TP Series
Tool Adaptor Module
with Optional Modules
(Tool Side)

HN38
PN18/PP18/PT18
PN14/PP14/PT14
E26
E19
E10
E12
E15/D15

Dimensions and technical information are subject to change without notice
### QC/TP SERIES

**Automatic Tool Changers | How to Order**

<table>
<thead>
<tr>
<th>Model Side</th>
<th>Model Size</th>
<th>Port Options</th>
<th>I/O Block</th>
<th>Optional Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>QC</td>
<td>30</td>
<td>Blank 60</td>
<td>E15</td>
<td>E15</td>
</tr>
<tr>
<td>QC</td>
<td>60</td>
<td>1/8 NPT</td>
<td>M</td>
<td>PN18</td>
</tr>
<tr>
<td>QC</td>
<td>150</td>
<td>1/8 BSPT</td>
<td>D15</td>
<td>10P</td>
</tr>
</tbody>
</table>

**Base Model**
- QC: Robot Side
- TP: Tool Side

**Model Size**
- QC-30: 13.6 kg [30 lb] Max Payload
- QC-60: 27 kg [60 lb] Max Payload
- QC-150: 68 kg [150 lb] Max Payload

**Port Options**
- Blank: 1/8 NPT
- M: 1/8 BSPT

**I/O Block**
- E15: 15-pin, Sub-D
- D15: (2) X E15 (QC/TP-30 only)
- E12: 12-pin, Turck

**Order Code**
- PN18: 4 X 1/8 NPT Pneumatic Port
- PP18: 4 X 1/8 BSPP Pneumatic Port
- PT18: 4 X 1/8 BSPT Pneumatic Port
- PN14: 2 X 1/4 NPT Pneumatic Port
- PP14: 2 X 1/4 BSPP Pneumatic Port
- PT14: 2 X 1/4 BSPT Pneumatic Port
- HN38: 2 X 3/8 NPT Fluid Port

- E26: 26-PIN 5A Module
- E19*: 19-PIN 5A Module
- E10: 10-PIN 13A Module

*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)

Dimensions and technical information are subject to change without notice.
**QC-30 (ROBOT SIDE)**

**Automatic Tool Changers | Technical Specifications | Dimension**

**QC-30 Specification:**
- Max. Payload: 13.6 Kg [30 lbs]
- Max. Moment Rating: 22.6 Nm [200 in-lbs]
- Weight of QC Unit only: 0.23 Kg [0.50 lbs]
- Weight of Coupled Units: 0.34 Kg [0.75 lbs]
- Bore Ø: 25.4 mm [1.00 in]
- Displacement: 3.9 cm³ [0.24 in³]

**Loading Capacity**
- Max. Tensile T: 311 N [70 lb]
- Max. Compressive C: 445 N [100 lb]
- Max. Moment (Mx/My/Mz): 22.6 Nm [200 in.-lb.]

---

**Dimensions and technical information are subject to change without notice**
TP-30 Specification:
Max. Payload: 13.6 Kg (30 lbs)
Max. Moment Rating: 22.6 Nm (200 in-lbs)
Weight of TP Unit only: 0.11 Kg (0.25 lbs)
Weight of Coupled Units: 0.34 Kg (0.75 lbs)

Loading Capacity
Max. Tensile T: 311 N (70 lb)
Max. Compressive C: 445 N (100 lb)
Max. Moment (Mx/My/Mz): 22.6 Nm (200 in.-lb.)

Dimensions and technical information are subject to change without notice.
QC-60 Specification:
Max. Payload: 27 Kg [60 lbs]
Max. Moment Rating: 88.1 Nm [780 in-lbs]
Weight of QC Unit only: 0.86 Kg [1.9 lbs]
Weight of Coupled Units: 1.27 Kg [2.8 lbs]
Bore Ø: 44.5 mm [1.75 in]
Displacement: 9.2 cm³ [0.56 in³]

Loading Capacity
Max. Tensile T: 445 N [100 lb]
Max. Compressive C: 534 N [120 lb]
Max. Moment (Mx/My/Mz): 88.1 Nm [780 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

Dimensions and technical information are subject to change without notice.
TP-60 Specification:
Max. Payload: 27 Kg [60 lbs]
Max. Moment Rating: 88 Nm [780 in-lbs]
Weight of TP Unit only: 0.41 Kg [0.90 lbs]
Weight of Coupled Units: 1.27 Kg [2.8 lbs]

Loading Capacity
Max. Tensile T: 445 N [100 lb]
Max. Compressive C: 534 N [120 lb]
Max. Moment (Mx/My/Mz): 88.1 Nm [780 in-lbs]

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

Dimensions and technical information are subject to change without notice
QC-60-10P Specification:
Max. Payload: 27 Kg [60 lbs]
Max. Moment Rating: 88.1 Nm [780 in-lbs]
Weight of QC Unit only: 0.86 Kg [1.9 lbs]
Weight of Coupled Units: 1.27 Kg [2.8 lbs]
Bore Ø: 44.5 mm [1.75 in]
Displacement: 9.2 cm³ [0.56 in³]

Loading Capacity
Max. Tensile T: 445 N [100 lb]
Max. Compressive C: 534 N [120 lb]
Max. Moment (Mx/My/Mz): 88.1 Nm [780 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.

Dimensions and technical information are subject to change without notice.
TP-60-10P Specification:
Max. Payload: 27 Kg [60 lbs]
Max. Moment Rating: 88 Nm [780 in-lbs]
Weight of TP Unit only: 0.41 Kg [0.90 lbs]
Weight of Coupled Units: 1.27 Kg [2.8 lbs]

Loading Capacity
Max. Tensile T: 445 N [100 lb]
Max. Compressive C: 534 N [120 lb]
Max. Moment (Mx/My/Mz): 88.1 Nm [780 in-lbs.]

Dimensions and technical information are subject to change without notice.
QC-150 Specification:
Max. Payload: 68 Kg [150 lbs]
Max. Moment Rating: 215 Nm [1900 in-lbs]
Weight of QC Unit only: 2.2 Kg [4.8 lbs]
Weight of Coupled Units: 3.2 Kg [7.1 lbs]
Bore Ø: 66.8 mm [2.63 in]
Displacement: 25.4 cm³ [1.55 in³]

Loading Capacity
Max. Tensile T: 890 N [200 lb]
Max. Compressive C: 1334 N [300 lb]
Max. Moment (Mx/My/Mz): 214 Nm [1900 in.-lb.]

Dimensions and technical information are subject to change without notice.

QC-150 (ROBOT SIDE)
Automatic Tool Changers | Technical Specifications | Dimension

QC-150 Specification:
Max. Payload: 68 Kg [150 lbs]
Max. Moment Rating: 215 Nm [1900 in-lbs]
Weight of QC Unit only: 2.2 Kg [4.8 lbs]
Weight of Coupled Units: 3.2 Kg [7.1 lbs]
Bore Ø: 66.8 mm [2.63 in]
Displacement: 25.4 cm³ [1.55 in³]

Loading Capacity
Max. Tensile T: 890 N [200 lb]
Max. Compressive C: 1334 N [300 lb]
Max. Moment (Mx/My/Mz): 214 Nm [1900 in.-lb.]

Dimensions and technical information are subject to change without notice.
TP-150 Specification:
Max. Payload: 68 Kg [150 lbs]
Max. Moment Rating: 215 Nm [1900 in-lbs]
Weight of TP Unit only: 1.0 Kg [2.3 lbs]
Weight of Coupled Units: 3.2 Kg [7.1 lbs]

Loading Capacity
Max. Tensile T: 890 N [200 lb]
Max. Compressive C: 1334 N [300 lb]
Max. Moment (Mx/My/Mz): 214 Nm [1900 in.-lb.]

Dimensions and technical information are subject to change without notice.
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 Side** | **Tool Side** | **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 Side** | **Tool Side** | **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.
2X 1/4" Air Port Module | Face Seal

**Model** | **Module** | **Robot Side** | **Tool Side** | **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.

For QC/TP-60

<table>
<thead>
<tr>
<th>Module</th>
<th>Robot Side</th>
<th>Tool Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>PN14</td>
<td>KPN14-QC60</td>
<td>KPN14-TP60</td>
</tr>
<tr>
<td>PP14</td>
<td>KPP14-QC60</td>
<td>KPP14-TP60</td>
</tr>
<tr>
<td>PT14</td>
<td>KPT14-QC60</td>
<td>KPT14-TP60</td>
</tr>
<tr>
<td>Seal Kit</td>
<td>SLKT-395</td>
<td>---</td>
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</tbody>
</table>

For QC/TP-150

<table>
<thead>
<tr>
<th>Module</th>
<th>Robot Side</th>
<th>Tool Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>PN14</td>
<td>KPN14-QC150</td>
<td>KPN14-TP150</td>
</tr>
<tr>
<td>PP14</td>
<td>KPP14-QC150</td>
<td>KPP14-TP150</td>
</tr>
<tr>
<td>PT14</td>
<td>KPT14-QC150</td>
<td>KPT14-TP150</td>
</tr>
<tr>
<td>Seal Kit</td>
<td>SLKT-395</td>
<td>---</td>
</tr>
</tbody>
</table>

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

Dimensions and technical information are subject to change without notice.
**QC/TP SERIES**

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

**Dimensions and technical information are subject to change without notice**

Maximum Working Pressure: 10 bar

For QC/TP-60

<table>
<thead>
<tr>
<th>Module</th>
<th>Robot Side</th>
<th>Tool Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>PN18</td>
<td>KPN18-QC60</td>
<td>KPN18-TP60</td>
</tr>
<tr>
<td>PP18</td>
<td>KPP18-QC60</td>
<td>KKP18-TP60</td>
</tr>
<tr>
<td>PT18</td>
<td>KPT18-QC60</td>
<td>KPT18-TP60</td>
</tr>
<tr>
<td>Seal Kit</td>
<td>SLKT-391</td>
<td>---</td>
</tr>
</tbody>
</table>

Module kits include: Flat for module mounting, couplings, 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

<table>
<thead>
<tr>
<th>Module</th>
<th>Robot Side</th>
<th>Tool Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>HN38</td>
<td>KHN38-QC60</td>
<td>KHN38-TP60</td>
</tr>
</tbody>
</table>

Module kits include: Flat for module mounting, couplings, locating pins and hardware.
### 15 Pin w/Sub-D Conn and User Plug w/o cable

<table>
<thead>
<tr>
<th>Model</th>
<th>Module</th>
<th>Robot Side</th>
<th>Tool Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>QC/TP30</td>
<td>E15</td>
<td>KE15-QC30</td>
<td>KE15-TP30</td>
</tr>
<tr>
<td>QC/TP60</td>
<td>E15</td>
<td>KE15-QC60</td>
<td>KE15-TP60</td>
</tr>
<tr>
<td>QC/TP150</td>
<td>E15</td>
<td>KE15-QC150</td>
<td>KE15-TP150</td>
</tr>
</tbody>
</table>

See individual datasheets for dimensions.

### 12 Pin w/Turck M12 Conn w/o Cordset

<table>
<thead>
<tr>
<th>Model</th>
<th>Module</th>
<th>Robot Side</th>
<th>Tool Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>QC/TP30</td>
<td>E12</td>
<td>KE12-QC30</td>
<td>KE12-TP30</td>
</tr>
<tr>
<td>QC/TP60</td>
<td>E12</td>
<td>KE12-QC60</td>
<td>KE12-TP60</td>
</tr>
<tr>
<td>QC/TP150</td>
<td>E12</td>
<td>KE12-QC150</td>
<td>KE12-TP150</td>
</tr>
</tbody>
</table>

See individual datasheets for dimensions.
**RHC SERIES**

Automatic Tool Changers | Features and Benefits

**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

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

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

**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 Half Adaptor**
Mounts with screws from behind or through the front and locates with dowel pins for accuracy.

**Tool Half Adaptor**
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

<table>
<thead>
<tr>
<th>Base Model</th>
<th>Model Size</th>
<th>Metric</th>
<th>Adapter Module</th>
<th>Seals (for -R only)</th>
<th>Contacts (for RHC-3-R only)</th>
<th>Sensor</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHC-1-R</td>
<td>M</td>
<td>R</td>
<td>R</td>
<td>V</td>
<td>OHCC-009</td>
<td>P</td>
</tr>
<tr>
<td>RHC-2-R</td>
<td>M</td>
<td>R</td>
<td>R</td>
<td>V</td>
<td>OHCC-009</td>
<td>P</td>
</tr>
<tr>
<td>RHC-3-R</td>
<td>M</td>
<td>R</td>
<td>R</td>
<td>V</td>
<td>OHCC-009</td>
<td>P</td>
</tr>
<tr>
<td>RHC-4-R</td>
<td>M</td>
<td>R</td>
<td>R</td>
<td>V</td>
<td>OHCC-009</td>
<td>P</td>
</tr>
</tbody>
</table>

### Pneumatic Accessories

<table>
<thead>
<tr>
<th>Pneumatic Accessories</th>
<th>SLKT-028</th>
<th>SLKT-028V</th>
<th>SLKT-029</th>
<th>SLKT-029V</th>
<th>SLKT-030</th>
<th>SLKT-030V</th>
<th>SLKT-031</th>
<th>SLKT-031V</th>
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</thead>
<tbody>
<tr>
<td>Standard Seal Repair Kit</td>
<td>RHC-1-R</td>
<td>RHC-1-R</td>
<td>RHC-2-R</td>
<td>RHC-2-R</td>
<td>RHC-3-R</td>
<td>RHC-3-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
</tr>
<tr>
<td>Viton Seal Repair Kit</td>
<td>RHC-1-R</td>
<td>RHC-2-R</td>
<td>RHC-3-R</td>
<td>RHC-4-R</td>
<td>RHC-1-R</td>
<td>RHC-2-R</td>
<td>RHC-3-R</td>
<td>RHC-4-R</td>
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### Sensor Accessories

<table>
<thead>
<tr>
<th>Sensor Accessories</th>
<th>OSMK-064</th>
<th>OISP-009</th>
<th>OISP-009</th>
<th>OSMK-063</th>
<th>OISN-008</th>
<th>OISP-008</th>
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</thead>
<tbody>
<tr>
<td>Replacement Sensor Mounting Kit</td>
<td>RHC-3-R</td>
<td>RHC-3-R</td>
<td>RHC-3-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
</tr>
<tr>
<td>Replacement Locked Position NPN Inductive Sensor with Hard Wired Cable</td>
<td>RHC-3-R</td>
<td>RHC-3-R</td>
<td>RHC-3-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
</tr>
<tr>
<td>Replacement Locked Position NPN Inductive Sensor with Hard Wired Cable</td>
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<td>RHC-3-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
</tr>
<tr>
<td>Replacement Sensor Mounting Kit</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
</tr>
<tr>
<td>Replacement Locked Position PNP Inductive Sensor with Hard Wired Cable</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
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<th>SLKT-029V</th>
<th>SLKT-030</th>
<th>SLKT-030V</th>
<th>SLKT-031</th>
<th>SLKT-031V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Seal Repair Kit</td>
<td>RHC-1-R</td>
<td>RHC-1-R</td>
<td>RHC-2-R</td>
<td>RHC-2-R</td>
<td>RHC-3-R</td>
<td>RHC-3-R</td>
<td>RHC-4-R</td>
<td>RHC-4-R</td>
</tr>
<tr>
<td>Viton Seal Repair Kit</td>
<td>RHC-1-R</td>
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<td>RHC-3-R</td>
<td>RHC-4-R</td>
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<td>RHC-2-R</td>
<td>RHC-3-R</td>
<td>RHC-4-R</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
RHC-1-R Specification:
Max. Payload (W): 9 Kg [20 lbs]
Weight of -R Unit only: 0.18 Kg [0.41 lbs]
Weight of Coupled Units: 0.28 Kg [0.63 lbs]
Bore Ø: 19 mm [0.75 in]
Displacement: 4.18 cm³ [0.255 in³]

Loading Capacity
Max. Tensile T: 890 N [200 lb]
Max. Compressive C: 2224 N [500 lb]
Max. Moment (Mx/My): 14 Nm [125 in.-lb.]
Max. Moment (Mz): 28 Nm [250 in.-lb.]

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

<table>
<thead>
<tr>
<th>Model</th>
<th>Robot Side</th>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHC-1</td>
<td>OHCC-009</td>
<td>15 Pin D-Sub Contacts</td>
<td>15 Pin @ 3 AMPS</td>
</tr>
<tr>
<td></td>
<td>OHCC-001</td>
<td>26 Pin D-Sub Contacts</td>
<td>26 Pin @ 3 AMPS</td>
</tr>
</tbody>
</table>
RHC-1-T Specification:
Max. Payload (W): 9 Kg [20 lbs]
Weight of -T Unit only: 0.09 Kg [0.22 lbs]
Weight of Coupled Units: 0.28 Kg [0.63 lbs]

Loading Capacity
Max. Tensile T: 890 N [200 lb]
Max. Compressive C: 2224 N [500 lb]
Max. Moment (Mx/My): 14 Nm [125 in.-lb.]
Max. Moment (Mz): 28 Nm [250 in.-lb.]

Dimensions and technical information are subject to change without notice
RHC-2-R (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimension

**RHC-2-R Specification:**
Max. Payload (W): 59 Kg [130 lbs]
Weight of -R Unit only: 0.44 Kg [0.99 lbs]
Weight of Coupled Units: 0.82 Kg [1.81 lbs]
Bore Ø: 28.57 mm [1.125 in]
Displacement: 12.22 cm³ [0.746 in³]

**Loading Capacity**
Max. Tensile T: 3336 N [750 lb]
Max. Compressive C: 6672 N [1500 lb]
Max. Moment (Mx/My): 90 Nm [800 in.-lb.]
Max. Moment (Mz): 136 Nm [1200 in.-lb.]

---

**UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW**

<table>
<thead>
<tr>
<th>Model</th>
<th>Robot Side</th>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHC-2</td>
<td>OHCC-011</td>
<td>15 Pin D-Sub Contacts</td>
<td>15 Pin @ 3 AMPS</td>
</tr>
<tr>
<td></td>
<td>OHCC-003</td>
<td>25 Pin D-Sub Contacts</td>
<td>25 Pin @ 3 AMPS</td>
</tr>
</tbody>
</table>

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Dimensions and technical information are subject to change without notice.
RHC-2-T Specification:
Max. Payload \((W)\): 59 Kg [130 lbs]
Weight of -T Unit only: 0.37 Kg [0.82 lbs]
Weight of Coupled Units: 0.82 Kg [1.81 lbs]

Loading Capacity
Max. Tensile \(T\): 3336 N [750 lb]
Max. Compressive \(C\): 6672 N [1500 lb]
Max. Moment \((M_x/M_y)\): 90 Nm [800 in.-lb.]
Max. Moment \((M_z)\): 136 Nm [1200 in.-lb.]

Dimensions and technical information are subject to change without notice
RHC-3-R Specification:
Max. Payload (W): 136 Kg [300 lbs]
Weight of -R Unit only: 1.79 Kg [3.95 lbs]
Weight of Coupled Units: 3.1 Kg [6.7 lbs]
Bore Ø: 44.45 mm [1.750 in]
Displacement: 44.34 cm³ [2.706 in³]

Loading Capacity
Max. Tensile T: 8896 N [2000 lb]
Max. Compressive C: 17793 N [4000 lb]
Max. Moment (Mx/My): 678 Nm [6000 in.-lb.]
Max. Moment (Mz): 1017 Nm [9000 in.-lb.]

Model | Robot Side | 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 Specification:**
Max. Payload (W): 136 Kg [300 lbs]
Weight of -T Unit only: 1.29 Kg [2.85 lbs]
Weight of Coupled Units: 3.1 Kg [6.7 lbs]

**Loading Capacity**
Max. Tensile (T): 8896 N [2000 lb]
Max. Compressive (C): 17793 N [4000 lb]
Max. Moment (Mx/My): 678 Nm [6000 in.-lb.]
Max. Moment (Mz): 1017 Nm [9000 in.-lb.]

---

### Model Tool Side | 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 Specification:**
- **Max. Payload (W):** 454 Kg [1000 lbs]
- **Weight of -R Unit only:** 6.52 Kg [12.39 lbs]
- **Weight of Coupled Units:** 22 Kg [10 lbs]
- **Bore Ø:** 57.15 mm [2.250 in]
- **Displacement:** 85.52 cm³ [85.52 in³]

**Loading Capacity**
- **Max. Tensile (T):** 35586 N [8000 lb]
- **Max. Compressive (C):** 71171 N [16000 lb]
- **Max. Moment (Mx/My):** 2825 Nm [25000 in.-lb.]
- **Max. Moment (Mz):** 2825 Nm [25000 in.-lb.]
**RHC-4-T Specification:**

- **Max. Payload** (W): 454 Kg [1000 lbs]
- **Weight of -T Unit only**: 4.35 Kg [9.61 lbs]
- **Weight of Coupled Units**: 10 Kg [22 lbs]

**Loading Capacity**

- **Max. Tensile** (T): 35586 N [8000 lb]
- **Max. Compressive** (C): 71171 N [16000 lb]
- **Max. Moment** (Mx/My): 2825 Nm [25000 in.-lb.]
- **Max. Moment** (Mz): 2825 Nm [25000 in.-lb.]

---

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

**Model | Tool Side | Description | Specification**

| RHC-4  | OHCC-027 | 24 Pin Mil. Spec. Contacts | 24 Pin @ 3 AMPS |
| RHC-4  | OHHC-023 | 24 Wire Single Pigtail Connector |
| RHC-4  | OHCC-022 | 24 Wire Double Pigtail Connector |

Dimensions and technical information are subject to change without notice
CH SERIES

Cylindrical Horizontal Compliance Device | Features and Benefit

**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 ±10°.

**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 and a dowel pin and assembled using 4 screws.
**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

---

**Base Model**
- **CH-50**
  - Max. Payload 2 Kg [4.4 lbs]
- **CH-80**
  - Max. Payload 8 Kg [17.6 lbs]
- **CH-110**
  - Max. Payload 14 Kg [30.8 lbs]
- **CH-140**
  - Max. Payload 30 Kg [66.12 lbs]
- **CH-165**
  - Max. Payload 40 Kg [88.18 lbs]

**Spring Assist**
- **RA**
  - Special Misalignment x 10
  (ie: 15 is for ± 1.5 mm)
- **XX**
  - Leave Blank. Standard Capability

**Misalignment**
- **XX**
  - Tool Recentering
- **RA**
  - Tool Release
- **RL**
  - Leave Blank. No Spring Option (Standard)
**CH-50P Specification:**
- Centering Force @ 7 bar [100 psi]: 322 N [74 lbs]
- Max. Payload: 2 Kg [4.4 lbs]
- Misalignment Capability: ±3 mm [± 0.12 in]
- Weight: 0.195 Kg [0.43 lbs]
- Cylinder Bore: 34 mm [1.34 in]
- Displacement: 5.2 cm³ [0.32 in³ lbs]
- Actuation: 0.07 sec [0.07 sec]
- Repeatability: ±0.02 mm [±0.0008 in]
- Angular Repeatability: ±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.]

**Dimensions and technical information are subject to change without notice.**
CH-80P Specification:
Centering Force @ 7 bar [100 psi]: 1035 N [232 lbs]
Max. Payload: 8 Kg [17.6 lbs]
Misalignment Capability: ±5 mm [± 0.20 in]
Weight: 0.750 Kg [1.65 lbs]
Cylinder Bore: 60 mm [2.37 in]
Displacement: 26.8 cm³ [1.64 in³ lbs]
Actuation: 0.08 sec [0.08 sec]
Repeatability: ±0.02 mm [±0.0008 in]
Angular Repeatability: ±10 mm

Loading Capacity (View A):
Max. Tensile T: 160 N [36 lb]
Max. Compressive C: 160 N [36 lb]
Max. Moment (Mx/My): 8 Nm [71 in.-lb.]
Max. Moment (Mz): 6 Nm [53 in.-lb.]

Dimensions and technical information are subject to change without notice.
CH-110P Specification:
Centering Force @ 7 bar [100 psi]: 1660 N [373 lbs]
Max. Payload: 14 Kg [30.8 lbs]
Misalignment Capability: ±6.5 mm [± 0.25 in]
Weight: 2.10 Kg [4.6 lbs]
Cylinder Bore: 76 mm [3.0 in]
Displacement: 56 cm³ [3.42 in³ lbs]
Actuation: 0.1 sec [0.1 sec]
Repeatability: ±0.04 mm [±0.0016 in]
Angular Repeatability: ±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.]

Dimensions and technical information are subject to change without notice.
CH-140P Specification:
Centering Force @ 7 bar [100 psi]: 3170 N [712 lbs]
Max. Payload: 30 Kg [66.1 lbs]
Misalignment Capability: ±8 mm [± 0.31 in]
Weight: 4.31 Kg [9.5 lbs]
Cylinder Bore: 105 mm [4.13 in]
Displacement: 148 cm³ [9.03 in³ lbs]
Actuation: 0.02 sec [0.02 sec]
Repeatability: ±0.06 mm [±0.0024 in]
Angular Repeatability: ±20 mm

Loading Capacity (View A):
Max. Tensile T: 225 N [50 lb]
Max. Compressive C: 225 N [50 lb]
Max. Moment (Mx/My): 19 Nm [168 in.-lb.] (for [M8] SHC screws)
Max. Moment (Mz): 20 Nm [177 in.-lb.]

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE
IMPERIAL ([IN.])
0.000 = ± 0.01
0.0000 = ±0.005
METRIC (MM)
[0] = ± [0.01]
[0.0] = ±0.005

Dimensions and technical information are subject to change without notice
**CH-165P Specification:**
- Centering Force @ 7 bar [100 psi]: 4140 N [931 lbs]
- Max. Payload: 40 Kg [88.2 lbs]
- Misalignment Capability: ±12 mm [± 0.47 in]
- Weight: 8.7 Kg [19.2 lbs]
- Cylinder Bore: 120 mm [4.72 in]
- Displacement: 236 cm³ [14.40 in³ lbs]
- Actuation: 0.36 sec [0.36 sec]
- Repeatability: ±0.06 mm [±0.0024 in]
- Angular Repeatability: ±20 mm

**Loading Capacity (View A):**
- Max. Tensile $T$: 230 N [52 lb]
- Max. Compressive $C$: 230 N [52 lb]
- Max. Moment $(M_x/M_y)$: 23 Nm [203 in.-lb.]
- Max. Moment $(M_z)$: 28 Nm [248 in.-lb.]

**Dimensions and technical information are subject to change without notice.**
## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptor Mount Assemblies and Components</td>
<td>3-28</td>
</tr>
<tr>
<td>Mid-Mount Flanges</td>
<td>29</td>
</tr>
<tr>
<td>Tooling Mounting Blocks</td>
<td>38</td>
</tr>
</tbody>
</table>
## 250 SERIES ROBOT ADAPTOR SELECTION GUIDE

<table>
<thead>
<tr>
<th>ADAPTOR MOUNTS</th>
<th>MOUNTING PATTERN</th>
<th>DOWELS</th>
<th>PILOT</th>
<th>DWG PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>STYLE (MODEL)</td>
<td>TYPE AVAIL.</td>
<td>BOLT CIRCLE</td>
<td>BOLT SIZE</td>
<td>BOLTS QTY</td>
</tr>
<tr>
<td>STYLE 1 (ACM58)</td>
<td>DM/90</td>
<td>Ø90mm</td>
<td>M8</td>
<td>8</td>
</tr>
<tr>
<td>STYLE 2 (FA500)</td>
<td>DM/90</td>
<td>Ø90mm</td>
<td>M10</td>
<td>8</td>
</tr>
<tr>
<td>STYLE 3 (KW150)</td>
<td>DM/90</td>
<td>Ø92mm</td>
<td>M10</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 4 (FA900)</td>
<td>DM/90</td>
<td>Ø125mm</td>
<td>M10</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 5 (KA760)</td>
<td>DM/90</td>
<td>Ø160mm</td>
<td>M10</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 6 (MMNY300)</td>
<td>DM</td>
<td>Ø200mm</td>
<td>M12</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 7 (FA4301)</td>
<td>DM/90</td>
<td>Ø125mm</td>
<td>M10</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 8 (FA420)</td>
<td>DM</td>
<td>Ø92mm</td>
<td>M10</td>
<td>8</td>
</tr>
<tr>
<td>STYLE 9 (ABB44)</td>
<td>DM/90</td>
<td>Ø100mm</td>
<td>M10</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 10 (KWZ165)</td>
<td>DM/90</td>
<td>Ø125mm</td>
<td>M10</td>
<td>10</td>
</tr>
<tr>
<td>STYLE 11 (KWUT120)</td>
<td>90</td>
<td>Ø120mm</td>
<td>M8</td>
<td>8</td>
</tr>
<tr>
<td>STYLE 12 (FA710)</td>
<td>DM</td>
<td>Ø100mm</td>
<td>M8</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 14 (MMK100)</td>
<td>90</td>
<td>Ø125mm</td>
<td>M10</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 15 (KA660)</td>
<td>DM/90</td>
<td>Ø160mm</td>
<td>M12</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 16 (FA2000)</td>
<td>DM</td>
<td>Ø125mm</td>
<td>M10</td>
<td>10</td>
</tr>
<tr>
<td>STYLE 18 (MMHP165)</td>
<td>DM/90</td>
<td>Ø125mm</td>
<td>M10</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 19 (MMHP165)</td>
<td>90</td>
<td>Ø92mm</td>
<td>M10</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 21 (EOAMC30)</td>
<td>DM</td>
<td>Ø127mm</td>
<td>3/8-16</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 22 (FA900-SSM)</td>
<td>DM</td>
<td>Ø125mm</td>
<td>M10</td>
<td>6</td>
</tr>
<tr>
<td>STYLE 23 (MD350)</td>
<td>DM/90</td>
<td>Ø187.3mm</td>
<td>3/8-16</td>
<td>4</td>
</tr>
<tr>
<td>STYLE 24 (SA000)</td>
<td>DM</td>
<td>Ø69.5mm</td>
<td>M10</td>
<td>4</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
Style 01 - **ACMX58** 90° Robot Adaptor (Ø90mm Bolt Circle/Ø80mm Dowel Circle)

### Models Supported:
- **ACMA X58**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>PORTING</th>
<th># OF PORTS</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-ACMX58-DM-RD25-A3</td>
<td>3/8 NPT</td>
<td>3 (2/1)</td>
<td>.75 kg [1.66 lb]</td>
</tr>
<tr>
<td>CPI-ACMX58-DM-RD25-A6</td>
<td>1/8 NPT</td>
<td>6 (3/3)</td>
<td>.79 kg [1.74 lb]</td>
</tr>
</tbody>
</table>

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

### Dimensions

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-ACMX58-90-RD25-A36</td>
<td>3.79 kg [8.35 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
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]

Dimensions and technical information are subject to change without notice.
**Models Supported:**
KAWASAKI UX100
KAWASAKI UX120
KAWASAKI UX150

"P" PORTING FOR 3-PORT "A3" (SHOWN) or 6-PORT "A6" MANIFOLD

TAP AND DRILL FOR M10 FASTENERS (4)

C'BORE FOR M10 SHCS (6)

**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]

---

**Model Number** | Weight
--- | ---
CPI-KW150-90-RD25-A36 | 3.63 kg [8.01 lb]

Dimensions and technical information are subject to change without notice.
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

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>PORTING</th>
<th># OF PORTS</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-FA900-DM-RD25-A3</td>
<td>3/8 NPT</td>
<td>3 (2/1)</td>
<td>1.58 kg [3.48 lb]</td>
</tr>
<tr>
<td>CPI-FA900-DM-RD25-A6</td>
<td>1/8 NPT</td>
<td>6 (3/3)</td>
<td>1.62 kg [3.57 lb]</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>WEIGHT</th>
</tr>
</thead>
</table>

Dimensions and technical information are subject to change without notice.
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**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Porting</th>
<th># of Ports</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-KA760-DM-RD25-A3</td>
<td>3/8 NPT</td>
<td>3 (2/1)</td>
<td>2.12 kg [4.66 lb]</td>
</tr>
<tr>
<td>CPI-KA760-DM-RD25-A6</td>
<td>1/8 NPT</td>
<td>6 (3/3)</td>
<td>2.15 kg [4.75 lb]</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-KA760-90-RD25-A36</td>
<td>4.84 kg [10.66 lb]</td>
</tr>
</tbody>
</table>

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

Dimensions and technical information are subject to change without notice
MMNY300

Robot Automation Adaptors | Dimensions

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

Models Supported:
MOTOMAN SP100X
KUKA KR 350

"P" PORTING FOR
3-PORT "A3"
OR 6-PORT "A6" (SHOWN)
MANIFOLD

TAP AND DRILL FOR
M10 FASTENERS (4)

Ø12MM
PF DOWEL

C’BORE FOR
M12 SHCS (6)

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>PORTING</th>
<th># OF PORTS</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-MMNY300-DM-RD25-A3</td>
<td>3/8 NPT</td>
<td>3 (2/1)</td>
<td>3.56 kg [7.84 lb]</td>
</tr>
<tr>
<td>CPI-MMNY300-DM-RD25-A6</td>
<td>1/8 NPT</td>
<td>6 (3/3)</td>
<td>3.61 kg [7.95 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**Model Number**  
**Porting**  
**# of Ports**  
**Weight**  

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Porting</th>
<th># of Ports</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-FA430i-DM-RD25-A3</td>
<td>3/8 NPT</td>
<td>3 (2/1)</td>
<td>1.52 kg [3.36 lb]</td>
</tr>
<tr>
<td>CPI-FA430i-DM-RD25-A6</td>
<td>1/8 NPT</td>
<td>6 (3/3)</td>
<td>1.56 kg [3.44 lb]</td>
</tr>
</tbody>
</table>

**Models Supported:**  
FANUC S430i

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

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

**Models Supported:**  
FANUC S430i

Dimensions and technical information are subject to change without notice.
Style 08 - **FA420** Direct Mount Adaptor (Ø92mm Bolt Circle)

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

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>PORTING</th>
<th># OF PORTS</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-FA420-DM-RD25-A3-SPC</td>
<td>3/8 NPT</td>
<td>3 (2/1)</td>
<td>1.48 kg [3.27 lb]</td>
</tr>
<tr>
<td>CPI-FA420-DM-RD25-A6-SPC</td>
<td>1/8 NPT</td>
<td>6 (3/3)</td>
<td>1.52 kg [3.35 lb]</td>
</tr>
</tbody>
</table>
Dimensions and technical information are subject to change without notice.
**KWZ165**

Robot Automation Adaptors | Dimensions

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

**Models Supported:**
KAWASAKI Z165

**Dimensions and technical information are subject to change without notice**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>PORTING</th>
<th># OF PORTS</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-KWZ165-DM-RD25-A3</td>
<td>3/8 NPT</td>
<td>3 (2/1)</td>
<td>1.49 kg [3.28 lb]</td>
</tr>
<tr>
<td>CPI-KWZ165-DM-RD25-A6</td>
<td>1/8 NPT</td>
<td>6 (3/3)</td>
<td>1.53 kg [3.38 lb]</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-KWZ165-90-RD25-A36</td>
<td>3.71 kg [8.18 lb]</td>
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</table>

Dimensions and technical information are subject to change without notice.
Style 11 - **KWUT120** 90° Adaptor (Ø120mm Bolt Circle)

**Models Supported:**
KAWASAKI UT120

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-KWUT120-90-RD25-A36</td>
<td>3.58 kg [7.90 lb]</td>
</tr>
</tbody>
</table>
Models Supported:
FANUC M710

Dimensions and technical information are subject to change without notice.
Style 14 - **MMK100** 90° Adaptor (Ø125mm Bolt Circle)

- Ø125.0
- Ø165.1
- Ø11.0 (6)
- Ø61.0
- Ø10MM (2) PF DOWEL
- Ø73.2
- Ø82.6

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

**Dimensions and technical information are subject to change without notice**
KA660

Robot Automation Adaptors | Dimensions

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

Models Supported:
KUKA 660

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>PORTING</th>
<th># OF PORTS</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-KA660-DM-RD25-00</td>
<td>N/A</td>
<td>N/A</td>
<td>2.23 kg [4.92 lb]</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-KA660-90-RD25-A36</td>
<td>4.95 kg [10.91 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
Style 16 - **FA2000** Direct Mount Adaptor (Ø125mm Bolt Circle)

---

**MODEL NUMBER** | **PORTING** | **# OF PORTS** | **WEIGHT**  
--- | --- | --- | ---  
CPI-FA2000-DM-RD25-A3 | 3/8 NPT | 3 (2/1) | 1.50 kg [3.31 lb]  
CPI-FA2000-DM-RD25-A6 | 1/8 NPT | 6 (3/3) | 1.54 kg [3.40 lb]  

---

**MODEL NUMBER** | **WEIGHT**  
--- | ---  

---

Dimensions and technical information are subject to change without notice
### MMHP165

**Robot Automation Adaptors | Dimensions**

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

**Models Supported:**
- MOTOMAN ES165N
- MOTOMAN HP165

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>PORTING</th>
<th># OF PORTS</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-MMHP165-125-DM-RD25-A3</td>
<td>3/8 NPT</td>
<td>3 (2/1)</td>
<td>1.55 kg [3.41 lb]</td>
</tr>
<tr>
<td>CPI-MMHP165-125-DM-RD25-A6</td>
<td>1/8 NPT</td>
<td>6 (3/3)</td>
<td>1.58 kg [3.49 lb]</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-MMHP165-125-90-RD25-A36</td>
<td>4.04 kg [8.91 lb]</td>
</tr>
</tbody>
</table>
Dimension and technical information are subject to change without notice.

**Model Number**

CPI-MMHP165-92-90-RD25-A36

**Weight**

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)

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>PORTING</th>
<th># OF PORTS</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-EOAMC30-DM-RD25-A6</td>
<td>1/8 NPT</td>
<td>6 (3/3)</td>
<td>1.86 kg [4.11 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice

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

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>PORTING</th>
<th># OF PORTS</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-FA900-SSM-RD25-A6</td>
<td>3/8 NPT</td>
<td>6 (6/0)</td>
<td>2.27 kg [5.01 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
Model Number: CPI-MD350-DM-RD25-A6
Porting: 1/8 NPT
Number of Ports: 6 (3/3)
Weight: 2.07 kg [4.56 lb]

Additionally, information on the 90° Robot Adaptor is presented with similar details in a table format.
SA000

Robot Automation Adaptors | Dimensions

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

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>PORTING</th>
<th># OF PORTS</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SA000-DM-RD25-A6</td>
<td>1/8 NPT</td>
<td>6 (3/3)</td>
<td>1.57 kg [3.47 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**CM975XL** Direct Mount Adaptor - Ø76mm Bolt Circle

**CHM32** Direct Mount Adaptor - Ø125mm 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]
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

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>PORTING</th>
<th># OF PORTS</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-FA710-DM-TT15-A3</td>
<td>3/8 NPT</td>
<td>3 (2/1)</td>
<td>1.45 kg [3.19 lb]</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-FA710IC-90-RD40-A</td>
<td>2.96 kg [6.52 lb]</td>
</tr>
</tbody>
</table>
TDA-150F, TDA-250F
Robot Automation Adaptors | Dimensions

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

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

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-TDA-150F-312F</td>
<td>.62 kg [1.36 lb]</td>
</tr>
<tr>
<td>CPI-TDA-250F-312F</td>
<td>.63 kg [1.38 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
FA900, KW150
Robot Automation Adaptors | Dimensions

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

![Diagram of FA900 Adaptor Plate]

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

![Diagram of KW150 Adaptor Plate]

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-FA900-DM-238F</td>
<td>.64 kg [1.40 lb]</td>
</tr>
<tr>
<td>CPI-KW150-25-312F</td>
<td>.70 kg [1.55 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
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

Dimensions and technical information are subject to change without notice

MODEL NUMBER
CPI-CL-LAN-EOL
WEIGHT
5.25 kg [11.58 lb]
ATI-151

Robot Automation Adaptors | Dimensions

90° Medium Duty - Ø125mm Bolt Circle

Dimensions and technical information are subject to change without notice

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-ATI-151-90-WT</td>
<td>3.64 kg [8.03 lb]</td>
</tr>
</tbody>
</table>
ATI-90

Robot Automation Adaptors | Dimensions

Light Duty - Ø125mm Bolt Circle

Dimensions and technical information are subject to change without notice

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-ATI-90</td>
<td>3.55 kg [7.82 lb]</td>
</tr>
</tbody>
</table>
ATI-90-SP
Robot Automation Adaptors | Dimensions

90° Light Duty - Ø125mm Bolt Circle

Dimensions and technical information are subject to change without notice

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]

Dimensions and technical information are subject to change without notice.
ATI-201-XXX-90

Robot Automation Adaptors | Dimensions

Ø125mm Bolt Circle Dowels

Dimensions and technical information are subject to change without notice

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>(Ø) “D”</th>
<th>(Ø) ACTUAL</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-ATI-201-60-90</td>
<td>60mm</td>
<td>60.45±.08 [2.380±.003]</td>
<td>1.27 kg [2.80 lb]</td>
</tr>
<tr>
<td>CPI-ATI-201-250-90</td>
<td>2.50” (in)</td>
<td>63.96±.08 [2.518±.003]</td>
<td>1.27 kg [2.80 lb]</td>
</tr>
</tbody>
</table>
ATI-201-90-HD
Robot Automation Adaptors | Dimensions

Ø125mm Bolt Circle

MODEL NUMBER
CPI-ATI-201-90-HD
WEIGHT
2.17 kg [4.77 lb]

Dimensions and technical information are subject to change without notice.
Dimensions and technical information are subject to change without notice.
Robot Automation Adaptors | Dimensions

90° World Tool Assembly - Ø125mm Bolt Circle

Dimensions and technical information are subject to change without notice

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 [1.18 kg]
CPI-NAV-100-CM | 1.00” (in) | 25.65 ± .08 [1.010 ± .003] | .89 lb [.40 kg]
CPI-NAV-25-BL | 25mm | 25.25 ± .08 [0.994 ± .003] | .89 lb [.40 kg]
CPI-NAV-100-BL | 1.00” (in) | 25.65 ± .08 [1.010 ± .003] | .89 lb [.40 kg]

Dimensions and technical information are subject to change without notice.


**MANUAL TOOL CHANGERS**

Features & Benefit

**Quick Disconnect for 25mm/1.00 in. Tubes**
Housing .................................................. 4
Air/Electric Connections ........................................... 6
Bayonet ................................................... 8
Air/Electric Connections ........................................... 9

**Quick Disconnect for 40mm/1.50 in. Tubes**
Housing .................................................. 10
Air/Electric Connections ........................................... 13
Bayonet ................................................... 19
Air/Electric Connections ........................................... 20

**Quick Disconnect for 60mm/2.50 in. Tubes**
Housing .................................................. 26
Air/Electric Connections ........................................... 27
Bayonet ................................................... 31
Air/Electric Connections ........................................... 32

**Idle Station** .................................................. 37

Dimensions and technical information are subject to change without notice
**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**

**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

**Base and Flange mounting**
for RDN 10/40 Housing

**Optional air port modules**
auto disconnect when handle is released

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

**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.

---

Dimensions and technical information are subject to change without notice
Tubing is inserted into bayonet. It is helpful to tap on the end of the tubing with a mallet until the tubing is seated firmly against the taper.

**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:**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RDC-10-1</td>
<td>70mm [2.75 in]</td>
</tr>
<tr>
<td>CPI-RDC-25M-1</td>
<td>70mm [2.75 in]</td>
</tr>
<tr>
<td>CPI-RDC-15-1</td>
<td>102mm [4.00 in]</td>
</tr>
<tr>
<td>CPI-RDC-40-1</td>
<td>102mm [4.00 in]</td>
</tr>
<tr>
<td>CPI-RDC-25-2</td>
<td>152mm [6.00 in]</td>
</tr>
<tr>
<td>CPI-RDC-60-2</td>
<td>152mm [6.00 in]</td>
</tr>
<tr>
<td>CPI-RDC-25-2HT</td>
<td>171mm [6.75 in]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**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 and technical information are subject to change without notice.**

---

**How To Order**

<table>
<thead>
<tr>
<th>Model</th>
<th>Mounting</th>
<th>Air Port Connection</th>
<th>Electrical Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>RDN-10</td>
<td>1F 4AS</td>
<td>5E</td>
</tr>
<tr>
<td>“RDN-10” Ø25mm/1.00” Quick Disconnect Housing</td>
<td>“1F” Flange Type Mounting</td>
<td>“A” (3-Port Connector)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>“5A” (5-Port Connector)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>“4AS” (4-Port Connector)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Leave blank for No Options)</td>
<td></td>
</tr>
</tbody>
</table>

“5E” (5-Pin Connector)
(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**

<table>
<thead>
<tr>
<th>CPI</th>
<th>Model</th>
<th>Mounting</th>
<th>Air Port Connection</th>
<th>Electrical Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RDN-10</td>
<td>1B</td>
<td>4AS</td>
<td>5E</td>
</tr>
<tr>
<td>“RDN-10”</td>
<td>“1B” Base Type Mounting</td>
<td>“A” (3-Port Connector)</td>
<td>“5E” (5-Pin Connector)</td>
<td></td>
</tr>
<tr>
<td>Ø25mm/1.00” Quick Disconnect Housing</td>
<td>“5A” (5-Port Connector)</td>
<td>(Only available for “4AS” Option)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

Dimensions and technical information are subject to change without notice
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

Dimensions and technical information are subject to change without notice.
**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**

<table>
<thead>
<tr>
<th>CPI</th>
<th>Model</th>
<th>Boom/Tube (⌀) “D”</th>
<th>Air Port Connection</th>
<th>Electrical Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>RDC-10</td>
<td>3-Port Air Connection</td>
<td>“1” “1A” “5A” “4AS” “1-4AS”</td>
<td>“5E” (5-Pin Connector) (Only available for “4AS or 1-4AS” Options)</td>
</tr>
<tr>
<td>1</td>
<td>“RDC” Quick Disconnect Bayonet</td>
<td>“10” 1.00”(in) “25M” 25mm</td>
<td>“4AS”</td>
<td></td>
</tr>
</tbody>
</table>

---

**Electrical Connections**

- “5E” (5-Pin Connector) (Only available for “4AS or 1-4AS” Options)

---

**Replacement Part**

- RDC-10-3

---

Dimensions and technical information are subject to change without notice.
AIR MANIFOLDS WITH OR WITHOUT ELECTRICAL CONNECTIONS

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

5A 5-Port Air Connection

4AS 4-Port Air Connection with Shutoff

5E 5-Pin Micro Electric Connection

REPLACEMENT PART
RDC-10-5

REPLACEMENT PART
RDC-10-4

REPLACEMENT PART
CPI-RDB-M5P-5MCF

See Page 23 for Pin Configuration

Dimensions and technical information are subject to change without notice
**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]

**How To Order**

<table>
<thead>
<tr>
<th>Model</th>
<th>Mounting</th>
<th>Air Port Connection</th>
<th>Key Position</th>
<th>Electrical Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>RDN-40</td>
<td>1F</td>
<td>S4</td>
<td>K2</td>
</tr>
<tr>
<td></td>
<td>“RDN-40”</td>
<td>“1F” Flange Type</td>
<td>“S4” (4-Port Internal)</td>
<td>“K1 (1-4)”</td>
</tr>
<tr>
<td></td>
<td>Ø40mm/1.50° Quick Disconnect Housing</td>
<td>Mounting</td>
<td>“E4” (4-Port External)</td>
<td>“VWK (1-16)” (Leave blank for No Options)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“E6” (6-Port External)</td>
<td>(Leave blank for No Options)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“SE4” (4-Port Int &amp; Ext)</td>
<td>(Leave blank for No Options)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“MC” (Micro 5-Pin)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“MN” (Mini 3-Pin)</td>
</tr>
</tbody>
</table>

Add for “E4” or “E6” Air Port Connection Only

Dimensions and technical information are subject to change without notice
RDN/RDC Series

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RDN-40-JB-E4-5MNM-HF-INS</td>
<td>Quick Disconnect Housing with 4-Port High Flow Air, 5-Pin Electric, Insulation</td>
</tr>
<tr>
<td>CPI-RDC-15-E4-5MNHF-HF</td>
<td>Quick Disconnect Bayonet with 4-Port High Flow Air, 5-Pin Electric</td>
</tr>
</tbody>
</table>
### 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

**Optional External “E4” 4-Port Air Connection**

**Optional Internal “Kx” Key/“S4” 4-Port Air Connection**

---

### How To Order

<table>
<thead>
<tr>
<th>Model</th>
<th>Mounting</th>
<th>Air Port Connection</th>
<th>Key Position</th>
<th>Electrical Connection</th>
<th>Add for “E4” or “E6” Air Port Connection Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>RDN-40</td>
<td>1B</td>
<td>S4</td>
<td>K2</td>
<td>HF</td>
</tr>
<tr>
<td></td>
<td>“RDN-40”</td>
<td>“1B”</td>
<td>“S4”</td>
<td>“K (1-4)”</td>
<td>Add for “E4” or “E6” Air Port Connection Only</td>
</tr>
<tr>
<td></td>
<td>Ø40mm/1.50”</td>
<td>Quick Disconnect Housing</td>
<td>“E4”</td>
<td>“VWK (1-16)”</td>
<td>(Leave blank for No Options)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“SE4”</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Leave blank for No Options)

---

Dimensions and technical information are subject to change without notice.
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

Air fittings
(4) Needed
RDN-SAS-U18

Kx Locating Key for Base Style Mounting

REPLACEMENT PART
RDN-40-10-IKB

Kx MARKING
(ON TOP OF RDN)

S4 and Kx Internal Key Position for Base Style Mounting

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

"K" MARKING
(ON TOP OF RDN)

"K1" POSITION

"K2" POSITION

"K3" POSITION

"K4" POSITION

Dimensions and technical information are subject to change without notice
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

**Kx** Locating Key for Flange Style Mounting

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

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

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

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

Dimensions and technical information are subject to change without notice
TOOLING ERROR PROOF KEY POSITIONS

Manual Tool Changers | Key Position Callout Chart

VIEWED FROM FRONT OF HOUSING

<table>
<thead>
<tr>
<th>POSITION #1</th>
<th>POSITION #2</th>
<th>POSITION #3</th>
<th>POSITION #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOWEL IN HOLE A</td>
<td>DOWEL IN HOLE B</td>
<td>DOWEL IN HOLE C</td>
<td>DOWEL IN HOLE D</td>
</tr>
<tr>
<td>VWK1</td>
<td>VWK2</td>
<td>VWK3</td>
<td>VWK4</td>
</tr>
<tr>
<td>VWK5</td>
<td>VWK6</td>
<td>VWK7</td>
<td>VWK8</td>
</tr>
<tr>
<td>VWK9</td>
<td>VWK10</td>
<td>VWK11</td>
<td>VWK12</td>
</tr>
<tr>
<td>VWK13</td>
<td>VWK14</td>
<td>VWK15</td>
<td>VWK16</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
### E4 4-Port External Air Connection

**Air fittings**
(4) Included

- **RDN-AS-U18-Standard**
- **RDN-AS-U14-High Flow**

<table>
<thead>
<tr>
<th>ORDER OPTION</th>
<th>REPLACEMENT PART</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>“D”</th>
<th>“E”</th>
<th>“F”</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>“E4” (Standard High Flow)</td>
<td><strong>CPI-RDN-40-4AS-HF</strong></td>
<td>[2.88]</td>
<td>[1.50]</td>
<td>[1.56]</td>
<td>[3.00]</td>
<td>[2.62]</td>
<td>[1.83]</td>
<td>[0.38 lb]</td>
</tr>
<tr>
<td>(Replacement for “E4” Legacy Applications only)</td>
<td><strong>CPI-RDN-40-4AS</strong></td>
<td>73.0</td>
<td>38.1</td>
<td>39.6</td>
<td>76.1</td>
<td>66.6</td>
<td>46.5</td>
<td>0.23 kg</td>
</tr>
</tbody>
</table>

### E6 6-Port External Air Connection

**Air fittings**
(6) Included

- **RDN-AS-U18-Standard**
- **RDN-AS-U14-High Flow**

<table>
<thead>
<tr>
<th>ORDER OPTION</th>
<th>REPLACEMENT PART</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>“D”</th>
<th>“E”</th>
<th>“F”</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>“E6” (Standard High Flow)</td>
<td><strong>CPI-RDN-40-10-6P-HF</strong></td>
<td>[3.00]</td>
<td>[1.5]</td>
<td>[1.59]</td>
<td>[3.03]</td>
<td>[2.69]</td>
<td>[1.87]</td>
<td>[0.54 lb]</td>
</tr>
<tr>
<td>(Replacement for “E6” Legacy Applications only)</td>
<td><strong>RDN-40-10-6AS</strong></td>
<td>76.2</td>
<td>38.1</td>
<td>40.5</td>
<td>76.9</td>
<td>68.3</td>
<td>47.5</td>
<td>0.25 kg</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**ELECTRICAL CONNECTIONS**

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

**MC 5-Pin Micro Electric Connection**

**MN 3-Pin Mini Electric Connection**

---

**Part Number**

<table>
<thead>
<tr>
<th>Plug &amp; Strap</th>
<th>CPI-RDH-F5S-5MCM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug</td>
<td>RDH-F5S-5MCM</td>
</tr>
<tr>
<td>Strap</td>
<td>540-22005</td>
</tr>
</tbody>
</table>

**REPLACEMENT PART**

CPI-TTH-F3S-3B3
5-Pin Mini Electric Connection

CPI-RDN-40-F5S-3MN

3 (GRD)

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

PLUG COLOR: BLACK

CPI-RDN-40-F5S-4MN

3 (GRD)

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

PLUG COLOR: GREEN

CPI-RDN-40-F5S-5MN

3 (GRD)

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

Strap not included

10-Pin Amphenol

Socket A

[1.03]
26.2

[1.03]
26.2

[.75]
Ø 19.1

PIN A
FOR M3 x .45
SHCS TYP

Dimensions and technical information are subject to change without notice
**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**

![Diagram of RDC Series Bayonet]

- **Key Alignment Holes:** COUNTER SINK TAP FOR M4 X 0.7 FASTENERS (2 PLACES)

**How To Order**

**Model**

<table>
<thead>
<tr>
<th>CPI</th>
<th>RDC</th>
</tr>
</thead>
</table>

| Boom/Tube (Ø) “D” | 40 |

| Air Port Connection | 54 |

| Key Position | K1 |

| Electrical Connection | MC |

Add for “E4” or “E6” Air Port Connection Only

**EE-MTC**

Dimensions and technical information are subject to change without notice
TOOLING ERROR PROOF KEYS
Manual Tool Changers | RDC-40/150 Series Bayonets | Dimensions

S4 4-Port Internal Air Connection and Kx Locating Key

REPLACEMENT PART
RDC-40-4-IAB

REPLACEMENT PART
RDC-40-4-IKB

S4 and Kx Internal Key Position

“S4” 4-Port Internal Air Connection

“Kx” Locating Key
(x) Refers to Position

“K1” POSITION FASTENER IN (P1/T2)

“K2” POSITION FASTENER IN (P2/T2)

“K3” POSITION FASTENER IN (P1/T1)

“K4” POSITION FASTENER IN (P2/T1)

Dimensions and technical information are subject to change without notice
## Tooling Error Proof Key Positions

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

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

**Key Positions Diagram**

- **Insert “A”**
  - VWK1
  - VWK5
  - VWK9
  - VWK13

- **Insert “B”**
  - VWK2
  - VWK6
  - VWK10
  - VWK14

- **Insert “C”**
  - VWK3
  - VWK7
  - VWK11
  - VWK15

- **Insert “D”**
  - VWK4
  - VWK8
  - VWK12
  - VWK16

Dimensions and technical information are subject to change without notice.
EXTERNAL AIR MANIFOLDS

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

4-Port External Air Connection

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

6-Port External Air Connection

ORDER OPTION | REPLACEMENT PART | “A” | “B” | “C” | “D” | “E” | WEIGHT
--- | --- | --- | --- | --- | --- | --- |
(Replacement for “E6” Legacy Applications only) | RDC-40-4-6PA | [2.61] | [1.31] | [2.59] | [2.34] | [1.75] | 66.3 | 33.4 | 65.9 | 59.6 | 44.5
RDC-40-E6-HF | 69.9 | 34.9 | 79.2 | 66.5 | 46.5
[2.75] | [1.38] | [3.12] | [2.66] | [2.62] | [1.83] | 66.7 | 32.9 | 67.5 | 59.5 | 44.4

Dimensions and technical information are subject to change without notice.
ELECTRICAL CONNECTORS

MC 5-Pin Micro Electric Connection

MN 3-Pin Mini Electric Connection
**ELECTRICAL CONNECTORS**

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

**MNF 5-Pin Mini Electric Connection**

**CPI-RDC-40-M5P-3MNF**
- Socket Pin Diagram
- Plug Color: Black

**CPI-RDC-40-M5P-4MNF**
- Socket Pin Diagram
- Plug Color: Green

**CPI-RDC-40-M5P-5MNF**
- Socket Pin Diagram
- Plug Color: Yellow

**10-Pin Electric Connection**

**REPLACEMENT PART**

**CPI-RDC-40-5-10**
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)

To order RDN-25 housing with handle in Inverted Position, add “-INV” to the end of order number.
### Features:
- 89mm [3.50 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:** 949 N·m [700 ft-lb]
- **Material:**
  - Body: Aluminum
  - Knuckles: Brass
  - Handle and Hooks: Steel
  - Inserts: Urethane
- **Weight:** 4.00 kg [8.90 lb]
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**

Dimensions and technical information are subject to change without notice.
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

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

5-Pin to 5-Pin Connector
A-Side 5-Pin, Single Key
B-Side 5-Pin, Male Plug, Female Socket
## ELECTRICAL CONNECTIONS

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

**16 Pin Configuration**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A-Side</th>
<th>B-Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RDH-F16S-A19</td>
<td>19-Pin</td>
<td>16-Pin, Male Plug, Female Socket</td>
</tr>
<tr>
<td>CPI-RDH-F16S-A14</td>
<td>14-Pin</td>
<td></td>
</tr>
</tbody>
</table>

**19 Pin Configuration**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A-Side</th>
<th>B-Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RDH-F19S-A19</td>
<td>19-Pin</td>
<td>19-Pin, Male Plug, Female Socket</td>
</tr>
<tr>
<td>CPI-RDH-F19S-B19</td>
<td>19-Pin</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
RDC SERIES BAYONETS

Manual Tool Changers | 2.50”/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

<table>
<thead>
<tr>
<th>CPI</th>
<th>Model</th>
<th>Boom/Tube (Ø) “D”</th>
<th>Version</th>
<th>Air Port Connection</th>
<th>Electrical Mounting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RDC</td>
<td>25</td>
<td>2</td>
<td>A3</td>
<td>EL10</td>
</tr>
<tr>
<td>“RDC” Quick Disconnect Bayonet</td>
<td>“25” 2.50” (in)</td>
<td>“60” 60mm</td>
<td>“2” Version 2</td>
<td>“A3” 3-Port</td>
<td>Mounting for Large Connectors</td>
</tr>
</tbody>
</table>

ELECTRICAL CONNECTOR ORDERED SEPARATELY

CONNECTOR ELECTRICAL ORDERED SEPARATELY

TAP FOR M5 FASTENERS
(2) PLACES

M10 FASTENER

Dimensions and technical information are subject to change without notice.
**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:**
- TAP FOR M5 FASTENERS (2) PLACES
- CONNECTOR ELECTRICAL ORDERED SEPARATELY
- M10 FASTENERS (2) PLACES
- RDC Quick Disconnect Bayonet

**How To Order**
- CPI — Model — Boom/Tube (Ø)”D” — Version — Air Port Connection — Electrical Mounting
- RDC — 25 — 2.50”(in) — 2HT — A3 — EL10
- “RDC” Quick Disconnect Bayonet
- “25” Version 2 Hi-Torque
- “A3” 3-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

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

EL10 Mounting for Large Electric Connection

M5x0.8 THREAD
ELECTRICAL CONNECTOR OPTIONS ORDERED SEPARATELY

Dimensions and technical information are subject to change without notice
5 Pin Connectors for Bayonet (Tool Side) - Standard Pin Configurations

**A-Side Socket**

- PIN #1
- PIN #2
- PIN #3
- N / A
- N / A

**B-Side Pin**

- PIN #1
- PIN #2
- PIN #3
- N / A
- N / A

**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 Numbers**

- **CPI-RDB-M5P-3B3**
- **CPI-RDB-M5P-4B4**
- **CPI-RDB-M5P-5B5**

Dimensions and technical information are subject to change without notice.
## ELECTRICAL CONNECTIONS

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

**Socket**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A-Side</th>
<th>B-Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RDB-M10P-A10</td>
<td>10-Pin</td>
<td>10-Pin, Male Pin, Female Plug</td>
</tr>
<tr>
<td>CPI-RDB-M10P-B10</td>
<td>10-Pin</td>
<td></td>
</tr>
</tbody>
</table>

**Pin Configuration**

- **CPI-RDB-M10P-A10**
- **CPI-RDB-M10P-B10**

![Socket Connector](image)

**Dimensions and technical information are subject to change without notice**
**ELECTRICAL CONNECTIONS**

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

### 16 Pin Configuration

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A-Side</th>
<th>B-Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RDB-M16P-A19</td>
<td>19-Pin</td>
<td>16-Pin, Male Pin, Female Plug</td>
</tr>
<tr>
<td>CPI-RDB-M16P-A14</td>
<td>14-Pin</td>
<td></td>
</tr>
</tbody>
</table>

### 19 Pin Configuration

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A-Side</th>
<th>B-Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RDB-M19P-A19</td>
<td>19-Pin</td>
<td>19-Pin, Male Pin, Female Plug</td>
</tr>
<tr>
<td>CPI-RDB-M19P-B19</td>
<td>19-Pin</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
OPTIONAL JUNCTION OR DISTRIBUTION BOX

BOLSTER LOCKING CLAMP

MANUAL QUICK DISCONNECT HOUSING RDN-25-6

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

Dimensions and technical information are subject to change without notice
### IDLE STATION

Automation Adaptors | Bolster Locking Clamp | Dimensions

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-BLC-100-15-6</td>
<td>5.50 kg [12.12 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
OPTIONAL JUNCTION OR DISTRIBUTION BOX

MANUAL QUICK DISCONNECT HOUSING RDN-25-6 (3 PLACES)

MODEL NUMBER WEIGHT
CPI-INS-ASSY 182.67 kg [402.73 lb]

Dimensions and technical information are subject to change without notice.
LOCKING PINS IDLE STATIONS

Automation Adaptors | Locking Pin | Operating Procedure

Stored Position

Engaged Position

Dimensions and technical information are subject to change without notice
# ACCELERATE® TOOLING COLLECTION

## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Split Saddle Tooling</td>
<td>3</td>
</tr>
<tr>
<td>Blankload Crossbar Tooling</td>
<td>4</td>
</tr>
<tr>
<td>Tool Booms</td>
<td>6</td>
</tr>
<tr>
<td>Crossbar Saddles</td>
<td>7</td>
</tr>
<tr>
<td>Flange Mount</td>
<td>9</td>
</tr>
<tr>
<td>T-Clamps</td>
<td>9</td>
</tr>
<tr>
<td>Wrist Clamp</td>
<td>11</td>
</tr>
<tr>
<td>Ball Clamps</td>
<td>12</td>
</tr>
<tr>
<td>Cross Clamps</td>
<td>13</td>
</tr>
<tr>
<td>Parallel Clamps</td>
<td>15</td>
</tr>
<tr>
<td>Apple Core Mounts</td>
<td>16</td>
</tr>
<tr>
<td>Ball Extensions</td>
<td>16</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
# ACCELERATE® TOOLING COLLECTION

**Table of Contents**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tri-Axis Adaptor Mounts</td>
<td>18</td>
</tr>
<tr>
<td>Transfer Press Adaptors</td>
<td>19</td>
</tr>
<tr>
<td>Transfer Press Bayonets</td>
<td>22</td>
</tr>
<tr>
<td>One-Touch Finger Tools</td>
<td>22</td>
</tr>
<tr>
<td>Double T-Clamp</td>
<td>23</td>
</tr>
<tr>
<td>Lower Tooling</td>
<td>24</td>
</tr>
<tr>
<td>Lower Nest Tooling</td>
<td>25</td>
</tr>
<tr>
<td>Gripper Mounts</td>
<td>27</td>
</tr>
<tr>
<td>Gripper Sensor Mounts</td>
<td>29</td>
</tr>
<tr>
<td>Shovels</td>
<td>30</td>
</tr>
<tr>
<td>Proximity Switch Mounts</td>
<td>31</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
# CROSS BAR TOOLING - SGM SERIES

Accelerate® Tooling Collection | Configuration Types

**SGM** - Split Saddle Tooling 25mm/1 inch Crossbar Tooling

## Model Number | Description | Tube Diameter | Tube Length
---|---|---|---
CPI-SGM-10-1260M-L | Left Assembly No Key | 1.00 in | 1260mm
CPI-SGM-10-1260M-LF | Left Front Assembly with Key | 1.00 in | 1260mm
CPI-SGM-10-1260M-LR | Left Rear Assembly with Key | 1.00 in | 1260mm
CPI-SGM-10-1260M-R | Right Assembly No Key | 1.00 in | 1260mm
CPI-SGM-10-1260M-RF | Right Front Assembly with Key | 1.00 in | 1260mm
CPI-SGM-10-1260M-RR | Right Rear Assembly with Key | 1.00 in | 1260mm
CPI-SGM-25M-1450M-L | Left Assembly No Key | 25mm | 1450mm
CPI-SGM-25M-1450M-LF | Left Front Assembly with Key | 25mm | 1450mm
CPI-SGM-25M-1450M-LR | Left Rear Assembly with Key | 25mm | 1450mm
CPI-SGM-25M-1450M-R | Right Assembly No Key | 25mm | 1450mm
CPI-SGM-25M-1450M-RF | Right Front Assembly with Key | 25mm | 1450mm
CPI-SGM-25M-1450M-RR | Right Rear Assembly with Key | 25mm | 1450mm
CPI-SGM-25M-1800M-L | Left Assembly No Key | 25mm | 1800mm
CPI-SGM-25M-1800M-LF | Left Front Assembly with Key | 25mm | 1800mm
CPI-SGM-25M-1800M-LR | Left Rear Assembly with Key | 25mm | 1800mm
CPI-SGM-25M-1800M-R | Right Assembly No Key | 25mm | 1800mm
CPI-SGM-25M-1800M-RF | Right Front Assembly with Key | 25mm | 1800mm
CPI-SGM-25M-1800M-RR | Right Rear Assembly with Key | 25mm | 1800mm

Dimensions and technical information are subject to change without notice.
### SGM - Split Saddle Tooling 30mm Interpress Crossbar Tooling

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SGM-ASSY-FLC</td>
<td>Interpress Tool, Front Left Side, No Electric</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-FRC</td>
<td>Interpress Tool, Front Right Side, No Electric</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-RLC</td>
<td>Interpress Tool, Rear Left Side, No Electric</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-RRC</td>
<td>Interpress Tool, Rear Right Side, No Electric</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-FLC-EL</td>
<td>Interpress Tool, Front Left Side, w/Electric Connector Installed</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-FRC-EL</td>
<td>Interpress Tool, Front Right Side, w/Electric Connector Installed</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-RLC-EL</td>
<td>Interpress Tool, Rear Left Side, w/Electric Connector Installed</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-RRC-EL</td>
<td>Interpress Tool, Rear Right Side, w/Electric Connector Installed</td>
</tr>
</tbody>
</table>

### SGM Blankload Crossbar Tooling

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SGM-ASSY-BT-FL</td>
<td>Blankload Tool, Front Left Side, No Electric</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-BT-FR</td>
<td>Blankload Tool, Front Right Side, No Electric</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-BT-RL</td>
<td>Blankload Tool, Rear Left Side, No Electric</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-BT-RR</td>
<td>Blankload Tool, Rear Right Side, No Electric</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-BT-FL-EL</td>
<td>Blankload Tool, Front Left Side, w/Electric Connector Installed</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-BT-FR-EL</td>
<td>Blankload Tool, Front Right Side, w/Electric Connector Installed</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-BT-RL-EL</td>
<td>Blankload Tool, Rear Left Side, w/Electric Connector Installed</td>
</tr>
<tr>
<td>CPI-SGM-ASSY-BT-RR-EL</td>
<td>Blankload Tool, Rear Right Side, w/Electric Connector Installed</td>
</tr>
</tbody>
</table>
**CROSS BAR SADDLE TOOLING**
Acelearate® Tooling Collection | Configuration types

**SGM** Cross Bar Saddle Tooling 40mm (PXL/PL and PGB/PGA Press Tooling)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SGM-40-1200-RF-EL</td>
<td>Crossbar ASSY, SGM, 40mm Tube x 1200mm Length, Right Front, with Electric</td>
</tr>
<tr>
<td>CPI-SGM-40-1200-RR-EL</td>
<td>Crossbar ASSY, SGM, 40mm Tube x 1200mm Length, Right Rear, with Electric</td>
</tr>
<tr>
<td>CPI-SGM-40-1200-LF-EL</td>
<td>Crossbar ASSY, SGM, 40mm Tube x 1200mm Length, Left Front, with Electric</td>
</tr>
<tr>
<td>CPI-SGM-40-1200-LR-EL</td>
<td>Crossbar ASSY, SGM, 40mm Tube x 1200mm Length, Left Rear, with Electric</td>
</tr>
</tbody>
</table>

**LWT** Saddle Crossbar Tool Example

Crossbar Saddle w/Air (Right Hand Shown)

Large Tube

Crossbar Saddle (Idle)

M8 Fasteners

T-Clamp

Port Only Adaptor

Vacuum Cups

Single End Extension with 32mm Ball Mount

Dimensions and technical information are subject to change without notice
<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)</th>
<th>Tolerance (mm)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LWT-40-1000</td>
<td>40mm</td>
<td>±0.14</td>
<td>1080g/m [0.73 lb/ft]</td>
</tr>
<tr>
<td>LWT-15E-1000</td>
<td>1.50 in</td>
<td>±0.14</td>
<td>920g/m [0.61 lb/ft]</td>
</tr>
<tr>
<td>LWT-30-1000</td>
<td>30mm</td>
<td>+0.08/-0.14</td>
<td>790g/m [0.53 lb/ft]</td>
</tr>
<tr>
<td>LWT-10E-1000</td>
<td>1.00 in</td>
<td>+0.05/-0.10</td>
<td>601g/m [0.41 lb/ft]</td>
</tr>
<tr>
<td>LWT-25-1000</td>
<td>25mm</td>
<td>+0.08/-0.14</td>
<td>640g/m [0.43 lb/ft]</td>
</tr>
<tr>
<td>LWT-20-1000</td>
<td>20mm</td>
<td>±0.08</td>
<td>490g/m [0.33 lb/ft]</td>
</tr>
</tbody>
</table>

**LWT** Lightweight Boom/Tube
(3.5 mm or 0.125 in. Wall)

Material: High Strength Aluminum

**LWT** Lightweight Boom Deflection Charts

- **40mm x 3.5mm Aluminum Tubing**
- **30mm x 3.5mm Aluminum Tubing**
- **25mm x 3.5mm Aluminum Tubing**
- **20mm x 3.5mm Aluminum Tubing**
- **1 inch x 1/8 inch Aluminum Tubing**
- **1-1/2 inch x 1/8 inch Aluminum Tubing**

**Note:** Performance may vary if used with non-DESTACO components

Dimensions and technical information are subject to change without notice

EE-LWT | 6
ACCELERATE® TOOLING COLLECTION

Accelerate® Tooling Collection | Dimensions

**GRS-SD-40** Crossbar Saddle w/Air (Left Hand)

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRS-SD-40-LHS-A</td>
<td>938g [2.06 lb]</td>
</tr>
</tbody>
</table>

**GRS-SD-40** Crossbar Saddle w/Air (Right Hand)

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRS-SD-40-RHS-A</td>
<td>938g [2.06 lb]</td>
</tr>
</tbody>
</table>

**GRS-SD-40** Crossbar Saddle (Idle)

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRS-SD-40-NA-A</td>
<td>535g [1.18 lb]</td>
</tr>
</tbody>
</table>
ACCELERATE® TOOLING COLLECTION

Accelerate® Tooling Collection | Tooling Examples

Tri-Axis Rail Tooling Example with Accelerate® Tooling

Quick Disconnect Housing
Quick Disconnect Bayonet
Single End Extension with Swivel Ball Mount
Large Thin Wall Tube
Cam Action Sheet Metal Gripper with Rear Swivel Ball Mount

LWT Tri-Axis Tooling Example

Tri-Axis Adaptor Mount
M8 Fasteners
Single End Extension
Cross Clamp
Single End Extension with 32mm Ball Mount
Shovel with 32mm Ball

Cam Action Grippers
Small Tubing
Gripper Mount

Dimensions and technical information are subject to change without notice
TCF, SEC, TCA SERIES

Accelerate® Tooling Collection | Dimensions

TCF Flange Mount Ø20 & Ø25mm

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCF-20M-A</td>
<td>20mm</td>
<td>121g [0.27 lb]</td>
</tr>
<tr>
<td>TCF-25M-A</td>
<td>25mm</td>
<td>98g [0.22 lb]</td>
</tr>
</tbody>
</table>

TCA T-Clamp Transition Brackets

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD1</th>
<th>ØD2</th>
<th>L1</th>
<th>L2</th>
<th>Material</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCA-25M-25M-150-A</td>
<td>.98</td>
<td>.98</td>
<td>150 [5.91]</td>
<td>194 [7.64]</td>
<td>Aluminum</td>
<td>160g [0.35 lb]</td>
</tr>
<tr>
<td>TCA-30M-25M-150-A</td>
<td>1.19</td>
<td>.98</td>
<td>150 [5.91]</td>
<td>194 [7.64]</td>
<td>Aluminum</td>
<td>162g [0.36 lb]</td>
</tr>
<tr>
<td>TCA-20M-20M-400-A</td>
<td>.79</td>
<td>.79</td>
<td>400 [15.74]</td>
<td>438 [17.24]</td>
<td>Aluminum</td>
<td>239g [0.53 lb]</td>
</tr>
<tr>
<td>TCA-30M-30M-400-A</td>
<td>1.18</td>
<td>1.18</td>
<td>400 [15.74]</td>
<td>447 [17.60]</td>
<td>Aluminum</td>
<td>394g [0.87 lb]</td>
</tr>
<tr>
<td>TCA-20M-20M-400-S</td>
<td>.79</td>
<td>.79</td>
<td>400 [15.74]</td>
<td>438 [17.24]</td>
<td>Steel</td>
<td>384g [0.85 lb]</td>
</tr>
<tr>
<td>TCA-30M-30M-400-S</td>
<td>1.18</td>
<td>1.18</td>
<td>400 [15.74]</td>
<td>447 [17.60]</td>
<td>Steel</td>
<td>622g [1.37 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
TCL, TCLD SERIES
Accelerate® Tooling Collection | Dimensions

**TCLD T-Clamp**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD1</th>
<th>ØD2</th>
<th>A</th>
<th>B</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCLD-10E-10E-A</td>
<td>Ø1.00 in</td>
<td>Ø1.00 in</td>
<td>77.5 [3.05]</td>
<td>101.1 [3.98]</td>
<td>194g [0.43 lb]</td>
</tr>
<tr>
<td>TCLD-10E-25M-A</td>
<td>Ø1.00 in</td>
<td>Ø25mm</td>
<td>77.5 [3.05]</td>
<td>101.1 [3.98]</td>
<td>194g [0.43 lb]</td>
</tr>
<tr>
<td>TCLD-25M-25M-A</td>
<td>Ø25mm</td>
<td>Ø25mm</td>
<td>77.5 [3.05]</td>
<td>101.1 [3.98]</td>
<td>194g [0.43 lb]</td>
</tr>
<tr>
<td>TCLD-12E-10E-A</td>
<td>Ø1.25 in</td>
<td>Ø1.00 in</td>
<td>74.5 [2.93]</td>
<td>99.1 [3.90]</td>
<td>166g [0.36 lb]</td>
</tr>
<tr>
<td>TCLD-30M-25M-A</td>
<td>Ø30mm</td>
<td>Ø25mm</td>
<td>74.5 [2.93]</td>
<td>99.1 [3.90]</td>
<td>166g [0.36 lb]</td>
</tr>
</tbody>
</table>

**Material:** High Strength Aluminum

---

**TCLD T-Clamp**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD1</th>
<th>ØD2</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCLD-15E-10E-A</td>
<td>Ø1.50 in</td>
<td>Ø1.00 in</td>
<td>193g [0.43 lb]</td>
</tr>
<tr>
<td>TCLD-40M-25M-A</td>
<td>Ø40mm</td>
<td>Ø25mm</td>
<td>191g [0.42 lb]</td>
</tr>
</tbody>
</table>

**Material:** High Strength Aluminum

---

Dimensions and technical information are subject to change without notice
**TCL, TCLD SERIES**

Accelerate® Tooling Collection | Dimensions

**TCLD** Angled T-Clamps

![TCLD Angled T-Clamp Diagram]

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCLD-40M-20M-30-L-A</td>
<td>30°</td>
<td>225g [0.50 lb]</td>
</tr>
<tr>
<td>TCLD-40M-20M-30-R-A</td>
<td>30°</td>
<td>225g [0.50 lb]</td>
</tr>
<tr>
<td>TCLD-40M-20M-45-L-A</td>
<td>45°</td>
<td>230g [0.51 lb]</td>
</tr>
<tr>
<td>TCLD-40M-20M-45-R-A</td>
<td>45°</td>
<td>230g [0.51 lb]</td>
</tr>
<tr>
<td>TCLD-40M-25M-30-L-A</td>
<td>30°</td>
<td>201g [0.44 lb]</td>
</tr>
<tr>
<td>TCLD-40M-25M-30-R-A</td>
<td>30°</td>
<td>201g [0.44 lb]</td>
</tr>
<tr>
<td>TCLD-40M-25M-45-L-A</td>
<td>45°</td>
<td>206g [0.45 lb]</td>
</tr>
<tr>
<td>TCLD-40M-25M-45-R-A</td>
<td>45°</td>
<td>206g [0.45 lb]</td>
</tr>
</tbody>
</table>

**Material:** High Strength Aluminum

---

**SEC Wrist Clamp**

![SEC Wrist Clamp Diagram]

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEC-25M-25M-A</td>
<td>47g</td>
</tr>
</tbody>
</table>

**Material:** Aluminum

---

Dimensions and technical information are subject to change without notice.
### TCL Ball Clamps Ø32

**Material:** High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCLD-10E-32B-A</td>
<td>1 in</td>
<td>166g [0.37 lb]</td>
</tr>
</tbody>
</table>

### TCL Ø32 Ball to Ø25

**Material:** High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCL-32B-25M-90-A</td>
<td>Ø25</td>
<td>145g [0.32 lb]</td>
</tr>
<tr>
<td>TCL-32B-20M-90-A</td>
<td>Ø20</td>
<td>157g [0.35 lb]</td>
</tr>
<tr>
<td>TCL-32B-10E-90-A</td>
<td>1 in</td>
<td>157g [0.35 lb]</td>
</tr>
</tbody>
</table>

### TCL Ø25mm/1 in to Ø32

**Material:** High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCL-25M-32B-A</td>
<td>Ø25</td>
<td>147g [0.32 lb]</td>
</tr>
<tr>
<td>TCL-20M-32B-A</td>
<td>Ø20</td>
<td>128g [0.28 lb]</td>
</tr>
<tr>
<td>TCL-10E-32B-A</td>
<td>1 in</td>
<td>141g [0.31 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
CL SERIES

Accelerate® Tooling Collection | Dimensions

CL Cross Clamps

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Ø40mm/1.50 in to Ø40mm/1.50 in Cross Clamp</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Number</strong></td>
</tr>
<tr>
<td>CL-40M-40M-A</td>
</tr>
<tr>
<td>CL-15E-15E-A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ø25mm/1.00 in to Ø25mm/1.00 in Cross Clamp</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Number</strong></td>
</tr>
<tr>
<td>CL-40M-25M-A</td>
</tr>
<tr>
<td>CL-15E-10E-A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ø40mm to Ø20mm Cross Clamp</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Number</strong></td>
</tr>
<tr>
<td>CL-40M-20M-A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ø25mm to Ø20mm Cross Clamp</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Number</strong></td>
</tr>
<tr>
<td>CL-25M-20M-A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ø20mm to Ø20mm Cross Clamp</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Number</strong></td>
</tr>
<tr>
<td>CL-20M-20M-A</td>
</tr>
<tr>
<td>CL-20M-20M-S</td>
</tr>
</tbody>
</table>
### Ø30mm to Ø30mm Cross Clamp

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Material</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL-30M-30M-A</td>
<td>Aluminum</td>
<td>200g [0.44 lb]</td>
</tr>
<tr>
<td>CL-30M-30M-S</td>
<td>Steel</td>
<td>415g [0.91 lb]</td>
</tr>
</tbody>
</table>

### Ø30mm to Ø25mm Cross Clamp

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL-30M-25M-A</td>
<td>148g [0.33 lb]</td>
</tr>
</tbody>
</table>

### Ø30mm to Ø20mm Cross Clamp

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL-30M-20M-A</td>
<td>125g [0.28 lb]</td>
</tr>
</tbody>
</table>

### Ø25mm to Apple Core Cross Clamp

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD1</th>
<th>ØD2</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL-25M-19M-PA-A</td>
<td>19</td>
<td>31</td>
<td>95g [0.21 lb]</td>
</tr>
<tr>
<td>CL-25M-20M-PA-A</td>
<td>20</td>
<td>30</td>
<td>94g [0.21 lb]</td>
</tr>
</tbody>
</table>

### Ø60mm/2.50 in to Ø40mm/1.50 in Cross Clamp

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD1</th>
<th>ØD2</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL-60M-40M-A</td>
<td>60mm</td>
<td>40mm</td>
<td>276g [0.61 lb]</td>
</tr>
<tr>
<td>CL-25E-15E-A</td>
<td>2.50 in</td>
<td>1.50 in</td>
<td>271g [0.60 lb]</td>
</tr>
</tbody>
</table>

### Ø60mm/2.50 in to Ø25mm/1.00 in Cross Clamp

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD1</th>
<th>ØD2</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL-60M-25M-A</td>
<td>60mm</td>
<td>25mm</td>
<td>220g [0.49 lb]</td>
</tr>
<tr>
<td>CL-25E-10E-A</td>
<td>2.50 in</td>
<td>1.00 in</td>
<td>228g [0.50 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
# PC SERIES

## Accelerate® Tooling Collection | Dimensions

### PC Parallel Clamps

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>ØD</th>
<th>Material</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC-10E-10E-A</td>
<td>78</td>
<td>31</td>
<td>30</td>
<td>25.4</td>
<td>Aluminum</td>
<td>0.21 lb</td>
</tr>
<tr>
<td></td>
<td>95g</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC-20M-20M-A</td>
<td>69</td>
<td>26</td>
<td>23</td>
<td>20</td>
<td>Aluminum</td>
<td>0.18 lb</td>
</tr>
<tr>
<td></td>
<td>83g</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>PC-20M-20M-S</td>
<td>69</td>
<td>26</td>
<td>23</td>
<td>20</td>
<td>Steel</td>
<td>0.39 lb</td>
</tr>
<tr>
<td></td>
<td>177g</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC-25M-25M-A</td>
<td>78</td>
<td>31</td>
<td>30</td>
<td>25.4</td>
<td>Aluminum</td>
<td>0.21 lb</td>
</tr>
<tr>
<td></td>
<td>93g</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC-30M-30M-A</td>
<td>98</td>
<td>38</td>
<td>34</td>
<td>30</td>
<td>Aluminum</td>
<td>0.34 lb</td>
</tr>
<tr>
<td></td>
<td>155g</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>PC-30M-30M-S</td>
<td>98</td>
<td>38</td>
<td>34</td>
<td>30</td>
<td>Steel</td>
<td>0.83 lb</td>
</tr>
<tr>
<td></td>
<td>378g</td>
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### Model Number

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>ØD1</th>
<th>ØD2</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC-15E-10E-A</td>
<td>102</td>
<td>40</td>
<td>36.5</td>
<td>25.4</td>
<td>169g</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>PC-30M-20M-A</td>
<td>83.5</td>
<td>38</td>
<td>28.5</td>
<td>20</td>
<td>129g</td>
</tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC-30M-25M-A</td>
<td>89.5</td>
<td>38</td>
<td>31.5</td>
<td>25</td>
<td>136g</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC-40M-25M-A</td>
<td>102</td>
<td>40</td>
<td>36.5</td>
<td>25</td>
<td>158g</td>
</tr>
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</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**PC, ES SERIES**

Accelerate® Tooling Collection | Dimensions

**ES Single End Extensions**

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD1</th>
<th>ØD2</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES-20M-25M-300-A</td>
<td>20mm</td>
<td>25mm</td>
<td>250g [0.55 lb]</td>
</tr>
<tr>
<td>ES-19M-25M-300-A</td>
<td>19mm</td>
<td>25mm</td>
<td>250g [0.55 lb]</td>
</tr>
<tr>
<td>ES-19M-10E-300-A</td>
<td>19mm</td>
<td>1.00 in</td>
<td>269g [0.59 lb]</td>
</tr>
</tbody>
</table>

**ES Ø20 to Ø20**

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES-20M-20M-A</td>
<td>100g [0.22 lb]</td>
</tr>
</tbody>
</table>

**Ball Extensions**

**ES 32mm**

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES-32B-10E-300-A</td>
<td>300</td>
<td>320</td>
<td>345</td>
<td>277g [0.61 lb]</td>
</tr>
<tr>
<td>ES-32B-20M-300-A</td>
<td>300</td>
<td>320</td>
<td>345</td>
<td>225g [0.50 lb]</td>
</tr>
<tr>
<td>ES-32B-25M-300-A</td>
<td>300</td>
<td>320</td>
<td>345</td>
<td>262g [0.56 lb]</td>
</tr>
<tr>
<td>ES-32B-25M-600-A</td>
<td>600</td>
<td>620</td>
<td>645</td>
<td>437g [0.96 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
**ES, ESS SERIES**

Accelerate® Tooling Collection | Dimensions

**ES Ball Extension 28.58mm**

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES-B112-25M-300-A</td>
<td>.98</td>
<td>302g</td>
</tr>
<tr>
<td>ES-B112-10E-300-A</td>
<td>1.00</td>
<td>302g</td>
</tr>
</tbody>
</table>

**ESS Ball Extension 32mm**

Material: Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESS-32B-20M-300-S</td>
<td>20</td>
<td>298</td>
<td>319.5</td>
<td>345</td>
<td>410g [0.90 lb]</td>
</tr>
<tr>
<td>ESS-32B-20M-600-S</td>
<td>20</td>
<td>598</td>
<td>598</td>
<td>645</td>
<td>674g [1.48 lb]</td>
</tr>
<tr>
<td>ESS-32B-30M-300-S</td>
<td>30</td>
<td>298</td>
<td>319.5</td>
<td>345</td>
<td>516g [1.14 lb]</td>
</tr>
<tr>
<td>ESS-32B-30M-600-S</td>
<td>30</td>
<td>598</td>
<td>598</td>
<td>645</td>
<td>830g [1.83 lb]</td>
</tr>
</tbody>
</table>

**ESS-90 Ball Extension 32mm**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESS-32B-30M-90-300-S</td>
<td>30</td>
<td>518.4g [1.14 lb]</td>
</tr>
</tbody>
</table>
### GTA, LPT SERIES

**Accelerate® Tooling Collection | Dimensions**

#### GTA - Tri Axis Adaptor Mounts

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTA-30-150</td>
<td>412g [0.91 lb]</td>
</tr>
</tbody>
</table>

**Material:** High Strength Aluminum

#### GTA

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-LTP-B-10</td>
<td>48 [1.89]</td>
<td>25.4 [1.00]</td>
</tr>
<tr>
<td>CPI-LTP-B-11</td>
<td>49 [1.93]</td>
<td>27.3 [1.07]</td>
</tr>
</tbody>
</table>

**Material:** High Strength Aluminum

#### LTP

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-LTP-B-10</td>
<td>48 [1.89]</td>
<td>25.4 [1.00]</td>
</tr>
<tr>
<td>CPI-LTP-B-11</td>
<td>49 [1.93]</td>
<td>27.3 [1.07]</td>
</tr>
</tbody>
</table>

**Material:** Steel

Dimensions and technical information are subject to change without notice.
TPA SERIES

Accelerate® Tooling Collection | Dimensions

**TPA Single Flange Mount**

[Diagram of TPA Single Flange Mount]

**Material:** High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>L1</th>
<th>L2</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPA-20-35-LWT-A</td>
<td>35</td>
<td>60</td>
<td>20</td>
<td>234g [0.52 lb]</td>
</tr>
<tr>
<td>TPA-25-35-LWT-A</td>
<td>35</td>
<td>60</td>
<td>25</td>
<td>246g [0.54 lb]</td>
</tr>
<tr>
<td>TPA-25-65-LWT-A</td>
<td>63</td>
<td>88</td>
<td>25</td>
<td>322g [0.71 lb]</td>
</tr>
<tr>
<td>TPA-30-35-LWT-A</td>
<td>35</td>
<td>67</td>
<td>30</td>
<td>265g [0.58 lb]</td>
</tr>
<tr>
<td>TPA-30-65-LWT-A</td>
<td>63</td>
<td>95</td>
<td>30</td>
<td>361g [0.80 lb]</td>
</tr>
</tbody>
</table>

**TPA Double Flange Mount**

[Diagram of TPA Double Flange Mount]

**Material:** High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>L1</th>
<th>L2</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPA-25-25-65-LWT-A</td>
<td>65</td>
<td>88</td>
<td>644g [1.42 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
TPA SERIES
Accelerate® Tooling Collection | Dimensions

TPA Base Mount

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPA-M-20M-75</td>
<td>20mm</td>
<td>151g [0.33 lb]</td>
</tr>
<tr>
<td>TPA-M-25M-75</td>
<td>25mm</td>
<td>164g [0.36 lb]</td>
</tr>
</tbody>
</table>

TPA 90° Base Clamp

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>TPA-G-25-35-A</td>
<td>258g [0.57 lb]</td>
</tr>
</tbody>
</table>

TPA Flange Extension

Material: Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPA-00-20-300-GD</td>
<td>20mm</td>
<td>736g [1.62 lb]</td>
</tr>
<tr>
<td>TPA-00-25-300-GD</td>
<td>25mm</td>
<td>810g [1.79 lb]</td>
</tr>
<tr>
<td>TPA-00-30-300-GD</td>
<td>30mm</td>
<td>884g [1.95 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
TPA, TPB SERIES

Accelerate® Tooling Collection | Dimensions

TPA 90° Slotted Flange Extension

![Image of TPA 90° Slotted Flange Extension]

Material: Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPA-90-20-300-GD</td>
<td>20mm</td>
<td>736g [1.62 lb]</td>
</tr>
<tr>
<td>TPA-90-25-300-GD</td>
<td>25mm</td>
<td>810g [1.79 lb]</td>
</tr>
<tr>
<td>TPA-90-30-300-GD</td>
<td>30mm</td>
<td>884g [1.95 lb]</td>
</tr>
</tbody>
</table>

TPA 90° Slotted Flange Extension

![Image of TPA 90° Slotted Flange Extension]

Material: Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPA-90-20-300</td>
<td>20mm</td>
<td>733g [1.62 lb]</td>
</tr>
<tr>
<td>TPA-90-25-300</td>
<td>25mm</td>
<td>807g [1.78 lb]</td>
</tr>
<tr>
<td>TPA-90-30-300</td>
<td>30mm</td>
<td>881g [1.94 lb]</td>
</tr>
</tbody>
</table>

TBS Ball Extension

![Image of TBS Ball Extension]

Material: Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>L</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBS-32B-25M-200-A</td>
<td>200</td>
<td>339g [0.75 lb]</td>
</tr>
<tr>
<td>TBS-32B-25M-300-A</td>
<td>300</td>
<td>648g [1.43 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**TPB, 1T SERIES**

**TPB - Transfer Press Bayonet**

**1T - One Touch Finger Tool 25mm**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Material</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-1T-25F</td>
<td>Steel</td>
<td>1.05kg [2.31 lb]</td>
</tr>
<tr>
<td>CPI-1T-25F-A</td>
<td>Aluminum</td>
<td>0.36kg [0.79 lb]</td>
</tr>
</tbody>
</table>

**1T - One Touch Finger Tool 40mm**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Material</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-1T-33M</td>
<td>Steel</td>
<td>1.42kg [3.13 lb]</td>
</tr>
<tr>
<td>CPI-1T-33M-A</td>
<td>Aluminum</td>
<td>0.49kg [1.08 lb]</td>
</tr>
</tbody>
</table>
LPT SERIES
Accelerate® Tooling Collection | Dimensions

**LTP Double T-Clamp**

![Diagram of LPT Double T-Clamp]

Material: Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD1</th>
<th>ØD2</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCA-20M-20MD-400-A</td>
<td>20mm</td>
<td>20mm</td>
<td>974.7g [2.15 lb]</td>
</tr>
<tr>
<td>TCA-25M-20MD-400-A</td>
<td>25mm</td>
<td>20mm</td>
<td>1001.8g [2.21 lb]</td>
</tr>
<tr>
<td>TCA-25M-25MD-400-A</td>
<td>25mm</td>
<td>25mm</td>
<td>1245.3g [2.75 lb]</td>
</tr>
<tr>
<td>TCA-30M-30MD-400-A</td>
<td>30mm</td>
<td>30mm</td>
<td>1546.6g [3.41 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
LTP SERIES

Accelerate® Tooling Collection | Dimensions

LTP Frame

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTP-30M-25-30-1000-A</td>
<td>3939g [8.68 lb]</td>
</tr>
</tbody>
</table>

LTP Pin

Material: Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD1</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTP-00-30-20-S</td>
<td>30</td>
<td>136g [0.30 lb]</td>
</tr>
<tr>
<td>LTP-00-30-25-S</td>
<td>30</td>
<td>173g [0.38 lb]</td>
</tr>
<tr>
<td>LTP-90-30-20-S</td>
<td>30</td>
<td>136g [0.30 lb]</td>
</tr>
<tr>
<td>LTP-90-30-25-S</td>
<td>30</td>
<td>173g [0.38 lb]</td>
</tr>
</tbody>
</table>
**CP, SGM SERIES**

Accelerate® Tooling Collection | Lower Nest Tooling Example

---

**CP Center Pin**

Ø20/Ø25, 200mm Length

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP-20-200</td>
<td>20</td>
<td>427g [0.94 lb]</td>
</tr>
<tr>
<td>CP-25-200</td>
<td>25</td>
<td>640g [1.41 lb]</td>
</tr>
</tbody>
</table>

Material: Steel

---

**SGM Mount Receiver**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Material</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SGM-TH-USR-AL</td>
<td>Aluminum</td>
<td>670g [1.48 lb]</td>
</tr>
<tr>
<td>CPI-SGM-TH-USR</td>
<td>Steel</td>
<td>1730g [3.81 lb]</td>
</tr>
</tbody>
</table>

---

**SGM Mount Adaptor**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Material</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SGM-TH-USA-AL</td>
<td>Aluminum</td>
<td>287g [0.63 lb]</td>
</tr>
<tr>
<td>CPI-SGM-TH-USA</td>
<td>Steel</td>
<td>839g [1.85 lb]</td>
</tr>
</tbody>
</table>

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Dimensions and technical information are subject to change without notice.
**GTS, NPG SERIES**

**Accelerate® Tooling Collection | Dimensions**

**GTS** Shovel with Welded Post

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>B</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTS-40-40-40-20M-A</td>
<td>42.2</td>
<td>340</td>
<td>Ø20</td>
<td>290g [0.64 lb]</td>
</tr>
<tr>
<td>GTS-40-40-40-30M-A</td>
<td>42.2</td>
<td>340</td>
<td>Ø30</td>
<td>400g [0.88 lb]</td>
</tr>
<tr>
<td>GTS-50-50-50-20M-A</td>
<td>52.2</td>
<td>350</td>
<td>Ø20</td>
<td>341g [0.75 lb]</td>
</tr>
<tr>
<td>GTS-50-50-50-30M-A</td>
<td>52.2</td>
<td>350</td>
<td>Ø30</td>
<td>451g [0.99 lb]</td>
</tr>
</tbody>
</table>

**Material:** Steel

<table>
<thead>
<tr>
<th>ØD</th>
<th>300</th>
</tr>
</thead>
</table>

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**NPG Nest Guide**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPG-25-200</td>
<td>25</td>
<td>432g [0.95 lb]</td>
</tr>
<tr>
<td>NPG-20-200</td>
<td>20</td>
<td>365g [0.80 lb]</td>
</tr>
</tbody>
</table>

---

Dimensions and technical information are subject to change without notice
GT SERIES
Accelerate® Tooling Collection | Dimensions

**GT-BGA 32mm Ball Gripper Mount**

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT-BGA-A</td>
<td>174g [0.38 lb]</td>
</tr>
</tbody>
</table>

**GT-BGA Paddle Gripper Mount**

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>A</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT-BGA-B112</td>
<td>28.6 [1.12]</td>
<td>93 [3.66]</td>
<td>66g [0.15 lb]</td>
</tr>
<tr>
<td>GT-BGA-32B</td>
<td>32 [1.26]</td>
<td>95 [3.74]</td>
<td>79g [0.17 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
GT SERIES

Accelerate® Tooling Collection | Dimensions

**GT-UGA Side Mount Extension**

Material: Steel

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GT-UGA-84A2-20M-400-A</td>
<td>400 [15.74]</td>
<td>60.5 [2.38]</td>
<td>46 [1.81]</td>
<td>20 [0.79]</td>
<td>425g [0.94 lb]</td>
</tr>
<tr>
<td>GT-UGA-84A2-25M-300-A</td>
<td>300 [11.81]</td>
<td>60.5 [2.38]</td>
<td>46 [1.81]</td>
<td>25 [0.98]</td>
<td>412g [0.91 lb]</td>
</tr>
<tr>
<td>GT-UGA-84A2-30M-400-A</td>
<td>400 [15.74]</td>
<td>60.5 [2.38]</td>
<td>46 [1.81]</td>
<td>30 [1.18]</td>
<td>582g [1.28 lb]</td>
</tr>
<tr>
<td>GT-UGA-84A3-20M-400-A</td>
<td>400 [15.74]</td>
<td>51 [2.01]</td>
<td>58 [2.28]</td>
<td>20 [0.79]</td>
<td>475g [1.05 lb]</td>
</tr>
<tr>
<td>GT-UGA-84A3-25M-300-A</td>
<td>300 [11.81]</td>
<td>51 [2.01]</td>
<td>58 [2.28]</td>
<td>25 [0.98]</td>
<td>462g [1.02 lb]</td>
</tr>
</tbody>
</table>

**GT-UGA Angled Side Mount Extension**

Material: Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight [g]</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT-UGA-84A2-20M-300-30-A</td>
<td>353g [0.78 lb]</td>
</tr>
</tbody>
</table>

**GT-UGA Side Mount Clamp**

Material: Steel

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GT-UGA-84A2-20M-A</td>
<td>40 [1.57]</td>
<td>116 [4.57]</td>
<td>20 [0.79]</td>
<td>20 [0.79]</td>
<td>165g [0.36 lb]</td>
</tr>
<tr>
<td>GT-UGA-84A2-25M-A</td>
<td>40 [1.57]</td>
<td>116 [4.57]</td>
<td>20 [0.79]</td>
<td>25 [0.98]</td>
<td>184g [0.41 lb]</td>
</tr>
<tr>
<td>GT-UGA-84A2-30M-A</td>
<td>40 [1.57]</td>
<td>116 [4.57]</td>
<td>20 [0.79]</td>
<td>30 [1.18]</td>
<td>200g [0.44 lb]</td>
</tr>
<tr>
<td>GT-UGA-84A3-20M-A</td>
<td>52 [2.05]</td>
<td>109 [4.29]</td>
<td>30 [1.18]</td>
<td>20 [0.79]</td>
<td>194g [0.43 lb]</td>
</tr>
<tr>
<td>GT-UGA-84A3-25M-A</td>
<td>52 [2.05]</td>
<td>109 [4.29]</td>
<td>30 [1.18]</td>
<td>25 [0.98]</td>
<td>213g [0.47 lb]</td>
</tr>
<tr>
<td>GT-UGA-84A3-30M-A</td>
<td>52 [2.05]</td>
<td>109 [4.29]</td>
<td>30 [1.18]</td>
<td>30 [1.18]</td>
<td>228g [0.50 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
GT-OPS, SAP SERIES

Accelerate® Tooling Collection | Dimensions

GT-OPS Jaw Sensor Mount

Material: Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>B</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT-OPS-84A2-LH-A</td>
<td>63.5</td>
<td>17.5</td>
<td>171g [0.38 lb]</td>
</tr>
<tr>
<td>GT-OPS-84A2-RH-A</td>
<td>63.5</td>
<td>17.5</td>
<td>171g [0.38 lb]</td>
</tr>
<tr>
<td>GT-OPS-84A3-LH-A</td>
<td>65.1</td>
<td>30</td>
<td>192g [0.42 lb]</td>
</tr>
<tr>
<td>GT-OPS-84A3-RH-A</td>
<td>65.1</td>
<td>30</td>
<td>192g [0.42 lb]</td>
</tr>
</tbody>
</table>

SAP Sensor Clamp Mount

Material: High Strength Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP-OPS-25M-A</td>
<td>120g [0.26 lb]</td>
</tr>
</tbody>
</table>

SAP Sensor Extension Mount

Material: Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP-OPS-25M-300-LH-A</td>
<td>515g [1.14 lb]</td>
</tr>
<tr>
<td>SAP-OPS-25M-300-RH-A</td>
<td>515g [1.14 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**GTS SERIES**

Accelerate® Tooling Collection | Dimensions

**GTS-100 32mm Ball 80mm Shovel**

**Optional spare parts**
- 28.58mm Ball
  - GTS-WB-B112-L
  - GTS-WB-B112-R

- 32mm Ball
  - GTS-WB-32B-L
  - GTS-WB-32B-R

**Material:** Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTS-100-85-80LH-A</td>
<td>656g [1.45 lb]</td>
</tr>
<tr>
<td>GTS-100-85-80RH-A</td>
<td></td>
</tr>
</tbody>
</table>

**GTS-100 32mm Ball 100mm Shovel**

**Material:** Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTS-100-85-100LH-A</td>
<td>730g [1.61 lb]</td>
</tr>
<tr>
<td>GTS-100-85-100RH-A</td>
<td></td>
</tr>
</tbody>
</table>
AB, SAP SERIES

Accelerate® Tooling Collection | Technical Specifications | Dimension

**AB Block Style Proximity Switch Mounts**

![AB Block Style Proximity Switch Mounts](image)

**Material:** Nylon

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-AB-750-EF-BP</td>
<td>31.2g [1.1oz]</td>
</tr>
</tbody>
</table>

(2) screws & (2) locking flange nuts included

**SAP Barrel Style Proximity Switch Mounts**

![SAP Barrel Style Proximity Switch Mounts](image)

**Material:** Nylon

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø) “D”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SAP-18-BP</td>
<td>0.71” [0.18]</td>
<td>28.3g [1.0oz]</td>
</tr>
<tr>
<td>CPI-SAP-30-BP</td>
<td>1.18” [0.05]</td>
<td>22.7g [0.8oz]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
# ROUNDTOLLING SYSTEMS

## Table of Contents

- Introduction ........................................................................................................... 3
- World Tool Booms and Bushings ............................................................................ 7
- Tubes and Rods ...................................................................................................... 8
- Single Mushroom Tool Holder ................................................................................ 10
- Double Mushroom Tool Holder ............................................................................. 11
- Wrist Rotate Assembly .......................................................................................... 12
- Flange End Mount Bracket and Blocks ................................................................ 13
- Flange Mid Mount Brackets and Blocks ................................................................. 16
- World Tool Direct Mounts ...................................................................................... 19
- Base Mount Block ................................................................................................ 21
- Cross Transition Brackets and Blocks .................................................................. 22
- T-Clamp Transition Brackets and Blocks ............................................................... 27
- Wrist Brackets and Blocks .................................................................................... 31
Table of Contents

Low-Profile Pist Brackets and Blocks ................................................................. 33
Elbow and Straight Transition Brackets .............................................................. 34
Swivel Arms ........................................................................................................ 36
Single End Extensions .......................................................................................... 57
Nest Pad Brackets ............................................................................................... 59
Proximity Switch Mount ...................................................................................... 63
Proximity Switch Bumpers .................................................................................. 64
Nest Pad Guides ................................................................................................... 65
Nest Pad Blocks .................................................................................................. 67
Plastics - Blue Slice ............................................................................................. 69
Tool Storage .......................................................................................................... 70

Dimensions and technical information are subject to change without notice.
ROUND TOOLING SYSTEMS

World Tool System Example with Accelerate® Lightweight Tooling Components

DESTACO’s world tool components are configured to handle parts of any size and shape, and can be re-used for future applications.
Round tooling components are used in combination with the Accelerate® Collection for lightweight tooling solutions.

**Most commonly used in:**

<table>
<thead>
<tr>
<th>Applications</th>
<th>Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load/Unload</td>
<td>Automotive</td>
</tr>
<tr>
<td>Pick and Place</td>
<td>Industrial</td>
</tr>
<tr>
<td>Material Handling</td>
<td>Appliance</td>
</tr>
<tr>
<td>Hot Forming</td>
<td>Plastics</td>
</tr>
</tbody>
</table>

**Applications Markets**

- **Load/Unload**
- **Pick and Place**
- **Material Handling**
- **Hot Forming**

**Load/Unload**

- **40mm/1.50”** Quick Disconnect
- **60mm/2.50”** Quick Disconnect with Electric Connection

**Remnants**

- **M-Block Cross Transition Blocks**
- **Aluminum Round Tubing** (also available slotted)
- **Standard Swivel Arms**
- **40mm/1.50”** Receiver with Air and Electric Connection
- **Hot Forming Solutions**

Dimensions and technical information are subject to change without notice.
A family within the traditional round tooling system, **micro tooling components** are made from lightweight aluminum with thin wall tubing. This system is designed to handle small, lightweight parts, plastic injection mold unloading, and unusual shaped objects.

**Flexible Mounting**
For any type of robot

Unlimited configuration possibilities with the use of **DESTACO** products, such as vacuum cups and generators, as well as **Robohand** grippers, rotates, and linear slides.
Micro round tooling systems can be permanently mounted to the robot with a direct mount or with manual or automatic tool changers. Optional quick disconnect air ports provides a simple connection point for air supply when changing between different tooling configurations.
**WORLD TOOL BOOMS**

Round Tooling | Dimensions | Technical Specification

**PAT Ø3.00” Tapered Aluminum Main Booms**

<table>
<thead>
<tr>
<th>Model</th>
<th>“L”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-PAT-30TP-0M-1600</td>
<td>160.0</td>
<td>6.09 kg</td>
</tr>
<tr>
<td>CPI-PAT-30TP-0M-30</td>
<td>762.0</td>
<td>3.59 kg</td>
</tr>
<tr>
<td>CPI-PAT-30TP-0M-34</td>
<td>863.6</td>
<td>3.89 kg</td>
</tr>
<tr>
<td>CPI-PAT-30TP-0M-36</td>
<td>914.4</td>
<td>4.04 kg</td>
</tr>
<tr>
<td>CPI-PAT-30TP-0M-60</td>
<td>1524.0</td>
<td>5.87 kg</td>
</tr>
</tbody>
</table>

**WTTB World Tool Bayonet Boom**

Material: Aluminum

<table>
<thead>
<tr>
<th>Part Number</th>
<th>ØD</th>
<th>A</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-WTTB-RDC-A6-EL10-60-2000</td>
<td>60mm</td>
<td>2000mm</td>
<td>9.3kg [20.50 lb]</td>
</tr>
<tr>
<td>CPI-WTTB-RDC-A6-EL10-25-64</td>
<td>2.5 in</td>
<td>64 in</td>
<td>8.0kg [17.60 lb]</td>
</tr>
</tbody>
</table>

**CB Aluminum Bushing**

For use in cooperation with Clamp Blocks.

<table>
<thead>
<tr>
<th>Model</th>
<th>Ø“O.D.” (Ø)“I.D.”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CB-15-10</td>
<td>1.50” (1”6.35 mm)</td>
<td>.76 lb</td>
</tr>
<tr>
<td>CPI-CB-20-15</td>
<td>2.00” (1.5”38.1 mm)</td>
<td>.81 lb</td>
</tr>
<tr>
<td>CPI-CB-25-20</td>
<td>2.50” (2”50.8 mm)</td>
<td>.81 lb</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
### PAT Aluminum Tubing

“L” = Specify Length
in 6.00” or 150mm Increments

**English Example:**
CPI-PAT-15-06 (6.00”)

**Metric Example:**
CPI-PAT-40-150 (150mm)

<table>
<thead>
<tr>
<th>Model</th>
<th>(Ø) “D”</th>
<th>Wall Thickness</th>
<th>Weight</th>
<th>Linear Deflection</th>
<th>Torsional Twist</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-PAT-1025-“L”</td>
<td>1.00”(in)</td>
<td>6.35mm</td>
<td>1.02 kg/m</td>
<td>1.5mm [0.06”]</td>
<td>2.4° @ 100ft-lbs</td>
</tr>
<tr>
<td>CPI-PAT-12-“L”</td>
<td>1.25”(in)</td>
<td>6.35mm</td>
<td>1.37kg/m</td>
<td>3.3mm [0.13”]</td>
<td>1.6° @ 100ft-lbs</td>
</tr>
<tr>
<td>CPI-PAT-15-“L”</td>
<td>1.50”(in)</td>
<td>6.35mm</td>
<td>1.8 kg/m</td>
<td>5.6mm [0.22”]</td>
<td>.3.1° @ 300ft-lbs</td>
</tr>
<tr>
<td>CPI-PAT-40-“L” (Metric)</td>
<td>40mm</td>
<td>5mm</td>
<td>1.2 kg/m</td>
<td>5.6mm [0.22”]</td>
<td>3.2° @ 300ft-lbs</td>
</tr>
<tr>
<td>CPI-PAT-25-“L”</td>
<td>2.50”(in)</td>
<td>6.35mm</td>
<td>3.1 kg/m</td>
<td>12.7mm [0.50”]</td>
<td>2.3° @ 600ft-lbs</td>
</tr>
<tr>
<td>CPI-PAT-60-“L” (Metric)</td>
<td>60mm</td>
<td>5mm</td>
<td>2.4 kg/m</td>
<td>17.8mm [0.70”]</td>
<td>3.3° @ 600ft-lbs</td>
</tr>
<tr>
<td>CPI-PAT-2538-“L”</td>
<td>2.50”(in)</td>
<td>9.53mm</td>
<td>4.3 kg/m</td>
<td>10.2mm [0.40”]</td>
<td>1.8° @ 600ft-lbs</td>
</tr>
</tbody>
</table>
**TUBING, RODS AND BUSHINGS**

**PAT Thin Wall Aluminum Tubing**

```
<table>
<thead>
<tr>
<th>Model</th>
<th>(Ø)“O.D.”</th>
<th>Wall Thickness</th>
<th>Weight</th>
<th>Linear Deflection</th>
<th>Torsional Twist</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-PAT-50T-L”</td>
<td>0.50”(in)</td>
<td>[0.085”] 2.16mm</td>
<td>[0.13 lb/ft] 193.0 g/m</td>
<td>1.52mm [0.06”] @ 50lb/12.00”</td>
<td>[.002° @ 100ft-lb</td>
</tr>
<tr>
<td>CPI-PAT-75T-L”</td>
<td>0.75”(in)</td>
<td>[0.085”] 2.16mm</td>
<td>[0.20 lb/ft] 309.3 g/m</td>
<td>1.52mm [0.06”] @ 50lb/12.00”</td>
<td>[.002° @ 100ft-lb</td>
</tr>
<tr>
<td>CPI-PAT-10T-L”</td>
<td>1.00”(in)</td>
<td>[0.085”] 2.16mm</td>
<td>[0.28 lb/ft] 425.6 g/m</td>
<td>1.52mm [0.06”] @ 50lb/12.00”</td>
<td>[.002° @ 100ft-lb</td>
</tr>
</tbody>
</table>
```

**PAB Aluminum Rods**

```
<table>
<thead>
<tr>
<th>Model</th>
<th>(Ø) “D”</th>
<th>Wall Thickness</th>
<th>Weight</th>
<th>Linear Deflection</th>
<th>Torsional Twist</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-PAB-10-L”</td>
<td>1.00”(in)</td>
<td>SOLID BAR [0.9 lb/ft] 1.4 kg/m</td>
<td>1.52mm [0.06”] @ 50lb/12.00”</td>
<td>[.002° @ 100ft-lb</td>
<td></td>
</tr>
<tr>
<td>CPI-PAB-25-L” (Metric)</td>
<td>25.0mm</td>
<td>SOLID BAR [0.9 lb/ft] 1.4 kg/m</td>
<td>1.52mm [0.06”] @ 50lb/12.00”</td>
<td>[.002° @ 100ft-lb</td>
<td></td>
</tr>
</tbody>
</table>
```

**PST Steel Tubing**

```
<table>
<thead>
<tr>
<th>Model</th>
<th>(Ø) “D”</th>
<th>Wall Thickness</th>
<th>Weight</th>
<th>Linear Deflection</th>
<th>Torsional Twist</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-PST-10-L”</td>
<td>1.00”(in)</td>
<td>3.18mm [0.125”]</td>
<td>1.8 kg/m</td>
<td>0.9mm [0.003”] @ 50lb/12.00”</td>
<td>[.001° @ 100ft-lb</td>
</tr>
<tr>
<td>CPI-PST-1212-L”</td>
<td>1.25”(in)</td>
<td>3.18mm [0.125”]</td>
<td>2.2 kg/m</td>
<td>0.3mm [0.001”] @ 50lb/12.00”</td>
<td>[.001° @ 100ft-lb</td>
</tr>
<tr>
<td>M1512-L”</td>
<td>1.00”(in)</td>
<td>3.0mm [0.12”]</td>
<td>1.5 kg/m</td>
<td>0.9mm [0.003”] @ 50lb/12.00”</td>
<td>[.001° @ 100ft-lb</td>
</tr>
</tbody>
</table>
```

**Dimensions and technical information are subject to change without notice**
## SINGLE MUSHROOM TOOL HOLDER

### Round Tooling | Dimensions

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-THM-250-POST</td>
<td>2.5 in</td>
<td>499g [1.10 lb]</td>
</tr>
<tr>
<td>CPI-THM-60-POST</td>
<td>60mm</td>
<td>499g [1.10 lb]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-THM-250-WTTB</td>
<td>127 [5.00]</td>
<td>590g [1.30 lb]</td>
</tr>
</tbody>
</table>

---

### Model Number | ØD  | Weight       |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-THM-250-SVP</td>
<td>408g [0.90 lb]</td>
<td></td>
</tr>
</tbody>
</table>

**Material:**
- Aluminum
- Steel

---

Dimensions and technical information are subject to change without notice.
**DOUBLE MUSHROOM TOOL HOLDER**

Round Tooling | Dimensions

---

**Material:** Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-THM-250-DBL</td>
<td>1.54g [3.40 lb]</td>
</tr>
</tbody>
</table>

---

**Material:** Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-THM-250-DBL-WTTB</td>
<td>1.09g [2.40 lb]</td>
</tr>
</tbody>
</table>

---

**Material:** Steel

**Material:** Aluminum

---
Features:

- These self-contained tip units are designed for use with dual-axis loaders and unloaders.
- The amount of rotation can be adjusted with the use of a cylinder stop tube.
- The unique wedge-lock uses frictional force to secure the unit within the tubing. (U.S. Patent No. 5,411,232)
  * Rotation is controlled by adjusting the length of a stop tube and limiting the stroke of the cylinder
- A rod extension is used to move the cylinder away from the rotate point. To order the rod extension separately, the part number is CPI-CRE-10-[Length]
FLANGE END MOUNT BRACKET AND BLOCKS

Round Tooling | Dimensions | Technical Specification

**CLM-xxx-15F** End Flange Mount for Ø20mm/0.75” Tube (Micro)

**Specifications:**
Max. Static Clamp Load: 20.3 N*m [15 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Ø&quot;</th>
<th>D</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CLM-20M-15F</td>
<td>20mm</td>
<td>[0.26 lb]</td>
<td>.12 kg</td>
</tr>
<tr>
<td>CPI-CLM-75-15F-ATI</td>
<td>.75”(in)</td>
<td>[0.32 lb]</td>
<td>.14 kg</td>
</tr>
</tbody>
</table>

**CLM-xxx-15F** End Flange Mount for Ø25mm/1.00” Tube (Micro)

**Specifications:**
Max. Static Clamp Load: 40.7 N*m [30 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Ø&quot;</th>
<th>D</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CLM-25M-15F</td>
<td>25mm</td>
<td>[.32 lb]</td>
<td>.14 kg</td>
</tr>
<tr>
<td>CPI-CLM-10-15F</td>
<td>1.00”(in)</td>
<td></td>
<td>.14 kg</td>
</tr>
</tbody>
</table>

**M1511** End Flange Mount for Ø1.00” Tube

**Specifications:**
Max. Static Clamp Load: 203 N*m [150 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1511</td>
<td>[1.08 lb]</td>
</tr>
</tbody>
</table>
FLANGE END MOUNT BRACKET AND BLOCKS

Round Tooling | Dimensions | Technical Specification

KL/CL End Flange Mount for Ø40mm/1.50” Tube

Specifications:
Max. Static Clamp Load:
203 N*m [150 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-KL-40-60F</td>
<td>40mm</td>
<td>.70 kg</td>
</tr>
<tr>
<td>CPI-CL-15-238F</td>
<td>1.50”(in)</td>
<td>.73 kg</td>
</tr>
</tbody>
</table>

KL/CL End Flange Mount for Ø60mm/2.50” Tube

Specifications:
Max. Static Clamp Load:
675 N*m [500 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-KL-60-78F</td>
<td>60mm</td>
<td>1.24 kg</td>
</tr>
<tr>
<td>CPI-CL-25-312F</td>
<td>2.50”(in)</td>
<td>1.14 kg</td>
</tr>
</tbody>
</table>
FLANGE END MOUNT BRACKET AND BLOCKS

Round Tooling | Dimensions | Technical Specification

**CL End Flange Mount with Ø125mm Bolt Pattern**

**Specifications:**
Max. Static Clamp Load:
746 N*m [550 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CL-60-125F</td>
<td>60mm</td>
<td>9.86 lb</td>
</tr>
<tr>
<td>CPI-CL-250-125F</td>
<td>2.50”(in)</td>
<td>10.20 lb</td>
</tr>
<tr>
<td>CPI-CL-300-125F</td>
<td>3.00”(in)</td>
<td>8.70 lb</td>
</tr>
</tbody>
</table>

**RJM Ø40mm Spherical Flange End Mount**

**Specifications:**
Max. Static Clamp Load:
203 N*m [150 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RJM-78F-40S</td>
<td>1.54 lb</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
FLANGE MID MOUNT BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specification

**CLM-xxx-1517F-90** Mid Flange Mount for Ø20mm/0.75” Tube (Micro)

**Specifications:**
Max. Static Clamp Load: 47.5 Nm [35 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CLM-20M-1517F-90</td>
<td>20mm</td>
<td>.33 lb</td>
</tr>
<tr>
<td>CPI-CLM-75-1517F-90</td>
<td>.75”(in)</td>
<td>.35 lb</td>
</tr>
</tbody>
</table>

**CLM-xxx-152F-90** Mid Flange Mount for Ø25mm/1.00” Tube (Micro)

**Specifications:**
Max. Static Clamp Load: 81.4 Nm [60 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CLM-25M-152F-90</td>
<td>25mm</td>
<td>.41 lb</td>
</tr>
<tr>
<td>CPI-CLM-10-152F-90</td>
<td>1.00”(in)</td>
<td>.19 kg</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
FLANGE MID MOUNT BRACKETS AND BLOCKS

Round Tooling  Dimensions  Technical Specification

**M-1509** Inline End Flange Mount for Ø1.00” Tube

**Specifications:**
- Max. Static Clamp Load: 203 N*m [150 ft-lb]
- Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1509</td>
<td>.99 lb</td>
</tr>
<tr>
<td></td>
<td>.45 kg</td>
</tr>
</tbody>
</table>

M-1510 End Flange Mount for Ø1.00” Tube

**Specifications:**
- Max. Static Clamp Load: 203 N*m [150 ft-lb]
- Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1510</td>
<td>.87 lb</td>
</tr>
<tr>
<td></td>
<td>.39 kg</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
**FLANGE MID MOUNT BRACKETS AND BLOCKS**

Round Tooling | Dimensions | Technical Specification

**CL-xx-xxxF-90** Mid Flange Mount for Ø40mm/1.50” Tube

**Specifications:**
Max. Static Clamp Load: 475 N*m [350 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)”D”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-KL-40-60F-90</td>
<td>40mm</td>
<td>1.09 lb</td>
</tr>
<tr>
<td>CPI-CL-15-238F-90</td>
<td>1.50” (in)</td>
<td>0.49 kg</td>
</tr>
</tbody>
</table>

**KL-60-xxxF-90** Mid Flange Mount for Ø60mm Tube

**Specifications:**
Max. Static Clamp Load: 675 N*m [500 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>“L”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-KL-60-78F-90</td>
<td>[3.07] 78</td>
<td>2.24 lb</td>
</tr>
<tr>
<td>CPI-KL-60-80F-90</td>
<td>[3.15] 80</td>
<td>1.02 kg</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
FLANGE MID MOUNT BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specification

CL-25-312F-90 Mid Flange Mount for Ø2.50” Tube

Specifications:
Max. Static Clamp Load:
675 N*m [500 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CL-25-312F-90</td>
<td>2.51 lb, 1.14 kg</td>
</tr>
</tbody>
</table>

World Tool Direct Mounts
CL-xx-DM-10F Direct Mount Bracket for 2.50” Tube

Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CL-25-DM-10F</td>
<td>1.89 lb, .86 kg</td>
</tr>
</tbody>
</table>
### CL-xx-DM-xxF Direct Mount Bracket for Ø60mm/2.50” Tube

**Model Number**: CPI-CL-xx-DM-xxF

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)”D”</th>
<th>A</th>
<th>B</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CL-60-DM-40F</td>
<td>60mm</td>
<td>[3.25]</td>
<td>[1.63]</td>
<td>[2.49 lb]</td>
</tr>
<tr>
<td>CPI-CL-25-DM-15F</td>
<td>2.50”(in)</td>
<td>[3.13]</td>
<td>[1.58]</td>
<td>[2.36 lb]</td>
</tr>
</tbody>
</table>

**Material**: Aluminum

### CL-25EX-238F-90 Direct Mount Bracket for Ø2.50” Tube

**Model Number**: CPI-CL-25EX-238F-90

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CL-25EX-238F-90</td>
<td>[3.64 lb]</td>
</tr>
</tbody>
</table>

**Material**: Aluminum

Dimensions and technical information are subject to change without notice.
BASE MOUNT BLOCK

Round Tooling | Dimensions | Technical Specification

BC-00-xxx Ø25mm/1.00” Tube/Ø40mm/1.50” Tube

Specifications:
Max. Static Clamp Load: 13.6 N*m [10 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>“E”</th>
<th>“F”</th>
<th>“G”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-BC-00-25</td>
<td>25mm</td>
<td>[4.88]</td>
<td>[.75]</td>
<td>[.88]</td>
<td>[2.00]</td>
<td>[1.87]</td>
<td>[.75]</td>
<td>[.55 lb]</td>
</tr>
<tr>
<td>CPI-BC-00-100</td>
<td>1.00”(in)</td>
<td>124.0</td>
<td>19.0</td>
<td>22.4</td>
<td>50.8</td>
<td>47.6</td>
<td>19.0</td>
<td>.25 kg</td>
</tr>
<tr>
<td>CPI-BC-00-40</td>
<td>40mm</td>
<td>[5.44]</td>
<td>[1.06]</td>
<td>[1.13]</td>
<td>[2.56]</td>
<td>[2.11]</td>
<td>[1.06]</td>
<td>[.67 lb]</td>
</tr>
<tr>
<td>CPI-BC-00-150</td>
<td>1.50”(in)</td>
<td>138.2</td>
<td>26.9</td>
<td>28.7</td>
<td>65.1</td>
<td>53.6</td>
<td>26.9</td>
<td>.30 kg</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
CROSS TRANSITION BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specification

**SC-xx-xx Ø25mm/1.00” to Ø25mm/1.00” (Single Bolt)**

**Specifications:**
Max. Static Clamp Load: 162 N*m [120 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)”D”</th>
<th>Weight</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SC-25-25</td>
<td>25mm</td>
<td>.60 lb</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-SC-25-25-BL</td>
<td>25mm</td>
<td>.27 kg</td>
<td>BLUE</td>
</tr>
<tr>
<td>CPI-SC-1010</td>
<td>1.00” (in)</td>
<td>.75 kg</td>
<td>SILVER</td>
</tr>
</tbody>
</table>

**M1513 Ø1.00” to Ø1.00”**

**Specifications:**
Max. Static Clamp Load: 203 N*m [150 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1513</td>
<td>.82 lb</td>
</tr>
</tbody>
</table>

**CLM Ø12mm/.50” to Ø12mm/.50”**

**Specifications:**
Max. Static Clamp Load: 13.6 N*m [10 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CLM-12M-12M</td>
<td>12mm (.10 lb)</td>
</tr>
<tr>
<td>CPI-CLM-50-50</td>
<td>.50” (in)</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
CROSS TRANSITION BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specification

CLM Ø20mm/.75” to Ø12mm/.50”

Specifications:
Max. Static Clamp Load:
Ø20mm/.75”: 20.3 N*m [15 ft-lb]
Ø12mm/.50”: 13.6 N*m [10 ft-lb]
Material: Aluminum

Model Number | Ø“D1” Ø“D2” Weight
------------|-------------------------|
CPI-CLM-20M-12M | 12mm 20mm | [.50”(in) .75 in] [1.00 lb] [.08 kg]
CPI-CLM-75-50 | 12mm 20mm | [.50”(in) .75 in] [1.00 lb] [.08 kg]

CLM Ø25mm/1.00” to Ø12mm/.50”

Specifications:
Max. Static Clamp Load:
Ø25mm/1.00”: 67.8 N*m [50 ft-lb]
Ø12mm/.50”: 13.6 N*m [10 ft-lb]
Material: Aluminum

Model Number | Ø“D1” Ø“D2” Weight
------------|-------------------------|
CPI-CLM-25M-12M | 12mm 25mm | [.50”(in) 1.00”(in)] [1.25 lb] [.17 kg]
CPI-CLM-10-50 | 12mm 25mm | [.50”(in) 1.00”(in)] [1.25 lb] [.17 kg]

CLM Ø20mm/.75” to Ø20mm/.75”

Specifications:
Max. Static Clamp Load:
20.3 N*m [15 ft-lb]
Material: Aluminum

Model Number | Ø“D” Weight
------------|-----------------
CPI-CLM-20M-20M | 20mm | [.16 lb] [.07 kg]
CPI-CLM-20M-20M-ST | 20mm | [.40 lb] [.18 kg]
CPI-CLM-75-75 | 20mm | [.75”(in)] [.17 lb] [.08 kg]

Model Number | Ø“D” Weight
------------|-----------------
CPI-CLM-25M-20M | 20mm | [.23 lb] [.11 kg]
CPI-CLM-10-75 | 20mm | [.23 lb] [.11 kg]

Dimensions and technical information are subject to change without notice
**CROSS TRANSITION BRACKETS AND BLOCKS**

Round Tooling | Dimensions | Technical Specification

**M-xxx-xxx-M Ø25mm/1.00” to Ø25mm/1.00” (Double Bolt)**

### Specifications:
- Max. Static Clamp Load:
  - Ø25mm/1.00”:
    - 434 N·m [320 ft-lb]
  - Ø40mm/1.50”:
    - 624 N·m [460 ft-lb]

### Model Number | (Ø)"D" | Weight | Finish
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M-25M-25M-M</td>
<td>25mm</td>
<td>.93 lb</td>
<td>BLUE</td>
</tr>
<tr>
<td>M-10E-10E-M</td>
<td>1.00”(in)</td>
<td>.42 kg</td>
<td>BLACK</td>
</tr>
</tbody>
</table>

**M-xxx-xxx-M Ø40mm/1.25”/1.50” to Ø25mm/1.00” (Double Bolt)**

### Specifications:
- Max. Static Clamp Load:
  - Ø25mm/1.00”:
    - 434 N·m [320 ft-lb]
  - Ø40mm/1.50”:
    - 624 N·m [460 ft-lb]

### Model Number | (Ø)"D1" | (Ø)"D2" | Weight | Finish
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M-10E-12E-M</td>
<td>1.25”(in)</td>
<td>1.00”(in)</td>
<td>[1.29 lb]</td>
<td>BLACK</td>
</tr>
<tr>
<td>M-10E-15E-M</td>
<td>1.50”(in)</td>
<td>1.00”(in)</td>
<td>[1.18 lb]</td>
<td>BLACK</td>
</tr>
<tr>
<td>M-25M-40M-M</td>
<td>40mm</td>
<td>25mm</td>
<td>[1.54 kg]</td>
<td>BLUE</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.

See chart on Page 72 for actual (Ø) size.
**CROSS TRANSITION BRACKETS AND BLOCKS**

Round Tooling | Dimensions | Technical Specification

**M-xxx-xxx-M Ø60mm/2.50” to Ø25mm/1.00” (Double Bolt)**

![Cross Transition Bracket Image]

**Specifications:**
Max. Static Clamp Load:
Ø25mm/1.00”:
434 N\*m [320 ft-lb]
Ø60mm/2.50”:
813 N\*m [600 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D1”</th>
<th>(Ø)“D2”</th>
<th>Weight</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-25M-60M-M</td>
<td>60mm</td>
<td>25mm</td>
<td>[1.52 lb]</td>
<td>.69 kg</td>
</tr>
<tr>
<td>M-10E-25E-M</td>
<td>2.50”(in)</td>
<td>1.00”(in)</td>
<td>[1.44 lb]</td>
<td>.65 kg</td>
</tr>
</tbody>
</table>

**M-xxx-xxx-M Ø40mm/1.25”/1.50” to Ø40mm/1.25”/1.50” (Double Bolt)**

![Cross Transition Bracket Image]

**Specifications:**
Max. Static Clamp Load:
Ø1.25”:
515 N\*m [380 ft-lb]
Ø40mm/1.50”:
624 N\*m [460 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D1”</th>
<th>(Ø)“D2”</th>
<th>Weight</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-12E-12E-M</td>
<td>1.25”(in)</td>
<td>1.25”(in)</td>
<td>[1.51 lb]</td>
<td>.69 kg</td>
</tr>
<tr>
<td>M-12E-15E-M</td>
<td>1.25”(in)</td>
<td>1.50”(in)</td>
<td>[1.41 lb]</td>
<td>.64 kg</td>
</tr>
<tr>
<td>M-15E-15E-M</td>
<td>1.50”(in)</td>
<td>1.50”(in)</td>
<td>[1.31 lb]</td>
<td>.59 kg</td>
</tr>
<tr>
<td>M-40M-40M-M</td>
<td>40mm</td>
<td>40mm</td>
<td>[1.23 lb]</td>
<td>.56 kg</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
CROSS TRANSITION BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specification

M-xxx-xxx-M Ø60mm/2.50 to Ø40mm/1.50” (Double Bolt)

Specifications:
Max. Static Clamp Load:
Ø40mm/1.50”:
624 N*m [460 ft-lb]
Ø60mm/2.50”:
813 N*m [600 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D1”</th>
<th>(Ø)“D2”</th>
<th>Weight</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-40M-60M-M</td>
<td>60mm</td>
<td>40mm</td>
<td>[2.08 lb]</td>
<td>BLUE</td>
</tr>
<tr>
<td>M-15E-25E-M</td>
<td>2.50”(in)</td>
<td>1.50”(in)</td>
<td>.95 kg</td>
<td>BLACK</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice

EE-RND | 26

Dimensions and technical information are subject to change without notice
**T-CLAMP TRANSITION BRACKETS AND BLOCKS**

Round Tooling | Dimensions | Technical Specification

**TCAH Ø30mm to Ø25mm**

**Specifications:**
Max. Static Clamp Load:
Ø30mm: 237 N*m [175 ft-lb]
Ø25mm/1.00": 200 N*m [150 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-TCAH30M-25M</td>
<td>0.72 lb</td>
</tr>
</tbody>
</table>

**TCAH Ø30mm to Ø40mm**

**Specifications:**
Max. Static Clamp Load:
Ø30mm: 237 N*m [175 ft-lb]
Ø25mm/1.00": 200 N*m [150 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-TCAH30M-40M</td>
<td>1.40 lb</td>
</tr>
</tbody>
</table>
T-CLAMP TRANSITION BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specification

**TCA Ø2.50” to Ø1.50” T-Clamp Bracket Assembly**

**Specifications:**
Max. Static Clamp Load:
Ø1.50”:
271 N*m [200 ft-lb]
Ø2.50”:
677 N*m [500 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-TCA-250-150</td>
<td>[2.76 lb] 1.25 kg</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
T-CLAMP TRANSITION BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specification

TCA Ø60mm/2.50” to Ø40mm T-Clamp Bracket Assembly

Specifications:
Max. Static Clamp Load:
Ø40mm:
271 N*m [200 ft-lb]
Ø60mm/2.50”:
677 N*m [500 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Ø</th>
<th>“D”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>“E”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-TCA-60M-40M</td>
<td>60mm</td>
<td>3.19</td>
<td>1.59</td>
<td>1.50</td>
<td>1.50</td>
<td>2.89 lb</td>
<td>1.31 kg</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
T-CLAMP TRANSITION BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specification

TCA Ø60mm/2.50” to Ø60mm/2.50” T-Clamp Bracket Assembly

Specifications:
Max. Static Clamp Load: 813 N·m [600 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)&quot;D1&quot;</th>
<th>(Ø)&quot;D2&quot;</th>
<th>&quot;A&quot;</th>
<th>&quot;B&quot;</th>
<th>&quot;C&quot;</th>
<th>&quot;E&quot;</th>
<th>&quot;F&quot;</th>
<th>&quot;G&quot;</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-TCA-60M-60M</td>
<td>60mm</td>
<td>60mm</td>
<td>[3.19]</td>
<td>[1.59]</td>
<td>[3.19]</td>
<td>[1.59]</td>
<td>[1.50]</td>
<td>[1.50]</td>
<td>[3.15 lb]</td>
</tr>
<tr>
<td>CPI-TCA-250-250</td>
<td>2.50&quot;(in)</td>
<td>2.50&quot;(in)</td>
<td>[3.35]</td>
<td>[1.67]</td>
<td>[3.35]</td>
<td>[4.67]</td>
<td>[1.57]</td>
<td>[1.57]</td>
<td>1.43 kg</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
WRIST CLAMPS

Round Tooling | Dimensions | Technical Specification

**SECM Ø20mm/.75” to Ø12mm/.50”**

![Diagram](image1)

**SECM Ø20mm/.75” to Ø20mm/.75”**

![Diagram](image2)

**SECM Ø25mm/1.00” to Ø20mm/.75”**

![Diagram](image3)

**SECM Ø25mm/1.00” to Ø25mm/1.00”**

![Diagram](image4)

---

**Specifications:**
Max. Static Clamp Load:
- Ø20mm/.75”:
  - 10.8 N·m [8 ft-lb]
- Ø12mm/.50”:
  - 10.8 N·m [8 ft-lb]

Material: Aluminum

**Model Number** | (Ø)“D1” (Ø)“D2” | Weight
---|---|---
CPI-SECM-2012M | 12mm 20mm | [.12 lb] [.05 kg]
CPI-SECM-7550 | .50”(in) .75”(in) | [.12 lb] [.06 kg]

**Specifications:**
Max. Static Clamp Load:
- Ø25mm/1.00”:
  - 13.6 N·m [10 ft-lb]
- Ø20mm/.75”:
  - 10.8 N·m [8.0 ft-lb]

Material: Aluminum

**Model Number** | (Ø)“D” | Weight
---|---|---
CPI-SECM-2020M | 20mm | [.12 lb] [.05 kg]
CPI-SECM-7575 | .75”(in) | [.12 lb] [.08 kg]

Dimensions and technical information are subject to change without notice.
### Specifications:

Max. Static Clamp Load:
- Ø40mm/1.50”:
  - 271 N\*m [200 ft-lb]
- Ø25mm/1.00”:
  - 203 N\*m [150 ft-lb]

Material: Aluminum

### Dimensions and Technical Information

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)”D1”</th>
<th>(Ø)”D2”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>“E”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SEC-1510</td>
<td>1.50”(in)</td>
<td>1.00”(in)</td>
<td>3.25</td>
<td>2.38</td>
<td>1.75</td>
<td>.88</td>
<td>.67 lb</td>
</tr>
<tr>
<td>CPI-SLK-4025</td>
<td>40mm</td>
<td>25mm</td>
<td>3.38</td>
<td>2.44</td>
<td>1.88</td>
<td>.94</td>
<td>.77 lb</td>
</tr>
</tbody>
</table>

*Dimensions and technical information are subject to change without notice.*
OFFSET WRIST BRACKETS AND BLOCKS

Round Tooling | Dimensions | Technical Specification

SEC/SLK Ø60mm/2.50” to Ø25mm/1.00” Wrist Bracket

Specifications:
Max. Static Clamp Load:
Ø25mm/1.00”: 149 N*m [110 ft-lb]
Ø60mm/2.50”: 677 N*m [500 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D1”</th>
<th>(Ø)“D2”</th>
<th>“A”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SLK-6025</td>
<td>60mm</td>
<td>25mm</td>
<td>[2.25]</td>
<td>[1.72 lb]</td>
</tr>
<tr>
<td>CPI-SEC-2510</td>
<td>2.50”(in)</td>
<td>1.00”(in)</td>
<td>[2.38]</td>
<td>[1.61 lb]</td>
</tr>
</tbody>
</table>

SEC Ø2.50” to Ø1.50” Wrist Bracket

Specifications:
Max. Static Clamp Load:
Ø40mm/1.50”: 271 N*m [200 ft-lb]
Ø60mm/2.50”: 677 N*m [500 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SEC-2515</td>
<td>[2.72 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
**Elbow and Straight Brackets**

Round Tooling | Dimensions | Technical Specification

**DC Ø25mm/1.00” to Ø25mm/1.00” 45° Elbow**

Specifications:
Max. Static Clamp Load:
203 Nm [150 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)”D”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-DC-2525M-45</td>
<td>25mm</td>
<td>0.35 lb</td>
</tr>
<tr>
<td>CPI-DC-1010-45</td>
<td>1.00” (in)</td>
<td>0.16 kg</td>
</tr>
</tbody>
</table>

**DC Ø1.50” to Ø1.50” 45° Elbow**

Specifications:
Max. Static Clamp Load:
271 Nm [200 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-DC-1515-45</td>
<td>1.41 lb</td>
</tr>
</tbody>
</table>

**DC Ø40mm to Ø40mm 45° Elbow**

Specifications:
Max. Static Clamp Load:
271 Nm [200 ft-lb]
Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-DC-40-40-45</td>
<td>1.41 lb</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**ELBOW AND STRAIGHT BRACKETS**

Round Tooling | Dimensions | Technical Specification

---

**DC Ø60mm to Ø60mm 45° Elbow**

![Diagram of DC Ø60mm to Ø60mm 45° Elbow](image)

**Specifications:**
- Max. Static Clamp Load: 677 N·m [500 ft-lb]
- Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-DC-6060M-45</td>
<td>2.94 lb 1.33 kg</td>
</tr>
</tbody>
</table>

**DC Ø2.50” to Ø2.50” 45° Elbow**

![Diagram of DC Ø2.50” to Ø2.50” 45° Elbow](image)

**Specifications:**
- Max. Static Clamp Load: 677 N·m [500 ft-lb]
- Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-DC-2525-45</td>
<td>3.19 lb 1.46 kg</td>
</tr>
</tbody>
</table>

**DC Ø25mm/1.00” to Ø25mm/1.00” Straight with Swivel**

![Diagram of DC Ø25mm/1.00” to Ø25mm/1.00” Straight with Swivel](image)

**Specifications:**
- Max. Static Clamp Load: 203 N·m [150 ft-lb]
- Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D” (Ø)“S”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-DC-2525S-8</td>
<td>25mm 25mm</td>
<td>.80 lb .36 kg</td>
</tr>
</tbody>
</table>
| CPI-DC-1010S-8    | 1.00”(in) 1.00”(in) | }

Nominal (Ø) given
See chart on Page 72 for actual (Ø) size

Dimensions and technical information are subject to change without notice
**Features:**
- Fixed adjustment every 90 degrees
- Mounts to a 1 inch or 25mm tube
- Clamps to a Ø28.6mm [1.125"] (B112) Spherical Ball

**Specifications:**
- Maximum Clamp Load: 111 ft-lb [150 Nm]
- Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>(Ø)“D”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC-SA10-100-B112-02</td>
<td>[2.48]</td>
<td>[1.87]</td>
<td>[3.65]</td>
<td>1.00” (in)</td>
<td>0.51 lb</td>
</tr>
<tr>
<td>AC-SA25-25M-B112-50</td>
<td>62.9</td>
<td>47.5</td>
<td>92.8</td>
<td>25mm</td>
<td>0.23 kg</td>
</tr>
<tr>
<td>AC-SA10-100-B112-03</td>
<td>[3.37]</td>
<td>[2.95]</td>
<td>[4.74]</td>
<td>1.00” (in)</td>
<td>0.59 lb</td>
</tr>
<tr>
<td>AC-SA25-25M-B112-75</td>
<td>85.6</td>
<td>75.0</td>
<td>120.3</td>
<td>25mm</td>
<td>0.27 kg</td>
</tr>
<tr>
<td>AC-SA10-100-B112-04</td>
<td>[4.26]</td>
<td>[3.94]</td>
<td>[5.72]</td>
<td>1.00” (in)</td>
<td>0.69 lb</td>
</tr>
<tr>
<td>AC-SA25-25M-B112-100</td>
<td>108.2</td>
<td>100.0</td>
<td>145.3</td>
<td>25mm</td>
<td>0.31 kg</td>
</tr>
<tr>
<td>AC-SA10-100-B112-05</td>
<td>[5.18]</td>
<td>[4.92]</td>
<td>[6.70]</td>
<td>1.00” (in)</td>
<td>0.78 lb</td>
</tr>
<tr>
<td>AC-SA25-25M-B112-125</td>
<td>131.6</td>
<td>125.0</td>
<td>170.3</td>
<td>25mm</td>
<td>0.35 kg</td>
</tr>
<tr>
<td>AC-SA10-100-B112-06</td>
<td>[6.13]</td>
<td>[5.90]</td>
<td>[7.69]</td>
<td>1.00” (in)</td>
<td>0.88 lb</td>
</tr>
<tr>
<td>AC-SA25-25M-B112-150</td>
<td>155.6</td>
<td>150.0</td>
<td>195.5</td>
<td>25mm</td>
<td>0.40 kg</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
EXTEND-ARM SWIVEL ARMS

Round Tooling | Dimensions | Technical Specification

Features:
- Mounts apple core accessories to Ø25mm/1.00” round tube
- 50.8 [2.00] linear extension allows for precise adjustment
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

Specifications:
Maximum Clamp Load: 140 ft-lb [190 Nm]
Material:
Body and Insert: Machined Aluminum
End: Cast Aluminum

TSA Ø25mm/1.00” for Ø19mm [.75"] Apple Core

Double-hinge design allows swivel arm to be mounted directly onto boom/tube and slide into position, without having to remove existing components to slide on from boom/tube end.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D”</th>
<th>“A”</th>
<th>“B”</th>
<th>Weight</th>
<th>FINISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-55-1-TSA</td>
<td>1.00”(in)</td>
<td>[5.66]</td>
<td>[7.44]</td>
<td>[0.83 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-140-25-TSA</td>
<td>25mm</td>
<td>143.7</td>
<td>188.9</td>
<td>0.38 kg</td>
<td>BLUE</td>
</tr>
<tr>
<td>CPI-75-1-TSA</td>
<td>1.00”(in)</td>
<td>[7.66]</td>
<td>[9.44]</td>
<td>[0.90 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-190-25-TSA</td>
<td>25mm</td>
<td>194.5</td>
<td>239.7</td>
<td>0.41 kg</td>
<td>BLUE</td>
</tr>
<tr>
<td>CPI-95-1-TSA</td>
<td>1.00”(in)</td>
<td>[9.66]</td>
<td>[11.44]</td>
<td>[0.98 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-240-25-TSA</td>
<td>25mm</td>
<td>245.3</td>
<td>290.5</td>
<td>0.44 kg</td>
<td>BLUE</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**Features:**
- Mounts apple core accessories to Ø40mm/1.50” round tube
- 50.8 [2.00] linear extension allows for precise adjustment
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

**Specifications:**
- Maximum Clamp Load: 140 ft-lb [190 Nm]
- Material:
  - Body and Insert: Machined Aluminum
  - End: Cast Aluminum

Double-hinge design allows swivel arm to be mounted directly onto boom/tube and slid into position, without having to remove existing components to slide on from boom/tube end.

**Model Number**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)”D”</th>
<th>“A”</th>
<th>“B”</th>
<th>Weight</th>
<th>FINISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-55-150-TSA</td>
<td>1.50”(in)</td>
<td>[5.94] 150.9</td>
<td>[8.00] 203.2</td>
<td>[0.99 lb] 0.45 kg</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-140-40-TSA</td>
<td>40mm</td>
<td>[7.94] 201.7</td>
<td>[10.00] 254.0</td>
<td>[1.06 lb] 0.48 kg</td>
<td>BLUE</td>
</tr>
<tr>
<td>CPI-75-150-TSA</td>
<td>1.50”(in)</td>
<td>[9.94] 252.5</td>
<td>[12.00] 304.8</td>
<td>[1.13 lb] 0.51 kg</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-190-40-TSA</td>
<td>40mm</td>
<td>[9.94] 252.5</td>
<td>[12.00] 304.8</td>
<td>[1.13 lb] 0.51 kg</td>
<td>BLUE</td>
</tr>
<tr>
<td>CPI-95-150-TSA</td>
<td>1.50”(in)</td>
<td>[9.94] 252.5</td>
<td>[12.00] 304.8</td>
<td>[1.13 lb] 0.51 kg</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-240-40-TSA</td>
<td>40mm</td>
<td>[9.94] 252.5</td>
<td>[12.00] 304.8</td>
<td>[1.13 lb] 0.51 kg</td>
<td>BLUE</td>
</tr>
</tbody>
</table>
EXTEND-ARM SWIVEL ARMS
Round Tooling | Dimensions | Technical Specification

Features:
- Mounts swivel ball accessories to Ø25mm/1.00” round tube
- 50.8 [2.00] linear extension allows for precise adjustment
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

Specifications:
Maximum Clamp Load: 140 ft-lb [190 Nm]
Material:
Body and Insert: Machined Aluminum
End: Cast Aluminum

TSA-B112 Ø25mm/1.00” for Ø28.6mm [1.125”] Spherical Swivel Ball

Double-hinge design allows swivel arm to be mounted directly onto boom/tube and slid into position, without having to remove existing components to slide on from boom/tube end.

Model Number | (Ø)“D” | “A” | “B” | Weight | FINISH
--- | --- | --- | --- | --- | ---
CPI-55-1-TSA-B112 | 1.00”(in) 25mm | [5.65] 143.6 | [7.47] 189.6 | [0.93 lb] 0.42 kg | SILVER
CPI-140-25-TSA-B112 | 1.00”(in) 25mm | [7.65] 194.4 | [9.47] 240.4 | [1.00 lb] 0.45 kg | BLUE
CPI-75-1-TSA-B112 | 1.00”(in) 25mm | [9.65] 245.2 | [11.47] 291.2 | [1.07 lb] 0.49 kg | SILVER
CPI-190-25-TSA-B112 | 1.00”(in) 25mm | [9.65] 245.2 | [11.47] 291.2 | [1.07 lb] 0.49 kg | BLUE
CPI-95-1-TSA-B112 | 1.00”(in) 25mm | [9.65] 245.2 | [11.47] 291.2 | [1.07 lb] 0.49 kg | SILVER
CPI-240-25-TSA-B112 | 1.00”(in) 25mm | [9.65] 245.2 | [11.47] 291.2 | [1.07 lb] 0.49 kg | BLUE

Dimensions and technical information are subject to change without notice
**Features:**
- Mounts swivel ball accessories to Ø40mm/1.50” round tube
- 50.8 [2.00] linear extension allows for precise adjustment
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

**Specifications:**
- Maximum Clamp Load: 140 ft-lb [190 Nm]
- Material: Body and Insert: Machined Aluminum
  End: Cast Aluminum

**TSA-B112 Ø40mm/1.50” for Ø28.6mm [1.125”] Spherical Swivel Ball**

Double-hinge design allows swivel arm to be mounted directly onto boom/tube and slid into position, without having to remove existing components to slide on from boom/tube end.

---

**Model Number** |Ø” | “B” | Weight | FINISH  
--- |--- |--- |--- |---  
CPI-55-150-TSA-B112 |1.50”(in) |[5.93] |[8.03] |[1.03 lb] | SILVER  
CPI-140-40-TSA-B112 |40mm |150.7 |203.9 |0.47 kg | BLUE  
CPI-75-150-TSA-B112 |1.50”(in) |[7.93] |[10.03] |[1.10 lb] | SILVER  
CPI-190-40-TSA-B112 |40mm |201.5 |254.7 |0.50 kg | BLUE  
CPI-95-150-TSA-B112 |1.50”(in) |[9.93] |[12.03] |[1.17 lb] | SILVER  
CPI-240-40-TSA-B112 |40mm |252.3 |305.5 |0.53 kg | BLUE  

Dimensions and technical information are subject to change without notice
MICRO TOOLING SWIVEL ARMS

Round Tooling | Dimensions | Technical Specification

Features:
- Mounts micro apple core accessories to Ø20mm/.75” Round tube.
- Provides 360° of rotational adjustments along (3) axes.
- Used to mount venturi, bumpers, round locators, and proximity switches.

Specifications:
- Maximum Clamp Load: 120 ft-lb [163 Nm]
- Material: Body and Spacer: Machined Aluminum

MSA Ø20mm/.75” for Ø12.7mm [.50’’] Apple Core (Micro)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)”D”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-200-7550-MSA</td>
<td>.75”(in)</td>
<td>[2.00] 50.8</td>
<td>[2.28] 57.9</td>
<td>[3.19] 81.0</td>
<td>0.16 lb</td>
</tr>
<tr>
<td>CPI-200-20M50-MSA</td>
<td>20mm</td>
<td>50.8</td>
<td>57.9</td>
<td>81.0</td>
<td>0.16 lb</td>
</tr>
<tr>
<td>CPI-300-7550-MSA</td>
<td>.75”(in)</td>
<td>[3.00] 76.2</td>
<td>[3.19] 81.1</td>
<td>[4.19] 106.4</td>
<td>0.19 lb</td>
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<tr>
<td>CPI-300-20M50-MSA</td>
<td>20mm</td>
<td>76.2</td>
<td>81.1</td>
<td>106.4</td>
<td>0.19 lb</td>
</tr>
<tr>
<td>CPI-400-7550-MSA</td>
<td>.75”(in)</td>
<td>[4.00] 101.7</td>
<td>[4.15] 105.4</td>
<td>[5.19] 131.9</td>
<td>0.21 lb</td>
</tr>
<tr>
<td>CPI-400-20M50-MSA</td>
<td>20mm</td>
<td>101.7</td>
<td>105.4</td>
<td>131.9</td>
<td>0.21 lb</td>
</tr>
<tr>
<td>CPI-500-7550-MSA</td>
<td>.75”(in)</td>
<td>[5.00] 127.1</td>
<td>[5.12] 130.1</td>
<td>[6.19] 157.3</td>
<td>0.23 lb</td>
</tr>
<tr>
<td>CPI-500-20M50-MSA</td>
<td>20mm</td>
<td>127.1</td>
<td>130.1</td>
<td>157.3</td>
<td>0.23 lb</td>
</tr>
<tr>
<td>CPI-600-7550-MSA</td>
<td>.75”(in)</td>
<td>[6.00] 152.5</td>
<td>[6.10] 155.0</td>
<td>[7.19] 182.7</td>
<td>0.26 lb</td>
</tr>
<tr>
<td>CPI-600-20M50-MSA</td>
<td>20mm</td>
<td>152.5</td>
<td>155.0</td>
<td>182.7</td>
<td>0.26 lb</td>
</tr>
</tbody>
</table>

Model Number

Dimensions and technical information are subject to change without notice.
Nominal (Ø) given  
See chart on Page 72 for actual (Ø) size

**Features:**
- Mounts micro apple core accessories to Ø25mm/1.00” Round tube
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

**Specifications:**
- Maximum Clamp Load: 120 ft-lb [163 Nm]
- Material: Body and Spacer: Machined Aluminum

---

**Model Number** | (Ø)”D” | “A” | “B” | “C” | Weight
--- | --- | --- | --- | --- | ---
CPI-200-1050-MSA | 1.00”(in) | [2.00] 50.7 | [2.23] 56.6 | [3.06] 77.7 | 0.18 lb 0.08kg
CPI-200-25M50-MSA | 25mm | [3.00] 76.1 | [3.16] 80.2 | [4.11] 104.4 | 0.21 lb 0.09kg
CPI-300-1050-MSA | 1.00”(in) | [4.00] 101.6 | [4.12] 104.7 | [5.08] 129.0 | 0.23 lb 0.10kg
CPI-300-25M50-MSA | 25mm | [5.00] 127.0 | [5.10] 129.5 | [6.14] 156.0 | 0.25 lb 0.11kg
CPI-300-30B50-MSA | 30mm | [6.00] 152.4 | [6.08] 154.4 | [7.09] 180.0 | 0.27 lb 0.13kg
CPI-400-1050-MSA | 1.00”(in) | [5.00] 127.0 | [5.10] 129.5 | [6.14] 156.0 | 0.25 lb 0.11kg
CPI-400-25M50-MSA | 25mm | [5.00] 127.0 | [5.10] 129.5 | [6.14] 156.0 | 0.25 lb 0.11kg
CPI-400-30B50-MSA | 30mm | [6.00] 152.4 | [6.08] 154.4 | [7.09] 180.0 | 0.27 lb 0.13kg
CPI-500-1050-MSA | 1.00”(in) | [5.00] 127.0 | [5.10] 129.5 | [6.14] 156.0 | 0.25 lb 0.11kg
CPI-500-25M50-MSA | 25mm | [5.00] 127.0 | [5.10] 129.5 | [6.14] 156.0 | 0.25 lb 0.11kg
CPI-500-30B50-MSA | 30mm | [6.00] 152.4 | [6.08] 154.4 | [7.09] 180.0 | 0.27 lb 0.13kg
CPI-600-1050-MSA | 1.00”(in) | [5.00] 127.0 | [5.10] 129.5 | [6.14] 156.0 | 0.25 lb 0.11kg
CPI-600-25M50-MSA | 25mm | [5.00] 127.0 | [5.10] 129.5 | [6.14] 156.0 | 0.25 lb 0.11kg
CPI-600-30B50-MSA | 30mm | [6.00] 152.4 | [6.08] 154.4 | [7.09] 180.0 | 0.27 lb 0.13kg

Dimensions and technical information are subject to change without notice
STANDARD SWIVEL ARMS

Round Tooling | Dimensions | Technical Specification

Features:
- Mounts apple core accessories to Ø25mm/1.00” round tube
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

Specifications:
- Maximum Clamp Load: 200 ft-lb [271 Nm]
- Material:
  - Body: Cast Aluminum
  - Spacer: Machined Aluminum

SA Ø25mm/1.00” for Ø19.1mm [.75"] Apple Core

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
<th>FINISH</th>
</tr>
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<tbody>
<tr>
<td>CPI-400-1-SA</td>
<td>1.00”(in)</td>
<td>[4.13]</td>
<td>[3.90]</td>
<td>[5.52]</td>
<td>[0.70 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-100-25-SA</td>
<td>25mm</td>
<td>104.9</td>
<td>99.1</td>
<td>140.2</td>
<td>0.31 kg</td>
<td>BLUE</td>
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<tr>
<td>CPI-500-1-SA</td>
<td>1.00”(in)</td>
<td>[5.30]</td>
<td>[5.12]</td>
<td>[6.70]</td>
<td>[0.82 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-140-25-SA</td>
<td>25mm</td>
<td>134.5</td>
<td>130.1</td>
<td>170.2</td>
<td>0.37 kg</td>
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</tr>
<tr>
<td>CPI-600-1-SA</td>
<td>1.00”(in)</td>
<td>[6.05]</td>
<td>[5.90]</td>
<td>[7.49]</td>
<td>[0.90 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-160-25-SA</td>
<td>25mm</td>
<td>153.8</td>
<td>149.9</td>
<td>190.2</td>
<td>0.41 kg</td>
<td>BLUE</td>
</tr>
<tr>
<td>CPI-700-1-SA</td>
<td>1.00”(in)</td>
<td>[6.81]</td>
<td>[6.67]</td>
<td>[8.27]</td>
<td>[0.97 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-180-25-SA</td>
<td>25mm</td>
<td>172.9</td>
<td>169.4</td>
<td>210.2</td>
<td>0.44 kg</td>
<td>BLUE</td>
</tr>
<tr>
<td>CPI-800-1-SA</td>
<td>1.00”(in)</td>
<td>[8.36]</td>
<td>[8.25]</td>
<td>[9.85]</td>
<td>[1.13 lb]</td>
<td>SILVER</td>
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<tr>
<td>CPI-200-25-SA</td>
<td>25mm</td>
<td>212.4</td>
<td>209.6</td>
<td>250.2</td>
<td>0.51 kg</td>
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</table>
Features:
- Mounts apple core accessories to Ø40mm/1.50” round tube
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

Specifications:
- Maximum Clamp Load: 200 ft-lb [271 Nm]
- Material: Cast Aluminum
- Spacer: Machined Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D” (in)</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
<th>FINISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-400-15-SA</td>
<td>1.50</td>
<td>4.09</td>
<td>3.75</td>
<td>5.68</td>
<td>0.78 lb</td>
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<td>CPI-100-40-SA</td>
<td>40mm</td>
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<td>95.2</td>
<td>144.3</td>
<td>0.35 kg</td>
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<tr>
<td>CPI-500-15-SA</td>
<td>1.50</td>
<td>5.23</td>
<td>4.97</td>
<td>6.86</td>
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<td>CPI-140-40-SA</td>
<td>40mm</td>
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<td>126.1</td>
<td>174.3</td>
<td>0.41 kg</td>
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</tr>
<tr>
<td>CPI-600-15-SA</td>
<td>1.50</td>
<td>5.97</td>
<td>5.75</td>
<td>7.65</td>
<td>0.97 lb</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-160-40-SA</td>
<td>40mm</td>
<td>151.8</td>
<td>146.0</td>
<td>194.3</td>
<td>0.44 kg</td>
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<tr>
<td>CPI-700-15-SA</td>
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<td>6.72</td>
<td>6.52</td>
<td>8.44</td>
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<tr>
<td>CPI-180-40-SA-SA</td>
<td>40mm</td>
<td>170.7</td>
<td>165.5</td>
<td>214.3</td>
<td>0.54 kg</td>
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<tr>
<td>CPI-800-15-SA</td>
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<td>8.10</td>
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<td>1.20 lb</td>
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<td>209.8</td>
<td>205.6</td>
<td>2.54</td>
<td>0.55 kg</td>
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</table>
STANDARD SWIVEL ARMS

Round Tooling | Dimensions | Technical Specification

Features:
• Mounts swivel ball accessories to round tube
• Provides 360° of rotational adjustments along (3) axes
• Used to mount venturi, bumpers, round locators, and proximity switches

Specifications:
Maximum Clamp Load: 200 ft-lb [271 Nm]
Material: Cast Aluminum
Spacer: Machined Aluminum

SA-B112 Ø25mm/1.00” for Ø28.6mm [1.125"] Spherical Swivel Ball

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)&quot;D&quot;</th>
<th>&quot;A&quot;</th>
<th>&quot;B&quot;</th>
<th>&quot;C&quot;</th>
<th>Weight</th>
<th>FINISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-400-1-SA-B112</td>
<td>1.00”(in)</td>
<td>[4.22]</td>
<td>[3.90]</td>
<td>[5.61]</td>
<td>[0.74 lb]</td>
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<tr>
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<td>142.6</td>
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<td>[5.12]</td>
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<tr>
<td>CPI-140-25-SA-B112</td>
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<td>136.3</td>
<td>129.9</td>
<td>173.5</td>
<td>0.39 kg</td>
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<tr>
<td>CPI-600-1-SA-B112</td>
<td>1.00”(in)</td>
<td>[6.12]</td>
<td>[5.90]</td>
<td>[7.61]</td>
<td>[0.94 lb]</td>
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<td>149.7</td>
<td>193.4</td>
<td>0.43 kg</td>
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<tr>
<td>CPI-700-1-SA-B112</td>
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<td>[6.67]</td>
<td>[8.38]</td>
<td>[1.02 lb]</td>
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<tr>
<td>CPI-180-25-SA-B112</td>
<td>25mm</td>
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<td>169.3</td>
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<td>0.46 kg</td>
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<tr>
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<td>1.00”(in)</td>
<td>[8.40]</td>
<td>[8.25]</td>
<td>[9.96]</td>
<td>[1.17 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-200-25-SA-B112</td>
<td>25mm</td>
<td>213.5</td>
<td>209.4</td>
<td>253.0</td>
<td>0.53 kg</td>
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</tbody>
</table>

Dimensions and technical information are subject to change without notice.
SA-B112 Ø40mm/1.50” for Ø28.6mm [1.125"] Spherical Swivel Ball

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)”D”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
<th>FINISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-400-15-SA-B112</td>
<td>1.50”(in)</td>
<td>[4.20]</td>
<td>[106.7]</td>
<td>[95.0]</td>
<td>[1.06]</td>
<td>0.82 lb</td>
</tr>
<tr>
<td>CPI-100-40-SA-B112</td>
<td>40mm</td>
<td>[3.74]</td>
<td>[146.1]</td>
<td>[0.37]</td>
<td>BLUE</td>
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</tr>
<tr>
<td>CPI-500-15-SA-B112</td>
<td>1.50”(in)</td>
<td>[5.32]</td>
<td>[135.0]</td>
<td>[126.0]</td>
<td>[0.94]</td>
<td>SILVER</td>
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<tr>
<td>CPI-140-40-SA-B112</td>
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<td>CPI-600-15-SA-B112</td>
<td>1.50”(in)</td>
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<tr>
<td>CPI-160-40-SA-B112</td>
<td>40mm</td>
<td>[5.74]</td>
<td>[196.9]</td>
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<tr>
<td>CPI-700-15-SA-B112</td>
<td>1.50”(in)</td>
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<td>[172.3]</td>
<td>[165.4]</td>
<td>[1.09]</td>
<td>SILVER</td>
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<tr>
<td>CPI-180-40-SA-B112</td>
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<td>[216.5]</td>
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<tr>
<td>CPI-800-15-SA-B112</td>
<td>1.50”(in)</td>
<td>[8.31]</td>
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<td>[205.5]</td>
<td>[1.25]</td>
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<tr>
<td>CPI-200-40-SA-B112</td>
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<td>[8.09]</td>
<td>[256.6]</td>
<td>[0.56]</td>
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</table>
STANDARD SWIVEL ARMS
Round Tooling | Dimensions | Technical Specification

**Features:**
- Mounts apple core accessories to Ø25mm/1.00” round tube
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

**Specifications:**
- Maximum Clamp Load: 200 ft-lb [271 Nm]
- Material:
  - Body: Cast Aluminum
  - Spacer: Machined Aluminum

**SAxx** Single-Bolt Ø25mm/1.00” for Ø19.1mm [.75"] Apple Core

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Ø”D”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
<th>FINISH</th>
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<tr>
<td>CPI-SA10-100-075-02</td>
<td>1.00” (in)</td>
<td>25.4</td>
<td>72.7</td>
<td>[2.86]</td>
<td>0.46 lb</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-SA25-25-19-50</td>
<td>25mm</td>
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<td>49.8</td>
<td>[1.96]</td>
<td>0.21 kg</td>
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<td>CPI-SA10-100-075-03</td>
<td>1.00” (in)</td>
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<td>0.57 lb</td>
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<tr>
<td>CPI-SA25-25-19-75</td>
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<td>3.54</td>
<td>90.0</td>
<td>0.26 kg</td>
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</table>
## Round Tooling | Dimensions | Technical Specification

### EDxx Double-Bolt Ø25mm/1.00” for Ø19.1mm [.75”] Apple Core

<table>
<thead>
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<th>Model Number</th>
<th>(Ø)“D”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
<th>FINISH</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1.00”(in)</td>
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<td>[4.05]</td>
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<td>[0.65 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td></td>
<td>25mm</td>
<td>[4.22]</td>
<td>[4.00]</td>
<td>[5.69]</td>
<td>[0.29 kg]</td>
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<tr>
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<td>1.00”(in)</td>
<td>[5.23]</td>
<td>[5.05]</td>
<td>[6.74]</td>
<td>[0.71 lb]</td>
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<tr>
<td>CPI-ED10-100-075-06</td>
<td>1.00”(in)</td>
<td>[6.20]</td>
<td>[6.05]</td>
<td>[7.74]</td>
<td>[0.78 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-ED25-25-19-150</td>
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<td>[6.13]</td>
<td>[5.98]</td>
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<td>[0.36 kg]</td>
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<td>CPI-ED10-100-075-07</td>
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<td>CPI-ED10-100-075-08</td>
<td>1.00”(in)</td>
<td>[8.16]</td>
<td>[8.05]</td>
<td>[9.74]</td>
<td>[0.92 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-ED25-25-19-200</td>
<td>25mm</td>
<td>[8.06]</td>
<td>[7.95]</td>
<td>[9.64]</td>
<td>[0.42 kg]</td>
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<tr>
<td>CPI-ED10-100-075-09</td>
<td>1.00”(in)</td>
<td>[9.15]</td>
<td>[9.05]</td>
<td>[10.74]</td>
<td>[0.99 lb]</td>
<td>SILVER</td>
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<td>CPI-ED10-100-075-10</td>
<td>1.00”(in)</td>
<td>[10.14]</td>
<td>[10.05]</td>
<td>[11.74]</td>
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<td>[11.61]</td>
<td>[0.48 kg]</td>
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<td>1.00”(in)</td>
<td>[11.13]</td>
<td>[11.05]</td>
<td>[12.74]</td>
<td>[1.13 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-ED10-100-075-12</td>
<td>1.00”(in)</td>
<td>[12.13]</td>
<td>[12.05]</td>
<td>[13.74]</td>
<td>[1.20 lb]</td>
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<td>CPI-ED25-25-19-300</td>
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<td>[11.97]</td>
<td>[11.89]</td>
<td>[13.58]</td>
<td>[0.54 kg]</td>
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<td>1.00”(in)</td>
<td>[13.12]</td>
<td>[13.05]</td>
<td>[14.74]</td>
<td>[1.27 lb]</td>
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<tr>
<td>CPI-ED10-100-075-14</td>
<td>1.00”(in)</td>
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<td>[13.85]</td>
<td>[15.54]</td>
<td>[0.61 kg]</td>
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<td>CPI-ED10-100-075-15</td>
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<td>[15.05]</td>
<td>[16.74]</td>
<td>[1.41 lb]</td>
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<td>CPI-ED10-100-075-16</td>
<td>1.00”(in)</td>
<td>[16.11]</td>
<td>[16.05]</td>
<td>[17.74]</td>
<td>[1.48 lb]</td>
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</tr>
<tr>
<td>CPI-ED25-25-19-400</td>
<td>25mm</td>
<td>[15.88]</td>
<td>[15.82]</td>
<td>[17.51]</td>
<td>[0.67 kg]</td>
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</tbody>
</table>
**STANDARD SWIVEL ARMS**

Round Tooling | Dimensions | Technical Specification

**Features:**
- Mounts apple core accessories to Ø40mm/1.50” round tube
- Provides 360° of rotational adjustments along (3) axes
- Used to mount venturi, bumpers, round locators, and proximity switches

**Specifications:**
- Maximum Clamp Load: 200 ft-lb [271 Nm]
- Material:
  - Body: Cast Aluminum
  - Spacer: Machined Aluminum

**SAxx** Single-Bolt Ø40mm/1.50” for Ø19.1mm [.75"] Apple Core

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
<th>FINISH</th>
</tr>
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<tbody>
<tr>
<td>CPI-SA10-150-075-02</td>
<td>1.50” (in)</td>
<td>[2.53]</td>
<td>[1.96]</td>
<td>[3.77]</td>
<td>[0.50 lb]</td>
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<tr>
<td>CPI-SA25-40-19-50</td>
<td>40mm</td>
<td>64.3</td>
<td>49.8</td>
<td>95.9</td>
<td>0.23 kg</td>
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<tr>
<td>CPI-SA10-150-075-03</td>
<td>1.50” (in)</td>
<td>[3.42]</td>
<td>[3.03]</td>
<td>[4.95]</td>
<td>[0.62 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-SA25-40-19-75</td>
<td>40mm</td>
<td>87.0</td>
<td>76.9</td>
<td>125.9</td>
<td>0.28 kg</td>
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</table>

Dimensions and technical information are subject to change without notice.
**EDxx Double-Bolt Ø40mm/1.50” for Ø19.1mm [.75”] Apple Core**

**Model Number** | **Ø”D”** | **“A”** | **“B”** | **“C”** | **Weight** | **FINISH**
---|---|---|---|---|---|---
CPI-ED10-150-075-04 | 1.50” (in) | 110.7 | 102.9 | 150.2 | 0.69 lb | SILVER
CPI-ED25-40-19-100 | 1.50” (in) | 109.5 | 101.7 | 150.7 | 0.31 kg | BLUE
CPI-ED10-150-075-05 | 1.50” (in) | 134.6 | 128.3 | 177.4 | 0.76 lb | SILVER
CPI-ED10-150-075-06 | 1.50” (in) | 159.0 | 153.7 | 202.8 | 0.83 lb | SILVER
CPI-ED25-40-19-150 | 1.50” (in) | 157.3 | 152.0 | 201.0 | 0.38 kg | BLUE
CPI-ED10-150-075-07 | 1.50” (in) | 183.7 | 179.1 | 228.2 | 0.90 lb | SILVER
CPI-ED10-150-075-08 | 1.50” (in) | 208.5 | 204.5 | 253.6 | 0.97 lb | SILVER
CPI-ED25-40-19-200 | 1.50” (in) | 206.0 | 202.0 | 251.0 | 0.44 kg | SILVER
CPI-ED10-150-075-09 | 1.50” (in) | 233.5 | 229.9 | 279.0 | 1.03 lb | SILVER
CPI-ED10-150-075-10 | 1.50” (in) | 258.5 | 255.3 | 304.4 | 1.10 lb | SILVER
CPI-ED25-40-19-250 | 1.50” (in) | 255.3 | 252.0 | 308.1 | 0.50 kg | BLUE
CPI-ED10-150-075-11 | 1.50” (in) | 283.7 | 280.7 | 329.8 | 1.17 lb | SILVER
CPI-ED10-150-075-12 | 1.50” (in) | 308.8 | 306.1 | 355.2 | 1.24 lb | SILVER
CPI-ED25-40-19-300 | 1.50” (in) | 304.8 | 302.1 | 351.1 | 0.56 kg | SILVER
CPI-ED10-150-075-13 | 1.50” (in) | 334.0 | 331.5 | 380.6 | 1.31 lb | SILVER
CPI-ED10-150-075-14 | 1.50” (in) | 359.2 | 356.9 | 406.0 | 1.38 lb | SILVER
CPI-ED25-40-19-350 | 1.50” (in) | 354.2 | 351.9 | 400.9 | 0.63 kg | BLUE
CPI-ED10-150-075-15 | 1.50” (in) | 384.5 | 382.3 | 431.4 | 1.45 lb | SILVER
CPI-ED25-40-19-400 | 1.50” (in) | 409.8 | 407.7 | 456.8 | 1.52 lb | SILVER

**Dimensions and technical information are subject to change without notice**
TRANSITION SWIVEL ARMS

Round Tooling | Dimensions | Technical Specification

**SAxx** Single-Bolt Ø25mm/1.00” to 25mm/Ø1.00”

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Ø“D”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
<th>FINISH</th>
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<tbody>
<tr>
<td>CPI-SA10-100-100-02</td>
<td>1.00”(in)</td>
<td>[2.50]</td>
<td>[2.00]</td>
<td>[3.66]</td>
<td>[0.49 lb]</td>
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<tr>
<td>CPI-SA25-25-25-50</td>
<td>25mm</td>
<td>63.6</td>
<td>50.9</td>
<td>93.1</td>
<td>0.22 kg</td>
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<tr>
<td>CPI-SA10-100-100-03</td>
<td>1.00”(in)</td>
<td>[3.42]</td>
<td>[3.07]</td>
<td>[4.73]</td>
<td>[0.60 lb]</td>
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</tr>
<tr>
<td>CPI-SA25-25-25-75</td>
<td>25mm</td>
<td>86.7</td>
<td>77.9</td>
<td>120.1</td>
<td>0.27 kg</td>
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<tr>
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<td>1.00”(in)</td>
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<td>[4.04]</td>
<td>[5.70]</td>
<td>[0.69 lb]</td>
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</tr>
<tr>
<td>CPI-SA25-25-25-100</td>
<td>25mm</td>
<td>109.6</td>
<td>102.7</td>
<td>144.9</td>
<td>0.31 kg</td>
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</tr>
<tr>
<td>CPI-SA10-100-100-05</td>
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<td>[6.69]</td>
<td>[0.79 lb]</td>
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<tr>
<td>CPI-SA25-25-25-125</td>
<td>25mm</td>
<td>133.4</td>
<td>127.9</td>
<td>170.0</td>
<td>0.36 kg</td>
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<tr>
<td>CPI-SA10-100-100-06</td>
<td>1.00”(in)</td>
<td>[6.21]</td>
<td>[6.02]</td>
<td>[7.68]</td>
<td>[0.88 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-SA25-25-25-150</td>
<td>25mm</td>
<td>157.7</td>
<td>153.0</td>
<td>195.2</td>
<td>0.40 kg</td>
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<tr>
<td>CPI-SA10-100-100-07</td>
<td>1.00”(in)</td>
<td>[7.16]</td>
<td>[7.00]</td>
<td>[9.06]</td>
<td>[1.00 lb]</td>
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<tr>
<td>CPI-SA25-25-25-175</td>
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<td>181.9</td>
<td>177.9</td>
<td>230.0</td>
<td>0.45 kg</td>
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<tr>
<td>CPI-SA10-100-100-08</td>
<td>1.00”(in)</td>
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<td>[7.99]</td>
<td>[9.84]</td>
<td>[1.09 lb]</td>
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<tr>
<td>CPI-SA25-25-25-200</td>
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<td>206.6</td>
<td>203.0</td>
<td>250.0</td>
<td>0.50 kg</td>
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Dimensions and technical information are subject to change without notice.
## M10 FASTENERS

### Dimensions and Technical Specification

**EDxx Double-Bolt Ø25mm/1.00” to Ø25mm/1.00”**

![Diagram of Double-Bolt M10 Fasteners]

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Ø&quot;D&quot;</th>
<th>&quot;A&quot;</th>
<th>&quot;B&quot;</th>
<th>&quot;C&quot;</th>
<th>Weight</th>
<th>FINISH</th>
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<tbody>
<tr>
<td><strong>CPI-ED10-100-100-04</strong></td>
<td>[4.36]</td>
<td>[4.09]</td>
<td>[5.74]</td>
<td>[0.67 lb]</td>
<td>SILVER</td>
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<tr>
<td><strong>CPI-ED25-25-25-100</strong></td>
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<td>109.6</td>
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<td>[5.09]</td>
<td>[6.74]</td>
<td>[0.74 lb]</td>
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<tr>
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<td>[6.09]</td>
<td>[7.74]</td>
<td>[0.81 lb]</td>
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<td>0.37 kg</td>
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<td>[7.09]</td>
<td>[8.74]</td>
<td>[0.88 lb]</td>
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<tr>
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<td>[8.09]</td>
<td>[9.74]</td>
<td>[0.95 lb]</td>
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<tr>
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<td>9.64</td>
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<tr>
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<td>[9.09]</td>
<td>[10.74]</td>
<td>[1.02 lb]</td>
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</tr>
<tr>
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<td>[11.74]</td>
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<tr>
<td><strong>CPI-ED25-25-25-250</strong></td>
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<td>10.08</td>
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<td>[11.61]</td>
<td>[0.49 kg]</td>
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<tr>
<td><strong>CPI-ED10-100-100-11</strong></td>
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<td>[12.74]</td>
<td>[1.15 lb]</td>
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<tr>
<td><strong>CPI-ED10-100-100-12</strong></td>
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<tr>
<td><strong>CPI-ED25-25-25-300</strong></td>
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<td>[15.09]</td>
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<tr>
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<td>[0.68 kg]</td>
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</table>
TRANSITION SWIVEL ARMS
Round Tooling | Dimensions | Technical Specification

SAxx Single-Bolt Ø40mm/1.50” to Ø25mm/1.00”

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)”D1”</th>
<th>(Ø)”D2”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
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<td>1.00”(in)</td>
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<td>[2.01]</td>
<td>[3.89]</td>
<td>[0.53 lb]</td>
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<td>0.24 kg</td>
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<tr>
<td>CPI-SA10-150-100-03</td>
<td>1.50”(in)</td>
<td>1.00”(in)</td>
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<td>[3.07]</td>
<td>[4.95]</td>
<td>[0.64 lb]</td>
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<tr>
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<td>[5.04]</td>
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<td>[0.83 lb]</td>
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<tr>
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<td>[6.03]</td>
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<tr>
<td>CPI-SA10-150-100-07</td>
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<td>1.00”(in)</td>
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<td>[7.01]</td>
<td>[8.89]</td>
<td>[1.04 lb]</td>
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<td>25mm</td>
<td>183.4</td>
<td>178.0</td>
<td>225.8</td>
<td>0.47 kg</td>
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</tr>
<tr>
<td>CPI-SA10-150-100-08</td>
<td>1.50”(in)</td>
<td>1.00”(in)</td>
<td>[8.19]</td>
<td>[8.00]</td>
<td>[9.88]</td>
<td>[1.13 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-SA25-40-25-200</td>
<td>40mm</td>
<td>25mm</td>
<td>207.9</td>
<td>203.1</td>
<td>251.0</td>
<td>0.51 kg</td>
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</table>

Dimensions and technical information are subject to change without notice.
Round Tooling | Dimensions | Technical Specification

**EDxx Double-Bolt Ø40mm/1.50” to Ø25mm/1.00”**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D1”</th>
<th>(Ø)“D2”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
<th>FINISH</th>
</tr>
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<tbody>
<tr>
<td>CPI-ED10-150-100-04</td>
<td>1.50”(in)</td>
<td>1.00”(in)</td>
<td>4.46</td>
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<td>5.98</td>
<td>0.71 lb</td>
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<td>CPI-ED25-40-25-100</td>
<td>40mm</td>
<td>25mm</td>
<td>113.5</td>
<td>104.1</td>
<td>151.9</td>
<td>0.32 kg</td>
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<td>CPI-ED10-150-100-05</td>
<td>1.50”(in)</td>
<td>1.00”(in)</td>
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<td>5.10</td>
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<td>0.78 lb</td>
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<tr>
<td>CPI-ED10-150-100-06</td>
<td>1.50”(in)</td>
<td>1.00”(in)</td>
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<td>0.85 lb</td>
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<td>CPI-ED25-40-25-150</td>
<td>40mm</td>
<td>25mm</td>
<td>6.28</td>
<td>6.03</td>
<td>7.91</td>
<td>0.39 kg</td>
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<td>CPI-ED10-150-100-07</td>
<td>1.50”(in)</td>
<td>1.00”(in)</td>
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<td>0.92 lb</td>
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<td>1.00”(in)</td>
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<td>8.10</td>
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<td>0.99 lb</td>
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<td>25mm</td>
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<td>8.00</td>
<td>9.88</td>
<td>0.45 kg</td>
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<td>CPI-ED25-40-25-250</td>
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<td>1.20 lb</td>
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<td>1.00”(in)</td>
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<td>12.10</td>
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<td>1.27 lb</td>
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<td>CPI-ED25-40-25-300</td>
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<td>CPI-ED10-150-100-13</td>
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<td>1.00”(in)</td>
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<td>CPI-ED25-40-25-350</td>
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<td>25mm</td>
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<td>15.10</td>
<td>16.98</td>
<td>1.47 lb</td>
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<td>CPI-ED10-150-100-16</td>
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<td>1.00”(in)</td>
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<td>16.10</td>
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<td>1.54 lb</td>
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<td>CPI-ED25-40-25-400</td>
<td>40mm</td>
<td>25mm</td>
<td>15.96</td>
<td>15.87</td>
<td>17.75</td>
<td>0.70 kg</td>
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Dimensions and technical information are subject to change without notice
## Transition Swivel Arms

### Round Tooling | Dimensions | Technical Specification

**SAxx** Single-Bolt Ø40mm/1.50” to Ø40mm/1.50”

![Swivel Arm Diagram]

<table>
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<tr>
<th>Model Number</th>
<th>Ø“D”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
<th>FINISH</th>
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<tbody>
<tr>
<td>CPI-SA10-150-150-02</td>
<td>1.50” (in)</td>
<td>2.84</td>
<td>72.0</td>
<td>2.01</td>
<td>105.9</td>
<td>0.59 lb</td>
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<tr>
<td>CPI-SA25-40-40-50</td>
<td>40mm</td>
<td>2.06</td>
<td>52.3</td>
<td></td>
<td></td>
<td>0.27 kg</td>
</tr>
<tr>
<td>CPI-SA10-150-150-03</td>
<td>1.50” (in)</td>
<td>3.67</td>
<td>93.2</td>
<td>3.07</td>
<td>131.9</td>
<td>0.69 lb</td>
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<tr>
<td>CPI-SA25-40-40-75</td>
<td>40mm</td>
<td>2.06</td>
<td>52.3</td>
<td></td>
<td></td>
<td>0.31 kg</td>
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<tr>
<td>CPI-SA10-150-150-04</td>
<td>1.50” (in)</td>
<td>4.52</td>
<td>114.7</td>
<td>4.05</td>
<td>156.7</td>
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<tr>
<td>CPI-SA25-40-40-100</td>
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<td>2.06</td>
<td>52.3</td>
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<td></td>
<td>0.36 kg</td>
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<tr>
<td>CPI-SA10-150-150-05</td>
<td>1.50” (in)</td>
<td>5.42</td>
<td>137.7</td>
<td>5.04</td>
<td>181.9</td>
<td>0.88 lb</td>
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<td>CPI-SA25-40-40-125</td>
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<td>2.06</td>
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<td>0.97 lb</td>
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<td>1.50” (in)</td>
<td>7.29</td>
<td>185.2</td>
<td>7.01</td>
<td>231.9</td>
<td>1.09 lb</td>
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<td>2.06</td>
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<td></td>
<td>0.49 kg</td>
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<tr>
<td>CPI-SA10-150-150-08</td>
<td>1.50” (in)</td>
<td>8.25</td>
<td>209.5</td>
<td>8.00</td>
<td>257.0</td>
<td>0.54 lb</td>
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<tr>
<td>CPI-SA25-40-40-200</td>
<td>40mm</td>
<td>2.06</td>
<td>52.3</td>
<td></td>
<td></td>
<td>1.18 kg</td>
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</table>

Dimensions and technical information are subject to change without notice.
## Model Number

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“D”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
<th>FINISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-ED10-150-150-04</td>
<td>1.50”(in)</td>
<td>4.56</td>
<td>4.10</td>
<td>6.22</td>
<td>[0.76 lb]</td>
<td>SILVER</td>
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<tr>
<td>CPI-ED25-40-40-100</td>
<td>40mm</td>
<td>4.52</td>
<td>4.05</td>
<td>6.17</td>
<td>[0.34 kg]</td>
<td>BLUE</td>
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<tr>
<td>CPI-ED10-150-150-06</td>
<td>1.50”(in)</td>
<td>6.42</td>
<td>6.10</td>
<td>8.22</td>
<td>[0.90 lb]</td>
<td>SILVER</td>
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<tr>
<td>CPI-ED25-40-40-150</td>
<td>40mm</td>
<td>6.35</td>
<td>6.03</td>
<td>8.15</td>
<td>[0.41 kg]</td>
<td>BLUE</td>
</tr>
<tr>
<td>CPI-ED10-150-150-08</td>
<td>1.50”(in)</td>
<td>8.34</td>
<td>8.10</td>
<td>10.22</td>
<td>[1.03 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-ED25-40-40-200</td>
<td>40mm</td>
<td>8.25</td>
<td>8.00</td>
<td>10.12</td>
<td>[0.47 kg]</td>
<td>BLUE</td>
</tr>
<tr>
<td>CPI-ED10-150-150-10</td>
<td>1.50”(in)</td>
<td>10.30</td>
<td>10.10</td>
<td>12.22</td>
<td>[1.17 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-ED25-40-40-250</td>
<td>40mm</td>
<td>10.17</td>
<td>9.97</td>
<td>12.09</td>
<td>[0.53 kg]</td>
<td>BLUE</td>
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<tr>
<td>CPI-ED10-150-150-12</td>
<td>1.50”(in)</td>
<td>12.27</td>
<td>12.10</td>
<td>14.22</td>
<td>[1.31 lb]</td>
<td>SILVER</td>
</tr>
<tr>
<td>CPI-ED25-40-40-300</td>
<td>40mm</td>
<td>12.11</td>
<td>11.94</td>
<td>14.06</td>
<td>[0.59 kg]</td>
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<tr>
<td>CPI-ED25-40-40-350</td>
<td>40mm</td>
<td>14.03</td>
<td>13.90</td>
<td>16.02</td>
<td>[0.66 kg]</td>
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<tr>
<td>CPI-ED25-40-40-400</td>
<td>40mm</td>
<td>16.00</td>
<td>15.87</td>
<td>18.00</td>
<td>[0.72 kg]</td>
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</tr>
</tbody>
</table>
SINGLE END EXTENSIONS
Round Tooling | Dimensions | Technical Specification

ES Rod End and Mounting Extensions

**Features:**
- Mounts to round tube for extended mounting options
- Provides 360° of rotational adjustments along a single axis

**Specifications:**
- Maximum Clamp Load: 200 ft-lb [271 Nm]
- Material: Cast Aluminum
- Extension: Machined Aluminum

**ES Ø25mm/1.00” Rod End Extensions**

“L” = Specify Length from Below

**English Lengths:**
From 03 (3.00”) to 28 (28.00”) in 1.00” Increments
**Order Example:**
CPI-ES10-100-06 (6.00” Length)

**Metric Lengths:**
From 50 (50mm) to 400 (400mm) in 50mm Increments
**Order Example:**
CPI-ES25-25-250 (250mm Length)

**Model Number**  | **Ø”D1”** | **Ø”D2”** | **Weight (Base + Additional Increments)** | **FINISH**
---|---|---|---|---
CPI-ES10-100-“L” | 1.00”(in) | 1.00”(in) | Base Length “L” 03 = 0.19 kg [0.42 lb] | SILVER
CPI-ES25-25-“L” | 25mm | 25mm | Base Length “L” 100 = 0.22 kg [0.49 lb] | BLUE

**ES Ø40mm/1.50” Rod End Extensions**

“L” = Specify Length from Below

**English Lengths:**
From 03 (3.00”) to 28 (28.00”) in 1.00” Increments
**Order Example:**
CPI-ES10-150-06 (6.00” Length)

**Metric Lengths:**
From 50 (50mm) to 400 (400mm) in 50mm Increments
**Order Example:**
CPI-ES25-40-250 (250mm Length)

**Model Number**  | **Ø”D1”** | **Ø”D2”** | **Weight (Base + Additional Increments)** | **FINISH**
---|---|---|---|---
CPI-ES10-150-“L” | 1.50”(in) | 1.00”(in) | Base Length “L” 03 = 0.21 kg [0.46 lb] | SILVER
CPI-ES25-40-“L” | 40mm | 25mm | Base Length “L” 100 = 0.23 kg [0.51 lb] | BLUE

Dimensions and technical information are subject to change without notice.
SINGLE END EXTENSIONS

Round Tooling | Dimensions | Technical Specification

**ES Ø25mm/1.00” Extension for Ø19.1mm [.75”] Apple Core**

“L” = Specify Length from Below

**English Lengths:**
- From 03 (3.00”) to 28 (28.00”) in 1.00” Increments

**Order Example**
- CPI-ES10-075-06 (6.00” Length)

**Metric Lengths:**
- From 50 (50mm) to 400 (400mm) in 50mm Increments

**Order Example**
- CPI-ES25-19-250 (250mm Length)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
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<td>CPI-MSE-50-50-03</td>
<td>2.98</td>
<td>3.48</td>
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<td>5.73</td>
<td>6.23</td>
<td>7.00</td>
<td>0.20 lb</td>
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**FINISH**
- SILVER
- BLUE

**ESxx Ø25mm/1.00” Extension for Ø28.6mm [1.125”] Spherical Swivel Ball**

“L” = Specify Length from Below

**English Lengths:**
- From 03 (3.00”) to 18 (18.00”) in 1.00” Increments

**Order Example**
- CPI-ES10-B112-06 (6.00” Length)

**Metric Lengths**
- From 50 (50mm) to 400 (400mm) in 25mm Increments

**Order Example**
- CPI-ES25-B112-75 (75mm Length)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>“D”</th>
<th>Weight (Base + Additional Increments)</th>
<th>FINISH</th>
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</thead>
<tbody>
<tr>
<td>CPI-ES10-B112-“L”</td>
<td>1.00” (in)</td>
<td>Base Length “L” 03 = 0.23 kg [0.51 lb] Add .031 kg [.068 lb] per additional increment</td>
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<tr>
<td>CPI-ES25-B112-“L”</td>
<td>1.00” (in)</td>
<td>Base Length “L” 100 = 0.23 kg [0.51 lb] Add .029 kg [.064 lb] per additional increment</td>
<td>BLUE</td>
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**FINISH**
- SILVER
- BLUE
NEST PAD BRACKETS

Round Tooling | Dimensions | Technical Specification

EST

Model Number | ØD | Weight
--- | --- | ---
CPI-EST-00-1E-24 | 1 in | 142 g [5 oz.]
CPI-EST-00-25-410 | 25mm | 142 g [5 oz.]

EST Apple Core Version

Model Number | Weight
--- | ---
CPI-EST-00-075-24 | 142 g [5 oz.]
CPI-EST-00-19-410 | 142 g [5 oz.]
NEST PAD BRACKETS

Round Tooling | Dimensions | Technical Specification

**EST 90° Version**

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<th>ØD</th>
<th>Weight</th>
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<tr>
<td>CPI-EST-90-1E-24</td>
<td>1 in</td>
<td>142 g [5 oz.]</td>
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<td>CPI-EST-90-25E-410</td>
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<td>142 g [5 oz.]</td>
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**EST Apple Core 90° Version**

<table>
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<th>Model Number</th>
<th>Weight</th>
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<tr>
<td>CPI-EST-90-075-24</td>
<td>142 g [5 oz.]</td>
</tr>
<tr>
<td>CPI-EST-90-19-410</td>
<td>142 g [5 oz.]</td>
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Dimensions and technical information are subject to change without notice.
NEST PAD BRACKETS

Round Tooling | Dimensions | Technical Specification

**AB Version**

![Image](image1.png)

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<th>Model Number</th>
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<tr>
<td>CPI-AB-00-1E-24</td>
<td>1 in</td>
<td>142 g [5 oz.]</td>
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<tr>
<td>CPI-AB-25-410</td>
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<td>142 g [5 oz.]</td>
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**AB Apple Core Version**

![Image](image2.png)

<table>
<thead>
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<th>Model Number</th>
<th>Weight</th>
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<tr>
<td>CPI-AB-750-24</td>
<td>142 g [5 oz.]</td>
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<tr>
<td>CPI-AB-19-410</td>
<td>142 g [5 oz.]</td>
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Model Number ØD Weight

CPI-AB-00-1E-24 1 in 142 g [5 oz.]
CPI-AB-25-410 25mm 142 g [5 oz.]
CPI-AB-750-24 142 g [5 oz.]
CPI-AB-19-410 142 g [5 oz.]

Dimensions and technical information are subject to change without notice.
NEST PAD BRACKETS
Round Tooling | Dimensions | Technical Specification

AB 90° Version

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ØD</th>
<th>Weight</th>
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<td>1 in</td>
<td>142 g [5 oz.]</td>
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<tr>
<td>CPI-AB-90-25-410</td>
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<td>142 g [5 oz.]</td>
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AB Apple Core 90° Version

<table>
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<th>Model Number</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>CPI-AB-90-24</td>
<td>142 g [5 oz.]</td>
</tr>
<tr>
<td>CPI-AB-90-19-410</td>
<td>142 g [5 oz.]</td>
</tr>
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Dimensions and technical information are subject to change without notice
PROXIMITY SWITCH MOUNT

Round Tooling | Dimensions | Technical Specification

**SAP Series with 1” Extension**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(Ø)“F”</th>
<th>Weight</th>
</tr>
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<tbody>
<tr>
<td>CPI-SAP-18-1E</td>
<td>0.71</td>
<td>0.2 lb</td>
</tr>
<tr>
<td>18</td>
<td>91 g</td>
<td></td>
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<tr>
<td>CPI-SAP-30-1E</td>
<td>1.18</td>
<td>0.2 lb</td>
</tr>
<tr>
<td>30</td>
<td>91 g</td>
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**SAP Series with Apple Core**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>(Ø)“F”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SAP-00</td>
<td>NA</td>
<td>0.3 lb</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CPI-SAP-10</td>
<td>0.39</td>
<td>0.2 lb</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI-SAP-18</td>
<td>0.71</td>
<td>0.2 lb</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI-SAP-30</td>
<td>1.18</td>
<td>0.2 lb</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI-SAP-36</td>
<td>1.42</td>
<td>0.2 lb</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI-SAP-42</td>
<td>1.65</td>
<td>0.3 lb</td>
<td></td>
<td></td>
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<tr>
<td>CPI-SAP-47</td>
<td>1.85</td>
<td>0.3 lb</td>
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</tr>
<tr>
<td>CPI-SAP-54</td>
<td>2.13</td>
<td>0.3 lb</td>
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<td></td>
</tr>
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Dimensions and technical information are subject to change without notice.
**PROXIMITY SWITCH BUMPER**

Round Tooling | Dimensions | Technical Specification

### PSM Spring Loaded Bumper

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Ø“A”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-PSM-18-75</td>
<td>0.71”</td>
<td>7 oz. 198 g</td>
</tr>
<tr>
<td>CPI-PSM-30-75</td>
<td>1.18”</td>
<td>7 oz. 198 g</td>
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</tbody>
</table>

### PB Friction Style Bumper

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Ø“A”</th>
<th>Ø“B”</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>CPI-PB-18-I</td>
<td>0.71</td>
<td>1.50</td>
<td>2 oz. 57 g</td>
</tr>
<tr>
<td>CPI-PB-30-I</td>
<td>1.18</td>
<td>2.00</td>
<td>3 oz. 85 g</td>
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</tbody>
</table>

### PB Locking Collar Style Bumper

<table>
<thead>
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<th>Model Number</th>
<th>Ø“A”</th>
<th>Ø“B”</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>CPI-PB-30M</td>
<td>2.25</td>
<td>1.18</td>
<td>3 oz. 85 g</td>
</tr>
<tr>
<td>CPI-PB-36M</td>
<td>2.50</td>
<td>1.42</td>
<td>3 oz. 85 g</td>
</tr>
<tr>
<td>CPI-PB-42M</td>
<td>2.75</td>
<td>1.65</td>
<td>4 oz. 113 g</td>
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<tr>
<td>CPI-PB-47M</td>
<td>3.00</td>
<td>1.85</td>
<td>5 oz. 141 g</td>
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<tr>
<td>CPI-PB-54M</td>
<td>3.38</td>
<td>2.13</td>
<td>5 oz. 141 g</td>
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</table>
NEST PAD GUIDES
Round Tooling | Dimensions | How To Order

**Single**

<table>
<thead>
<tr>
<th>CPI - NPG - 24E</th>
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<tbody>
<tr>
<td>Base Model</td>
</tr>
<tr>
<td>NPG</td>
</tr>
<tr>
<td>Steel Nest</td>
</tr>
<tr>
<td>Pad Guides</td>
</tr>
<tr>
<td>Single</td>
</tr>
</tbody>
</table>

**Dimensions**

- **Length**
  - 05: 5.00"
  - 06: 6.00"
  - 07: 7.00"
  - 08: 8.00"

- **Height**
  - 04: 4.00"
  - 06: 6.00"
  - 08: 8.00"

---

**Wide**

<table>
<thead>
<tr>
<th>CPI - NPG - 24S</th>
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</thead>
<tbody>
<tr>
<td>Base Model</td>
</tr>
<tr>
<td>NPG</td>
</tr>
<tr>
<td>Steel Nest</td>
</tr>
<tr>
<td>Pad Guides</td>
</tr>
<tr>
<td>Wide</td>
</tr>
</tbody>
</table>

**Dimensions**

- **Length**
  - 3.5: 3.50"
  - 4.5: 4.50"
  - 5.5: 5.50"
  - 6.5: 6.50"

- **Height**
  - 04: 4.00"
  - 06: 6.00"
  - 08: 8.00"

---

Dimensions and technical information are subject to change without notice.
NEST PAD GUIDES

Round Tooling | Dimensions | How To Order

Dimensions and technical information are subject to change without notice.
NEST PAD BLOCKS

Round Tooling | Dimensions | Technical Specifications

Bar Stock Urethane

**Dimensions**

<table>
<thead>
<tr>
<th>Base Model</th>
<th>Overall Height</th>
<th>Backing Plate Height</th>
<th>Width</th>
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<tbody>
<tr>
<td>BS</td>
<td>H</td>
<td>P</td>
<td>W</td>
</tr>
<tr>
<td>Bar Stock</td>
<td>1 1.00&quot; 25.4 mm</td>
<td>1/8 0.13&quot; 3.2 mm</td>
<td>1 1.00&quot; 25.4 mm</td>
</tr>
<tr>
<td>85 Durometer (Shore A) Urethane</td>
<td>2 2.00&quot; 50.8 mm</td>
<td>1/4 0.25&quot; 6.4 mm</td>
<td>2 2.00&quot; 50.8 mm</td>
</tr>
<tr>
<td></td>
<td>3 3.00&quot; 76.2 mm</td>
<td>3/8 0.38&quot; 9.6 mm</td>
<td>3 3.00&quot; 76.2 mm</td>
</tr>
<tr>
<td></td>
<td>4 4.00&quot; 101.6 mm</td>
<td>1/2 0.50&quot; 12.7 mm</td>
<td>4 4.00&quot; 101.6 mm</td>
</tr>
<tr>
<td></td>
<td>5 5.00&quot; 127 mm</td>
<td>1&quot; 1.00&quot; 25.4 mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 6.00&quot; 152.4 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not available for 1" Overall Height.

**Urethane Pads**

85 Durometer (Shore A) Urethane

<table>
<thead>
<tr>
<th>Model</th>
<th>“H”</th>
<th>“L”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-UT-1-4-85</td>
<td>1.00&quot;(in)</td>
<td>4.00&quot;(in)</td>
<td>9oz. [255g]</td>
</tr>
<tr>
<td>CPI-UT-2-4-85</td>
<td>2.00&quot;(in)</td>
<td>4.00&quot;(in)</td>
<td>14oz. [397g]</td>
</tr>
<tr>
<td>CPI-UT-2-6-85</td>
<td>2.00&quot;(in)</td>
<td>6.00&quot;(in)</td>
<td>19oz. [539g]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
NEST PAD BLOCKS
Round Tooling | Dimensions | Technical Specifications

Ribbed Pads Neoprene

Dimensions and technical information are subject to change without notice

<table>
<thead>
<tr>
<th>Base Model</th>
<th>Overall Height</th>
<th>Length</th>
<th>Durometer (Shore A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT</td>
<td>H</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>Ribbed Pads Neoprene</td>
<td>0.50”</td>
<td>4.00”</td>
<td>15 Tan</td>
</tr>
<tr>
<td></td>
<td>1.00”</td>
<td>6.00”</td>
<td>30 Teal</td>
</tr>
<tr>
<td></td>
<td>2.00”</td>
<td>8.00”</td>
<td>45 Red</td>
</tr>
<tr>
<td></td>
<td>3.00”</td>
<td>12.00”</td>
<td>60 Black</td>
</tr>
<tr>
<td></td>
<td>4.00”</td>
<td>101.6 mm</td>
<td></td>
</tr>
</tbody>
</table>
Name: Blue Slice Nest Tooling
Material: Blue Nylon, 1” (25.4mm) thickness
Benefits: Lightweight, durable, machinable material
Process: Machined from 3D CAD
Tool Storage Cart

**Base Model**

<table>
<thead>
<tr>
<th>Width</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tool Storage Carts</td>
<td></td>
</tr>
<tr>
<td>TC</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>36.00&quot;</td>
</tr>
<tr>
<td></td>
<td>0.9 m</td>
</tr>
<tr>
<td>CPI</td>
<td>48</td>
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<tr>
<td></td>
<td>48.00&quot;</td>
</tr>
<tr>
<td></td>
<td>1.2 m</td>
</tr>
<tr>
<td>TC</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>60.00&quot;</td>
</tr>
<tr>
<td></td>
<td>1.5 m</td>
</tr>
<tr>
<td>TC</td>
<td>72</td>
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<tr>
<td></td>
<td>72.00&quot;</td>
</tr>
<tr>
<td></td>
<td>1.8 m</td>
</tr>
<tr>
<td>TC</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>84.00&quot;</td>
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<tr>
<td></td>
<td>2.1 m</td>
</tr>
<tr>
<td>TC</td>
<td>96</td>
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<tr>
<td></td>
<td>96.00&quot;</td>
</tr>
<tr>
<td></td>
<td>2.4 m</td>
</tr>
</tbody>
</table>

**Material:** Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-THR-516</td>
<td>91 g [0.20 lb]</td>
</tr>
</tbody>
</table>
TOOL STORAGE

Round Tooling | Dimensions | How To Order

Tool Holder Strap

Model Number | Weight
--- | ---
CPI-SGM-TH-CABLE-08 | 68g [0.15 lb]

Tool Storage Can

Material: Steel

Dimensions and technical information are subject to change without notice.
# VACUUM SOLUTIONS

Table of Contents

<table>
<thead>
<tr>
<th>Component</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacuum Cups</td>
<td>3</td>
</tr>
<tr>
<td>Magnets</td>
<td>28</td>
</tr>
<tr>
<td>EcoCup</td>
<td>29</td>
</tr>
<tr>
<td>Vacuum Generation</td>
<td>31</td>
</tr>
<tr>
<td>Spring Cup Mounts</td>
<td>37</td>
</tr>
<tr>
<td>Double Blank Detector Mounts</td>
<td>46</td>
</tr>
<tr>
<td>Manifolds</td>
<td>53</td>
</tr>
</tbody>
</table>
DESTACO vacuum cups can be ordered in different types, sizes, materials and durometers to be used in a broad array of applications, ranging from sheet metal handling to plastics to glass.

DESTACO also provides vacuum cups for extreme temperatures and hot-forming applications.

EcoCup™ is the world’s first electric vacuum cup, creating vacuum without air. The EcoCup™ is ideal for pick-and-place applications of flat, rigid, non-porous parts, including plastic, glass, and other consumer goods with smooth, flat surfaces.

ARV® The original, patented Auto-Release Venturi offers users the fastest vacuum and blow-off in the industry with single line operation, integrated blow-off and standard silencer.

Destacker Double Blank Detectors (DBD) allows compliance to blanks within ±15° without needing to adjust the robot, automation or tooling.
NITRILE VACUUM CUPS

Vacuum Products | Families and Features

Round Destacker Vacuum Cup
- Designed specifically for pogo-style destacking applications.
- High compressive-strength and shock-resistance extends cup life.
- High vertical lifting capacity prior to part release.
- Provides low-impact part release during pull-off by utilizing the patented stress relief port.

Round Traction Vacuum Cups
- For applications with slick/oily surfaces or for destackers.
- Internal cleats hold part more securely in high speed applications.
- Bellows add flexibility for minor misalignments.

Round Belcup Vacuum Cups
- For applications with flat to mild contoured surfaces.
- Bellows add flexibility for minor misalignments.
- Ideal for general purpose.

Round Flatfoot Vacuum Cups
- For applications with flat to medium curvature and dry to medium slick/oily surfaces.
- Cleats provide full support to prevent damage to thin outer panels.
- Maximizes lifting capacity and minimizes slip.

Oval Flatfoot Vacuum Cups
- For applications with medium slick/oily to dry surfaces.
- Oval shape maximizes contact on narrow panels and maximizes vertical lifting capacity.
- Cleats provide full support to prevent damage to thin outer panels.

Oval Deepdish Vacuum Cups
- For applications with contoured surfaces as well as wet or oily surfaces.
- Oval shape maximizes contact on narrow panels and bell structure works well on materials with convex surfaces.
**Round Bellows Vacuum Cups**
- For applications with slick/oily surfaces or for destackers
- Bellows add flexibility for minor misalignments
- Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green)
- Optional TCT (Triple durometer) style cup offers extra soft internal cleat to eliminate possible dimples on thin sheet metal

**Round Flat Foot Vacuum Cups**
- Works well on flat to slightly contoured parts
- Maximizes lifting capacity and minimizes slip
- Excellent for transverse loads with high acceleration and deceleration applications
- Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green)

**Round Deepdish Vacuum Cups**
- Interchangeable with existing/competitor vacuum cups
- New bell shape design is excellent for highly contoured surfaces
- Optional lightweight plastic mount available
- Designed to handle higher acceleration/deceleration speeds
- Shape and design offers better transverse loading

**Oval Bellows Vacuum Cups**
- Works well on flat and contoured parts
- Maximum lifting capacity where limited space is available
- Bellows add flexibility for minor misalignments
- Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green)

**Oval Flat Foot Vacuum Cups**
- Works well on flat to slightly contoured parts.
- Long oval shape maximizes contact on narrow surfaces
- Cleats provide full support to prevent damage to thin outer panel
- Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green)
## CHOOSE THE RIGHT VACUUM CUP FOR YOUR APPLICATION

### Vacuum Products | Application, Characteristics and Usage Chart for Vacuum Cups

<table>
<thead>
<tr>
<th>Nitrile Vacuum Cups</th>
<th>Destacker Vacuum Cups</th>
<th>Round Traction Vacuum Cups</th>
<th>Round Flatfoot Vacuum Cups</th>
<th>Round Belcup Vacuum Cups</th>
<th>Round Deepdish Vacuum Cups</th>
<th>Oval Deepdish Vacuum Cups</th>
<th>Oval Flatfoot Vacuum Cups</th>
<th>Hot Forming Vacuum Cups</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Nitrile Vacuum Cups" /></td>
<td><img src="image2" alt="Destacker Vacuum Cups" /></td>
<td><img src="image3" alt="Round Traction Vacuum Cups" /></td>
<td><img src="image4" alt="Round Flatfoot Vacuum Cups" /></td>
<td><img src="image5" alt="Round Belcup Vacuum Cups" /></td>
<td><img src="image6" alt="Round Deepdish Vacuum Cups" /></td>
<td><img src="image7" alt="Oval Deepdish Vacuum Cups" /></td>
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<td><img src="image124" alt="Application Direction" /></td>
<td><img src="image125" alt="Application Direction" /></td>
<td><img src="image126" alt="Application Direction" /></td>
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</tbody>
</table>

- **Worst Cup for the Job**: 1, 2, 3, 4, 5
- **Best Cup for the Job**: N/A
- **Not Advised for the application**: N/A

This chart is a guide to aid in selecting the right family of cup for general surfaces, contours, and applications.

Dimensions and technical information are subject to change without notice.
## Choose the Right Vacuum Cup for Your Application

Vacuum Products | Application, Characteristics and Usage Chart for Vacuum Cups

<table>
<thead>
<tr>
<th>Polyurethane Vacuum Cups</th>
<th>Application Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Polyurethane Cups" /></td>
<td><img src="image" alt="Application Directions" /></td>
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<table>
<thead>
<tr>
<th>Round Bellows Vacuum Cups</th>
<th>Application Direction</th>
</tr>
</thead>
<tbody>
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<td><img src="image" alt="Round Bellows Cups" /></td>
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<table>
<thead>
<tr>
<th>Round Flat Foot Vacuum Cups</th>
<th>Application Direction</th>
</tr>
</thead>
<tbody>
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<td><img src="image" alt="Round Flat Foot Cups" /></td>
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</table>

<table>
<thead>
<tr>
<th>Round Deepdish Vacuum Cups</th>
<th>Application Direction</th>
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</thead>
<tbody>
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<td><img src="image" alt="Round Deepdish Cups" /></td>
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</table>

<table>
<thead>
<tr>
<th>Oval Bellows Vacuum Cups</th>
<th>Application Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Oval Bellows Cups" /></td>
<td><img src="image" alt="Application Directions" /></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Oval Flat Foot Vacuum Cups</th>
<th>Application Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Oval Flat Foot Cups" /></td>
<td><img src="image" alt="Application Directions" /></td>
</tr>
</tbody>
</table>

---

**Worst Cup for the Job**: 1 2 3 4 5 6 7 8 9 10

**Best Cup for the Job**: 1 2 3 4 5

**Not Advised for the Application**: N/A

This chart is a guide to aid in selecting the right family of cup for general surfaces, contours, and applications.
Application, Characteristics, and Usage (ACU) Index

Determining the type and durometer of vacuum cup appropriate for a particular application is typically based on three criteria.

- How oily or slick the part surface is.
- How much contour or curvature the part has.
- How long you can expect the cup to last (Longevity)?

A set of vacuum cups of the same size and type, each having different durometers may handle oily/slick or contoured parts differently. However, cup longevity of each may be affected as a result of durometer, application and usage. The ACU Index is a reference shown with each type of vacuum cup and is used to illustrate the differences between vacuum cup types and durometers, when considering the above criteria.

How Vacuum Cups work

A panel adheres to a vacuum cup because the surrounding pressure (atmospheric pressure) is greater than the pressure inside the vacuum cup. The greater pressure pushes the panel onto the cup.

To create the low pressure in the vacuum cup, it is connected to a vacuum generator. The lower the pressure (higher vacuum) inside the cup; the greater the lifting force of the suction cup.

Vacuum Cup Usage

It is important to use the proper size and quantity of vacuum cups needed for your application. There are five steps which will help you make sure your application has the appropriate vacuum cup usage.

**Step 1:** Determine application and find appropriate cup family type.
**Step 2:** Determine panel weight.
**Step 3:** Find maximum cup size based on panel contour and shape.
**Step 4:** Find the appropriate cup size lifting capacity in the chart, found on the catalog page featuring the cup family type chosen.
**Step 5:** Determine safety factor determined on application (See Below).

Use the formula on the right to determine the proper amount of cups needed to move your panel.

**Safety Factor**

Ideal plant conditions*: (2)

Fast moving robot: (+1)
Slick or Oily Panel: (+1)
Flexing Panel: (+2)
Small cups: (+1)
High Horizontal Loads: (+1)

Starting with Ideal conditions (2), add each additional conditions to determine total safety factor.

For example:
Ideal conditions: 2
Fast moving robots: +1
Flexing Panel: +2
Total Safety Factor 5

(*Ideal conditions are defined as having no surface, operational, or environmental conditions which could adversely effect the performance to the vacuum cup.)

**Formula**

\[ n = \frac{w \times s}{f} \]

w = Weight of Panel  
f = Lifting force of cup  
s = Safety factor  
n = Number of cups

Weight and lifting force must be in the same units, either English or Metric.
DESTACO Vacuum Cups are offered in different families, and may be offered in different durometers. Vacuum cups are also offered in Imperial and Metric mounting options which may vary according to the size and type of the vacuum cup.

Vacuum cups can be ordered as follows:
*CPI-*“MODEL”-*“Mounting”-*“DuRometer”*

**Vacuum Cup Durometers (“DR”) (Color equals Durometer (Shore A Scale))**

- **30**
  - This soft durometer is useful for dryer, contoured panels. However, this durometer has less life.

- **45**
  - This medium hard durometer will seal and adapt to contours well and is good for all around usage. This durometer has a longer life than the 30 durometer.

- **60**
  - This hard durometer is helpful for extremely oily panels and flat surfaces such as a destacker operation. This durometer has a longer life than the 45 durometer.

- **PU55/PU60**
  - This durable long-lasting polyurethane material is resistant to oils, UV light and oxygen. No dry rotting or cracking with better elastic memory.

- **=** Durometer not available in cup style.

**Imperial Vacuum Cup Mounting Options (“M”)**

- **K**
  - 1/4” NPT

- **B**
  - 3/8” NPT

- **C**
  - 1.25” SQUARE

- **D**
  - 1/2” NPT

- **U-18**
  - 1/8” NPT MALE

**Metric Vacuum Cup Mounting Options (“M”)**

- **A**
  - 1/4” G

- **B**
  - 3/8” G

- **C**
  - 1.25” SQUARE

- **M10**
  - M10 MALE

- **M8F**
  - M8 FEMALE

- **SB**
  - SMOOTH BORE

- **=** Mount only available in this cup size.

- **=** Mount not available in this cup size.

**Polyurethane Mounting Options (“M”)**

- **U38**
  - 3/8 NPT

- **P38**
  - Nylon G3/8

- **G38**
  - G3/8

- **C**
  - 1.25 in. Square

Dimensions and technical information are subject to change without notice.
ACCELERATE® COLLECTION VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

TC Polyurethane Round Bellows

TCT (triple durometer) style cup offers extra soft, 30 durometer, internal cushion (yellow) to eliminate possible dimples on thin sheet metal.

Specifications:
Temperature: 10°-49° C [50°-120° F]
Materials: Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green).

TC Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>30TC</td>
<td>30</td>
<td>14.5</td>
<td>9.5</td>
<td>28 g</td>
</tr>
<tr>
<td>40TC</td>
<td>45</td>
<td>17.5</td>
<td>10.5</td>
<td>34 g</td>
</tr>
<tr>
<td>60TC</td>
<td>61</td>
<td>21.5</td>
<td>11.5</td>
<td>61 g</td>
</tr>
<tr>
<td>80TC/80TCT</td>
<td>85</td>
<td>35.5</td>
<td>21.5</td>
<td>141 g</td>
</tr>
<tr>
<td>110TC/110TCT</td>
<td>115</td>
<td>51.5</td>
<td>30.5</td>
<td>275 g</td>
</tr>
</tbody>
</table>

Dimensions shown “[inch] mm”

TC Holding Capacity @ -0.6 bar vacuum

<table>
<thead>
<tr>
<th>Appl</th>
<th>Vert. Lift</th>
<th>Horz. Dry</th>
<th>Horz. Wet</th>
</tr>
</thead>
<tbody>
<tr>
<td>30TC</td>
<td>6</td>
<td>3</td>
<td>1.75</td>
</tr>
<tr>
<td>40TC</td>
<td>18</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>60TC</td>
<td>25</td>
<td>27</td>
<td>20</td>
</tr>
<tr>
<td>80TC/80TCT</td>
<td>53</td>
<td>54</td>
<td>36</td>
</tr>
<tr>
<td>110TC/110TCT</td>
<td>85</td>
<td>78</td>
<td>57</td>
</tr>
</tbody>
</table>

Dimensions shown “[lbs] kg”

TC Round Bellows Ordering Information

Metric
Ø30mm ................. VC-30TC-(M)-PU55
Ø45mm ................. VC-40TC-(M)-PU55
Ø61mm ................. VC-60TC-(M)-PU55
Ø85mm .................. VC-80TC-(M)-PU55
Ø85mm .................. VC-80TCT-(M)-PU55
Ø115mm ................ VC-110TC-(M)-PU55
Ø115mm ................ VC-110TCT-(M)-PU55

Mounting Options (“M”)

- U38: 3/8 NPT
- G38: G3/8
- P38: Nylon G3/8
- C: 1.25 in. Square

Dimensions and technical information are subject to change without notice.
Specifications:
Temperature: 10°-49° C [50°-120° F]
Materials: Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green).

**FF Polyurethane Round Flat**

**Dimensions**

- **Model**: 25FF, 35FF, 50FF, 75FF, 100FF, 125FF
- **A**: [0.98], 25, [0.57], [0.49], [0.36 oz], 10 g
- **B**: [1.38], 35, [0.61], [0.51], [1.48 oz], 42 g
- **C**: [1.97], 50, [0.26], [0.51], [2.36 oz], 67 g
- **D**: [2.95], 75, [0.77], [0.59], [3.21 oz], 91 g
- **E**: [3.94], 100, [0.96], [0.73], [6.06 oz], 172 g
- **F**: [4.92], 125, [1.20], [0.89], [9.88 oz], 280 g

**Holding Capacity @ -0.6 bar vacuum**

- **Model**: 25FF, 35FF, 50FF, 75FF, 100FF, 125FF
- **Appl. Vert. Lift Horz. Dry Horz. Wet**
  - 25FF: [6] 2.72 [2] 0.91 [1.5] 0.68
  - 100FF: [110] 49.90 [109] 49.44 46] 20.87

**Mounting Options ("M")**

- U38: 3/8 NPT
- G38: G3/8
- P38: Nylon G3/8
- C: 1.25 in. Square

Dimensions shown "[inch] mm"
ACCELERATE® COLLECTION VACUUM CUPS

Vacuum Products | Dimensions | Technical Specification

**DD Polyurethane Round Deepdish**

Specifications:
- **Temperature:** 10°-49°C [50°-120°F]
- **Materials:** 60 durometer (red)

**DD Round Deepdish Ordering Information**

<table>
<thead>
<tr>
<th>Metric</th>
<th>67.5mm</th>
<th>92.5mm</th>
<th>112.5mm</th>
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<tbody>
<tr>
<td>VC</td>
<td>VC-65DD-(M)-PU60</td>
<td>VC-90DD-(M)-PU60</td>
<td>VC-110DD-(M)-PU60</td>
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</table>

**DD Holding Capacity**

@ -0.9 bar [25.6 inhg] vacuum

<table>
<thead>
<tr>
<th>Model</th>
<th>Vert. Lift</th>
<th>Horz. Dry</th>
<th>Horz. Wet</th>
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<tbody>
<tr>
<td>65DD</td>
<td>[42.8]</td>
<td>[44.1]</td>
<td>[30.2]</td>
</tr>
<tr>
<td></td>
<td>19.4</td>
<td>20.0</td>
<td>13.7</td>
</tr>
<tr>
<td>90DD</td>
<td>[69.7]</td>
<td>[80.5]</td>
<td>[55.8]</td>
</tr>
<tr>
<td></td>
<td>31.6</td>
<td>36.5</td>
<td>25.3</td>
</tr>
<tr>
<td>110DD</td>
<td>[97.4]</td>
<td>[129.0]</td>
<td>[80.5]</td>
</tr>
<tr>
<td></td>
<td>44.2</td>
<td>58.5</td>
<td>36.5</td>
</tr>
</tbody>
</table>

Holding capacities shown “[lbs] kg”

**Mounting Options (“M”)**

- **U38**
  - 3/8 NPT
- **G38**
  - G3/8
- **P38**
  - Nylon G3/8
- **C**
  - 1.25 in. Square

**Dimensions and technical information are subject to change without notice**

Specifications:
Temperature: 10°-49° C [50°-120° F]
Materials: Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green).

Dimensions shown “[inch] mm”

Mounting Options ("M")

UC38
3/8 NPT
G3/8
Nylon G3/8
1.25 in. Square

ACCELERATE® COLLECTION VACUUM CUPS
Vacuum Products | Dimensions | Ordering Information

TC Polyurethane Oval Bellows

TC Holding Capacity @ -0.6 bar vacuum

<table>
<thead>
<tr>
<th>Model</th>
<th>Appl. Vert. Lift</th>
<th>Horz. Dry</th>
<th>Horz. Wet</th>
</tr>
</thead>
<tbody>
<tr>
<td>35-90TC</td>
<td>[45] 20.41</td>
<td>[40] 18.14</td>
<td>[34] 15.42</td>
</tr>
<tr>
<td>50-140TC</td>
<td>[99] 44.91</td>
<td>[93] 42.18</td>
<td>[78] 35.38</td>
</tr>
<tr>
<td>65-170TC</td>
<td>[128] 58.06</td>
<td>[139] 63.05</td>
<td>[149] 67.59</td>
</tr>
</tbody>
</table>

Holding capacities shown “[lbs] kg”

Dimensions and technical information are subject to change without notice
ACCELERATE® COLLECTION VACUUM CUPS
Vacuum Products | Dimensions | Ordering Information

**FF Polyurethane Oval Flat**

Specifications:
Temperature: 10°-49° C [50°-120° F]
Materials: Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green).

Positioning Kit (for G38 and P38 thread mounts only). Sold separately.
Order No. CPI-LNB-VSA-19
Includes (1) O-ring and (1) locknut.

---

**FF Dimensions**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-80FF</td>
<td>3.31</td>
<td>0.61</td>
<td>0.49</td>
<td>0.94</td>
<td>0.85 oz</td>
</tr>
<tr>
<td>30-90FF</td>
<td>3.66</td>
<td>0.61</td>
<td>0.45</td>
<td>1.30</td>
<td>1.05 oz</td>
</tr>
<tr>
<td>40-110FF</td>
<td>4.45</td>
<td>0.85</td>
<td>0.65</td>
<td>1.69</td>
<td>1.94 oz</td>
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</table>

Dimensions shown “[inch] mm”

**FF Holding Capacity @ -0.6 bar vacuum**

<table>
<thead>
<tr>
<th>Appl.</th>
<th>Vert. Lift</th>
<th>Horz. Dry</th>
<th>Horz. Wet</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-80FF</td>
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<td>11</td>
</tr>
<tr>
<td>30-90FF</td>
<td>35</td>
<td>36</td>
<td>17</td>
</tr>
<tr>
<td>40-110FF</td>
<td>55</td>
<td>52</td>
<td>18</td>
</tr>
</tbody>
</table>

Holding capacities shown “[lbs] kg”

---

**FF Oval Flat Ordering Information**

**Mounting Options (“M”)**

<table>
<thead>
<tr>
<th>Mount</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>U38/G38</td>
<td>0.57</td>
</tr>
<tr>
<td></td>
<td>14.5</td>
</tr>
<tr>
<td>P38</td>
<td>0.85</td>
</tr>
<tr>
<td></td>
<td>21.5</td>
</tr>
<tr>
<td>C</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>18.5</td>
</tr>
</tbody>
</table>

---

**Metric**

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø24x84mm</td>
<td>VC-20-80FF-(M)-PU55</td>
</tr>
<tr>
<td>Ø33x93mm</td>
<td>VC-30-90FF-(M)-PU55</td>
</tr>
<tr>
<td>Ø43x113mm</td>
<td>VC-40-110FF-(M)-PU55</td>
</tr>
</tbody>
</table>

---

Dimensions and technical information are subject to change without notice.
Specifications:
Temperature:
15-59 Sec: -20° to 250° F [-29° to 121° C]
1-5 min: 15° to 180° F [-9° to 82° C]
Material: Nitrile
Chemical Resistance:
Oil, water, grease, hydraulic fluid, alcohol

DC Destacker Stress Relieving Ordering Information

<table>
<thead>
<tr>
<th>DC Dimensions</th>
<th>DC Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
<td><strong>A</strong></td>
</tr>
<tr>
<td>75DC</td>
<td>84.8</td>
</tr>
<tr>
<td>[30DC]</td>
<td>3.34</td>
</tr>
<tr>
<td>100DC</td>
<td>105.9</td>
</tr>
<tr>
<td>[40DC]</td>
<td>4.16</td>
</tr>
</tbody>
</table>

Dimensions shown “mm [inch]”

Holding capacities shown “N [lbf]”

**DC** = Durometer
**M** = Mounts Available

Dimensions and technical information are subject to change without notice.
VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

**TC/HT Round Traction**

**Specifications:**
Temperature:
15-59 Sec: -29° to 121° C [-20° to 250° F]
1-5 min: -9° to 82° C [15° to 180° F]
Material: Nitrile
Chemical Resistance:
Oil, water, grease, hydraulic fluid, alcohol

**ACU INDEX**

**TC/HT Dimensions**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>20TC</td>
<td>[2.06]</td>
<td>[1.02]</td>
<td>[68]</td>
<td>[1.64]</td>
<td>[1.25]</td>
<td>[1.3 oz]</td>
</tr>
<tr>
<td>50HT</td>
<td>52.3</td>
<td>25.7</td>
<td>17.3</td>
<td>41.7</td>
<td>31.8</td>
<td>37 g</td>
</tr>
<tr>
<td>35TC</td>
<td>[3.50]</td>
<td>[1.71]</td>
<td>[82]</td>
<td>[2.50]</td>
<td>[1.65]</td>
<td>[2.6 oz]</td>
</tr>
<tr>
<td>90HT</td>
<td>88.9</td>
<td>43.44</td>
<td>20.8</td>
<td>63.5</td>
<td>41.9</td>
<td>73 g</td>
</tr>
<tr>
<td>45TC</td>
<td>[4.50]</td>
<td>[1.81]</td>
<td>[87]</td>
<td>[3.25]</td>
<td>[2.25]</td>
<td>[4.4 oz]</td>
</tr>
<tr>
<td>115HT</td>
<td>114.3</td>
<td>46.1</td>
<td>22.1</td>
<td>82.4</td>
<td>57.2</td>
<td>125 g</td>
</tr>
<tr>
<td>55TC</td>
<td>[5.50]</td>
<td>[1.81]</td>
<td>[87]</td>
<td>[4.00]</td>
<td>[3.04]</td>
<td>[7.2 oz]</td>
</tr>
<tr>
<td>140HT</td>
<td>139.7</td>
<td>46.1</td>
<td>22.1</td>
<td>101.4</td>
<td>77.1</td>
<td>204 g</td>
</tr>
</tbody>
</table>

Dimensions shown "mm [inch]"

**TC/HT Holding Capacity**

<table>
<thead>
<tr>
<th>Appl.</th>
<th>Hor. Dry</th>
<th>Hor. Wet</th>
<th>Ver. Lift</th>
</tr>
</thead>
<tbody>
<tr>
<td>20TC</td>
<td>[8.5 lb]</td>
<td>[7 lb]</td>
<td>[22.7 lb]</td>
</tr>
<tr>
<td>50HT</td>
<td>3.9 kg</td>
<td>3.2 kg</td>
<td>10.3 kg</td>
</tr>
<tr>
<td>35TC</td>
<td>[30 lb]</td>
<td>[20 lb]</td>
<td>[66 lb]</td>
</tr>
<tr>
<td>90HT</td>
<td>13.6 kg</td>
<td>9.1 kg</td>
<td>29.9 kg</td>
</tr>
<tr>
<td>45TC</td>
<td>[45 lb]</td>
<td>[30 lb]</td>
<td>[103 lb]</td>
</tr>
<tr>
<td>115HT</td>
<td>20.4 kg</td>
<td>13.6 kg</td>
<td>46.7 kg</td>
</tr>
<tr>
<td>55TC</td>
<td>[100 lb]</td>
<td>[45 lb]</td>
<td>[164 lb]</td>
</tr>
<tr>
<td>140HT</td>
<td>45.5 kg</td>
<td>20.4 kg</td>
<td>74.4 kg</td>
</tr>
</tbody>
</table>

Holding capacities shown "N [lbf]"

**TC/HT Round Traction Ordering Information**

Imperial

<table>
<thead>
<tr>
<th>Ø2.00&quot;</th>
<th>Ø3.50&quot;</th>
<th>Ø4.50&quot;</th>
<th>Ø5.50&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-20TC-(M)-(DR)</td>
<td>CPI-35TC-(M)-(DR)</td>
<td>CPI-45TC-(M)-(DR)</td>
<td>CPI-55TC-(M)-(DR)</td>
</tr>
</tbody>
</table>

(M) = Mounts Available

<BR><BR>

Metric

<table>
<thead>
<tr>
<th>Ø50mm</th>
<th>Ø90mm</th>
<th>Ø115mm</th>
<th>Ø140mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-50HT-(M)-(DR)</td>
<td>CPI-90HT-(M)-(DR)</td>
<td>CPI-115HT-(M)-(DR)</td>
<td>CPI-140HT-(M)-(DR)</td>
</tr>
</tbody>
</table>

(M) = Mounts Available

<BR><BR>

Dimensions and technical information are subject to change without notice.
Specifications:
Temperature:
15-59 Sec: -20° to 250° F [-29° to 121° C]
1-5 min: 15° to 180° F [-9° to 82° C]
Material: Nitrile
Chemical Resistance:
Oil, water, grease, hydraulic fluid, alcohol

Vacuum Products | Dimensions | Technical Specification

**FF/PF Round Flatfoot**

**Dimensions shown “mm [inch]”**

**FF/PF Vacuum Cup Capacities:**

<table>
<thead>
<tr>
<th>Appl.</th>
<th>Hor. Dry</th>
<th>Hor. Wet</th>
<th>Ver. Lift</th>
</tr>
</thead>
<tbody>
<tr>
<td>50PF</td>
<td>6.4 kg</td>
<td>2.7 kg</td>
<td>9.1 kg</td>
</tr>
<tr>
<td>[20FF]</td>
<td>[14 lb]</td>
<td>[6 lb]</td>
<td>[20 lb]</td>
</tr>
<tr>
<td>75PF</td>
<td>13.6 kg</td>
<td>5.9 kg</td>
<td>27.2 kg</td>
</tr>
<tr>
<td>[30FF]</td>
<td>[30 lb]</td>
<td>[13 lb]</td>
<td>[60 lb]</td>
</tr>
<tr>
<td>100PF</td>
<td>15.9 kg</td>
<td>9.1 kg</td>
<td>46.3 kg</td>
</tr>
<tr>
<td>[40FF]</td>
<td>[35 lb]</td>
<td>[20 lb]</td>
<td>[102 lb]</td>
</tr>
<tr>
<td>125PF</td>
<td>31.8 kg</td>
<td>25.8 kg</td>
<td>74.8 kg</td>
</tr>
<tr>
<td>[50FF]</td>
<td>[70 lb]</td>
<td>[55 lb]</td>
<td>[165 lb]</td>
</tr>
</tbody>
</table>

Holding capacities shown “N [lbf]”

**FF/PF Round Flatfoot Vacuum Cups Ordering Information**

**Imperial**
- Ø2.00" ..................... CPI-20FF-(M)-(DR)
- Ø3.50 ..................... CPI-30FF-(M)-(DR)
- Ø4.50 ..................... CPI-40FF-(M)-(DR)
- Ø5.50" .................... CPI-50FF-(M)-(DR)

(DR) = Durometer

30 45 60

(M) = Mounts Available

**Metric**
- Ø50mm ..................... CPI-50PF-(M)-(DR)
- Ø75mm ..................... CPI-75PF-(M)-(DR)
- Ø100mm .................. CPI-100PF-(M)-(DR)
- Ø125mm .................. CPI-125PF-(M)-(DR)

(DR) = Durometer

30 45 60

(M) = Mounts Available
VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

AC/BT Round Belcup

Specifications:
Temperature:
15-59 Sec: -20° to 250° F [-29° to 121° C]
1-5 min: 15° to 180° F [-9° to 82° C]
Material: Nitrile
Chemical Resistance:
Oil, water, grease, hydraulic fluid, alcohol

ACU INDEX

AC/BT Round Belcup

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>40BT</td>
<td>41.1</td>
<td>25.9</td>
<td>11.9</td>
<td>41.1</td>
<td>31.8</td>
<td>35 g</td>
</tr>
<tr>
<td>[15AC]</td>
<td>[1.62]</td>
<td>[1.02]</td>
<td>[0.47]</td>
<td>[1.63]</td>
<td>[1.25]</td>
<td>[1.2 oz]</td>
</tr>
<tr>
<td>50BT</td>
<td>57.4</td>
<td>37.4</td>
<td>18.3</td>
<td>57.9</td>
<td>38.1</td>
<td>57 g</td>
</tr>
<tr>
<td>[20AC]</td>
<td>[2.26]</td>
<td>[1.47]</td>
<td>[0.72]</td>
<td>[2.28]</td>
<td>[1.50]</td>
<td>[2.0 oz]</td>
</tr>
<tr>
<td>75BT</td>
<td>78.9</td>
<td>38.8</td>
<td>19.8</td>
<td>80.0</td>
<td>56.6</td>
<td>91 g</td>
</tr>
<tr>
<td>[30AC]</td>
<td>[3.11]</td>
<td>[1.53]</td>
<td>[0.78]</td>
<td>[3.15]</td>
<td>[2.23]</td>
<td>[3.2 oz]</td>
</tr>
<tr>
<td>100BT</td>
<td>102.4</td>
<td>37.8</td>
<td>18.6</td>
<td>101.6</td>
<td>72.6</td>
<td>159 g</td>
</tr>
<tr>
<td>[40AC]</td>
<td>[4.03]</td>
<td>[1.49]</td>
<td>[0.73]</td>
<td>[4.00]</td>
<td>[2.85]</td>
<td>[5.6 oz]</td>
</tr>
<tr>
<td>125BT</td>
<td>127.0</td>
<td>38.1</td>
<td>19.0</td>
<td>127.0</td>
<td>97.8</td>
<td>232 g</td>
</tr>
<tr>
<td>[50AC]</td>
<td>[5.00]</td>
<td>[1.50]</td>
<td>[0.75]</td>
<td>[5.00]</td>
<td>[3.85]</td>
<td>[8.2 oz]</td>
</tr>
</tbody>
</table>

Dimensions shown “mm [inch]”

AC/BT Vacuum Cup Capacities:

<table>
<thead>
<tr>
<th>Appl.</th>
<th>Hor. Dry</th>
<th>Hor. Wet</th>
<th>Ver. Lift</th>
</tr>
</thead>
<tbody>
<tr>
<td>40BT</td>
<td>2.7 kg</td>
<td>1.4 kg</td>
<td>3.6 kg</td>
</tr>
<tr>
<td>[15AC]</td>
<td>[6 lb]</td>
<td>[3 lb]</td>
<td>[8 lb]</td>
</tr>
<tr>
<td>50BT</td>
<td>3.9 kg</td>
<td>2.0 kg</td>
<td>11.8 kg</td>
</tr>
<tr>
<td>[20AC]</td>
<td>[8.5 lb]</td>
<td>[4.5 lb]</td>
<td>[26 lb]</td>
</tr>
<tr>
<td>75BT</td>
<td>5.4 kg</td>
<td>2.7 kg</td>
<td>25.4 kg</td>
</tr>
<tr>
<td>[30AC]</td>
<td>[12 lb]</td>
<td>[6 lb]</td>
<td>[56 lb]</td>
</tr>
<tr>
<td>100BT</td>
<td>15.0 kg</td>
<td>3.6 kg</td>
<td>40.4 kg</td>
</tr>
<tr>
<td>[40AC]</td>
<td>[33 lb]</td>
<td>[8 lb]</td>
<td>[89 lb]</td>
</tr>
<tr>
<td>125BT</td>
<td>24.0 kg</td>
<td>6.8 kg</td>
<td>62.6 kg</td>
</tr>
<tr>
<td>[50AC]</td>
<td>[53 lb]</td>
<td>[15 lb]</td>
<td>[138 lb]</td>
</tr>
</tbody>
</table>

Holding capacities shown “N [lbf]”

AC/BT Round Belcup Vacuum Cups Ordering Information

Imperial

Ø1.50"................. CPI-15AC-(M)-(DR)
Ø2.00"................. CPI-20AC-(M)-(DR)
Ø3.00"................. CPI-30AC-(M)-(DR)
Ø4.00"................. CPI-40AC-(M)-(DR)
Ø5.00"................. CPI-50AC-(M)-(DR)

(DR) = Durometer
(M) = Mounts Available

Metric

Ø40mm................. CPI-40BT-(M)-(DR)
Ø50mm................. CPI-50BT-(M)-(DR)
Ø75mm................. CPI-75BT-(M)-(DR)
Ø100mm.............. CPI-100BT-(M)-(DR)
Ø125mm.............. CPI-125BT-(M)-(DR)

(DR) = Durometer
(M) = Mounts Available
Specifications:

Temperature:
15-59 Sec: -20° to 250° F [-29° to 121° C]
1-5 min: 15° to 180° F [-9° to 82° C]

Material: Nitrile

Chemical Resistance:
Oil, water, grease, hydraulic fluid, alcohol

DD/DM Round Deepdish Vacuum Cups Ordering Information

### DD/DM Round Deepdish

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>50DM</td>
<td>50.8</td>
<td>29.1</td>
<td>18.3</td>
<td>38.1</td>
<td>40 g</td>
</tr>
<tr>
<td>[20DD]</td>
<td>[2.00]</td>
<td>[1.14]</td>
<td>[.72]</td>
<td>[.50]</td>
<td>[1.4 oz]</td>
</tr>
<tr>
<td>75DM</td>
<td>76.2</td>
<td>40.4</td>
<td>24.3</td>
<td>44.0</td>
<td>57 g</td>
</tr>
<tr>
<td>[30DD]</td>
<td>[3.00]</td>
<td>[1.59]</td>
<td>[.96]</td>
<td>[.73]</td>
<td>[2.0 oz]</td>
</tr>
<tr>
<td>100DM</td>
<td>101.6</td>
<td>44.5</td>
<td>20.8</td>
<td>44.5</td>
<td>96 g</td>
</tr>
<tr>
<td>[40DD]</td>
<td>[4.00]</td>
<td>[1.75]</td>
<td>[.82]</td>
<td>[.75]</td>
<td>[3.4 oz]</td>
</tr>
</tbody>
</table>

Dimensions shown "mm [inch]"

<table>
<thead>
<tr>
<th>Appliance</th>
<th>Hor. Dry</th>
<th>Hor. Wet</th>
<th>Ver. Lift</th>
</tr>
</thead>
<tbody>
<tr>
<td>50DM</td>
<td>4.1 kg</td>
<td>3.2 kg</td>
<td>5.4 kg</td>
</tr>
<tr>
<td>[20DD]</td>
<td>[9 lb]</td>
<td>[7 lb]</td>
<td>[12 lb]</td>
</tr>
<tr>
<td>75DM</td>
<td>6.4 kg</td>
<td>2.7 kg</td>
<td>9.1 kg</td>
</tr>
<tr>
<td>[30DD]</td>
<td>[14 lb]</td>
<td>[6 lb]</td>
<td>[20 lb]</td>
</tr>
<tr>
<td>100DM</td>
<td>11.3 kg</td>
<td>3.2 kg</td>
<td>15.8 kg</td>
</tr>
<tr>
<td>[40DD]</td>
<td>[25 lb]</td>
<td>[7 lb]</td>
<td>[35 lb]</td>
</tr>
</tbody>
</table>

Holding capacities shown "N [lbf]"

DD/DM Vacuum Cup Capacities:

<table>
<thead>
<tr>
<th>Model</th>
<th>Ø50mm</th>
<th>Ø75mm</th>
<th>Ø100mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>(M)</td>
<td>CPI-50DM-(M)-(DR)</td>
<td>CPI-75DM-(M)-(DR)</td>
<td>CPI-100DM-(M)-(DR)</td>
</tr>
</tbody>
</table>

(DR) = Durometer

(M) = Mounts Available

Dimensions and technical information are subject to change without notice
VACUUM CUPS
Vacuum Products | Dimensions | Ordering Information

FF/PF Oval FlatFoot

Specifications:
Temperature:
15-59 Sec: -20° to 250° F [-29° to 121° C]
1-5 min: 15° to 180° F [-9° to 82° C]
Material: Nitrile
Chemical Resistance:
Oil, water, grease, hydraulic fluid, alcohol

Dimensions shown "mm [inch]"

Holding capacities shown “N [lbf]”

FF/PF Oval FlatFoot Vacuum Cups Ordering Information

Imperial

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-75PF</td>
<td>76.2</td>
<td>22.3</td>
<td>16.2</td>
<td>38.1</td>
<td>22.2</td>
<td>60.3</td>
<td>35 g</td>
</tr>
<tr>
<td>[153FF]</td>
<td>[3.00]</td>
<td>[.88]</td>
<td>[.64]</td>
<td>[.150]</td>
<td>[.88]</td>
<td>[2.37]</td>
<td>[1.2 oz]</td>
</tr>
<tr>
<td>50-100PF</td>
<td>101.6</td>
<td>23.8</td>
<td>16.2</td>
<td>50.8</td>
<td>22.2</td>
<td>73.0</td>
<td>119 g</td>
</tr>
<tr>
<td>[24FF]</td>
<td>[4.00]</td>
<td>[.94]</td>
<td>[.64]</td>
<td>[2.00]</td>
<td>[.88]</td>
<td>[2.88]</td>
<td>[4.2 oz]</td>
</tr>
<tr>
<td>60-125PF</td>
<td>127.0</td>
<td>22.3</td>
<td>16.2</td>
<td>63.5</td>
<td>22.2</td>
<td>85.7</td>
<td>147 g</td>
</tr>
<tr>
<td>[255FF]</td>
<td>[5.00]</td>
<td>[.88]</td>
<td>[.64]</td>
<td>[2.50]</td>
<td>[.88]</td>
<td>[3.38]</td>
<td>[5.2 oz]</td>
</tr>
<tr>
<td>75-150PF</td>
<td>152.9</td>
<td>25.4</td>
<td>18.3</td>
<td>76.2</td>
<td>38.1</td>
<td>114.3</td>
<td>201 g</td>
</tr>
<tr>
<td>[36FF]</td>
<td>[6.00]</td>
<td>[1.00]</td>
<td>[.72]</td>
<td>[3.00]</td>
<td>[1.50]</td>
<td>[4.50]</td>
<td>[7.1 oz]</td>
</tr>
</tbody>
</table>

(DR) = Durometer
(M) = Mounts Available

Metric

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 x 75mm</td>
<td>255</td>
<td>125</td>
<td>50</td>
<td>100</td>
<td>24.9</td>
<td>4.1 kg</td>
<td>32.7 kg</td>
</tr>
<tr>
<td>50 x 100mm</td>
<td>255</td>
<td>125</td>
<td>50</td>
<td>100</td>
<td>24.9</td>
<td>4.1 kg</td>
<td>32.7 kg</td>
</tr>
<tr>
<td>60 x 125mm</td>
<td>255</td>
<td>125</td>
<td>50</td>
<td>100</td>
<td>24.9</td>
<td>4.1 kg</td>
<td>32.7 kg</td>
</tr>
<tr>
<td>75 x 150mm</td>
<td>255</td>
<td>125</td>
<td>50</td>
<td>100</td>
<td>24.9</td>
<td>4.1 kg</td>
<td>32.7 kg</td>
</tr>
</tbody>
</table>

(DR) = Durometer
(M) = Mounts Available

Dimensions and technical information are subject to change without notice
Specifications:
Temperature:
15-59 Sec: -20° to 250° F [-29° to 121° C]
1-5 min: 15° to 180° F [-9° to 82° C]
Material: Nitrile
Chemical Resistance:
Oil, water, grease, hydraulic fluid, alcohol

**DD/DM** Oval Deepdish Vacuum Cups

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-125DM</td>
<td>128.7</td>
<td>17.1</td>
<td>8.7</td>
<td>27.0</td>
<td>12.9</td>
<td>114.5</td>
<td>35 g</td>
</tr>
<tr>
<td>[15DD]</td>
<td>[5.06]</td>
<td>[.67]</td>
<td>[.34]</td>
<td>[1.06]</td>
<td>[.51]</td>
<td>[4.51]</td>
<td>[1.2 oz]</td>
</tr>
<tr>
<td>75-150DM</td>
<td>155.8</td>
<td>36.7</td>
<td>16.5</td>
<td>79.6</td>
<td>39.7</td>
<td>118.4</td>
<td>201 g</td>
</tr>
<tr>
<td>[36DD]</td>
<td>[6.13]</td>
<td>[1.44]</td>
<td>[.65]</td>
<td>[3.13]</td>
<td>[1.56]</td>
<td>[4.65]</td>
<td>[7.1 oz]</td>
</tr>
</tbody>
</table>

Dimensions shown “mm [inch]”

**DD/DM** Vacuum Cup Capacities:

<table>
<thead>
<tr>
<th>Appl.</th>
<th>Hor. Dry</th>
<th>Hor. Wet</th>
<th>Ver. Lift</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-125DM</td>
<td>[10.0 kg]</td>
<td>[3.2 kg]</td>
<td>[15.9 kg]</td>
</tr>
<tr>
<td>[15DD]</td>
<td>[22 lb]</td>
<td>[7 lb]</td>
<td>[35 lb]</td>
</tr>
<tr>
<td>75-150DM</td>
<td>[24.9 kg]</td>
<td>[10.4 kg]</td>
<td>[63.1 kg]</td>
</tr>
<tr>
<td>[36DD]</td>
<td>[55 lb]</td>
<td>[23 lb]</td>
<td>[139 lb]</td>
</tr>
</tbody>
</table>

Holding capacities shown “N [lbf]”

Imperial

1.00” x 5.00” .... CPI-15DD-(M)-(45)
3.00” x 6.00” .... CPI-36DD-(M)-(45)

Metric

25 x 125mm ...... CPI-25-125DM-(M)-(45)
75 x 150mm ...... CPI-75-150DM-(M)-(45)
**HOT FORMING VACUUM CUPS**

Vacuum Products | Dimensions | Ordering Information

**MFF Round Flat**

**Specifications:**
- **Temperature:** Resistant up to 250° C [482° F] (sheet metal temperature)
- **Material:** Silicone free HT2
- **Chemical Resistance:** Oil, water, grease, hydraulic fluid, alcohol

**MFF Dimensions**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>30MFF</td>
<td>[1.34]</td>
<td>34</td>
<td>1.42</td>
<td>36</td>
<td>1.30</td>
<td>9</td>
</tr>
<tr>
<td>40MFF</td>
<td>[1.81]</td>
<td>46</td>
<td>1.50</td>
<td>38</td>
<td>1.34</td>
<td>9</td>
</tr>
<tr>
<td>50MFF</td>
<td>[2.20]</td>
<td>56</td>
<td>1.10</td>
<td>28</td>
<td>0.91</td>
<td>15</td>
</tr>
<tr>
<td>60MFF</td>
<td>[2.64]</td>
<td>67</td>
<td>1.22</td>
<td>31</td>
<td>0.98</td>
<td>25</td>
</tr>
</tbody>
</table>

Dimensions shown "mm [inch]"

**MFF Holding Capacity @ -0.6 bar vacuum**

<table>
<thead>
<tr>
<th>Appl.</th>
<th>Vert. Lift</th>
<th>Horz. Dry</th>
<th>Horz. Wet</th>
</tr>
</thead>
<tbody>
<tr>
<td>50MFF</td>
<td>[22.5] 100</td>
<td>[18.0] 80</td>
<td>[17.1] 76</td>
</tr>
</tbody>
</table>

Holding capacities shown "N [lbf]"

**MFF Round Flat Ordering Information**

- Ø30mm .................. CPI-30MFF-B-HT
- Ø40mm .................. CPI-40MFF-B-HT
- Ø50mm .................. CPI-50MFF-B-HT
- Ø60mm .................. CPI-60MFF-B-HT

Dimensions and technical information are subject to change without notice
Specifications:
Temperature:
Resistant up to 250°C [482°F] (sheet metal temperature)
Material: Silicone free HT2
Chemical Resistance:
Oil, water, grease, hydraulic fluid, alcohol

MTC Round Bellows Ordering Information

Metric
Ø22mm ..................... CPI-22MTC-B-HT
Ø30mm ..................... CPI-30MTC-B-HT
Ø40mm ..................... CPI-40MTC-B-HT
Ø50mm ..................... CPI-50MTC-B-HT
Ø60mm ..................... CPI-60MTC-B-HT

Dimensions and technical information are subject to change without notice
**HOT FORMING VACUUM CUPS**

Vacuum Products | Dimensions | Ordering Information

**MFF Oval Flat**

**Specifications:**
- **Temperature:** Resistant up to 250° C [482° F] (sheet metal temperature)
- **Material:** Silicone free HT2
- **Chemical Resistance:** Oil, water, grease, hydraulic fluid, alcohol

**MFF Dimensions**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>6023MFF</td>
<td>2.52</td>
<td>64</td>
<td>1.02</td>
<td>0.91</td>
<td>0.98</td>
<td>0.24</td>
</tr>
<tr>
<td>9030MFF</td>
<td>3.70</td>
<td>94</td>
<td>1.06</td>
<td>0.94</td>
<td>1.34</td>
<td>0.24</td>
</tr>
<tr>
<td>8040MFF</td>
<td>3.35</td>
<td>85</td>
<td>1.10</td>
<td>0.94</td>
<td>1.69</td>
<td>0.24</td>
</tr>
<tr>
<td>10050MFF</td>
<td>4.17</td>
<td>106</td>
<td>1.22</td>
<td>1.02</td>
<td>2.13</td>
<td>0.31</td>
</tr>
</tbody>
</table>

Dimensions shown "mm [inch]"

**MFF Holding Capacity @ -0.6 bar vacuum**

<table>
<thead>
<tr>
<th>Appl.</th>
<th>Vert. Lift</th>
<th>Horz. Dry</th>
<th>Horz. Wet</th>
</tr>
</thead>
<tbody>
<tr>
<td>6023MFF</td>
<td>12.8</td>
<td>8.3</td>
<td>7.4</td>
</tr>
<tr>
<td>9030MFF</td>
<td>27.4</td>
<td>21.6</td>
<td>14.4</td>
</tr>
<tr>
<td>8040MFF</td>
<td>31.5</td>
<td>24.7</td>
<td>22.5</td>
</tr>
<tr>
<td>10050MFF</td>
<td>48.8</td>
<td>40.7</td>
<td>27.2</td>
</tr>
</tbody>
</table>

Holding capacities shown "N [lbf]"

**MFF Oval Flat Ordering Information**

**Metric**
- Ø60x23mm ................. CPI-6023MFF-B-HT
- Ø90x30mm ................. CPI-9030MFF-B-HT
- Ø80x40mm ................. CPI-8040MFF-B-HT
- Ø100x50mm ............... CPI-10050MFF-B-HT

Dimensions and technical information are subject to change without notice.
Specifications:
Temperature:
Resistant up to 250°C [482°F]  
(sheet metal temperature)
Material: Silicone free HT2
Chemical Resistance:
Oil, water, grease, hydraulic fluid, alcohol

MAC Oval Bellows Ordering Information

Metric
Ø60x30mm .................. CPI-6030MAC-B-HT
Ø80x40mm .................. CPI-8040MAC-B-HT

Dimensions and technical information are subject to change without notice
**VC-F Round Flat**

Applications:
- Relatively flat surfaces.
- Dry to moderate oily/slippery surfaces.
- Low Compression distances.
- Higher precision applications.

**Specifications:**
- Material Operating Temperature:
  - Viton: -40° to 450° F [-40° to 232° C]
  - Silicone: -100° to 400° F [-73° to 204.4° C]
  - Nitrile: -40° to 275° F [-40° to 135° C]
- Durometer: A50

**Applications:**
- Silicone: Extremely hot or cold environments
- Viton: Hi-Temp Applications where silicon is not allowed
- Nitrile: General Purpose

**VC-F Round Flag Ordering Information**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>CUP WT</th>
<th>LOAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>VC-F15</td>
<td>16.5</td>
<td>11.4</td>
<td>10.4</td>
<td>3.4 g</td>
<td>.85 kg</td>
</tr>
<tr>
<td></td>
<td>[.65]</td>
<td>[.45]</td>
<td>[.41]</td>
<td>[.11 oz]</td>
<td>[1.88 lb]</td>
</tr>
<tr>
<td>VC-F20</td>
<td>22.1</td>
<td>8.6</td>
<td>7.1</td>
<td>7.8 g</td>
<td>1.47 kg</td>
</tr>
<tr>
<td></td>
<td>[.87]</td>
<td>[.34]</td>
<td>[.28]</td>
<td>[.25 oz]</td>
<td>[3.25 lb]</td>
</tr>
<tr>
<td>VC-F30</td>
<td>32.0</td>
<td>10.4</td>
<td>8.1</td>
<td>6.2 g</td>
<td>2.55 kg</td>
</tr>
<tr>
<td></td>
<td>[.126]</td>
<td>[.41]</td>
<td>[.32]</td>
<td>[.20 oz]</td>
<td>[5.63 lb]</td>
</tr>
<tr>
<td>VC-F40</td>
<td>42.2</td>
<td>14.0</td>
<td>11.4</td>
<td>11.8 g</td>
<td>4.08 kg</td>
</tr>
<tr>
<td></td>
<td>[.166]</td>
<td>[.55]</td>
<td>[.45]</td>
<td>[.38 oz]</td>
<td>[9.00 lb]</td>
</tr>
<tr>
<td>VC-F50</td>
<td>53.1</td>
<td>17.5</td>
<td>14.5</td>
<td>19.6 g</td>
<td>7.54 kg</td>
</tr>
<tr>
<td></td>
<td>[.208]</td>
<td>[.69]</td>
<td>[.57]</td>
<td>[.63 oz]</td>
<td>[16.6 lb]</td>
</tr>
</tbody>
</table>

**Dimensions and technical information are subject to change without notice**
Applications:
- Moderately flat surfaces.
- Best performance on dry surfaces.
- Moderate compression distance.
- Bellows allows for minor misalignments.

Specifications:
Material Operating Temperature:
- Viton: -40° to 450° F [-40° to 232° C]
- Silicone: -100° to 400° F [-73° to 204.4° C]
- Nitrile: -40° to 275° F [-40° to 135° C]
Durometer: A50

<table>
<thead>
<tr>
<th>Thread (T)</th>
<th>(F)</th>
<th>(G)</th>
<th>(H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10M (M5)</td>
<td>5.1</td>
<td>4.1</td>
<td>7.9</td>
</tr>
<tr>
<td>(10-32 MALE)</td>
<td>[.20]</td>
<td>[.16]</td>
<td>[.31]</td>
</tr>
<tr>
<td>18M (G1/8)</td>
<td>2.8</td>
<td>5.8</td>
<td>14.2</td>
</tr>
<tr>
<td>(MALE)</td>
<td>[.11]</td>
<td>[.23]</td>
<td>[.56]</td>
</tr>
<tr>
<td>18F (G1/8)</td>
<td>9.9</td>
<td>6.4</td>
<td>14.2</td>
</tr>
<tr>
<td>(FEMALE)</td>
<td>[.39]</td>
<td>[.25]</td>
<td>[.56]</td>
</tr>
</tbody>
</table>

VC-B Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Cup Wt</th>
<th>Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>VC-B05</td>
<td>5.6</td>
<td>9.1</td>
<td>7.6</td>
<td>6.1</td>
<td>5.8 g</td>
<td>.04 kg</td>
</tr>
<tr>
<td>VC-B10</td>
<td>10.9</td>
<td>16.0</td>
<td>11.4</td>
<td>12.2</td>
<td>3.4 g</td>
<td>.39 kg</td>
</tr>
<tr>
<td>VC-B15</td>
<td>16.0</td>
<td>19.8</td>
<td>13.2</td>
<td>17.5</td>
<td>3.7 g</td>
<td>.57 kg</td>
</tr>
<tr>
<td>VC-B20</td>
<td>22.4</td>
<td>17.5</td>
<td>7.6</td>
<td>23.9</td>
<td>6.2 g</td>
<td>1.02 kg</td>
</tr>
<tr>
<td>VC-B30</td>
<td>34.0</td>
<td>26.4</td>
<td>11.4</td>
<td>36.3</td>
<td>11.5 g</td>
<td>2.21 kg</td>
</tr>
<tr>
<td>VC-B40</td>
<td>42.9</td>
<td>27.4</td>
<td>12.4</td>
<td>46.2</td>
<td>18.7 g</td>
<td>3.97 kg</td>
</tr>
<tr>
<td>VC-B50</td>
<td>52.8</td>
<td>34.5</td>
<td>14.5</td>
<td>59.4</td>
<td>30.5 g</td>
<td>6.63 kg</td>
</tr>
</tbody>
</table>

VC-B Micro Series Round Multi-Bellows Ordering Information

| Ø05mm | VC-B05(DR)-(M) |
| Ø10mm | VC-B10(DR)-(M) |
| Ø15mm | VC-B15(DR)-(M) |
| Ø20mm | VC-B20(DR)-(M) |
| Ø30mm | VC-B30(DR)-(M) |
| Ø40mm | VC-B40(DR)-(M) |
| Ø50mm | VC-B50(DR)-(M) |

(DR) = Durometer/Material

<table>
<thead>
<tr>
<th>(M)</th>
<th>Mounts Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>10M</td>
<td>18M</td>
</tr>
</tbody>
</table>

Only Available in Ø5, Ø10, Ø15, Ø20mm

Dimensions and technical information are subject to change without notice.
**Micro Series Vacuum Cups**

Vacuum Products | Dimensions | Ordering Information

**VC-BM** Micro Series Round Multi-Bellows

Applications:
- Angled/curved/bumpy surfaces.
- Best performance on dry surfaces.
- Higher compression distance.
  (Reach in Box)
- Bellows allow for minor
- Provides Partial extraction.

Specifications:
- **Material Operating Temperature:**
  - Viton: -40° to 450° F
  - [-40° to 232° C]
  - Silicone: -100° to 400° F
  - [-73° to 204.4° C]
  - Nitrile: -40° to 275° F
  - [-40° to 135° C]
  - Durometer: A50

---

**VC-BM Dimensions**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Cup Wt</th>
<th>Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>VC-BM20</td>
<td>20.1</td>
<td>21.9</td>
<td>8.9</td>
<td>5.3 g</td>
<td>.68 kg</td>
</tr>
<tr>
<td></td>
<td>[.79]</td>
<td>[.86]</td>
<td>[.35]</td>
<td>[17 oz]</td>
<td>[1.50 lb]</td>
</tr>
<tr>
<td>VC-BM30</td>
<td>30.0</td>
<td>30.7</td>
<td>10.7</td>
<td>10.3 g</td>
<td>1.64 kg</td>
</tr>
<tr>
<td></td>
<td>[.18]</td>
<td>[.21]</td>
<td>[.42]</td>
<td>[.33 oz]</td>
<td>[3.63 lb]</td>
</tr>
<tr>
<td>VC-BM40</td>
<td>39.8</td>
<td>40.9</td>
<td>12.9</td>
<td>19.6 g</td>
<td>2.21 kg</td>
</tr>
<tr>
<td></td>
<td>[.57]</td>
<td>[.61]</td>
<td>[.51]</td>
<td>[.63 oz]</td>
<td>[4.88 lb]</td>
</tr>
<tr>
<td>VC-BM50</td>
<td>50.0</td>
<td>51.1</td>
<td>23.1</td>
<td>32.7 g</td>
<td>4.37 kg</td>
</tr>
<tr>
<td></td>
<td>[.97]</td>
<td>[.01]</td>
<td>[.91]</td>
<td>[1.05 oz]</td>
<td>[9.63 lb]</td>
</tr>
</tbody>
</table>

---

**VC-BM Micro Fitting Threads**

<table>
<thead>
<tr>
<th>Thread (T)</th>
<th>(F)</th>
<th>(G)</th>
<th>(H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10M (M5) (10-32 MALE)</td>
<td>5.1 [.20]</td>
<td>4.1 [.16]</td>
<td>7.9 [.31]</td>
</tr>
<tr>
<td>18M (G1/8) (MALE)</td>
<td>2.8 [.11]</td>
<td>5.8 [.23]</td>
<td>14.2 [.56]</td>
</tr>
<tr>
<td>18F (G1/8) (FEMALE)</td>
<td>9.9 [.39]</td>
<td>6.4 [.25]</td>
<td>14.2 [.56]</td>
</tr>
</tbody>
</table>

---

**ACU INDEX**

(DR) = Durometer/Material

S | Silicone Extremely hot or cold environments
N | Nitrile General Purpose

**Applications**
- Provides Partial extraction.
- Bellows allow for minor
- Provides Partial extraction.
- Higher compression distance.
  (Reach in Box)

**Dimensions and technical information are subject to change without notice**

---

**VC-BM Micro Series Round Multi-Bellows Ordering Information**

Ø20mm | VC-BM20(DR)-(M)
Ø30mm | VC-BM30(DR)-(M)
Ø40mm | VC-BM40(DR)-(M)
Ø50mm | VC-BM50(DR)-(M)

(DR) = Durometer/Material

(M) = Mounts Available

10M 18M 18F

Only Available in Ø20mm
### Features:
- Provides instantaneous pick up and release without electricity.
- Maintains positive hold, even if air pressure is lost.
- Supplied with urethane pad which softens the impact of the magnet and avoids marring or damage to delicate surfaces.

### Benefits:
- NPT mount allows retrofit to existing assemblies.

### Specifications:
- **Recommended Operating Pressure:**
  - 2.4 bar [35 psi]
- **Port:** 3/8” NPT Compressed Air Port
- **Material:** Machined, Anodized Aluminum, Urethane Pad (50 durometer - low skid)

### TPLP Mag-Lift Part Lifting Magnets

#### TPLP 1.50” Diameter Mag-Lift Magnet - CPI-TPLP15RB - Capacities

<table>
<thead>
<tr>
<th>Gage Of Steel (Ferrous Only)</th>
<th>26 GA (0.018”)</th>
<th>22 GA (0.030”)</th>
<th>16 GA (0.050”)</th>
<th>12 GA (0.100”)</th>
<th>3/16” (0.187”)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Pad</td>
<td>3.18 kg [7.0 lb]</td>
<td>4.08 kg [9.0 lb]</td>
<td>4.54 kg [10.0 lb]</td>
<td>4.54 kg [10.0 lb]</td>
<td>4.54 kg [10.0 lb]</td>
<td>136g [5 oz]</td>
</tr>
</tbody>
</table>

#### TPLP 3.00” Diameter Mag-Lift Magnet - CPI-TPLP50373 - Capacities

<table>
<thead>
<tr>
<th>Gage Of Steel (Ferrous Only)</th>
<th>26 GA (0.018”)</th>
<th>22 GA (0.030”)</th>
<th>16 GA (0.050”)</th>
<th>12 GA (0.100”)</th>
<th>3/16” (0.187”)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Pad</td>
<td>8.62 kg [19.0 lb]</td>
<td>13.61 kg [30.0 lb]</td>
<td>19.96 kg [44.0 lb]</td>
<td>19.96 kg [44.0 lb]</td>
<td>20.87 kg [46.0 lb]</td>
<td>363g [13 oz]</td>
</tr>
<tr>
<td>Without Pad</td>
<td>9.53 kg [21.0 lb]</td>
<td>14.97 kg [33.0 lb]</td>
<td>26.76 kg [60.0 lb]</td>
<td>27.22 kg [60.0 lb]</td>
<td>29.03 kg [64.0 lb]</td>
<td>363g [13 oz]</td>
</tr>
</tbody>
</table>

### Note:
The minimum air pressure required for the Mag-Lift to release parts is 25 psi. The suggested air pressure for normal operation is 35 psi. If parts do not release immediately, increase the air pressure in 5 psi increments until the part releases. Do not exceed 60 psi. Air pressure should be measured at the inlet of the Mag-Lift to ensure effective operation.
EcoCup™ creates vacuum without AIR!

Great for pick-and-place applications of flat, rigid, non-porous parts including: plastic, glass, solar panels, and electronics, as well as other consumer goods with smooth, flat surfaces.

The EcoCup™ features:
- Light-switch operation
- Ultra-fast actuation
- Noise-free operation
- Easy installation and setup
- Reduced maintenance costs
- Easy optional mounting to Scara robots
- Eliminated risk of air-borne contaminants

EcoCup™ EC40 Electric Vacuum Cup Assembly

Specifications VC-EC40-45N
- Actuation Time: 25 ms
- Temperature Range: 5° ~ 60°C [41° ~ 140°F]
- Duty Cycle: 50% (½ On, ½ Off)
- Voltage: 24 VDC
- Current: 0.5 Amp
- Weight: 0.12 kg [0.25 lb]
- Cup Material: 45 Durometer Nitrile

Operating Instructions:
1. Set cup on smooth, flat surface of part.
2. Apply 24VDC to Pins 3 and 4 on M12 connector. (Center of cup lifts, creating vacuum)
3. Release voltage and part is released.

No fittings, no valves, no hoses, no compressor, and absolutely no AIR!
**EcoCup™ EC40** Electric Vacuum Cup Assembly

**EcoCup™ EC40 Optional Apple Core Mounting**

**EcoCup™ EC40 M12 4-Pin Connector with Rotating Coupling**

(Contact DESTACO for Custom Solutions)

**Turck #FKM 4.4-0.5**

14g [0.5 oz.]
ARV AND VSA SERIES VENTURIES

Vacuum Products | Features and Specification

**ARV® Series Auto-Release Venturi Cup Mount**

**Requiring (1) air line, (1) valve:**
Offers integrated automatic quick panel release and exhaust silencer in one part. Mounting options include right or left hand apple core mounting or no apple core mount for use with DESTACO’s spring cup mounts. The ARV® Series is also available in a block style for remote mounting and each mount can be ordered with Imperial or Metric ports.

![](image)

**VSA Series Venturi Cup Mount**

Blow-off typically requires two air lines and multiple valves. The VSA series offers a low-profile version as shown. Additional options includes silencer and sensor port options. Mounting threads can also be ordered in Imperial or Metric ports.

*We also offers PA Series cup mounts.*

**ARV® Performance:**

<table>
<thead>
<tr>
<th>Vacuum Level (bar [in. Hg])</th>
<th>Supply Pressure (bar [psi])</th>
</tr>
</thead>
<tbody>
<tr>
<td>-9.4</td>
<td>3.4</td>
</tr>
<tr>
<td>-9.1</td>
<td>3.8</td>
</tr>
<tr>
<td>-9.0</td>
<td>4.1</td>
</tr>
<tr>
<td>-8.8</td>
<td>4.5</td>
</tr>
<tr>
<td>-8.6</td>
<td>4.8</td>
</tr>
<tr>
<td>-8.4</td>
<td>5.2</td>
</tr>
<tr>
<td>-8.1</td>
<td>5.5</td>
</tr>
</tbody>
</table>

**Specifications @ 4 bar [60psi]:**
- Speed to Vacuum: 0.2-0.3 seconds
- Speed to Release: 0.02 seconds
- Air Consumption:
  - Vacuum: 40 l/m [1.4 scfm]
  - Blow-off: 0
- Noise Level (at one meter): 68dBA
- Material: Aluminum

**VSA Performance:**

<table>
<thead>
<tr>
<th>Vacuum Level (bar [in. Hg])</th>
<th>Supply Pressure (bar [psi])</th>
</tr>
</thead>
<tbody>
<tr>
<td>-9.4</td>
<td>3.4</td>
</tr>
<tr>
<td>-9.1</td>
<td>3.8</td>
</tr>
<tr>
<td>-9.0</td>
<td>4.1</td>
</tr>
<tr>
<td>-8.8</td>
<td>4.5</td>
</tr>
<tr>
<td>-8.6</td>
<td>4.8</td>
</tr>
<tr>
<td>-8.4</td>
<td>5.2</td>
</tr>
<tr>
<td>-8.1</td>
<td>5.5</td>
</tr>
</tbody>
</table>

**Specifications @ 4 bar [60psi]:**
- Speed to Vacuum: .36 seconds
- Speed to Release: 0.08 seconds
- Air Consumption:
  - Vacuum: 40 l/m [1.4 scfm]
  - Blow-off: 2.6 liters [0.09 ft³]
  (156 l/m [5.5 scfm] @ 1 sec. duration)
- Noise Level (At one meter):
  - Inline to exhaust: 76dBA
  - Inline to exhaust with Silencer: 68dBA
- Material: Aluminum

Dimensions and technical information are subject to change without notice
ARV SERIES VENTURIES
Vacuum Products | Dimensions | Ordering Information

Venturi Style Vacuum Generator Cup Mounts

ARV® Block Style Dimensions and Ordering Information

US Patents #7,540,309 - 7,681,603 - 7,950,422

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>B</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-VSA-ARV(R/L)-B112-(X)</td>
<td>[1.85] 47.1</td>
<td>0</td>
<td>[1.13] 28.5</td>
<td>[0.28 lb] 126g</td>
</tr>
<tr>
<td>CPI-VSA-ARV(R/L)-B32-(X)</td>
<td>[1.93] 49</td>
<td>[0.12] 3.2</td>
<td>[1.26] 32</td>
<td>[0.30 lb] 134g</td>
</tr>
</tbody>
</table>

B112-01
28.58mm ball only
B112-32-01
32mm ball only

Block Style
CPI-VSA-ARV-312-(X)
(X) = Vacuum Port Thread
U38 = 3/8" NPT Female
G38 = 3/8" G Female

Weight
104g [0.23lb]
**MICRO TOOLING VENTURI**

Vacuum Products | Dimensions | Technical Specification

**VSA 500 Series MicroTool Apple Core**

**Features:**
- MicroTool sized venturi.
- 1/8 NPT, 1/8 G Ports.

**Benefits:**
- Small and lightweight.
- Convenient mounts for most small vacuum cups.

---

**500 Series Venturi MicroTool - CPI-VSA-500-“A”**

<table>
<thead>
<tr>
<th>Description</th>
<th>Port A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female 1/8&quot; NPT to Female 1/8&quot; NPT</td>
<td>F18</td>
</tr>
<tr>
<td>Female 1/8&quot; NPT to Male 1/8&quot; NPT</td>
<td>M18</td>
</tr>
</tbody>
</table>

Weight
57g [2 oz.]

Dimensions and technical information are subject to change without notice.
VSA SERIES VENTURIES

Vacuum Products | Dimensions | Technical Specification

VSA Low-Profile 750/19 Series Apple-Core with Blow-Off

Features:
- Low profile construction.
- Integrated blow-off.
- Optional vacuum sensing port.
- Optional exhaust silencer.
- Imperial or Metric ports.

Benefits:
- Lower tool profile to fit in smaller spaces.
- Quick release of panels.
- Vacuum level or part present sensing.
- Quiet operation.

Low-Profile 750/19 w/ Blow Off No Options
CPI-VSA-(X)-BO-LP

Low-Profile 750/19 with Blow Off with Detector Option
CPI-VSA-(X)-BO-LP-DET

Low-Profile 750/19 with Blow Off with “VS” Option
CPI-VSA-(X)-BO-LP-VS

For Silencer Option; add “ST2” to the end of order code (as shown). CPI-VSA-(X)-BO-LP-VS-ST2

Weight
170g [6 oz.]

VS/DET Thread
DET = M5
VS = 1/8 NPT

VSA Series Venturie
Low Profile 750/19 Series w/blow-off - CPI-VSA-(X)-BO-LP

<table>
<thead>
<tr>
<th>Version</th>
<th>Mount Thread “M”</th>
<th>Vacuum Port “V”</th>
<th>(X)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric</td>
<td>3/8&quot; G Male</td>
<td>1/4&quot; G</td>
<td>19</td>
</tr>
<tr>
<td>Imperial</td>
<td>3/8&quot; NPT Male</td>
<td>1/4&quot; NPT</td>
<td>750</td>
</tr>
</tbody>
</table>
ACCELERATE® PORT ONLY ADAPTORS
Vacuum Products | Dimensions | Technical Specification

PA Series

Apple Core Mount

```
<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>ØD</th>
<th>P</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-19M-G38-A</td>
<td>1.46</td>
<td>0.75</td>
<td>G</td>
<td>0.77 lb</td>
</tr>
<tr>
<td>PA-19M-U38-A</td>
<td>1.34</td>
<td>0.79</td>
<td>NPT</td>
<td>0.68 lb</td>
</tr>
<tr>
<td>PA-20M-G38-A</td>
<td>1.34</td>
<td>0.79</td>
<td>G</td>
<td>0.71 lb</td>
</tr>
</tbody>
</table>

Material: Aluminum
Load: 150Nm

```

Ball Mount

```
<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>ØD</th>
<th>P</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-19M-G38-A</td>
<td>1.46</td>
<td>0.75</td>
<td>G</td>
<td>0.77 lb</td>
</tr>
<tr>
<td>PA-19M-U38-A</td>
<td>1.34</td>
<td>0.79</td>
<td>NPT</td>
<td>0.68 lb</td>
</tr>
<tr>
<td>PA-20M-G38-A</td>
<td>1.34</td>
<td>0.79</td>
<td>G</td>
<td>0.71 lb</td>
</tr>
</tbody>
</table>

Material: Aluminum
Load: 150Nm

```

PA 28mm - 32mm Ball for C-Mount

```
<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>ØD</th>
<th>P</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-PA-B112-CM</td>
<td>2.84</td>
<td>0.72</td>
<td>G</td>
<td>0.77 lb</td>
</tr>
<tr>
<td>CPI-PA-B32-CM</td>
<td>2.98</td>
<td>0.75</td>
<td>G</td>
<td>0.71 lb</td>
</tr>
</tbody>
</table>

Material: Aluminum
Load: 150Nm

```

Dimensions and technical information are subject to change without notice
CPI-PA-500-“A”-“B” Ordering Information

<table>
<thead>
<tr>
<th>Description</th>
<th>A</th>
<th>B</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female 1/8” NPT/Female 1/8” NPT</td>
<td>F18</td>
<td>F18</td>
<td>23g [0.8 oz.]</td>
</tr>
<tr>
<td>Female 1/8” G/Female 1/8” G</td>
<td>FG18</td>
<td>FG18</td>
<td></td>
</tr>
<tr>
<td>Female M5/Female M5</td>
<td>FM5</td>
<td>FM5</td>
<td></td>
</tr>
<tr>
<td>Female 1/8” NPT/Male 1/8” NPT</td>
<td>F18</td>
<td>M18</td>
<td></td>
</tr>
<tr>
<td>Female 1/8” G/Male 1/8” G</td>
<td>FG18</td>
<td>MG18</td>
<td></td>
</tr>
<tr>
<td>Female M5/Male M5</td>
<td>FM5</td>
<td>MM5</td>
<td></td>
</tr>
</tbody>
</table>

PAT 1/8 NPT Vacuum Extension

“L”
Standard Lengths
02 = 2.00”
03 = 3.00”
04 = 4.00”
05 = 5.00”
06 = 6.00”

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-PAT-50T-“L”-U18</td>
<td>[0.13 lb/ft] 193.0 g/m</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice


**SPRING-LOADED CUP MOUNTS**

Vacuum Products | Dimensions | Technical Specification

**LC** Bulk Head Style Micro Series Level Compensators

**Specifications:**
- **Material:** Aluminum

**Features:**
- M5 or G mounting threads and vacuum ports.

---

**0.30” TRAVEL**

**ORDERING INFORMATION**

CPI-LC10

M5 (10-32) FEMALE THREAD

- Weight: 5.7 g [0.2 oz.]

---

**0.75” TRAVEL**

**ORDERING INFORMATION**

CPI-LC18

G1/8 NPS FEMALE THREAD

- Weight: 28.3 g [1.0 oz.]

---

**LCM** Series Mount

CPI-LCM-10-”D”

- Weight: 23 g [0.8 oz.]

---

"D" = (Ø) Diameter
16 = Ø16mm [.63”]
10 = Ø10mm [.39”]

Dimensions and technical information are subject to change without notice
Features:
- Available in three different travel lengths.
- NPT or G mounting threads and vacuum ports.

Specifications:
- Material: Aluminum

Specifications:
- Material: Aluminum

<table>
<thead>
<tr>
<th>Version</th>
<th>Mount Thread M</th>
<th>Vacuum Port F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial</td>
<td>3/8” NPT Male</td>
<td>1/4” NPT</td>
</tr>
</tbody>
</table>

Weight
- .75” Travel = 142g [5 oz]
- 1.50” Travel = 227g [8 oz]
- 3.00” Travel = 340g [12 oz]

Dimensions and technical information are subject to change without notice
**SCM** Apple-Core Style

**Specifications:**
- **Material:** Aluminum used on 1.50”/40mm and 3.00”/75mm travel.

**Features:**
- Available in three different travel lengths.
- Apple core .75” [19mm] mounting for adjustment along on axis.
- NPT or G mounting threads and vacuum ports.

---

**Dimensions and technical information are subject to change without notice.**
Features:
- Four mounting options.
- Three travel lengths.
- NPT or G mounting threads and vacuum ports.
- Urethane shock absorber.
- Teflon coated shaft.
- Fully modular construction.

Benefits:
- Urethane shock absorber reduces “pick-up” shock.
- Extensive use of polymers reduce weight and cost.
- Extended travel cup mounts can be reconfigured or rebuilt.
- Smooth operation, reduced wear.

Ø1.25” Bulkhead Style
CPI-SCM(B)-“T”

Ø0.75” Apple Core Style
CPI-SCM(A)-“T”

Ø1.00”/25MM
Extension Style
CPI-SCM(10/25)-“T”

Ø1.50”/40MM
Tube Mount
CPI-SCM(C)-“D”-“T”-“O”

Ø1.50”/40MM
Single Strap Tube Mount
CPI-SCM(S)-“D”-“T”-“O”

Ø1.50”/45MM
Single Strap Tube Mount
CPI-SCMS-45B-“T”

Travel “T”
200E/050M

Travel “T”
400E/100M

Travel “T”
600E/150M

TCL T-Clamp Ø1.00” (in)
## SCM Travel and Length - CPI-SCM(X)-“T”

<table>
<thead>
<tr>
<th>Version</th>
<th>Travel “T”</th>
<th>L</th>
<th>M</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200E</td>
<td>(2.00” Vertical Travel)</td>
<td>187.3 [7.38]</td>
<td>3/8” NPT</td>
<td>.48kg [1.06 lb]</td>
</tr>
<tr>
<td>400E</td>
<td>(4.00” Vertical Travel)</td>
<td>238.2 [9.38]</td>
<td>3/8” NPT</td>
<td>.53kg [1.16 lb]</td>
</tr>
<tr>
<td>600E</td>
<td>(6.00” Vertical Travel)</td>
<td>288.9 [11.38]</td>
<td>3/8” NPT</td>
<td>.58kg [1.27 lb]</td>
</tr>
<tr>
<td>Metric</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>050M</td>
<td>(50mm Vertical Travel)</td>
<td>187.3 [7.38]</td>
<td>3/8” G</td>
<td>.48kg [1.06 lb]</td>
</tr>
<tr>
<td>100M</td>
<td>(100mm Vertical Travel)</td>
<td>238.2 [9.38]</td>
<td>3/8” G</td>
<td>.53kg [1.16 lb]</td>
</tr>
<tr>
<td>150M</td>
<td>(150mm Vertical Travel)</td>
<td>288.9 [11.38]</td>
<td>3/8” G</td>
<td>.58kg [1.27 lb]</td>
</tr>
</tbody>
</table>
### SCM Travel and Length - CPI-SCM(X)-”D”-”T”-”O”

<table>
<thead>
<tr>
<th>Version</th>
<th>Travel “T”</th>
<th>L</th>
<th>M</th>
<th>D</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200E (2.00” Vertical Travel)</td>
<td>187.3 [7.38]</td>
<td>3/8” NPT</td>
<td>150 (Ø1.50”)</td>
<td>.85kg [1.87 lb]</td>
<td></td>
</tr>
<tr>
<td>400E (4.00” Vertical Travel)</td>
<td>238.2 [9.38]</td>
<td>3/8” NPT</td>
<td>150 (Ø1.50”)</td>
<td>.90kg [1.97 lb]</td>
<td></td>
</tr>
<tr>
<td>600E (6.00” Vertical Travel)</td>
<td>288.9 [11.38]</td>
<td>3/8” NPT</td>
<td>150 (Ø1.50”)</td>
<td>.94kg [2.08 lb]</td>
<td></td>
</tr>
<tr>
<td>Metric</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>050M (50mm Vertical Travel)</td>
<td>187.3 [7.38]</td>
<td>3/8” G</td>
<td>40M (Ø40mm)</td>
<td>.85kg [1.87 lb]</td>
<td></td>
</tr>
<tr>
<td>100M (100mm Vertical Travel)</td>
<td>238.2 [9.38]</td>
<td>3/8” G</td>
<td>40M (Ø40mm)</td>
<td>.90kg [1.97 lb]</td>
<td></td>
</tr>
<tr>
<td>150M (150mm Vertical Travel)</td>
<td>288.9 [11.38]</td>
<td>3/8” G</td>
<td>40M (Ø40mm)</td>
<td>.94kg [2.08 lb]</td>
<td></td>
</tr>
</tbody>
</table>
**BODY BUILDER SPRING LOADED VACUUM CUP MOUNTS**

Vacuum Products | Extended Travel Dimensions

**SCM** BodyBuilder Mounted

---

**SCM Travel and Length - CPI-SCMS-45B-"T"**

<table>
<thead>
<tr>
<th>Version</th>
<th>Travel “T”</th>
<th>L</th>
<th>M</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial</td>
<td>200E (2.00” Vertical Travel)</td>
<td>191.5 [7.54]</td>
<td>3/8” NPT</td>
<td>.77kg [1.7 lb]</td>
</tr>
<tr>
<td></td>
<td>400E (4.00” Vertical Travel)</td>
<td>242.2 [9.54]</td>
<td>3/8” NPT</td>
<td>.82kg [1.8 lb]</td>
</tr>
<tr>
<td></td>
<td>600E (6.00” Vertical Travel)</td>
<td>293.1 [11.54]</td>
<td>3/8” NPT</td>
<td>.87kg [1.9 lb]</td>
</tr>
<tr>
<td>Metric</td>
<td>050M (50mm Vertical Travel)</td>
<td>191.5 [7.54]</td>
<td>3/8” G</td>
<td>.77kg [1.7 lb]</td>
</tr>
<tr>
<td></td>
<td>100M (100mm Vertical Travel)</td>
<td>242.2 [9.54]</td>
<td>3/8” G</td>
<td>.82kg [1.8 lb]</td>
</tr>
<tr>
<td></td>
<td>150M (150mm Vertical Travel)</td>
<td>293.1 [11.54]</td>
<td>3/8” G</td>
<td>.87kg [1.9 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
Specifications:
- Material: Aluminum

Features:
- Mounts 30mm barrel style and square style proximity switches to the extended travel spring-loaded cup mounts.

**SAP Extended Travel Proximity Switch Mounts**

### SAP 30mm Barrel Style

<table>
<thead>
<tr>
<th>Model</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SAP-30-PM-150</td>
<td>[1.25]</td>
<td>.13 kg [.29 lb]</td>
</tr>
<tr>
<td>CPI-SAP-18-PM-150</td>
<td>[1.75]</td>
<td>.17 kg [.38 lb]</td>
</tr>
</tbody>
</table>

### SAP 50mm Square Style

<table>
<thead>
<tr>
<th>Model</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-SAP-NI50-PM-150</td>
<td>[1.50]</td>
<td>.23 kg [.56 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**DOUBLE BLANK DETECTOR QUICK-CHANGE MOUNT**

Vacuum Products | Dimensions | Technical Specification

**DBD Quick-Change Mount**

<table>
<thead>
<tr>
<th>Model</th>
<th>ØD</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBD-19-QC-A</td>
<td>19mm</td>
<td>522g [1.15 lb]</td>
</tr>
<tr>
<td>DBD-20-QC-A</td>
<td>20mm</td>
<td>527g [1.16 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
Features:
- Orbital design allows compliance to blanks within +/- 15° without having to make any automation, tooling or robot adjustments. [US Patent #4,662,668]
- Elimination of compression springs results in long-lasting, reliable performance
- HD Version provides added stability for heavy-duty applications

Specifications:
- Operating Pressure: 4 bar [60psi]
- Electric: Sensor supplied by customer

DESTACKER DOUBLE BLANK DETECTOR SPRING MOUNTS
Vacuum Products | Features and Options | Ordering Information

DBD Series

CPI-DBD-(X)-SCMB-(T)
Ø1.25" Thru Hole
Bulkhead Mount

CPI-DBD-(X)-SCM10/25-(T)
Ø1.00"/25mm Extension Mount

CPI-DBD-(X)-SCMB-(T)-HD
Ø1.00"/25mm Tube Mount
Heavy-duty (Double Pogo)

Base Model
DBD Double Blank Detector

Sensor Size
42 Ø42mm
54 Ø54mm
(Sensors not Included)

Mounting Style
SCM10 Ø1.00" Extension Mount
SCM25 Ø25mm Extension Mount
SCMB Bulkhead Mount

Vertical Travel (T) (See pages 46-47)
200E 2.00 in. with NPT Vacuum Port (Except -HD)
400E 4.00 in. with NPT Vacuum Port
600E 6.00 in. with NPT Vacuum Port
800E 8.00 in. with NPT Vacuum Port (-HD only)
050M 50mm with G Vacuum Port (Except -HD)
100M 100mm with G Vacuum Port
150M 150mm with G Vacuum Port
200M 200mm with G Vacuum Port (-HD only)

CPI-DBD-(X)-(T)-SCMC-(D)
Ø1.25"/40mm Tube Mount

X=Sensor Size
42 Ø42mm
54 Ø54mm
(Sensors not Included)

T=Vertical Travel
200E 2.00 in. with NPT Vacuum Port
400E 4.00 in. with NPT Vacuum Port
600E 6.00 in. with NPT Vacuum Port
050M 50mm with G Vacuum Port
100M 100mm with G Vacuum Port
150M 150mm with G Vacuum Port

D=Tube Mount
40 40mm Tube Mount (Metric Only)
150 1.50" Tube Mount (Imperial Only)
(See page 50)

CPI-DBD-42-200E-SCMS
Ø45mm
BodyBuilder Mount
(See page 51)

US/INTL Patents: 6,988,696 / 7,281,739 / 1,921,031

Dimensions and technical information are subject to change without notice

EE-VAC | 46
DESTACKER DOUBLE BLANK DETECTOR SPRING MOUNTS

Vacuum Products | Dimensions | Technical Specification

DBD Bulkhead/Extension Style Dimensions

SCMB
Ø1.25" Thru Hole
Bulkhead Mount

SCM10/25
Ø1.00"/25mm
Extension Mount

SCM(B)
"M" FEMALE MOUNT THREAD

SCM(10) & SCM(25)

Version

Imperial
3/8" NPT

Metric
3/8" G

Dimensions and technical information are subject to change without notice
DBD Travel and Length - CPI-DBD-(X)-SCM(X)-(T)

<table>
<thead>
<tr>
<th>Version</th>
<th>Vertical Travel (T)</th>
<th>(L)</th>
<th>(M)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>200E (2.00&quot;)</td>
<td>257.1 [10.12]</td>
<td></td>
<td></td>
<td>.85kg [1.87 lb]</td>
</tr>
<tr>
<td>400E (4.00&quot;)</td>
<td>307.9 [12.12]</td>
<td></td>
<td>3/8&quot; NPT</td>
<td>.90kg [1.97 lb]</td>
</tr>
<tr>
<td>600E (6.00&quot;)</td>
<td>358.7 [14.12]</td>
<td></td>
<td></td>
<td>.94kg [2.08 lb]</td>
</tr>
<tr>
<td>050M (50mm)</td>
<td>257.1 [10.12]</td>
<td></td>
<td></td>
<td>.85kg [1.87 lb]</td>
</tr>
<tr>
<td>100M (100mm)</td>
<td>307.9 [12.12]</td>
<td></td>
<td>3/8&quot; G</td>
<td>.90kg [1.97 lb]</td>
</tr>
<tr>
<td>150M (150mm)</td>
<td>358.7 [14.12]</td>
<td></td>
<td></td>
<td>.94kg [2.08 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
DESTACKER DOUBLE BLANK DETECTOR SPRING MOUNTS

Vacuum Products | Dimensions | Technical Specification

**DBD** Heavy Duty (Double Pogo)

**DBD** Travel and Length - **CPI-DBD-(X)-SCMB-(T)-HD**

<table>
<thead>
<tr>
<th>Version</th>
<th>Vertical Travel (T)</th>
<th>(L)</th>
<th>(M)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imperial</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>400E (4.00&quot;)</td>
<td>307.9 [12.12]</td>
<td></td>
<td></td>
<td>3.06kg [6.75 lb]</td>
</tr>
<tr>
<td>600E (6.00&quot;)</td>
<td>357.9 [14.09]</td>
<td></td>
<td>3/8&quot; NPT</td>
<td>3.16kg [6.97 lb]</td>
</tr>
<tr>
<td>800E (8.00&quot;)</td>
<td>405.9 [15.98]</td>
<td></td>
<td></td>
<td>3.23kg [7.12 lb]</td>
</tr>
<tr>
<td><strong>Metric</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100M (100mm)</td>
<td>307.9 [12.12]</td>
<td></td>
<td></td>
<td>3.06kg [6.75 lb]</td>
</tr>
<tr>
<td>150M (150mm)</td>
<td>357.9 [14.09]</td>
<td></td>
<td>3/8&quot; G</td>
<td>3.16kg [6.97 lb]</td>
</tr>
<tr>
<td>200M (200mm)</td>
<td>405.9 [15.98]</td>
<td></td>
<td></td>
<td>3.23kg [7.12 lb]</td>
</tr>
</tbody>
</table>
**BODYBUILDER™ DOUBLE BLANK DETECTOR SPRING MOUNTS**

Vacuum Products | Dimensions | Technical Specification

**DBD Ø1.25”/40mm Tube Mount**

![Diagram of DBD mount]

**X**=Sensor Size

**42** Ø42mm  
**54** Ø54mm  
(Sensors not Included)

**DBD Travel and Length - CPI-DBD-(X)-(T)-SCMC-(D)**

<table>
<thead>
<tr>
<th>Version</th>
<th>Vertical Travel (T)</th>
<th>(L)</th>
<th>(M)</th>
<th>(D)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imperial</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200E (2.00”)</td>
<td>261.1 [10.28]</td>
<td></td>
<td>3/8” NPT</td>
<td>150 (Ø1.50”)</td>
<td>.85kg [1.87 lb]</td>
</tr>
<tr>
<td>400E (4.00”)</td>
<td>311.1 [12.25]</td>
<td></td>
<td></td>
<td></td>
<td>.90kg [1.97 lb]</td>
</tr>
<tr>
<td>600E (6.00”)</td>
<td>369.9 [14.21]</td>
<td></td>
<td></td>
<td></td>
<td>.94kg [2.08 lb]</td>
</tr>
<tr>
<td><strong>Metric</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>050M (50mm)</td>
<td>261.1 [10.28]</td>
<td></td>
<td>3/8” G</td>
<td>40M (Ø40mm)</td>
<td>.85kg [1.87 lb]</td>
</tr>
<tr>
<td>100M (100mm)</td>
<td>311.1 [12.25]</td>
<td></td>
<td></td>
<td></td>
<td>.90kg [1.97 lb]</td>
</tr>
<tr>
<td>150M (150mm)</td>
<td>369.9 [14.21]</td>
<td></td>
<td></td>
<td></td>
<td>.94kg [2.08 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
DESTACKER DOUBLE BLANK DETECTOR SPRING MOUNTS

Vacuum Products | Dimensions | Technical Specification

**DBD Ø45mm BodyBuilder Mount**

![Image of DBD Ø45mm BodyBuilder Mount]

**CPI-DBD-42-200E-SCMS-45B**

<table>
<thead>
<tr>
<th>Version</th>
<th>Thread</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial</td>
<td>3/8&quot; NPT</td>
<td>1.8kg [3.9 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
# MANIFOLDS

Vacuum Products | Dimensions | Technical Specification

## MBC/MLK Boom Mounted Single 4-Port - 30° Angled Input Port

**Features:**
- 30° Angled input port.
- Provides a 4-port air distribution system mount on the boom.

**Specifications:**
- **Material:** Aluminum

---

### MBC/MLK Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>T</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-MLK-60-G44-30</td>
<td>108.0</td>
<td>87.9</td>
<td>60.3</td>
<td>73</td>
<td>88.9</td>
<td>3/8 G</td>
<td>1/4 G</td>
<td>Ø60MM</td>
<td>340g</td>
</tr>
<tr>
<td>[CPI-MBC-250-4-4-30]</td>
<td>[4.25]</td>
<td>[3.46]</td>
<td>[2.38]</td>
<td>[2.88]</td>
<td>[3.50]</td>
<td>[3/8 NPT]</td>
<td>[1/4 NPT]</td>
<td>[Ø2.50&quot;]</td>
<td>[12 oz]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**Features:**
- Provides a 4-port air distribution system mount on the boom.
- Available in two sizes to allow clamping to Ø40mm [Ø1.50"] and Ø60mm [Ø2.50"] materials.

**Specifications:**
- **Material:** Aluminum

---

**MBC/MLK** Boom Mounted Single 4-Port

**MBC/MLK Dimensions**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>T</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-MLK-40-G44</td>
<td>88.9</td>
<td>64.3</td>
<td>52.5</td>
<td>48.5</td>
<td>36.7</td>
<td>64.3</td>
<td>12.9</td>
<td>114.5</td>
<td>Ø40MM</td>
<td>283g</td>
</tr>
<tr>
<td>[CPI-MBC-150-4-4]</td>
<td>[3.50]</td>
<td>[2.53]</td>
<td>[2.07]</td>
<td>[1.91]</td>
<td>[1.44]</td>
<td>[2.53]</td>
<td>[1.51]</td>
<td>[4.51]</td>
<td>Ø1.50&quot;</td>
<td>[10 oz]</td>
</tr>
<tr>
<td>CPI-MLK-60-G44</td>
<td>104.1</td>
<td>87.9</td>
<td>58.4</td>
<td>73</td>
<td>42.5</td>
<td>88.9</td>
<td>39.7</td>
<td>118.4</td>
<td>Ø60MM</td>
<td>340g</td>
</tr>
<tr>
<td>[CPI-MBC-250-4-4]</td>
<td>[4.10]</td>
<td>[3.46]</td>
<td>[2.30]</td>
<td>[2.88]</td>
<td>[1.67]</td>
<td>[3.50]</td>
<td>[1.56]</td>
<td>[4.65]</td>
<td>Ø2.50&quot;</td>
<td>[12 oz]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
MANIFOLDS

Vacuum Products | Dimensions | Technical Specification

**MBC/MLK** Boom Mounted Double 8-Port

**Features:**
- Provides an 8-port (4 ports on top and bottom) air distribution system mount on the boom.
- Available in two sizes to allow clamping to Ø40mm [Ø1.50"] and Ø60mm [Ø2.50"] materials.

**Specifications:**
- **Material:** Aluminum

---

**MBC/MLK Dimensions**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>G</th>
<th>H</th>
<th>T</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-MLK-40-G88</td>
<td>105.1</td>
<td>64.3</td>
<td>52.5</td>
<td>48.5</td>
<td>36.8</td>
<td>3/8 G</td>
<td>1/4 G</td>
<td>Ø40MM</td>
<td>425g [16 oz]</td>
</tr>
<tr>
<td>[CPI-MBC-150-8-8]</td>
<td>[4.14]</td>
<td>[2.53]</td>
<td>[2.07]</td>
<td>[1.91]</td>
<td>[1.45]</td>
<td>[3/8 NPT]</td>
<td>[1/4 NPT]</td>
<td>[Ø1.50&quot;]</td>
<td></td>
</tr>
<tr>
<td>CPI-MLK-60-G88</td>
<td>117.6</td>
<td>87.9</td>
<td>58.8</td>
<td>73.0</td>
<td>42.9</td>
<td>3/8 G</td>
<td>1/4 G</td>
<td>Ø60MM</td>
<td>510g [18 oz]</td>
</tr>
<tr>
<td>[CPI-MBC-250-8-8]</td>
<td>[4.63]</td>
<td>[3.46]</td>
<td>[2.32]</td>
<td>[2.88]</td>
<td>[1.69]</td>
<td>[3/8 NPT]</td>
<td>[1/4 NPT]</td>
<td>[Ø2.50&quot;]</td>
<td></td>
</tr>
</tbody>
</table>
**Features:**
- Provides a 6-port air distribution system mounted on the boom.
- Easy access.

**Specifications:**
- Material: Aluminum

**MANIFOLDS**

Vacuum Products | Dimensions | Technical Specification

**MBC Boom Mounted Single 6-Port**

---

**Dimensions and technical information are subject to change without notice**
**MANIFOLDS**

Vacuum Products | Dimensions | Technical Specifications

**GDA/MBB Block Style for Remote Mounting**

Material: Aluminum

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-GDA-M24-37327</td>
<td>.23 kg</td>
</tr>
<tr>
<td></td>
<td>[.56 lb]</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-MMB-4V2B-LG</td>
<td>.23 kg</td>
</tr>
<tr>
<td></td>
<td>[.56 lb]</td>
</tr>
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</table>

Dimensions and technical information are subject to change without notice.
<table>
<thead>
<tr>
<th>Product Type</th>
<th>Page</th>
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</thead>
<tbody>
<tr>
<td>BodyBuilder™ Extruded Aluminum Octagonal Booms</td>
<td>5</td>
</tr>
<tr>
<td>BodyBuilder™ Structure Mid Mount Assemblies</td>
<td>11</td>
</tr>
<tr>
<td>BodyBuilder™ Structure End Mount Assemblies</td>
<td>28</td>
</tr>
<tr>
<td>BodyBuilder™ Transition Brackets and Blocks</td>
<td>32</td>
</tr>
<tr>
<td>BodyBuilder™ Low-Profile Transition Brackets</td>
<td>48</td>
</tr>
<tr>
<td>BodyBuilder™ Accessory Brackets and Mounts</td>
<td>68</td>
</tr>
<tr>
<td>BodyBuilder™ Gripper Mounts</td>
<td>72</td>
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<tr>
<td>BodyBuilder™ Swivel Arm Mounts</td>
<td>75</td>
</tr>
<tr>
<td>BodyBuilder™ Swivel Arm Accessories</td>
<td>79</td>
</tr>
</tbody>
</table>
Mid Mount with GR1 Series Gripper

Mid Mount with GR84 Series Mini-Clamps

End Mount with Venturi Cup Mounts and Vacuum Cups

End Mount with GR84 Series Mini Clamp

Mid Mount with 82M50 Enclosed Power Clamps

Mid Mounted Part Nest with CPI-HTW Hold Table Weldment and Nest Pad guides

Dimensions and technical information are subject to change without notice
BodyBuilder™ is designed to maximize productivity, both before and after installation. The flexibility of the system allows modifications to the end effector in minutes, greatly reducing start up time to launch.

The octagonal structure is available in four sizes: 30mm, 45mm, 60mm, and 90mm.

The patented BodyBuilder™ Alignment System allows the modular components to be replaced individually and easily returned to their original positions.

Alignment nut(s) are included with every Bodybuilder™ modular component, utilizing the patented alignment system.

Dimensions and technical information are subject to change without notice.
Ready-to-assemble mounts and accessories eliminate drilling and welding at assembly.

Most commonly used in:

<table>
<thead>
<tr>
<th>Applications</th>
<th>Markets</th>
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</thead>
<tbody>
<tr>
<td>Robot Welding</td>
<td>Industrial</td>
</tr>
<tr>
<td>Pick and Place</td>
<td>Automotive</td>
</tr>
<tr>
<td>Material Handling</td>
<td>Transportation</td>
</tr>
<tr>
<td>Lower Nest</td>
<td>Appliance</td>
</tr>
</tbody>
</table>
**BODYBUILDER™ BOOM STRUCTURE**

BodyBuilder™ Octagonal Tooling | Dimensions

---

### 30, 45, 60, and 90mm Boom Lengths and Ordering Numbers

<table>
<thead>
<tr>
<th>(L) Length</th>
<th>B - 30 - (L) - 0</th>
<th>B - 45 - (L) - 0</th>
<th>B - 60 - (L) - 0</th>
<th>B - 90 - (L) - 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 mm</td>
<td>B - 30 - 150 - 0</td>
<td>B - 45 - 150 - 0</td>
<td>B - 60 - 150 - 0</td>
<td>N/A</td>
</tr>
<tr>
<td>200 mm</td>
<td>B - 30 - 200 - 0</td>
<td>B - 45 - 200 - 0</td>
<td>B - 60 - 200 - 0</td>
<td>N/A</td>
</tr>
<tr>
<td>250 mm</td>
<td>B - 30 - 250 - 0</td>
<td>B - 45 - 250 - 0</td>
<td>B - 60 - 250 - 0</td>
<td>N/A</td>
</tr>
<tr>
<td>300 mm</td>
<td>B - 30 - 300 - 0</td>
<td>B - 45 - 300 - 0</td>
<td>B - 60 - 300 - 0</td>
<td>B - 90 - 300 - 0</td>
</tr>
<tr>
<td>400 mm</td>
<td>B - 30 - 400 - 0</td>
<td>B - 45 - 400 - 0</td>
<td>B - 60 - 400 - 0</td>
<td>B - 90 - 400 - 0</td>
</tr>
<tr>
<td>500 mm</td>
<td>B - 30 - 500 - 0</td>
<td>B - 45 - 500 - 0</td>
<td>B - 60 - 500 - 0</td>
<td>B - 90 - 500 - 0</td>
</tr>
<tr>
<td>600 mm</td>
<td>B - 30 - 600 - 0</td>
<td>B - 45 - 600 - 0</td>
<td>B - 60 - 600 - 0</td>
<td>B - 90 - 600 - 0</td>
</tr>
<tr>
<td>700 mm</td>
<td>B - 30 - 700 - 0</td>
<td>B - 45 - 700 - 0</td>
<td>B - 60 - 700 - 0</td>
<td>B - 90 - 700 - 0</td>
</tr>
<tr>
<td>750 mm</td>
<td>B - 30 - 750 - 0</td>
<td>B - 45 - 750 - 0</td>
<td>B - 60 - 750 - 0</td>
<td>B - 90 - 750 - 0</td>
</tr>
<tr>
<td>800 mm</td>
<td>B - 30 - 800 - 0</td>
<td>B - 45 - 800 - 0</td>
<td>B - 60 - 800 - 0</td>
<td>B - 90 - 800 - 0</td>
</tr>
<tr>
<td>900 mm</td>
<td>B - 30 - 900 - 0</td>
<td>B - 45 - 900 - 0</td>
<td>B - 60 - 900 - 0</td>
<td>B - 90 - 900 - 0</td>
</tr>
<tr>
<td>1200 mm</td>
<td>B - 30 - 1200 - 0</td>
<td>B - 45 - 1200 - 0</td>
<td>B - 60 - 1200 - 0</td>
<td>B - 90 - 1200 - 0</td>
</tr>
<tr>
<td>1500 mm</td>
<td>B - 30 - 1500 - 0</td>
<td>B - 45 - 1500 - 0</td>
<td>B - 60 - 1500 - 0</td>
<td>B - 90 - 1500 - 0</td>
</tr>
<tr>
<td>1800 mm</td>
<td>B - 30 - 1800 - 0</td>
<td>B - 45 - 1800 - 0</td>
<td>B - 60 - 1800 - 0</td>
<td>B - 90 - 1800 - 0</td>
</tr>
<tr>
<td>2100 mm</td>
<td>B - 30 - 2100 - 0</td>
<td>B - 45 - 2100 - 0</td>
<td>B - 60 - 2100 - 0</td>
<td>B - 90 - 2100 - 0</td>
</tr>
<tr>
<td>2400 mm</td>
<td>B - 30 - 2400 - 0</td>
<td>B - 45 - 2400 - 0</td>
<td>B - 60 - 2400 - 0</td>
<td>B - 90 - 2400 - 0</td>
</tr>
<tr>
<td>2700 mm</td>
<td>B - 30 - 2700 - 0</td>
<td>B - 45 - 2700 - 0</td>
<td>B - 60 - 2700 - 0</td>
<td>B - 90 - 2700 - 0</td>
</tr>
<tr>
<td>3000 mm</td>
<td>B - 30 - 3000 - 0</td>
<td>B - 45 - 3000 - 0</td>
<td>B - 60 - 3000 - 0</td>
<td>B - 90 - 3000 - 0</td>
</tr>
</tbody>
</table>

---

### 30mm Boom Profile Dimensions and Specifications

**BodyBuilder™ 30mm Boom**

![30mm Boom Profile Dimensions and Specifications](image)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>B - 30 - (L) - 0</td>
<td>1.4 kg/m [0.9 lb/ft]</td>
</tr>
</tbody>
</table>
BodyBuilder™ 45mm Boom

Model Number  |  Weight
---|---
B - 45 - (L) - 0  |  2.0 kg/m [1.4 lb/ft]

BodyBuilder™ 60mm Boom

Model Number  |  Weight
---|---
B - 60 - (L) - 0  |  3.3 kg/m [2.2 lb/ft]

BodyBuilder™ 90mm Boom

Model Number  |  Weight
---|---
B - 90 - (L) - 0  |  6.5 kg/m [4.4 lb/ft]
30mm Boom Deflection and Torsion Charts

45mm Boom Deflection and Torsion Charts

Note: Performance may vary if used with non-DESTACO components
60mm Boom Deflection and Torsion Charts

90mm Boom Deflection and Torsion Charts

**Note:** Performance may vary if used with non-DESTACO components
**BODYBUILDER™ BOOM STRUCTURE ACCESSORIES**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**ETP-35 Extrusion Accessory Mount**

Specifications:
- Material: Aluminum

PLEASE USE “ETP-M6” TO ORDER NUT ONLY

**Model Number** | **Weight**
---|---
CPI-ETP-35 | .31 kg [.68 lb]

**EC-60 60mm Bodybuilder Octagonal Boom End Cap**

**Model Number** | **Weight**
---|---
CPI-EC-45B | .02 kg [.05 lb]
CPI-EC-60B | .04 kg [.09 lb]
CPI-EC-90B | .09 kg [.20 lb]

Dimensions and technical information are subject to change without notice.
RMM-30B-40BC-08-90 Single Extrusion 30mm Mid Mount with 40mm Bolt Circle

Specifications:
Max. Static Product Load: 102 Nm [75 ft-lb]
Material: Aluminum

Dimensions and technical information are subject to change without notice.
BODYBUILDER™ MID-MOUNT ASSEMBLIES

RMM-30B-SE Single Extrusion 60mm Robot Adaptor Mid Mount

Specifications:
Max. Static Product Load:
102 Nm [75 ft-lb] Material:
Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RMM-30B-SE</td>
<td>1.05 kg [2.31 lb]</td>
</tr>
</tbody>
</table>

RMM-30B-DE Double Extrusion 30mm Robot Adaptor Mid Mount

Specifications:
Max. Static Product Load:
102 Nm [75 ft-lb] Material:
Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RMM-30B-DE</td>
<td>1.05 kg [2.31 lb]</td>
</tr>
</tbody>
</table>
# Bodybuilder™ Mid Mount Assemblies

**BM1-45-SE** Single Extrusion 45mm Mid Mount

**Specifications:**
- Max. Static Product Load: 350 Nm [258 ft-lb]
- Material: Aluminum

**Weight**
- 5.05 kg [11.1 lb]

---

**BM1-45-DE** Double Extrusion 45mm Mid Mount

**Specifications:**
- Max. Static Product Load: 350 Nm [258 ft-lb]
- Material: Aluminum

**Weight**
- 5.05 kg [11.1 lb]
**BODYBUILDER™ MID MOUNT ASSEMBLIES**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**BM1-60-SE 60mm Single Extrusion Mid Mount Assembly**

Can be supplied with robot interface hole patterns. (See pages 19-21).

**BM1-60-DE 60mm Double Extrusion Mid Mount Assembly**

Can be supplied with robot interface hole patterns. (See pages 19-21).

**Specifications:**
Max. Static Product Load: 675 Nm [500 ft-lb]
Material: Aluminum

**Weight**
5.2 kg [11.5 lb]
**BM1-45/BM1-60 Mid Mount Assembly - Mount Plate**

**Features:**
- Can be machined or left blank.
- Can be supplied with robot interface hole patterns. (See pages 19-21).

**BM1-45/BM1-60 Mid Mount Assembly - Adapter Plate**

All mounting patterns on pages 19-21 can be used for BM1-60 and BM1-45 Mid Mount Assemblies.
All Ø200mm mounting patterns, when used on the BM1-45 and BM1-60, includes an Adapter Plate as shown.

**MID MOUNT ASSEMBLY ADAPTER PLATE**

<table>
<thead>
<tr>
<th>PATTERN</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>“D”</th>
</tr>
</thead>
<tbody>
<tr>
<td>R01, R10, R11, R16</td>
<td>89.6 [3.53]</td>
<td>27.8 [1.09]</td>
<td>83.8 [3.30]</td>
<td>27.8 [1.09]</td>
</tr>
<tr>
<td>R07, R09</td>
<td>96.0 [3.78]</td>
<td>34.1 [1.34]</td>
<td>99.6 [3.92]</td>
<td>34.1 [1.34]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
BODYBUILDER™ MID MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

RM4-45 45mm, RM4-60 60mm Heavy Duty Mid Mount Assembly - Dimensions

Features:
• Can be used as a direct robot interface.
• Provide robust clamping of each extrusion for maximum stability.
• Standard robot interface patterns provided. Plate can also be left blank.

Specifications:
Max. Static Product Load: 453.6 kg [1000 lb]
Material:
Mid Mount:
Cast Aluminum
Clamps: Steel

Dimensions and technical information are subject to change without notice.
**BM2-EPM** Accessory Mount Plate

**Features:**
- Mount directly to the RM4-45 or RM4-60 Heavy Duty Mid-Mount Assembly.
- Used to mount pneumatic manifolds and electric proximity blocks.

**Specifications:**
- Material: Aluminum

**Features:**
- Mount directly to the RM4-45 or RM4-60 Heavy Duty Mid-Mount Assembly.
- Used to mount pneumatic manifolds and electric proximity blocks.

**Dimensions:**
- [6.35 [0.25]
- [4.53]
- [3.11]
- [2.56]
- [0.00]
- [0.738]
- [2.71]
- [3.64]
- [5.54]
- [5.75]
- [6.96]
- [8.86]
- [9.79]
- [11.76]
- [1.39 lb]

When ordering with Heavy Duty Mid Mount
Please add designation “EPM-01” as shown
RM4-XX-RXX-EPM-01 or
add designation “EPM-BLK” to order blank
RM4-XX-RXX-EPM-BLK

To order separately use Model Number

<table>
<thead>
<tr>
<th>Model</th>
<th>RM4-45/60</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM-01</td>
<td>CPI-BM2-EPM-01</td>
<td>0.63 kg [1.39 lb]</td>
</tr>
<tr>
<td>EPM-BLK</td>
<td>CPI-BM2-EPM-BLK</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
Features:
- Can be used as a direct robot interface.
- Provide robust clamping of each extrusion for maximum stability.
- Standard robot interface patterns provided. Plate can also be left blank.

Specifications:
- Max. Static Product Load: 589.7 kg [1300 lb]
- Material:
  - Mid Mount: Cast Aluminum
  - Clamps: Steel

Notes:
- Screws and fasteners for mounting are not included.
- Add 1.5mm to "A"/"As" dim for insulation package if required.

Insulation package includes:
- (1) Insulation plate, bushings and washers

Heavy-Duty Mid Mount Assembly Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>&quot;A&quot;</th>
<th>&quot;As&quot;</th>
<th>&quot;B&quot;</th>
<th>&quot;C&quot;</th>
<th>&quot;D&quot;</th>
<th>&quot;E&quot;</th>
<th>&quot;F&quot;</th>
<th>&quot;G&quot;</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>BM3-90</td>
<td>107.8</td>
<td>133.2</td>
<td>165.3</td>
<td>600.0</td>
<td>738.0</td>
<td>750.0</td>
<td>700.0</td>
<td>90</td>
<td>24.1 kg [53.1 lb]</td>
</tr>
</tbody>
</table>

1.00" RISER/SPACER TPMS-90-BM3-10R PAGE 22
BM3-EPM Accessory Mount Plate

Features:
- Mount directly to the BM3-90 Heavy Duty Mid-Mount Assembly.
- Used to mount pneumatic manifolds and electric proximity blocks.

Specifications:
- Material: Aluminum

When ordering with Heavy Duty Mid Mount
Please add designation “EPM-01” as shown
BM3-90-RXX-EPM-01 or
add designation “EPM-BLK” to order blank
BM3-90-RXX-EPM-BLK
To order separately use Model Number

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-BM3-EPM-xx</td>
<td>1.54 kg [3.39 lb]</td>
</tr>
</tbody>
</table>
BODYBUILDER™ MID MOUNT BOLT PATTERNS

BodyBuilder™ Octagonal Tooling | Robot Interface Bolt Patterns

R01 (Ø200mm Bolt Circle)

- Ø12.0 P.F. (2)
- Ø200.0

R02 (Ø125mm Bolt Circle)

- Ø11.0 THRU (10)
- Ø125.0

R03 (Ø160mm Bolt Circle)

- Ø14.0 THRU (8)
- Ø160.0

R04 (Ø160mm Bolt Circle)

- Ø10.0 S.F. (4)
- Ø160.0

R05 (Ø125mm Bolt Circle)

- Ø13.0 THRU (12)
- Ø125.0

R06 (Ø125/160mm Bolt Circle)

- 10.0 S.F. (2)
- Ø160.0

Includes Insulation
Add 1.5mm to Height Dim “A”/”AS”

Includes Insulation
Add 1.5mm to Height Dim “A”/”AS”

Includes Insulation
Add 1.5mm to Height Dim “A”/”AS”

BM3-90 Adapter

Dimensions and technical information are subject to change without notice
BODYBUILDER™ MID MOUNT BOLT PATTERNS

BodyBuilder™ Octagonal Tooling | Robot Interface Bolt Patterns

**R13 (Ø125/160mm Bolt Circle)**
(Ø110mm Pilot, 5.5mm Deep)

**R14 (Ø200mm Bolt Circle)**
(Ø125mm Pilot, 11mm Deep)

**R16 (Ø200mm Bolt Circle)**

Includes Insulation
Add 1.5mm to Height Dim “A”/“AS”

**R17 (Ø160mm Bolt Circle)**

Dimensions and technical information are subject to change without notice
**BodyBuilder™ Mid Mount Risers**

**RM4-60 Heavy Duty Mid Mount Assembly - 1.00” Riser/Spacer**

When ordering with Heavy Duty Mid Mount add designation (S) as shown:

RM4-60-RXX-S

To order Riser separately use Model Number.

<table>
<thead>
<tr>
<th>Riser for</th>
<th>Model</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>RM4-45/60</td>
<td>TPMS-60-BM2-10R</td>
<td>.26 kg [.56 lb]</td>
</tr>
</tbody>
</table>

**Specifications:**

- **Material:** Aluminum

---

**BM3-90 Heavy Duty Mid Mount Assembly - 1.00” Riser/Spacer**

When ordering with Heavy Duty Mid Mount add designation (S) as shown:

BM3-90-RXX-S

To order Riser separately use Model Number.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPMS-90-BM3-10R</td>
<td>.34 kg [.76 lb]</td>
</tr>
</tbody>
</table>

**Specifications:**

- **Material:** Aluminum

Dimensions and technical information are subject to change without notice.
BODYBUILDER™ HOLD TABLE

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**HTW 6” SQ. Pedestal Hold Table Weldment**

**Features:**
- Pedestal Hold Table Weldment when used in conjunction with Mid Mount assemblies serves as a pedestal base for a robust parts nest.

**Specifications:**
- Material: Steel

**CPI-HTW-“H” HOLD TABLE WELDMENT**

<table>
<thead>
<tr>
<th>“H”</th>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>250</td>
<td>CPI-HTW-250</td>
<td>32.43 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[71.30 lb]</td>
</tr>
<tr>
<td>300</td>
<td>CPI-HTW-300</td>
<td>33.75 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[74.40 lb]</td>
</tr>
<tr>
<td>350</td>
<td>CPI-HTW-350</td>
<td>35.16 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[77.50 lb]</td>
</tr>
<tr>
<td>400</td>
<td>CPI-HTW-400</td>
<td>36.56 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[80.60 lb]</td>
</tr>
<tr>
<td>450</td>
<td>CPI-HTW-450</td>
<td>37.97 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[83.70 lb]</td>
</tr>
<tr>
<td>500</td>
<td>CPI-HTW-500</td>
<td>39.37 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[86.81 lb]</td>
</tr>
<tr>
<td>550</td>
<td>CPI-HTW-550</td>
<td>40.78 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[89.91 lb]</td>
</tr>
<tr>
<td>600</td>
<td>CPI-HTW-600</td>
<td>42.19 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[93.01 lb]</td>
</tr>
<tr>
<td>650</td>
<td>CPI-HTW-650</td>
<td>43.59 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[96.11 lb]</td>
</tr>
<tr>
<td>700</td>
<td>CPI-HTW-700</td>
<td>45.00 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[99.21 lb]</td>
</tr>
<tr>
<td>750</td>
<td>CPI-HTW-750</td>
<td>46.41 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[102.31 lb]</td>
</tr>
<tr>
<td>800</td>
<td>CPI-HTW-800</td>
<td>47.81 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[105.41 lb]</td>
</tr>
<tr>
<td>850</td>
<td>CPI-HTW-850</td>
<td>49.22 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[108.51 lb]</td>
</tr>
<tr>
<td>900</td>
<td>CPI-HTW-900</td>
<td>50.62 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[111.61 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
BodyBuilder™ Hold Table

**HTW-4**  4” SQ. Pedestal Hold Table Weldment

**Specifications:**
- Material: Steel

**Features:**
- Pedestal Hold Table Weldment when used in conjunction with 45mm or 60mm flange and end mount assemblies serves as a pedestal base for a robust parts nest.

---

**CPI-HTW-“H”-4 Hold Table Weldment**

<table>
<thead>
<tr>
<th>“H”</th>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>250</td>
<td>CPI-HTW-250-4</td>
<td>24.02 kg [52.97lb]</td>
</tr>
<tr>
<td>300</td>
<td>CPI-HTW-300-4</td>
<td>24.93 kg [54.96lb]</td>
</tr>
<tr>
<td>350</td>
<td>CPI-HTW-350-4</td>
<td>25.83 kg [56.95lb]</td>
</tr>
<tr>
<td>400</td>
<td>CPI-HTW-400-4</td>
<td>26.73 kg [58.94lb]</td>
</tr>
<tr>
<td>450</td>
<td>CPI-HTW-450-4</td>
<td>27.63 kg [60.93lb]</td>
</tr>
<tr>
<td>500</td>
<td>CPI-HTW-500-4</td>
<td>28.54 kg [62.92lb]</td>
</tr>
<tr>
<td>550</td>
<td>CPI-HTW-550-4</td>
<td>29.44 kg [63.82lb]</td>
</tr>
<tr>
<td>600</td>
<td>CPI-HTW-600-4</td>
<td>30.35 kg [66.90lb]</td>
</tr>
<tr>
<td>650</td>
<td>CPI-HTW-650-4</td>
<td>31.25 kg [68.89lb]</td>
</tr>
<tr>
<td>700</td>
<td>CPI-HTW-700-4</td>
<td>32.15 kg [70.88lb]</td>
</tr>
<tr>
<td>750</td>
<td>CPI-HTW-750-4</td>
<td>33.05 kg [72.87lb]</td>
</tr>
<tr>
<td>800</td>
<td>CPI-HTW-800-4</td>
<td>33.96 kg [74.87lb]</td>
</tr>
<tr>
<td>850</td>
<td>CPI-HTW-850-4</td>
<td>34.86 kg [76.86lb]</td>
</tr>
<tr>
<td>900</td>
<td>CPI-HTW-900-4</td>
<td>35.76 kg [78.85lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**BODYBUILDER™ HOLD TABLE**

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification**

**HTW-1200/1400** Pass-Thru Hold Table Weldment

---

**TABLE WELDMENT**

<table>
<thead>
<tr>
<th>&quot;H&quot;</th>
<th>&quot;Model&quot;</th>
<th>Weight</th>
<th>&quot;Model&quot;</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>350</td>
<td>HTW-1200</td>
<td>84.62 kg [186.55lb]</td>
<td>HTW-1400</td>
<td>88.39 kg [194.87lb]</td>
</tr>
<tr>
<td>400</td>
<td>HTW-1200</td>
<td>86.42 kg [190.53lb]</td>
<td>HTW-1400</td>
<td>90.02 kg [198.85lb]</td>
</tr>
<tr>
<td>500</td>
<td>HTW-1200</td>
<td>90.04 kg [198.50lb]</td>
<td>HTW-1400</td>
<td>93.81 kg [206.82lb]</td>
</tr>
<tr>
<td>600</td>
<td>HTW-1200</td>
<td>93.65 kg [206.46lb]</td>
<td>HTW-1400</td>
<td>97.42 kg [214.78lb]</td>
</tr>
<tr>
<td>700</td>
<td>HTW-1200</td>
<td>97.26 kg [214.42lb]</td>
<td>HTW-1400</td>
<td>101.04 kg [222.74lb]</td>
</tr>
<tr>
<td>800</td>
<td>HTW-1200</td>
<td>100.87 kg [222.39lb]</td>
<td>HTW-1400</td>
<td>104.65 kg [230.71lb]</td>
</tr>
<tr>
<td>900</td>
<td>HTW-1200</td>
<td>104.49 kg [230.35lb]</td>
<td>HTW-1400</td>
<td>108.26 kg [238.67lb]</td>
</tr>
</tbody>
</table>

---

Dimensions and technical information are subject to change without notice.
BODYBUILDER™ MID MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

ATI-151-90HD-60BB 60mm Mid Mount

Specifications:
- Max. Static Product Load: 746 Nm [550 ft-lb]
- Material: Aluminum

Features:
- Can be used as direct robot interface.

Model Number          Weight
CPI-ATI-151-90HD-60BB 3.22 kg [7.10 lb]

Fasteners included, Dowels not included

Dimensions and technical information are subject to change without notice
ATI-151-90HD-90BB 90mm Mid Mount

Features:
• Can be used as direct robot interface.

Specifications:
Max. Static Product Load: 1355 Nm [1000 ft-lb]
Material: Aluminum

Model Number | Weight
--- | ---
CPI-ATI-151-90HD-90BB | 2.89 kg [6.38 lb]
**BODYBUILDER™ END MOUNT ASSEMBLIES**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

---

**CL-90B-160F 90mm End Mount**

**Specifications:**
- **Max. Static Clamp Load:** 746 Nm [550 ft-lb]
- **Material:** Aluminum

**Features:**
- Can be used as direct robot interface.

---

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CL-90B-160F</td>
<td>5.91 kg [13.04 lb]</td>
</tr>
</tbody>
</table>
RDCF-60B 60mm BodyBuilder™ Bayonet

Features:
- Used in conjunction with Quick Disconnect Housing to provide an efficient method for changing tools manually.
- Two, hardened alignment pins allow quick and accurate installation into the housing.
- Optional 4-port air and electric available.

Specifications:
- Max. Static Product Load: 746 Nm [550 ft-lb]
- Material: Body: Aluminum
  Pins: Steel

Used in conjunction with Quick Disconnect Housing to provide an efficient method for changing tools manually.

Optional 4-port air and electric connections available.

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

DESTACO

Model Number | Weight
CPI-RDCF-60B-00-00-X | 3.16 kg [6.96 lb]

Dimensions and technical information are subject to change without notice.
**RDN-25-6 Manual Quick Disconnect Housing**

**Features:**
- Actuation of handle allows quick and accurate installation by pulling the bayonet into a fixed position within the housing.
- The internal rings eliminate vibration and seat the bayonet into a clamped position.
- Hardened steel retainer slots reduce wear and extend product life.

**Specifications:**
- Max. Static Product Load: 746 Nm [550 ft-lb]
- Material:
  - Body: Aluminum
  - Knuckles: Brass
  - Handle and Hooks: Steel
  - Inserts: Urethane

*Used in conjunction with 60 mm BodyBuilder™ Bayonet to provide an efficient method for changing tools manually.*

**Optional 4-port air and electric connections available.**

---

**Model Number** | **Weight**  
---|---  
CPI-RDN-25-6 | 4.00 kg [8.90 lb]
BodyBuilder™ Robotic Tooling System offers a patented alignment system, ensuring that all BodyBuilder™ components can be adjusted to the original set-up position.

Once the BodyBuilder™ structure bracket mount is secured into place during set-up, insert the alignment nut into the octagonal boom channel groove.

Be sure the alignment nut is inserted so that when it is slid under the bracket mount, the set screws can still be accessed outside the bracket mount as shown.

Slide the alignment nut along the boom groove and underneath the bracket mount until the hole in the block and the appropriate calibration hole in the bracket mount is aligned visual.

Insert the alignment pin into the alignment hole of the bracket mount, through the alignment nut until it stops in the groove of the boom channel.

With the alignment pin in place, the alignment nut should not move. Secure bracket mount in the channel groove by tightening the two set screws. Remove alignment pin as it is used as a probe for alignment purposes only.

The alignment nut remains in place even when the bracket mount is removed.

To order replacement alignment pin or nut, please use the following order numbers:
Alignment Pin #505311, Alignment Nut #505264

To Replace the Bracket mount, place the assembled bracket mount on the BodyBuilder™ boom until the alignment holes are visually aligned. Insert the alignment pin to secure bracket mount in place, and tighten the fasteners.

Remove the alignment pin and continue tightening the fasteners to specified torque values.

U.S. PATENT 6,349,912
## CLM-30B-30B 30mm to 30mm (Micro) Transition Bracket Assembly

### Specifications:
- **Max. Static Clamp Load:** 102 Nm [75 ft-lb]
- **Material:** Aluminum

### Features:
- Connects (2) 30mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

### Dimensions and Technical Information:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Technical Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø6.0 ALIGNMENT HOLES (2)</td>
<td>M6 FASTENERS (8)</td>
</tr>
<tr>
<td>25.4 [1.00]</td>
<td>19.7 [1.27]</td>
</tr>
<tr>
<td>15.9 [0.63]</td>
<td>32.2 [1.27]</td>
</tr>
<tr>
<td>17.9 [0.71]</td>
<td>50.8 [2.00]</td>
</tr>
<tr>
<td>25.4 [1.00]</td>
<td>19.7 [1.27]</td>
</tr>
<tr>
<td>0.24 [0.01]</td>
<td>0.24 [0.01]</td>
</tr>
</tbody>
</table>

### Model Number and Weight:
- **Model Number:** CPI-CLM-30B-30B
- **Weight:** 0.24 kg [0.54 lb]
BodyBuilder™ Transition Brackets and Blocks

Model Number | Weight
--- | ---
M-30B-30B-M | 0.82 kg [1.80 lb]

**30B-30B** 30mm to 30mm Transition Bracket Assembly

**Features:**
- Connects (2) 30mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

**Specifications:**
- **Max. Static Clamp Load:**
  - 30mm: 271 Nm [200 ft-lb]
- **Material:** Aluminum

Dimensions and technical information are subject to change without notice.
**30B-45B** 30mm to 45mm Transition Bracket Assembly

**Specifications:**

Max. Static Clamp Load:
- 45mm: 475 Nm [350 ft-lb]
- 30mm: 271 Nm [200 ft-lb]

**Material:** Aluminum

**Features:**
- Connects 30mm and 45mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

---

**Model Number** | **Weight**
--- | ---
M-30B-45B-M | 1.00 kg [2.20 lb]

Dimensions and technical information are subject to change without notice.
**BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**45B-45B 45mm to 45mm Transition Bracket Assembly**

**Features:**
- Connects (2) 45mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design

**Specifications:**
- Max. Static Clamp Load:
  - 45mm: 475 Nm [350 ft-lb]
- Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-45B-45B-M</td>
<td>1.05 kg [2.31 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**30B-60B** 30mm to 60mm Transition Bracket Assembly

**Specifications:**
- Max. Static Clamp Load:
  - 60mm: 746 Nm [550 ft-lb]
  - 30mm: 271 Nm [200 ft-lb]
- Material: Aluminum

**Features:**
- Connects 30mm and 60mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

**Dimensions and technical information are subject to change without notice**
**BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS**

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification**

**45B-60B 45mm to 60mm Transition Bracket Assembly**

**Features:**
- Connects 45mm and 60mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

**Specifications:**
- **Max. Static Clamp Load:**
  - 60mm: 746 Nm [550 ft-lb]
  - 45mm: 475 Nm [350 ft-lb]
- **Material:** Aluminum

---

**Model Number**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-45B-60B-M</td>
<td>1.23 kg [2.70 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**60B-60B** 60mm to 60mm Transition Bracket Assembly

**Features:**
- Connects (2) 60mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design

**Specifications:**
- Max. Static Clamp Load: 60mm: 746 Nm [550 ft-lb]
- Material: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-60B-60B-M</td>
<td>1.36 kg [3.00 lb]</td>
</tr>
</tbody>
</table>
**BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**30B-90B 30mm to 90mm Transition Bracket Assembly**

**Features:**
- Connects 30 and 90mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

**Specifications:**
- Max. Static Clamp Load:
  - 30mm: 271 Nm [200 ft-lb]
  - 90mm: 746 Nm [550 ft-lb]
- Material: Aluminum

**Model Number | Weight**
- M-30B-90B-M | 1.78 kg [3.93 lb]

Dimensions and technical information are subject to change without notice.
# 45B-90B 45mm to 90mm Transition Bracket Assembly

**Specifications:**
- **Max. Static Clamp Load:**
  - 45mm: 475 Nm [350 ft-lb]
  - 90mm: 746 Nm [550 ft-lb]
- **Material:** Aluminum

**Features:**
- Connects 45 and 90mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

---

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-45B-90B-M</td>
<td>1.91 kg [4.21 lb]</td>
</tr>
</tbody>
</table>
**BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

### 60B-90B 60mm to 90mm Transition Bracket Assembly

**Features:**
- Connects 60mm and 90mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

**Specifications:**
- Maximum Clamp Load:
  - 60mm and 90mm: 746 Nm [550 ft-lb]
- Material: Aluminum

---

**Model Number** | **Weight**
---|---
**M-60B-90B-M** | 2.25 kg [4.97 lb]
**BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**90B-90B** 90mm to 90mm Transition Bracket Assembly

**Specifications:**
- Max. Static Clamp Load: 746 Nm [550 ft-lb]
- Material: Aluminum

**Features:**
- Connects (2) 90mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

---

Dimensions and technical information are subject to change without notice
**BODYBUILDER™ SQUARE CLAMPS**

BodyBuilder™ Octagonal Tooling | Octagon to Round Transition Block Assembly

**30B-25M** 30mm Octagon to 25mm Round

**Specifications:**
Max. Static Clamp Load:
407 Nm [300 ft-lb]

Material: High Strength Aluminum

---

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-30B-25M-M</td>
<td>203g [0.45lbs]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**BODYBUILDER™ SQUARE CLAMPS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**45B-25M (-10E)** 45mm Octagon to 25mm or 1 in. Round

**Specifications:**
- Max. Static Clamp Load: 407 Nm [300 ft-lb]
- Material: High Strength Aluminum

**Dimensions and technical information are subject to change without notice**

**Model Number | Weight | ØD**
--- | --- | ---
M-45B-25M-M | 239g [0.53lbs] | 25mm
M-45B-10E-M | 237g [0.52lbs] | 1 in.
**60B-25M** 60mm Octagon to 25mm Round

**Specifications:**
- Max. Static Clamp Load: 407 Nm [300 ft-lb]
- Material: High Strength Aluminum

**60B-40M (-15E)** 60mm Octagon to 40mm or 1.5 in. Round

**Specifications:**
- Max. Static Clamp Load: 813 Nm [600 ft-lb]
- Material: High Strength Aluminum

---

**Model Number**  |  **Weight**  |  **ØD**
---|---|---
M-60B-25M-M  |  356g [0.78lbs]  |  
M-60B-40M-M  |  520g [1.15lbs]  |  40mm
M-60B-15E-M  |  535g [1.18lbs]  |  1.5 in.

Dimensions and technical information are subject to change without notice
**BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS**

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification**

**CLM-30B-50 30mm Octagon to Ø50"(in) Round Transition Bracket Assembly**

**Features:**
- Connects BodyBuilder™ extrusion and round tubing perpendicular to each other.
- Lightweight, high-strength aluminum design.

**Specifications:**
- Max. Static Clamp Load: 102 Nm [75 ft-lb]
- Material: Aluminum

**Dimensions and technical information are subject to change without notice**
**TCAM-30B-30B** 30mm to 30mm Octagon (Micro) T-Clamp Bracket Assembly

**Specifications:**
- Max. Static Clamp Load: 102 Nm [75 ft-lb]
- Material: Aluminum

**Features:**
- Connects (2) 30mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

---

**Model Number**  |  **Weight**  
---  |  ---  
CPI-TCAM-30B-30B-M  |  .45 kg [.99 lb]

Dimensions and technical information are subject to change without notice.
**BODYBUILDER™ T-CLAMPS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**TCA-30B-45B 30mm to 45mm Octagon T-Clamp Bracket Assembly**

**Features:**
- Connects 30mm and 45mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

**Specifications:**
**Max. Static Clamp Load:**
- 45mm: 475 Nm [350 ft-lb]
- 30mm: 271 Nm [200 ft-lb]
**Material:** Aluminum

Can be configured as a connector between booms for added stability

**Model Number** | **Weight**
--- | ---
CPI-TCA-30B-45B | .80 kg [1.76 lb]

Dimensions and technical information are subject to change without notice
**TCA-30B-60B** 30mm to 60mm Octagon T-Clamp Bracket Assembly

**Specifications:**
- Max. Static Clamp Load:
  - 60mm: 746 Nm [550 ft-lb]
  - 30mm: 271 Nm [200 ft-lb]
- Material: Aluminum

**Features:**
- Connects 30mm and 60mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

**Model Number**
- CPI-TCA-30B-60B

**Weight**
- 1.23 kg [2.71 lb]

Dimensions and technical information are subject to change without notice.
BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**TCA-45B-30B 45mm to 30mm Octagon T-Clamp Bracket Assembly**

**Features:**
- Connects 45mm and 30mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

**Specifications:**
- **Max. Static Clamp Load:**
  - 45mm: 475 Nm [350 ft-lb]
  - 30mm: 271 Nm [200 ft-lb]
- **Material:** Aluminum

---

**Model Number** | **Weight**
---|---
**CPI-TCA-45B-30B** | .91 kg [2.02 lb]

Dimensions and technical information are subject to change without notice.
**TCA-45B-45B** 45mm to 45mm Octagon T-Clamp Bracket Assembly

**Specifications:**
- **Max. Static Clamp Load:** 45mm: 475 Nm [350 ft-lb]
- **Material:** Aluminum

**Features:**
- Connects (2) 45mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

---

**Model Number** | **Weight**  
--- | ---  
CPI-TCA-45B-45B | .95 kg [2.09 lb]
**BODYBUILDER™ T-CLAMPS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**TCA-45B-60B 45mm to 60mm Octagon T-Clamp Bracket Assembly**

**Features:**
- Connects 45mm and 60mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

**Specifications:**
- Max. Static Clamp Load:
  - 60mm: 746 Nm [550 ft-lb]
  - 45mm: 475 Nm [350 ft-lb]
- Material: Aluminum

---

**Model Number**

<table>
<thead>
<tr>
<th>CPI-TCA-45B-60B</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.21 kg [2.67lb]</td>
</tr>
</tbody>
</table>
**BODYBUILDER™ T-CLAMPS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**TCA-45B-25M** 45mm Octagon to 25mm Round T-Clamp Bracket Assembly

**Specifications:**
- **Max. Static Clamp Load:**
  - 45mm: 475 Nm [350 ft-lb]
  - 25mm: 271 Nm [200 ft-lb]
- **Material:** Aluminum

**Features:**
- Connects 45mm octagon and 25mm round perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

Dimensions and technical information are subject to change without notice.
TCA-60B-30B 60mm to 30mm octagon T-Clamp Bracket Assembly

Features:
• Connects 60mm and 30mm octagon extrusion perpendicular on the same plane.
• Lightweight, high-strength aluminum design.

Specifications:
Max. Static Clamp Load:
60mm: 746 Nm [550 ft-lb]
30mm: 271 Nm [200 ft-lb]
Material: Aluminum

Dimensions and technical information are subject to change without notice.
TCA-60B-45B 60mm to 45mm octagon T-Clamp Bracket Assembly

**Features:**
- Connects 60mm and 45mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

**Specifications:**
- Max. Static Clamp Load:
  - 60mm: 746 Nm [550 ft-lb]
  - 45mm: 475 Nm [350 ft-lb]
- Material: Aluminum

**Model Number** | **Weight**
--- | ---
CPI-TCA-60B-45B | 1.45 kg [3.20 lb]
# BodyBuilder™ T-Clamps

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification**

## TCA-60B-60B 60mm to 60mm octagon T-Clamp Bracket Assembly

### Features:
- Connects (2) 60mm octagon extrusions perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

### Specifications:
- **Max. Static Clamp Load:**
  - 60mm: 746 Nm [550 ft-lb]

- **Material:** Aluminum

---

**Model Number**  |  **Weight**  
--- | ---  
CPI-TCA-60B-60B  |  1.77 kg [3.90 lb]  

Dimensions and technical information are subject to change without notice.
**Model Number** | **Weight**
---|---
CPI-TCA-60B-25M | 1.25 kg [2.76 lb]

**Specifications:**
- **Max. Static Clamp Load:**
  - 60mm: 746 Nm [550 ft-lb]
  - 30mm: 271 Nm [200 ft-lb]
- **Material:** Aluminum

**Features:**
- Connects 60mm octagon and 25mm round perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

Dimensions and technical information are subject to change without notice.
BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

TCA-25M-45B 25mm Round to 45mm Octagon T-Clamp Brackets Assembly

Features:
- Connects 25mm round and 45mm octagon perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

Specifications:
- Max. Static Clamp Load:
  - 45mm: 475 Nm [350 ft-lb]
  - 25mm: 271 Nm [200 ft-lb]
- Material: Aluminum

Can be configured as a connector between booms for added stability

Dimensions and technical information are subject to change without notice.
BODYBUILDER™ T-CLAMPS
BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**TCA-25M-60B** 25mm Round to 60mm Octagon T-Clamp Bracket Assembly

**Specifications:**
- **Max. Static Clamp Load:**
  - 60mm: 746 Nm [550 ft-lb]
  - 25mm: 271 Nm [200 ft-lb]
- **Material:** Aluminum

**Features:**
- Connects 25mm round and 60mm octagon perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

Dimensions and technical information are subject to change without notice.
# BODYBUILDER™ ELBOWS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

## 45° Angular Boom Clamp Brackets

### Features:
- Mounts (2) Bodybuilder extrusion booms inline at a 45° angle.

### Specifications:
- Material: Aluminum

## DC-3030B-45 30mm to 30mm 45° External Boom Clamp Brackets

### Specifications:
- Max. Static Clamp Load: 271Nm [200 ft-lb]

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-DC-3030B-45</td>
<td>.30 kg [.66 lb]</td>
</tr>
</tbody>
</table>

## DC-4545B-45 45mm to 45mm 45° Angular Boom Clamp Brackets

### Specifications:
- Max. Static Clamp Load: 475 Nm [350 ft-lb]

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-DC-4545B-45</td>
<td>.64 kg [1.4 lb]</td>
</tr>
</tbody>
</table>
**BODYBUILDER™ ELBOWS**

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification**

**DC-6060B-45 60mm to 60mm 45° Angular Boom Clamp Brackets**

**Specifications:**
- Max. Static Clamp Load: 746 Nm [550 ft-lb]
- Material: Aluminum

**Features:**
- Mounts (2) Bodybuilder extrusion booms inline at a 45° angle.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-DC-6060B-45</td>
<td>1.74 kg [3.8 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
**BODYBUILDER™ MID FLANGE CLAMPS**

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification**

**CLM-30B-152F-90 30mm Mid Flange Clamp Mount**

**Features:**
- Mounts 30mm extrusion parallel to the mounting surface.
- Can be used as robot interface when quick-change connector is not required.

**Specifications:**
- **Max. Static Clamp Load:** 102 Nm [75 ft-lb]
- **Material:** Cast Aluminum

**Model Number**  
**Weight**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CLM-30B-152F-90</td>
<td>0.28 kg [.61 lb]</td>
</tr>
</tbody>
</table>
**TBC-45 45mm Mid Flange Clamp Mount**

**Specifications:**
- Max. Static Clamp Load: 475 Nm [350 ft-lb]
- Material: Aluminum

**Features:**
- Mounts 45mm extrusion parallel to the mounting surface.
- Can be used as robot interface when quick-change connector is not required.

---

**Model Number**
- **TBC-45-00**

**Weight**
- 0.79 kg [1.74 lb]
**TBC-60 60mm Mid Flange Clamp Mount**

**Features:**
- Mounts 60mm extrusion parallel to the mounting surface.
- Can be used to mount to robot with an interface plate.
- Cross-key design provides added strength for high-torque applications when used in conjunction with a slot and key mechanism.

**Specifications:**
- **Max. Static Clamp Load:** 746 Nm [550 ft-lb]
- **Material:** Cast Aluminum

Dimensions and technical information are subject to change without notice.
**BODYBUILDER™ END FLANGE CLAMPS**

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification**

**CLM-30B-20F 30mm End Flange Clamp Mount**

**Specifications:**
- Max. Static Clamp Load: 102 Nm [75 ft-lb]
- Material: Aluminum

**Features:**
- Mounts 30mm extrusion 90° to the mounting surface.
- Can be used as robot interface when quick-change connector is not required.

---

**Model Number** | **Weight**
--- | ---
CPI-CLM-30B-20F | .29 kg [.64 lb]
BECC-60 60mm End Flange Clamp Mount

Features:
• Mounts 60mm extrusion 90° to the mounting surface.
• Can be used as robot interface when quick-change connector is not required.
• Cross-key design provides added strength for high-torque applications when used in conjunction with a slot and key mechanism.

Specifications:
Max. Static Clamp Load: 746 Nm [550 ft-lb]
Material: Cast Aluminum

Dimensions and technical information are subject to change without notice

Cross Key sold separately: (2) x 540-25388

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>BECC-60-00</td>
<td>1.21 kg [2.67 lb]</td>
</tr>
</tbody>
</table>
BodyBuilder™ ACCESSORY MOUNTS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**TPM(S)-45 45mm Accessory Mounting Bracket**

**Features:**
- Provides a secure attachment point for clamps and pin locators.
- Standard NAAMS mounting patterns.

**Specifications:**
- **Max. Static Clamp Load:** 475 Nm [350 ft-lb]
- **Material:**
  - TPMS-45: Steel
  - TPM-45: Aluminum

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPM-45 (Aluminum)</td>
<td>.48 kg [1.28 lb]</td>
</tr>
<tr>
<td>TPMS-45 (Steel)</td>
<td>1.10 kg [2.90 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
BODYBUILDER™ ACCESSORY MOUNTS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

TPMS-60 60mm Accessory Mounting Bracket.

**Specifications:**

- **Max. Static Clamp Load:** 746 Nm [550 ft-lb]
- **Material:** Steel

**Features:**

- Provides a secure attachment point for clamps and pin locators.
- Standard NAAMS mounting patterns.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPMS-60</td>
<td>1.3 kg [2.90 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
TPMS-90 90mm Accessory Mounting Bracket

**Features:**
- Provides a secure attachment point for clamps and pin locators.

**Specifications:**
- Max. Static Clamp Load: 746 Nm [550 ft-lb]
- Material: Steel

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPMS-90</td>
<td>1.93kg [4.25lb]</td>
</tr>
</tbody>
</table>
**BODYBUILDER™ ACCESSORY MOUNTS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**TPMS-90 90mm Accessory Mounting Bracket**

**Features:**
- Provides a secure attachment point for clamps and pin locators.

**Specifications:**
- **Max. Static Clamp Load:** 746 Nm [550 ft-lb]
- **Material:** Steel

---

**Model Number** | **Weight**
---|---
TPMS-90 | 1.93kg [4.25lb]

Dimensions and technical information are subject to change without notice.
**Features:**
- Removable grip mount lock allows gripper to be adjusted while continuing to holding it in place.
- Swivel ball allows for ±25° adjustment of swivel rotation.

**Specifications:**
- Max. Static Clamp Load: 271 Nm [200 ft-lb]
- Material:
  - Body: Aluminum
  - Swivel Ball: Steel

**Model Number**  |  **Weight**  
--- | ---  
CPI-GPC-150-30BBS-DC | .33 kg [.73 lb]
**Features:**
- Swivel ball allows for ±25° adjustment of swivel rotation.

**Specifications:**
- **Max. Static Clamp Load:** 271 Nm [200 ft-lb]
- **Material:**
  - Housing: Machined Aluminum
  - Swivel: Steel

**Model Number**
- **CPI-RJM-150-30BBS**

**Weight**
- .33 kg [.74 lb]
**RJM-150-45BBS** 45mm End Gripper Mount for 150 Series Gripper

**Specifications:**
- **Max. Static Clamp Load:** 475 Nm [350 ft-lb]
- **Material:**
  - Housing: Machined Aluminum
  - Swivel: Steel

**Features:**
- Swivel ball allows for ±22° adjustment of swivel rotation.

**Model Number | Weight**
---|---
**CPI-RJM-150-45BBS** | 1.23 kg [2.71 lb]**
**BODYBUILDER™ SWIVEL ARMS**

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification**

**30B50-MSA** 30mm Swivel Arms for .50”(in) Apple Core Accessories

**Features:**
- Mounts to BodyBuilder™ 30mm extrusion boom.
- One bolt design for easy assembly and adjustment, allowing accessories to be repositioned easily.
- Provides 360° of adjustments in (3) axes.
- Used to mount venturi, bumpers, round locators, and proximity switches.

**Specifications:**
- Max. Static Clamp Load: 102 Nm [75 ft-lb]
- Material:
  - Body: Cast Aluminum
  - Insert: Machined Aluminum

**Dimensions and technical information are subject to change without notice**
**BodyBuilder™ SWIVEL ARMS**

**45B-CSA 45mm Swivel Arms for Ø19mm [.75 in] Apple Core Accessories**

**Specifications:**
- **Max. Static Clamp Load:** 271 Nm [200 ft-lb]
- **Material:**
  - **Body:** Cast Aluminum
  - **Insert:** Machined Aluminum

**Features:**
- Mounts to BodyBuilder™ 45mm extrusion boom.
- One bolt design for easy assembly and adjustment, allowing accessories to be repositioned easily.
- Provides 360° of adjustments in (3) axes.
- Used to mount venturi, bumpers, round locators, and proximity switches.

---

**CPI-180-45B-CSA SHOWN**

### CPI-"L" "45B-CSA SWIVEL ARM"

<table>
<thead>
<tr>
<th>“L”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>130</td>
<td>119.8</td>
<td>118.8</td>
<td>140.9</td>
<td>.48 kg</td>
</tr>
<tr>
<td></td>
<td>[4.72]</td>
<td>[4.68]</td>
<td>[5.56]</td>
<td>[1.06 lb]</td>
</tr>
<tr>
<td>180</td>
<td>169.8</td>
<td>169.1</td>
<td>224.9</td>
<td>.54 kg</td>
</tr>
<tr>
<td></td>
<td>[6.68]</td>
<td>[6.66]</td>
<td>[8.89]</td>
<td>[1.20 lb]</td>
</tr>
<tr>
<td>230</td>
<td>219.7</td>
<td>219.1</td>
<td>275.0</td>
<td>.61 kg</td>
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<td></td>
<td>[8.65]</td>
<td>[8.63]</td>
<td>[10.83]</td>
<td>[1.34 lb]</td>
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<tr>
<td>280</td>
<td>269.6</td>
<td>269.2</td>
<td>325.0</td>
<td>.67 kg</td>
</tr>
<tr>
<td></td>
<td>[10.61]</td>
<td>[10.60]</td>
<td>[12.80]</td>
<td>[1.47 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
**Features:**
- Mounts to BodyBuilder™ 30mm extrusion boom.
- One bolt design for easy assembly and adjustment, allowing accessories to be repositioned easily.
- Provides 360° of adjustments in (3) axes.
- Used to mount venturi, bumpers, round locators, and proximity switches.

**Specifications:**
- Max. Static Clamp Load: 271 Nm [200 ft-lb]
- Material:
  - Body: Cast Aluminum
  - Insert: Machined Aluminum

---

**CPI-400-30-SA SHOWN**

**CPI-" L "-30-SA SWIVEL ARM**

<table>
<thead>
<tr>
<th>&quot;L&quot;</th>
<th>&quot;A&quot;</th>
<th>&quot;B&quot;</th>
<th>&quot;C&quot;</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>103.8 [4.09]</td>
<td>95.1 [3.74]</td>
<td>142.5 [5.61]</td>
<td>.35 kg</td>
</tr>
<tr>
<td>500</td>
<td>132.8 [5.26]</td>
<td>126.0 [4.96]</td>
<td>172.7 [6.80]</td>
<td>.39 kg</td>
</tr>
<tr>
<td>600</td>
<td>151.7 [5.97]</td>
<td>146.0 [5.75]</td>
<td>192.5 [7.58]</td>
<td>.48 kg</td>
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<tr>
<td>700</td>
<td>170.6 [6.72]</td>
<td>165.4 [6.51]</td>
<td>212.1 [8.35]</td>
<td>.51 kg</td>
</tr>
<tr>
<td>800</td>
<td>209.7 [8.26]</td>
<td>205.5 [8.09]</td>
<td>252.2 [9.93]</td>
<td>.58 kg</td>
</tr>
</tbody>
</table>

---

**Also used to mount SAP and PSM series proximity mounts.**

**Rough locators, nest pad guides, and bumpers can also be mounted with the use of an apple core style mount bracket such as the EST and AB series nest pad brackets.**

---

Dimensions and technical information are subject to change without notice.
**BodyBuilder™ SWIVEL ARMS**

**30-SA-B112 30mm Swivel Arms for Swivel Ball Mount Accessories**

<table>
<thead>
<tr>
<th>&quot;L&quot;</th>
<th>&quot;A&quot;</th>
<th>&quot;B&quot;</th>
<th>&quot;C&quot;</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>106.7</td>
<td>95.0</td>
<td>146.1</td>
<td>.40 kg</td>
</tr>
<tr>
<td></td>
<td>[4.20]</td>
<td>[3.74]</td>
<td>[5.75]</td>
<td>[.88 lb]</td>
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<tr>
<td>500</td>
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<td>126.0</td>
<td>177.1</td>
<td>.46 kg</td>
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<tr>
<td></td>
<td>[5.32]</td>
<td>[4.96]</td>
<td>[6.97]</td>
<td>[1.00 lb]</td>
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<tr>
<td>600</td>
<td>153.7</td>
<td>145.8</td>
<td>196.9</td>
<td>.49 kg</td>
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<tr>
<td></td>
<td>[6.05]</td>
<td>[5.74]</td>
<td>[7.75]</td>
<td>[1.06 lb]</td>
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<tr>
<td>700</td>
<td>172.3</td>
<td>165.4</td>
<td>216.5</td>
<td>.53 kg</td>
</tr>
<tr>
<td></td>
<td>[6.78]</td>
<td>[6.51]</td>
<td>[8.52]</td>
<td>[1.19 lb]</td>
</tr>
<tr>
<td>800</td>
<td>211.1</td>
<td>205.5</td>
<td>256.6</td>
<td>.60 kg</td>
</tr>
<tr>
<td></td>
<td>[8.31]</td>
<td>[8.09]</td>
<td>[10.10]</td>
<td>[1.31 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**BC19 30mm Bodybuilder to Ø19mm [.75 in] Apple Core Swivel End Mount**

**Features:**
- Mounts to BodyBuilder™ 30mm extrusion boom.
- One bolt design for easy assembly and adjustment, allowing accessories to be repositioned easily.
- Provides 360° of adjustment along (2) axis.

**Specifications:**
- **Material:** Aluminum

---

INCLUDES (2) INSERTS TO BE PRESS-FITTED INTO THE END OF 30MM BODYBUILDER™ OCTAGONAL BOOM

---

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-BC-19</td>
<td>.13 kg [.28 lb]</td>
</tr>
</tbody>
</table>
AB-750-SL Part Present Proximity Switch Mount

Features:
- Mounts a 40mm square proximity sensor to the BodyBuilder™ 30mm Swivel Arm (CPI-“L”-30-SA).
- Mount allows for 360 degrees of radial adjustment along one axis.
- Slots allows 28.6mm [1.13 in] of linear adjustment for fine tuning during final setup.

Specifications:
- Max. Static Clamp Load: 271 Nm [200 ft-lb]
- Material: Aluminum

Dimensions and technical information are subject to change without notice.

Model Number Weight
CPI-AB-750-SL .10 KG [.22 lb]
**NPG-15RL-400 Rough Locator**

**Features:**
- Mounts to Nest Pad Brackets and indirectly to BodyBuilder™ 30mm Swivel Arm Mount.

**Specifications:**
- **Max. Static Clamp Load:** 271 Nm [200 ft-lb]
- **Material:**
  - Bracket: Steel
  - Wear Surface: UHMW

**Dimensions and technical information are subject to change without notice**
BODYBUILDER™ SWIVEL ARM ACCESSORIES
BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specification

**SAP-BM10 Ø19mm [.75 in] Apple Core Nest Bumper Mount**

**Specifications:**

- **Max. Static Clamp Load:**
  271 Nm [200 ft-lb]

- **Material:**
  Steel

**Dimensions and technical information are subject to change without notice**

--

**Model Number** | **Weight**
---|---
CPI-SAP-BM10 | .10 kg [.21 lb]
Table of Contents

SpiderGrip Heavy Duty Mid Mount ................................................................. 5

SpiderGrip Anchors and Collar Assemblies ..................................................... 10

SpiderGrip Booms, Adaptors, and Spacers ...................................................... 17

SpiderGrip Junction Components ..................................................................... 21

SpiderGrip Single End Extension Mount ......................................................... 26

SpiderGrip Edge Mounting Components ....................................................... 27
SPIDERGRIP GEOMETRIC END EFFECTOR SYSTEM

Spidergrip Tooling Components | Typical Application Build Examples

Materials Handling End Effector Tooling System with RM4 Heavy Duty Mid-Mount Assembly (RM4-ST5).

Geometric End Effector Tooling System with Steel Frame Backbone.

Weld Fixture Tooling System

SpiderGrip Application Guide

Dimensions and technical information are subject to change without notice
SPIDERCROP GEOMETRIC END EFFECTOR SYSTEM

Product Overview

SpiderGrip Geometric End Effector Tooling System offers a standard cost effective solution by making it easy for each component to be replaced individually in the robotic cell, dramatically reducing production downtime and eliminating the need for a second end-effector.

This system is crash test certified and features automatic optical & standard CMM validation points.

Spidergrip modular components are easily configurable and offer high strength to weight ratios while maintaining dimensional accuracy after continuous minor collisions. The patented collar/key design and engineered breakaway base anchor provides quick crash recovery.
SPIDERGRIP GEOMETRIC END EFFECTOR SYSTEM

Product Overview

Most commonly used in:

<table>
<thead>
<tr>
<th>Applications</th>
<th>Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixture Welding</td>
<td>Industrial</td>
</tr>
<tr>
<td>Pick and Place</td>
<td>Automotive</td>
</tr>
<tr>
<td>Material Handling</td>
<td>Aerospace</td>
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<tr>
<td>Geometric Fixtures</td>
<td>Appliance</td>
</tr>
</tbody>
</table>

Heavy Duty Mid Mount Assembly

Boom

Base Anchor Engineered Breakaway

82M Series Power Clamp

Dimensions and technical information are subject to change without notice
Heavy-Duty Mid Mount Assembly

Dimensions and technical information are subject to change without notice.
When ordering with Heavy Duty Mid Mount, please add designation “EPM-01” as shown RM4-STS-RXX-EPM-01 or add designation “EPM-BLK” to order blank RM4-STS-RXX-EPM-BLK

To order separately use Model Number

Model Number | Weight
--- | ---
CPI-BM2-EPM-xx | .63 kg [1.39 lb]

Dimensions and technical information are subject to change without notice
MID MOUNT BOLT PATTERN

Robot Interface Bolt Patterns

R01 (Ø200mm Bolt Circle)

R02 (Ø125mm Bolt Circle)

R03 (Ø160mm Bolt Circle)

R04 (Ø160mm Bolt Circle)

R05 (Ø125mm Bolt Circle)

R06 (Ø125/160mm Bolt Circle)

Includes Insulation
Add 1.5mm to Height (95.0 [3.74])
R07 (Ø200mm Bolt Circle)

R08 (Ø125/160mm Bolt Circle)
Includes Insulation
Add 1.5mm to Height (95.0 [3.74])

R09 (Ø200mm Bolt Circle)
Includes Insulation
Add 1.5mm to Height (95.0 [3.74])

R10 (Ø200mm Bolt Circle)

R11 (Ø200mm Bolt Circle)
Includes Insulation
Add 1.5mm to Height (95.0 [3.74])

R12 (Ø160mm Bolt Circle)
Includes Insulation
Add 1.5mm to Height (95.0 [3.74])
MID MOUNT BOLT PATTERN

Spidergrip Tooling Components | Robot Interface Bolt Patterns

R13 (Ø125/160mm Bolt Circle) (Ø110mm Pilot, 5.5mm Deep)

R14 (Ø200mm Bolt Circle) (Ø125mm Pilot, 11mm Deep)

R16 (Ø200mm Bolt Circle)

Includes Insulation
Add 1.5mm to Height (95.0 [3.74])

R17 (Ø160mm Bolt Circle)

Dimensions and technical information are subject to change without notice
**SPIDERGRIP MID MOUNT ANCHOR**

Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm Base Anchor with 50mm Face Offset
80mm x 40mm Mounting Pattern

---

US PATENT# 7,331,104
ALL OTHER PATENTS PENDING

**Engineered Breakaway Part**

This Product is designed to breakaway at 1627 N*m [1200 ft-lb]

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>STS0016-NA</td>
<td>.31 kg [.68 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
**SPIDERGRIP MID MOUNT ANCHOR**

Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm Base Anchor with 25mm Face Offset
(6) Hole Ø70mm Mount Pattern

---

**Model Number**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>STS0025-NA</td>
<td>252g [0.6 lb]</td>
</tr>
<tr>
<td>STS0025-NA-BA-1500*</td>
<td>242g [0.5 lb]</td>
</tr>
</tbody>
</table>

*This Product is designed to breakaway at 1500 N*m [1106 ft-lb]
SPIDERGRIP MID MOUNT ANCHOR

Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm HD Anchor Mount
(3) Hole Ø190mm Mount Pattern

Dimensions and technical information are subject to change without notice.

Model Number | Weight
STP0001-NA | 1.09 kg [2.40 lb]
Assembly Instructions – First Assembly

In many cases, it may be advantageous to assemble the appendage remotely and then once complete, mount the entire appendage assembly onto the mounting structure.

1. Clean/Wipe and inspect ALL mating faces of all components for burrs before assembly; if a part is damaged it will not correctly couple to mating piece.

2. Assemble Breakaway Anchor, X-Key Assembly, New Collar Assembly and remaining appendage (from step #3).

3. Gradually tighten bolts on Collar Assembly, while maintaining an equal gap on each side of the assembly. Torque collar bolts to 25 N·m [220 in-lb] for 60mm, or 30 N·m [265 in-lb] for 90mm. Do not re-torque once desired torque is reached.

4. Mount appendage as assembled to steel backbone and insert new 8mm dowels into the dowel holes on the Breakaway Anchor.

5. Insert new M8-1.25 patchlock bolts into Breakaway Anchor, torque in a cross pattern following NAAMS recommended torque.

6. Attach steel tether (STS-TETHER-08 or STS-TETHER-16) to appendage via one of the bolts located on the base of the Breakaway Anchor. The other loop will be attached to the first threaded M6 hole (located on the boom) or the M8 hole located on the edge part. The tether may also be wrapped around the appendage to reduce cable slack.

**Note:** Performance may vary if used with non-DESTACO components

Dimensions and technical information are subject to change without notice.
Includes (1) Collar Assembly (STCCLR2-NA) and (1) X-Key Assembly (STCXKEY-NA). Patch-lock fasteners included.

Max bolt torque when clamping to: 25 N*m [220 in-lbs]
FLAT WASHER IS REQUIRED FOR ALL M6 BOLTS
M6-30mm SHCS PATCHLOCK
(TO BE SUPPLIED BY END USER)

$\phi$.33

8.75" ± 3/16"

1/8" DIA NYLON SHIELDED
7-19 WIRE ROPE

Model Number  Weight
STS-TETHER-09  .07 kg [.15 lb]

FLAT WASHER IS REQUIRED FOR ALL M6 BOLTS
M6-30mm SHCS PATCHLOCK
(TO BE SUPPLIED BY END USER)

$\phi$.33

16.0" ± 3/16"

1/8" DIA NYLON SHIELDED
7-19 WIRE ROPE

Model Number  Weight
STS-TETHER-16  .09 kg [.19 lb]
**SPIDERGRIP BOOMS, ADAPTORS AND SPACERS**

Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm Boom

M6 tap holes along the boom are used to mount accessories

<table>
<thead>
<tr>
<th>M6 Hole Spacing</th>
<th>Model Number</th>
<th>Length “L”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STB0050-NA</td>
<td>50mm ±0.02</td>
<td>.20 kg [0.43 lb]</td>
</tr>
<tr>
<td></td>
<td>STB0075-NA</td>
<td>75mm ±0.02</td>
<td>.32 kg [0.71 lb]</td>
</tr>
<tr>
<td></td>
<td>STB0100-NA</td>
<td>100mm ±0.02</td>
<td>.45 kg [0.99 lb]</td>
</tr>
<tr>
<td></td>
<td>STB0150-NA</td>
<td>150mm ±0.02</td>
<td>.70 kg [1.54 lb]</td>
</tr>
<tr>
<td></td>
<td>STB0200-NA</td>
<td>200mm ±0.02</td>
<td>.95 kg [2.09 lb]</td>
</tr>
<tr>
<td></td>
<td>STB0250-NA</td>
<td>250mm ±0.02</td>
<td>1.20 kg [2.64 lb]</td>
</tr>
<tr>
<td></td>
<td>STB0300-NA</td>
<td>300mm ±0.02</td>
<td>1.44 kg [3.18 lb]</td>
</tr>
<tr>
<td></td>
<td>STB0350-NA</td>
<td>350mm ±0.02</td>
<td>1.74 kg [3.78 lb]</td>
</tr>
</tbody>
</table>
SPIDERGRIP BOOMS, ADAPTORS AND SPACERS

Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm Breakaway and Non-Breakaway Boom Spacers

Model Number | Weight
STB0025-NA | .08 kg [.18 lb]

Ø60mm 25mm Engineered Breakaway Boom Spacers

Model Number | Weight
STB0025-BA-800 | .08 kg [.18 lb]

This Product is designed to breakaway at 800 N*m [590 ft-lb]

Dimensions and technical information are subject to change without notice
SPIDERGRIP BOOMS

Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm 2-Face 45° Junction

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>STN0C45-NA</td>
<td>.42 kg [.93 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
SPIDERGRIP SPACERS

Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm 2-face 90° Junction

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>STN0C90-NA</td>
<td>.53 kg [1.16 lb]</td>
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</tbody>
</table>

Dimensions and technical information are subject to change without notice.
SPIDERGRIP JUNCTION COMPONENTS

Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm 3-Face Junction

Model Number  Weight
STN0C3F-NA  .58 kg [1.29 lb]

Dimensions and technical information are subject to change without notice
<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>STN0C4F-NA</td>
<td>.65 kg [1.43 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm 3-Face Junction

Dimensions and technical information are subject to change without notice
Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm 4-Face Junction

Dimensions and technical information are subject to change without notice

Model Number | Weight
--- | ---
STN0T4F-NA | .67 kg [1.47 lb]
SPIDERGRIP JUNCTION COMPONENTS

Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm 5-Face Junction

Model Number | Weight
--- | ---
STN0T5F-NA | .71 kg [1.56 lb]

Dimensions and technical information are subject to change without notice
### Spidergrip Tooling Components | Dimensions | Technical Specification

**Ø60mm to Ø25mm Single End Extension**

#### Model Number | Weight
--- | ---
STV0100-NA | .26 kg [.58 lb]

#### Model Number | Weight
--- | ---
STV0200-NA | .40 kg [.87 lb]

Dimensions and technical information are subject to change without notice.

---

**EE-SGP | 26**
Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm 90° Edge Part with 15mm Center to Face Offset
40mm x 40mm Mounting Pattern

Model Number | Weight
---|---
STS0010-NA | .31 kg [.69 lb]
SPIDERGRIP EDGE MOUNTING COMPONENTS
Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm 90° Edge Part with 25mm Center to Face Offset
40mm x 40mm Mounting Pattern

Model Number  | Weight
--- | ---
STS0011-NA  | .35 kg [.77 lb]

Dimensions and technical information are subject to change without notice
SPIDERGRIP EDGE MOUNTING COMPONENTS

Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm 90° Edge Part with 50mm Center to Face Offset
40mm x 40mm Mounting Pattern

![Diagram of Spidergrip Edge Mounting Component]

**Model Number**
STS0012-NA

**Weight**
.47 kg [1.04 lb]

Dimensions and technical information are subject to change without notice.
**SPIDERSGRIP EDGE MOUNTING COMPONENTS**

Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm Offset Edge Part with 25mm Face Offset
40mm x 40mm Mounting Pattern

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>STS0014-NA</td>
<td>.39 kg [.85 lb]</td>
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</tbody>
</table>
SPIDERGRIP EDGE MOUNTING COMPONENTS
Spidergrip Tooling Components | Dimensions | Technical Specification

Ø60mm In-line Edge Part with 50mm Face Offset
80mm x 40mm Mounting Pattern

Dimensions and technical information are subject to change without notice
DESTACO DBG Series bag gripping end effector solutions offers end of line pick and place and palletizing solutions. The DBG has a simplified design with field adjustable finger position and opening angle.

Features also include:
- Pneumatic or electric fully enclosed actuators
- Integrated open/closed position sensors
- Standard off-the-shelf components

Two sizes available:
- DBG50 (50lb Max Load)
- DBG100 (100lb Max Load)
DESTACO DBG Series bag gripper also features optional integrated slip sheet and pallet handling. Products are held secure even if air pressure is lost.

With rapid actuation, the DBG can palletize up to 30 bags per minute when working in concert with robotic automation.

DESTACO also provides custom design and build solutions for handling any packaging transfer and palletizing needs.
### DBG SERIES BAG GRIPPER

**Product Overview**

**Pneumatic Slip Sheet Pick Option (PU6-SP)**

**Additional Available Options (DBG100):**
- Pneumatic Back-up Option (PU6-BU)
- Spring Back-up Option (SU3)

** Supports Option (SU2)**

**Controls Option (CP)**

**Pallet Pick Option (PP)**

---

**DBG100-2-PU6-SP-PP-CP** (Shown)

---

**Scan the QR Codes to see the bag gripper application videos.**

Scan the QR Codes to see the bag gripper application videos.

---

Dimensions and technical information are subject to change without notice.
Field-Adjustable Bag Gripper and Pallet Handler fingers

### DBG Series Bag Grippers

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DBG50-2</th>
<th>DBG100-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Weight:</td>
<td>17kg [38 lbs]</td>
<td>43kg [95 lbs]</td>
</tr>
<tr>
<td>Maximum Payload:</td>
<td>23Kg [50 lbs]</td>
<td>45Kg [100 lbs]</td>
</tr>
<tr>
<td>Maximum Bag Size:</td>
<td>432 x 711 x 122mm [17 x 28 x 5 in]</td>
<td>610 x 1016 x 170mm [24 x 40 x 6.7 in]</td>
</tr>
</tbody>
</table>

### DBG Bag Gripper Order Information

#### Base Model

- **DBG50-2**
  - SU2: 2 Inches Spring Back-up
  - PU4-BU: 4 Inches Pneumatic Back-up
  - PU4-SP: 4 Inches Pneumatic Slip Sheet Pick

- **DBG100-2**
  - SU3: 3 Inches Spring Back-up
  - PU6-BU: 6 Inches Pneumatic Back-up
  - PU6-SP: 6 Inches Pneumatic Slip Sheet Pick

---

Note: Leave blank if option is not required.
DBG SERIES BAG GRIPPER

Options

**PU(x)-SP Pneumatic Slip Sheet Pick Option**
- In addition to the spring compensator option, a vacuum system can be added to the package which will handle the slip sheet.
- Eliminate the need for a second end effector or secondary operation.
- 4” Stroke for DBG50-2 (PU4-SP) (Add option weight of 5kg [11 lbs] to base model)
- 6” Stroke for DBG100-2 (PU6-SP) (Add option weight of 10kg [23 lbs] to base model)

**PU(x)-BU Pneumatic Back-Up Option**
- The pneumatic compensator is extended to contact the product for additional stability and control while in motion.
- 4” Stroke for DBG50-2 (PU4-BU) (Add option weight of 3.6kg [8 lbs] to base model)
- 6” Stroke for DBG100-2 (PU6-BU) (Add option weight of 9kg [20 lbs] to base model)

**SU(x) Spring Back-Up Option**
- Simple, cost-effective solution.
- Compression springs keep a constant pressure on the product.
- Low cost solution maintains control of the product while in transport.
- Spring Back-Up Option for DBG50-2 (SU2) (Add option weight of 2.9kg (6.4 lbs) to base model)
- Spring Back-Up Option for DBG100-2 (SU3) (Add option weight of 5.6kg (12.4 lbs) to base model)
**PP Pallet Pick Option**

- To offer a complete solution, DESTACO has also included an optional ‘Pallet Pick’ which allows the customer to pick-up and move the empty pallet.

- Pallet Pick Option for DBG50-2
  (Add option weight of 13kg [29 lbs] to base model)

- Pallet Pick Option for DBG100-2
  (Add option weight of 22kg [48 lbs] to base model)

---

**CP Controls Option**

- Controls Options are configured based on the different bag gripper options ordered.

(Add option weight of 2.3kg [5 lbs] to base model)
DBG50 SERIES

Bag Gripping and Palletizing Solutions | Dimensions

Note: mm/[Inches]
**Model Number**

DBG100-2

**Weight**

[95 lb] 43 kg
SLIP SHEET PICK AND PLACE OPTION

Bag Gripping and Palletizing Solutions | Dimensions

4.00" [101.6mm]

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBG50-2-PU4-SP</td>
<td>[11 lb] 5 kg</td>
</tr>
</tbody>
</table>

Add to base model weight

6.00" [152.4mm]

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBG100-2-PU6-SP</td>
<td>[23 lb] 10 kg</td>
</tr>
</tbody>
</table>

Add to base model weight

Note: mm/Inches

Dimensions and technical information are subject to change without notice
MODEL NUMBER

**DBG50-2-PU4-BU**
- **Weight**: 8 lb [3.6 kg]

Add to base model weight

**DBG100-2-PU6-BU**
- **Weight**: 20 lb [9 kg]

Add to base model weight

---

**PNEUMATIC BACK-UP OPTION**

Bag Gripping and Palletizing Solutions | Dimensions

4.00” [101.6mm]

**DBG50-2-PU4-BU**
- **MAX HEIGHT**: 457.3
- **MIN HEIGHT**: 38.1

6X Ø11.0 THRU

SET-UP MIN (TYP) 387.19

MAX

363.0

M8X1.25 - 6H    20.0

[22.53] 572.3
MIN
HEIGHT

[24.16] 613.6
MAX
HEIGHT

M10X1.5 - 6H  20.0

[3.94] 100.0
STROKE

[4.00”] [101.6mm]

Setup Probe:
(Removed after installation & setup)

**DBG100-2-PP**
- **STROKE**: 437.0

310.0 [12.20]

PART NO.: DBG100-2-PU6-BU

PART NO.: DBG50-2-PU4-BU

PART NO.: DBG50-2-PP

3X Ø6.8 [0.27]     23.0 [0.91]

PART NO.: DBG50-2-SU2

[24.00] 609.6

[14.63] 371.6

STROKE

176.2 [6.94]

PART NO.: DBG100-2-PP

PART NO.: DBG50-2-CP

[24.00] 609.6

[14.90] 319.0

STROKE

176.2 [6.94]

PART NO.: DBG100-2-SU3

[18.00] 457.2

MAX

437.4

MIN

432.3

M8X1.25 - 6H    20.0

[2.22] 79.5 SQ.

Pneumatic Back-up Option

**DBG100-2-PU6-SP**
- **MAX HEIGHT**: 465.7

428.5 REF

613.6

MAX

428.5 REF

791.2

457.2

MIN

387.7

MAX

373.5

MIN

342.8

MIN

371.6

Note: mm/”

**DBG100-2-PU6-BU**
- **MAX HEIGHT**: 517.5

432.4

MIN

318.3

MAX

489.9

381.8

4.00” [101.6mm]

Setup Probe:

**DBG50-2-PU4-SP**
- **MAX HEIGHT**: 428.5

287.2 REF

786.92

MIN

79.5 [3.13] SQ.

VENTURI INCLUDED

**DBG50-2-SU4**
- **STROKE**: 342.8

176.2 [6.94]

PART NO.: DBG100-2-CP

PART NO.: DBG50-2-PP

PART NO.: DBG50-2-PP

3X Ø8.5  23.0

M10X1.5 - 6H  20.0

3X Ø6.8 [0.27]     23.0 [0.91]

PART NO.: DBG50-2-CP

[12.62] 241.3

VENTURI INCLUDED

**DBG50-2-PP**
- **STROKE**: 176.2

319.0

MIN

319.0

MAX

409.6

4.00” [101.6mm]

Setup Probe:

**DBG50-2-CP**
- **STROKE**: 176.2

241.3

MIN

241.3

MAX

457.2

MIN

457.2

MAX

1232.5

1205.4

1996

Note: mm/”

Dimensions and technical information are subject to change without notice
TRAVEL SPRING BACK-UP OPTION

Bag Gripping and Palletizing Solutions | Dimensions

2.00” [50.8mm]

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBG50-2-SU2</td>
<td>[6.4 lb] 2.9 kg</td>
</tr>
</tbody>
</table>

Add to base model weight

3.00” [76.2mm]

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBG100-2-SU3</td>
<td>[12.4 lb] 5.6 kg</td>
</tr>
</tbody>
</table>

Add to base model weight

Note: mm/Inches

Dimensions and technical information are subject to change without notice
Add to base model weight

Model Number | Weight
---|---
DBG50-2-PP | [29 lb] 13 kg

Add to base model weight

Model Number | Weight
---|---
DBG100-2-PP | [48 lb] 22 kg

Note: mm/Inches

Dimensions and technical information are subject to change without notice.
CONTROLS AND VALVE PACKAGE OPTION

Bag Gripping and Palletizing Solutions | Dimensions

Model Number  | Weight
--- | ---
DBG50-2-CP  | 2.3 kg

Add to base model weight

Model Number  | Weight
--- | ---
DBG100-2-CP  | 2.3 kg

Add to base model weight

Note: mm/Inches

Dimensions and technical information are subject to change without notice
DBG-2-CP-KIT CONTROLS PACKAGE

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specification

For Base Model

Dimensions and technical information are subject to change without notice
For Slip Sheet Pick and Place

**DBG-2-CP-PU-SP-KIT Control Package**

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specification

Dimensions and technical information are subject to change without notice.

Multifast M23 Male Pins, Male Threads or Coupling Nut

EuroFast Male Pins, Male Threads or Coupling Nut

PicoFast Female Pins, Female Threads or Coupling Nut

---

**EE-DBG**

Dimensions and technical information are subject to change without notice.
For Pneumatic Back-up

Dimensions and technical information are subject to change without notice.
DBG-2-CP-PP-KIT CONTROLS PACKAGE

For Pallet Pick and Place

Dimensions and technical information are subject to change without notice.
DBG-CP-PU-BU-PP-KIT CONTROLS PACKAGE

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specification

For Pallet Pick and Place/Pneumatic Back-up

Dimensions and technical information are subject to change without notice
• Aluminum welded construction
• Painted safety orange
• Available in 100, 125, 160 & 200mm bolt circles
(Custom stand-offs available upon request)
• Bolts for mounting to bag gripper are included
ROBOT STAND-OFF ADAPTOR

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specification

**Material:** Aluminum painted safety orange

(4) M10 SHCS & Lock washers included

---

Model Number | H [inch]/mm | Weight
--- | --- | ---
DBG50-2-S04-100BC-KIT | 4.00 | 4.8 lb
DBG50-2-S06-100BC-KIT | 6.00 | 5.5 lb
DBG50-2-S04-200BC-KIT | 4.00 | 5.7 lb
DBG50-2-S06-200BC-KIT | 6.00 | 6.5 lb

---

Model Number | H [inch]/mm | Weight
--- | --- | ---
DBG50-2-S04-125BC-KIT | 4.00 | 5.5 lb
DBG50-2-S06-125BC-KIT | 6.00 | 6.5 lb

---

Model Number | H [inch]/mm | Weight
--- | --- | ---
DBG50-2-S04-200KIT | 4.00 | 7.9 lb
DBG50-2-S06-200KIT | 6.00 | 8.7 lb

---

Note: mm/[Inches]

---

Dimensions and technical information are subject to change without notice
### ROBOT STAND-OFF ADAPTOR

Bag Gripping and Palletizing Solutions | Dimensions | Technical Specification

**Model Number** | **H [inch]/mm** | **Weight**
--- | --- | ---
**DBG100-2-S04-125BC-KIT** | 4.00 | 4.4 lb
| 101.6 | 2.0 kg
| 6.00 | 5.2 kg
| 152.4 | 2.4 kg

**Material:** Aluminum painted safety orange

(6) M10 SHCS & Lock washers included

---

**Model Number** | **H [inch]/mm** | **Weight**
--- | --- | ---
**DBG100-2-S04-160BC-KIT** | 4.00 | 6.0 lb
| 101.6 | 2.7 kg
| 6.00 | 6.8 lb
| 152.4 | 3.1 kg

**Material:** Aluminum painted safety orange

(6) M10 SHCS & Lock washers included

---

**Model Number** | **H [inch]/mm** | **Weight**
--- | --- | ---
**DBG100-2-S04-200BC-KIT** | 4.00 | 6.9 lb
| 101.6 | 3.1 kg
| 6.00 | 7.7 lb
| 152.4 | 3.5 kg

**Material:** Aluminum painted safety orange

(6) M10 SHCS & Lock washers included

---

Dimensions and technical information are subject to change without notice.
DESTACO has developed special urethane compounds that have been incorporated into die storage blocks that were previously made using all steel construction. The use of DESTACO Urethane Die Storage Blocks greatly reduces scratching and damage to parts and die surfaces. Our Storage Blocks can mount directly to the die or, as an option, use our steel, double-hinge, swing-away bases.

**Ball Bearing Cushion Rollers**

DESTACO Rollers are designed to meet the high performance needs of the industrial market. Available in cushion design where maximum protection from shock loads is required and noise, scratch and dent free service is a necessity. Rollers are made of oil and cut resistant neoprene and nitrile material, molded in four color coded durometers and are offered with or without stud mounting. DESTACO rollers protect your products!
### Die Storage Blocks

**Features:**
- Made of long-lasting 80 durometer red urethane
- Can remain in place when die is used
- Imperial and metric threads available

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-50-400-20M</td>
<td>101.6</td>
<td>127.0</td>
<td>M20-2.5</td>
<td>120.7</td>
<td>79.5</td>
<td>4.5</td>
</tr>
<tr>
<td>CPI-55-450-A</td>
<td>114.3</td>
<td>139.7</td>
<td>5/8-11</td>
<td>130.2</td>
<td>101.6</td>
<td>6.8</td>
</tr>
<tr>
<td>CPI-65-350-20M</td>
<td>88.9</td>
<td>165.1</td>
<td>M20-2.5</td>
<td>114.3</td>
<td>127.0</td>
<td>4.5</td>
</tr>
<tr>
<td>CPI-65-450-20M</td>
<td>114.3</td>
<td>130.3</td>
<td>5/8-11</td>
<td>130.3</td>
<td>101.6</td>
<td>6.8</td>
</tr>
<tr>
<td>CPI-M-1443</td>
<td>88.9</td>
<td>203.2</td>
<td>M16-2</td>
<td>Data Not Available</td>
<td>Data Not Available</td>
<td>Data Not Available</td>
</tr>
<tr>
<td>CPI-M-1444</td>
<td>114.3</td>
<td>203.2</td>
<td></td>
<td>M20-2.5</td>
<td>4.5</td>
<td>5/8-11</td>
</tr>
</tbody>
</table>

### Die Storage Base

**Features:**
- Swing-out capability with double-hinge
- Imperial and metric threads available
- Steel construction

### Dimensions and Technical Information

Dimensions and technical information are subject to change without notice.
**BALL BEARING CUSHION ROLLERS**

Die Components | Dimensions | Technical Specifications

### Ball Bearing Cushion Roller

**Features:**
- DESTACO Cushion Rollers are assembled with free rolling ball bearings so they can be mounted per customer application.
- The cushion design dissipates shock to avoid damaging fragile parts.
- One size with four color coded durometers are available for your applications.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Durometer</th>
<th>Color</th>
<th>Material Hardness</th>
<th>Normal Kg [lb]</th>
<th>Maximum Kg [lb]</th>
<th>Material</th>
<th>Weight g [lb]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA-250-15</td>
<td>15</td>
<td>Tan</td>
<td>Soft</td>
<td>2.3 [5]</td>
<td>4.5 [10]</td>
<td>Neoprene</td>
<td>136 [0.3]</td>
</tr>
<tr>
<td>CA-250-60</td>
<td>60</td>
<td>Black</td>
<td>Hard</td>
<td>9.1 [20]</td>
<td>18.1 [40]</td>
<td>Nitrile</td>
<td></td>
</tr>
</tbody>
</table>

### Ball Bearing Cushion Roller with Stud Mount

**Features:**
- DESTACO Stud Mounted Cushion Rollers are assembled with a bolt, nut and spacer for mounting to accessory brackets.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Durometer</th>
<th>Color</th>
<th>Material Hardness</th>
<th>Normal Kg [lb]</th>
<th>Maximum Kg [lb]</th>
<th>Material</th>
<th>Weight g [lb]</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Spacer</th>
<th>Bolt</th>
<th>Nut</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CA-250-15</td>
<td>3/4 in. OD x 1/2 in. ID x 3/4 Length</td>
<td>SHCS 1/2-13 x 2 3/4</td>
<td>1/2-13 Locknut</td>
</tr>
<tr>
<td>CPI-CA-250-15-ME</td>
<td>SHCS M12-1.75 x 90mm</td>
<td>M12 Hex Nylock</td>
<td></td>
</tr>
<tr>
<td>CPI-CA-250-15-NB</td>
<td>No Bolt</td>
<td>M12 Hex Nylock</td>
<td></td>
</tr>
<tr>
<td>CPI-CA-250-45</td>
<td>SHCS 1/2-13 x 2 3/4</td>
<td>1/2-13 Locknut</td>
<td></td>
</tr>
<tr>
<td>CPI-CA-250-60</td>
<td>SHCS 1/2-13 x 2 3/4</td>
<td>1/2-13 Locknut</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
DIE COMPONENTS

Notes

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

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________________________________________________________________________

________________________________________________________________________
OUR PORTFOLIO OF PRODUCTS

End Effectors (EE)
• Tool Changers
• End-of-Arm Tooling
• Vacuum Products
• Palletizing Solutions

Grippers (GR)
• Electric Grippers
• Pneumatic and Sheet Metal Grippers
• Rotates
• Slides

Indexers (IN)
• Precision Conveyors
• Dial Indexers
• Shaft and Flange Indexers
• Part Handlers

Power Clamps (PC)
• Power Clamps
• Pin Clamps and Packages
• Pivot Units
• Power Cylinders

Manual Clamps (MC)
• Hold Down
• Squeeze Action
• Plunger, Hook and Latch
• Pneumatic Toggle and Swing

Remote Handling (RH)
• Gloveport Systems
• Transfer Systems
• Telemanipulators
• Waste Drum Systems