BODYBUILDER™ TOOLING EXAMPLES

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Dimensions and technical information are subject to change without notice
**Mid Mount with GR1 Series Gripper**

*Mid Mounted Part Nest with CPI-HTW Hold Table Weldment and Nest Pad guides*

*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*
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.
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>
</tr>
</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™ End Effector System

Product Overview

Dimensions and technical information are subject to change without notice.
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

<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™ Boom Structure**

**BodyBuilder™ Octagonal Tooling | Dimensions**

**45, 60, and 90mm Boom** Profile Dimensions and Specifications

### BodyBuilder™ 45mm Boom

- Model Number: B - 45 - (L) - 0
- Weight: 2.0 kg/m [1.4 lb/ft]

### BodyBuilder™ 60mm Boom

- Model Number: B - 60 - (L) - 0
- Weight: 3.3 kg/m [2.2 lb/ft]

### BodyBuilder™ 90mm Boom

- Model Number: B - 90 - (L) - 0
- Weight: 6.5 kg/m [4.4 lb/ft]

Dimensions and technical information are subject to change without notice.
**BODYBUILDER™ BOOM STRUCTURE**

**BodyBuilder™ Octagonal Tooling | Technical Specifications**

### 30mm Boom Deflection and Torsion Charts

**Deflection of 30mm BB**

- Deflection vs. Length of Extrusion (mm [in])
- Graphs show deflection for different loads and unsupported lengths.

**Torsional Twist of 30mm BB**

- Twist vs. Length of Extrusion (mm [in])
- Graphs show twist for different loads and unsupported lengths.

### 45mm Boom Deflection and Torsion Charts

**Deflection of 45mm BB**

- Deflection vs. Length of Extrusion (mm [in])
- Graphs show deflection for different loads and unsupported lengths.

**Torsional Twist of 45mm BB**

- Twist vs. Length of Extrusion (mm [in])
- Graphs show twist for different loads and unsupported lengths.

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

---

Dimensions and technical information are subject to change without notice
60mm Boom Deflection and Torsion Charts

- **Deflection of 60mm BB**
  - Length of Extrusion (mm [in])
  - Deflection (mm [in])
  - Load (Kgf): 5, 10, 20, 30, 40, 50
  - Deflection (mm [in]): 0.10, 0.12, 0.16, 0.20, 0.24, 0.28

- **Torsional Twist of 60mm BB**
  - Length of Extrusion (mm [in])
  - Torsional Twist (rad)
  - Load (Kgf): 1000, 2000, 3000, 4000, 8000
  - Torsional Twist (rad): 0.01, 0.02, 0.03, 0.05, 0.06

90mm Boom Deflection and Torsion Charts

- **Deflection of 90mm BB**
  - Length of Extrusion (mm [in])
  - Deflection (mm [in])
  - Load (Kgf): 5, 10, 20, 30, 40, 50
  - Deflection (mm [in]): 0.10, 0.12, 0.16, 0.20, 0.24, 0.28

- **Torsional Twist of 90mm BB**
  - Length of Extrusion (mm [in])
  - Torsional Twist (rad)
  - Load (Kgf): 1000, 2000, 3000, 4000, 8000
  - Torsional Twist (rad): 0.01, 0.02, 0.03, 0.05, 0.06

**Note:** Performance may vary if used with non-DESTACO components
**BODYBUILDER™ BOOM STRUCTURE ACCESSORIES**

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications**

**ETP-35 Extrusion Accessory Mount**

**Specifications:**
- **Material:** Aluminum

**Dimensions:**
- [6.00] 132.4
- [5.50] 139.7
- [4.55] 115.5
- [2.60] 76.2
- [2.60] 76.2
- [2.5] 6.4
- [4.8] 1.9
- [3.8] 9.5

**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

**Model Number** | **Weight** |
-----------------|-----------|
CPI-RMM-30B-40BC-08-90 | .28 kg [.62 lb]
**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>
Can be supplied with robot interface hole patterns. (See pages 19-21).
**BODYBUILDER™ MID MOUNT ASSEMBLIES**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**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**

**Specifications:**
- Material: Aluminum

**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.*

<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</td>
<td>27.8</td>
<td>83.8</td>
<td>27.8</td>
</tr>
<tr>
<td></td>
<td>[3.53]</td>
<td>[1.09]</td>
<td>[3.30]</td>
<td>[1.09]</td>
</tr>
<tr>
<td>R07, R09</td>
<td>96.0</td>
<td>34.1</td>
<td>99.6</td>
<td>34.1</td>
</tr>
<tr>
<td></td>
<td>[3.78]</td>
<td>[1.34]</td>
<td>[3.92]</td>
<td>[1.34]</td>
</tr>
</tbody>
</table>

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

**HEAVY-DUTY MID MOUNT ASSEMBLY DIMENSIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>“A”</th>
<th>“As”</th>
<th>“B”</th>
<th>“C”</th>
<th>“D”</th>
<th>“E”</th>
<th>“F”</th>
<th>“G”</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>RM4-45 (45mm)</td>
<td>85.6</td>
<td>111</td>
<td>117.6</td>
<td>400</td>
<td>490</td>
<td>560</td>
<td>500.0</td>
<td>45</td>
<td>13.6 kg [30.0 lb]</td>
</tr>
<tr>
<td>RM4-60 (60mm)</td>
<td>91.9</td>
<td>117.3</td>
<td>131.7</td>
<td>400.0</td>
<td>508</td>
<td>560.8</td>
<td>500.0</td>
<td>60</td>
<td>15.5 kg [34.2 lb]</td>
</tr>
</tbody>
</table>

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

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>(A)</th>
<th>Pattern</th>
<th>Model RM4-45/60</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM-01</td>
<td>Standard</td>
<td>CPI-BM2-EPM-01</td>
<td>.63 kg [1.39 lb]</td>
</tr>
<tr>
<td>EPM-BLK</td>
<td>Blank</td>
<td>CPI-BM2-EPM-BLK</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice
**BodyBuilder™ Structure Mid Mount Assemblies**

**BM3-90 90mm 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: 589.7 kg [1300 lb]
- Material:
  - Mid Mount: Cast Aluminum
  - Clamps: Steel

---

**HEAVY-DUTY MID MOUNT ASSEMBLY DIMENSIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>“A”</th>
<th>“As”</th>
<th>“B”</th>
<th>“C”</th>
<th>“D”</th>
<th>“E”</th>
<th>“F”</th>
<th>“G”</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>

**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

**Alignment Nuts Included**

**Robot Interface Plate Shown Blank.**
Please refer to pages 19-21 for standard robot interface bolt patterns & dimensions.
**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

**Features:**
- Mount directly to the BM3-90 Heavy Duty Mid-Mount Assembly.
- Used to mount pneumatic manifolds and electric proximity blocks.

**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)

R02 (Ø125mm Bolt Circle)

R03 (Ø160mm Bolt Circle)

Includes Insulation
Add 1.5mm to Height Dim “A”/“AS”

R04 (Ø160mm Bolt Circle)

R05 (Ø125mm Bolt Circle)

Includes Insulation
Add 1.5mm to Height Dim “A”/“AS”

R06 (Ø125/160mm Bolt Circle)
BODYBUILDER™ MID MOUNT BOLT PATTERNS

**R07 (Ø200mm Bolt Circle)**

- [7.87] Ø200.0
- [51] Ø13.0 THRU (6)
- [47] Ø12.0 P.F. (2)

**R08 (Ø125/160mm Bolt Circle)**

- Includes Insulation
- Add 1.5mm to Height Dim “A”/”AS”

**R09 (Ø200mm Bolt Circle)**

- Includes Insulation
- Add 1.5mm to Height Dim “A”/”AS”

**R10 (Ø200mm Bolt Circle)**

- [49] Ø12.5 THRU (6)
- [7.87] 200.0

**R11 (Ø200mm Bolt Circle)**

- Includes Insulation
- Add 1.5mm to Height Dim “A”/”AS”

**R12 (Ø160mm Bolt Circle)**

- Includes Insulation
- Add 1.5mm to Height Dim “A”/”AS”

Dimensions and technical information are subject to change without notice
**BODYBUILDER™ MID MOUNT RISERS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**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
**BODYBUILDER™ HOLD TABLE**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**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 [71.30 lb]</td>
</tr>
<tr>
<td>300</td>
<td>CPI-HTW-300</td>
<td>33.75 kg [74.40 lb]</td>
</tr>
<tr>
<td>350</td>
<td>CPI-HTW-350</td>
<td>35.16 kg [77.50 lb]</td>
</tr>
<tr>
<td>400</td>
<td>CPI-HTW-400</td>
<td>36.56 kg [80.60 lb]</td>
</tr>
<tr>
<td>450</td>
<td>CPI-HTW-450</td>
<td>37.97 kg [83.70 lb]</td>
</tr>
<tr>
<td>500</td>
<td>CPI-HTW-500</td>
<td>39.37 kg [86.81 lb]</td>
</tr>
<tr>
<td>550</td>
<td>CPI-HTW-550</td>
<td>40.78 kg [89.91 lb]</td>
</tr>
<tr>
<td>600</td>
<td>CPI-HTW-600</td>
<td>42.19 kg [93.01 lb]</td>
</tr>
<tr>
<td>650</td>
<td>CPI-HTW-650</td>
<td>43.59 kg [96.11 lb]</td>
</tr>
<tr>
<td>700</td>
<td>CPI-HTW-700</td>
<td>45.00 kg [99.21 lb]</td>
</tr>
<tr>
<td>750</td>
<td>CPI-HTW-750</td>
<td>46.41 kg [102.31 lb]</td>
</tr>
<tr>
<td>800</td>
<td>CPI-HTW-800</td>
<td>47.81 kg [105.41 lb]</td>
</tr>
<tr>
<td>850</td>
<td>CPI-HTW-850</td>
<td>49.22 kg [108.51 lb]</td>
</tr>
<tr>
<td>900</td>
<td>CPI-HTW-900</td>
<td>50.62 kg [111.61 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
## BODYBUILDER™ HOLD TABLE

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

### HTW-4 4" SQ. Pedestal Hold Table Weldment

**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.

**Specifications:**
- Material: Steel

---

### 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>
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<tr>
<td>700</td>
<td>CPI-HTW-700-4</td>
<td>32.15 kg [70.88lb]</td>
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<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>
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<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 Specifications**

**HTW-1200/1400 Pass-Thru Hold Table Weldment**

---

**CPI-“MODEL”-“H” PASS THROUGH TABLE WELDMENT**

<table>
<thead>
<tr>
<th>“H”</th>
<th>“Model”</th>
<th>Weight</th>
<th>“Model”</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>350</td>
<td>HTW-1200</td>
<td>84.62 kg</td>
<td>HTW-1400</td>
<td>88.39 kg</td>
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<tr>
<td></td>
<td></td>
<td>[186.55lb]</td>
<td></td>
<td>[194.87lb]</td>
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<tr>
<td>400</td>
<td>HTW-1200</td>
<td>86.42 kg</td>
<td>HTW-1400</td>
<td>90.02 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[190.53lb]</td>
<td></td>
<td>[198.85lb]</td>
</tr>
<tr>
<td>500</td>
<td>HTW-1200</td>
<td>90.04 kg</td>
<td>HTW-1400</td>
<td>93.81 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[198.50lb]</td>
<td></td>
<td>[206.82lb]</td>
</tr>
<tr>
<td>600</td>
<td>HTW-1200</td>
<td>93.65 kg</td>
<td>HTW-1400</td>
<td>97.42 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[206.46lb]</td>
<td></td>
<td>[214.78lb]</td>
</tr>
<tr>
<td>700</td>
<td>HTW-1200</td>
<td>97.26 kg</td>
<td>HTW-1400</td>
<td>101.04 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[214.42lb]</td>
<td></td>
<td>[222.74lb]</td>
</tr>
<tr>
<td>800</td>
<td>HTW-1200</td>
<td>100.87 kg</td>
<td>HTW-1400</td>
<td>104.65 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[222.39lb]</td>
<td></td>
<td>[230.71lb]</td>
</tr>
<tr>
<td>900</td>
<td>HTW-1200</td>
<td>104.49 kg</td>
<td>HTW-1400</td>
<td>108.26 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[230.35lb]</td>
<td></td>
<td>[238.67lb]</td>
</tr>
</tbody>
</table>

---

Dimensions and technical information are subject to change without notice.
## BodyBuilder™ Mid Mount Assemblies

### 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]

Dimensions and technical information are subject to change without notice.
**BODYBUILDERTM MID MOUNT ASSEMBLIES**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**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]

Dimensions and technical information are subject to change without notice.
BODYBUILDER™ END MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

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.

---

### Dimensions and Technical Information

- **Model Number:** CPI-CL-90B-160F
- **Weight:** 5.91 kg [13.04 lb]

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

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications**

**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

---

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

---

**CPI-RDCF-60B-00-00-X**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RDCF-60B-00-00-X</td>
<td>3.16 kg [6.96 lb]</td>
</tr>
</tbody>
</table>
**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.
BodyBuilder™ Alignment System

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.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-CLM-30B-30B</td>
<td>.24 kg [.54 lb]</td>
</tr>
</tbody>
</table>
**BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS**

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications**

**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

---

**Model Number**

<table>
<thead>
<tr>
<th><strong>M-30B-30B-M</strong></th>
<th><strong>Weight</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.82 kg [1.80 lb]</td>
</tr>
</tbody>
</table>

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.
**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

**Dimensions and Technical Information:**
- [Model Number] M-45B-45B-M
  - Weight: 1.05 kg [2.31 lb]

Dimensions and technical information are subject to change without notice.
30B-60B 30mm to 60mm Transition Bracket Assembly

Features:
- Connects 30mm and 60mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

Specifications:
- Max. Static Clamp Load:
  - 60mm: 746 Nm [550 ft-lb]
  - 30mm: 271 Nm [200 ft-lb]
- Material: Aluminum

---

Model Number | Weight
--- | ---
M-30B-60B-M | 1.13 kg [2.50 lb]

Dimensions and technical information are subject to change without notice.
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

<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>
BODYBUILDERTM TRANSITION BRACKETS AND BLOCKS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

60B-60B 60mm to 60mm Transition Bracket Assembly

Specifications:
Max. Static Clamp Load:
60mm: 746 Nm [550 ft-lb]
Material: Aluminum

Features:
• Connects (2) 60mm 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-60B-60B-M</td>
<td>1.36 kg [3.00 lb]</td>
</tr>
</tbody>
</table>

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

**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**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-60B-90B-M</td>
<td>2.25 kg [4.97 lb]</td>
</tr>
</tbody>
</table>

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

### Model Number
- **M-90B-90B-M**
- **Weight:** 3.33 kg [7.34 lb]
**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>
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

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight [g]</th>
<th>ΦD</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-45B-25M-M</td>
<td>239 [0.53lbs]</td>
<td>25mm</td>
</tr>
<tr>
<td>M-45B-10E-M</td>
<td>237 [0.52lbs]</td>
<td>1 in.</td>
</tr>
</tbody>
</table>

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

**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**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-60B-25M-M</td>
<td>356g [0.78lbs]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
<th>ØD</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-60B-40M-M</td>
<td>520g [1.15lbs]</td>
<td>40mm</td>
</tr>
<tr>
<td>M-60B-15E-M</td>
<td>535g [1.18lbs]</td>
<td>1.5 in.</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
## BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications**

**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

### Model Number | Weight
--- | ---
CPI-CLM-30B-50-TR | 0.092 kg [0.20 lb]
**BODYBUILDER™ T-CLAMPS**

*BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications*

**TCAM-30B-30B** 30mm to 30mm Octagon (Micro) T-Clamp Bracket Assembly

**Features:**
- Connects (2) 30mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

**Specifications:**
- Max. Static Clamp Load: 102 Nm [75 ft-lb]
- Material: Aluminum

**Model Number** | **Weight**
---|---
CPI-TCAM-30B-30B-M | .45 kg [.99 lb]

Dimensions and technical information are subject to change without notice.
**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.
## 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 and Weight
- **Model Number:** CPI-TCA-30B-60B
- **Weight:** 1.23 kg [2.71 lb]
BODYBUILDER™ T-CLAMPS
BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

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

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.

**Alignment Holes**
- Ø6.0 ALIGNMENT HOLE (3)

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

**Model Number** | **Weight**
---|---
CPI-TCA-45B-45B | .95 kg [2.09 lb]
**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

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

**Model Number**
- **Weight**
  - CPI-TCA-45B-25M  
    - .89 kg [1.97lb]

Dimensions and technical information are subject to change without notice.
**BODYBUILDER™ T-CLAMPS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**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.
**BODYBUILDER™ T-CLAMPS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**TCA-60B-45B**  
60mm to 45mm octagon T-Clamp Bracket Assembly

### Specifications:

- **Max. Static Clamp Load:**
  - 60mm: 746 Nm [550 ft-lb]
  - 45mm: 475 Nm [350 ft-lb]

- **Material:** Aluminum

### Features:

- Connects 60mm and 45mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

---

**Model Number**  |  **Weight**  
-----------------|------------------
CPI-TCA-60B-45B | 1.45 kg [3.20 lb]
**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.
**BODYBUILDER™ T-CLAMPS**

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications**

**TCA-60B-25M 60mm Octagon to 25mm Round T-Clamp Bracket Assembly**

**Features:**
- Connects 60mm octagon and 25mm round 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

**Model Number**
- **CPI-TCA-60B-25M**
- **Weight:** 1.25 kg [2.76 lb]

Dimensions and technical information are subject to change without notice.
**BODYBUILDER™ T-CLAMPS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**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.

---

### Model Number Specifications

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-TCA-25M-45B</td>
<td>.57 kg [1.26 lb]</td>
</tr>
</tbody>
</table>

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

Can be configured as a connector between booms for added stability

Model Number: CPI-TCA-25M-60B  
Weight: .85 kg [1.87 lb]

Dimensions and technical information are subject to change without notice
**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</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</td>
</tr>
</tbody>
</table>
BODYBUILDER™ ELBOWS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

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.

 Model Number | Weight
 CPI-DC-6060B-45 | 1.74 kg [3.8 lb]
**BODYBUILDER™ MID FLANGE CLAMPS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**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**
--- | ---
CPI-CLM-30B-152F-90 | 0.28 kg [.61 lb]
**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** | **Weight**
---|---
**TBC-45-00** | 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

---

**Cross Key sold separately: (2) x 540-25388**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>TBC-60-00</td>
<td>0.92 kg [2.02 lb]</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**BODYBUILDER™ END FLANGE CLAMPS**

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications**

**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**  
CPI-CLM-30B-20F  
**Weight** .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.
**BodyBuilder™ Accessory Mounts**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**TPM-30 30mm Accessory Mounting Bracket**

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

**Features:**
- Provides a secure attachment point for clamps and pin locators.

---

**Model Number** | **Weight**
---|---
TPM-30 | .36 kg [.80 lb]

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

**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>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>
**BODYBUILDER™ ACCESSORY MOUNTS**

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications**

**TPMS-60** 60mm Accessory Mounting Bracket.

**Features:**
- Provides a secure attachment point for clamps and pin locators.
- Standard NAAMS mounting patterns.

**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-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

---

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**

<table>
<thead>
<tr>
<th>CPI-GPC-150-30BBS-DC</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>.33 kg [.73 lb]</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.

Dimensions:
- **Swivel Rotation:** 25°
- **M10 Fasteners:**
  - [7.5] 19.1
  - [1.00] 25.4
- **Dimensions:**
  - [5.88] 149.2
  - [1.22] R 31.1
  - [1.18] 30
  - [2.50] 63.5
  - [3.00] 76.2
**RJM-150-30BBS** 30mm End Gripper Mount for 150 Series Gripper

**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** | **Weight**  
--- | ---  
CPI-RJM-150-30BBS | .33 kg [.74 lb]
**RJM-150-45BBS** 45mm End Gripper Mount for 150 Series Gripper

**Features:**
- Swivel ball allows for ±22° adjustment of swivel rotation.

**Specifications:**
- Max. Static Clamp Load: 475 Nm [350 ft-lb]
- Material:
  - Housing: Machined Aluminum
  - Swivel: Steel

**BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RJM-150-45BBS</td>
<td>1.23 kg [2.71 lb]</td>
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</table>
**BODYBUILDER™ SWIVEL ARMS**

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**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.**
**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.

**Specifications:**
- Max. Static Clamp Load: 271 Nm [200 ft-lb]
- Material:
  - Body: Cast Aluminum
  - Insert: Machined Aluminum

---

**CPI-180-45B-CSA SHOWN**

**CPI-"L"-45B-CSA 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>130</td>
<td>119.8 [4.72]</td>
<td>118.8 [4.68]</td>
<td>140.9 [5.56]</td>
<td>.48 kg [1.06 lb]</td>
</tr>
<tr>
<td>280</td>
<td>269.6 [10.61]</td>
<td>269.2 [10.60]</td>
<td>325.0 [12.80]</td>
<td>.67 kg [1.47 lb]</td>
</tr>
</tbody>
</table>
**SA-30** 30mm Swivel Arms for Ø19mm [.75 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: 271 Nm [200 ft-lb]
- Material:
  - Body: Cast Aluminum
  - Insert: Machined Aluminum

---

**CPI-" L "-30-SA SWIVEL ARM**

<table>
<thead>
<tr>
<th>“L”</th>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>Weight</th>
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<tbody>
<tr>
<td>400</td>
<td>103.8</td>
<td>95.1</td>
<td>142.5</td>
<td>.35 kg</td>
</tr>
<tr>
<td></td>
<td>[4.09]</td>
<td>[3.74]</td>
<td>[5.61]</td>
<td>[.75 lb]</td>
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<tr>
<td>500</td>
<td>132.8</td>
<td>126.0</td>
<td>172.7</td>
<td>.39 kg</td>
</tr>
<tr>
<td></td>
<td>[5.26]</td>
<td>[4.96]</td>
<td>[6.80]</td>
<td>[.88 lb]</td>
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<tr>
<td>600</td>
<td>151.7</td>
<td>146.0</td>
<td>192.5</td>
<td>.48 kg</td>
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<td></td>
<td>[5.97]</td>
<td>[5.75]</td>
<td>[7.58]</td>
<td>[1.06 lb]</td>
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<tr>
<td>700</td>
<td>170.6</td>
<td>165.4</td>
<td>212.1</td>
<td>.51 kg</td>
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<tr>
<td></td>
<td>[6.72]</td>
<td>[6.51]</td>
<td>[8.35]</td>
<td>[1.13 lb]</td>
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<tr>
<td>800</td>
<td>209.7</td>
<td>205.5</td>
<td>252.2</td>
<td>.58 kg</td>
</tr>
<tr>
<td></td>
<td>[8.26]</td>
<td>[8.09]</td>
<td>[9.93]</td>
<td>[1.25 lb]</td>
</tr>
</tbody>
</table>

**DE-STA-CO VACUUM CUPS**

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

**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.
**30-SA-B112** 30mm Swivel Arms for Swivel Ball Mount Accessories

### CPI-500-30-SA-B112 (SHOWN)

**Dimensions**

- **Bodybuilder™ Swivel Arms**
- **Extruded Boom**

**Technical Specifications**

- **Weight:** 280 g [9.9 oz]

**Dimensions**

- **A:** 102.6 [4.02]
- **B:** 15.9 [0.63]
- **C:** 30.2 [1.19]

**Material:**

- **M10 Fasteners**
- **Bodybuilder™ Insert**

**Technical Details**

- **CPI-400-30-SA-B112 (SHOWN)**
- **CPI-700-30-SA-B112**
- **CPI-600-30-SA-B112**

**Technical Specifications Table**

<table>
<thead>
<tr>
<th>L</th>
<th>A</th>
<th>B</th>
<th>C</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>
</tr>
<tr>
<td>500</td>
<td>135.0</td>
<td>126.0</td>
<td>177.1</td>
<td>.46 kg</td>
</tr>
<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>
</tr>
<tr>
<td></td>
<td>[6.05]</td>
<td>[5.74]</td>
<td>[7.75]</td>
<td>[1.06 lb]</td>
</tr>
<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>
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<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>

**Note:** 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 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

**Model Number**
- CPI-AB-750-SL

**Weight**
- .10 KG [.22 lb]

Dimensions and technical information are subject to change without notice.
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

Model Number | Weight
---|---
CPI-NPG-15RL-400 | 0.86 kg [1.90 lb]

Dimensions and technical information are subject to change without notice.
**SAP-BM10 Ø19mm [.75 in] Apple Core Nest Bumper Mount**

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

**Model Number** | **Weight**
--- | ---
CPI-SAP-BM10 | .10 kg [.21 lb]