# Manual Tool Changers

## Features & Benefits

<table>
<thead>
<tr>
<th>Quick Disconnect for 25mm/1.00 in. Tubes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>4</td>
</tr>
<tr>
<td>Air/Electric Connections</td>
<td>6</td>
</tr>
<tr>
<td>Bayonet</td>
<td>8</td>
</tr>
<tr>
<td>Air/Electric Connections</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quick Disconnect for 40mm/1.50 in. Tubes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>10</td>
</tr>
<tr>
<td>Air/Electric Connections</td>
<td>13</td>
</tr>
<tr>
<td>Bayonet</td>
<td>19</td>
</tr>
<tr>
<td>Air/Electric Connections</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quick Disconnect for 60mm/2.50 in. Tubes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>26</td>
</tr>
<tr>
<td>Air/Electric Connections</td>
<td>27</td>
</tr>
<tr>
<td>Bayonet</td>
<td>31</td>
</tr>
<tr>
<td>Air/Electric Connections</td>
<td>32</td>
</tr>
</tbody>
</table>

| Idle Station | 37 |
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-10 Housing
RDC-10/25M Bayonet
for Ø25mm/1.00"(in)
Tooling Boom/Tubes

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

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

Base and Flange mounting for RDN 10/40 Housing

Optional air port modules auto disconnect when handle is released

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

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

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

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

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

Specifications:
Max. Static Product Load: 47 N*m [35 ft-lb]
Material:
Body: Aluminum
Knuckles: Brass
Handle and Hooks: Steel
Inserts: Urethane
Weight: 0.63 kg [1.4 lb]

Dimensions

How To Order

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

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]

Dimensions

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>RDN-10</td>
<td>1B</td>
<td>4AS</td>
<td>5E</td>
</tr>
<tr>
<td>“RDN-10” Ø25mm/1.00” Quick Disconnect Housing</td>
<td>“1B” Base Type Mounting</td>
<td>“4AS” (4-Port Connector) (Leave blank for No Options)</td>
<td>“5E” (5-Pin Connector) (Only available for “4AS” Option)</td>
</tr>
</tbody>
</table>
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

![Image of 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

![Image of 5E 5-Pin Micro Electric Connection]

REPLACEMENT PART
CPI-RDH-F5S-5MCM

See Page 17 for Pin Configuration

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\(\text{m}\) [35 ft-lb]
- Material:
  - Body: Aluminum
  - Pins: Steel
- Weight: 0.23 kg [0.5 lb]

**Dimensions**

**How To Order**

<table>
<thead>
<tr>
<th>Model</th>
<th>Boom/Tube (⌀) “D”</th>
<th>Air Port Connection</th>
<th>Electrical Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>RDC</td>
<td>10</td>
<td>5E</td>
</tr>
<tr>
<td></td>
<td>“RDC” Quick Disconnect Bayonet</td>
<td>“10” 1.00”(in)</td>
<td>“1” No Options</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“25M” 25mm</td>
<td>“1A” (3-Port Connector)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“5A” (5-Port Connector)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“4AS” (4-Port Connector-Imperial Only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“1-4AS” (4-Port Connector-Metric Only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“5E” (5-Pin Connector)</td>
</tr>
</tbody>
</table>

(3-Port Connector) (Only available for “4AS or 1-4AS” Options)

**REPLACEMENT PART**

RDC-10-3
AIR MANIFOLDS WITH OR WITHOUT ELECTRICAL CONNECTIONS

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

5A 5-Port Air Connection

![5A diagram]

REPLACEMENT PART
RDC-10-5

4AS 4-Port Air Connection with Shutoff

![4AS diagram]

(2) Required
REPLACEMENT PART
RDC-10-4

5E 5-Pin Micro Electric Connection

![5E diagram]

See Page 23 for Pin Configuration
REPLACEMENT PART
CPI-RDB-M5P-5MCF

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]

**Dimensions**

**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>Ø40mm/1.50° Quick Disconnect Housing</td>
<td>“1F” Flange Type Mounting</td>
<td>“S4” (4-Port Internal)</td>
<td>“K1 (1-4)”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“E4” (4-Port External)</td>
<td>“VWK (1-16)”</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></td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
**RDN-40 BASE MOUNT DISCONNECT HOUSINGS**

**Manual Tool Changers | Tri-Axis Rail Tooling Example**

**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-E4-5MNF-HF</td>
<td>Quick Disconnect Bayonet with 4-Port High Flow Air, 5-Pin Electric</td>
</tr>
</tbody>
</table>

Dimensions and technical information are subject to change without notice.
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

Model  | Mounting  | Air Port Connection | Key Position  | Electrical Connection | How To Order
--- | --- | --- | --- | --- | ---
RDN-40  | 1B  | S4  | K2  | MC  | Add for “E4” or “E6” Air Port Connection Only
“RDN-40”  | “1B”  | “S4”  | “K (1-4)”  | “MC” (Micro 5-Pin)  | (Leave blank for No Options)
Ø40mm/1.50” Quick Disconnect Housing  | Base Type Mounting  | “E4”  | “VWK (1-16)” (Leave blank for No Options)  | “MN” (Mini 3-Pin)  | (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

![Diagram of S4 4-Port Internal Air Connection](image)

**Air fittings**

(4) Needed
RDN-SAS-U18

**Dowels**

(1) Needed
M6 x 25mm

---

**Kx Locating Key for Base Style Mounting**

![Diagram of Kx Locating Key](image)

**Dowels**

(1) Needed
M6 x 25mm

---

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

![Diagram of S4 and Kx Key Position](image)

**BASE MOUNT RING**

(1) Needed
RDN-40-3-MR

---

**REPLACEMENT PART**

RDN-40-10-IAB

---

**REPLACEMENT PART**

RDN-40-10-IKB

---

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

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

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

---

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>
### E4 4-Port External Air Connection

<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>CPI-RDN-40-4AS-HF</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>CPI-RDN-40-4AS</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>
<tr>
<td></td>
<td></td>
<td>2.75</td>
<td>1.38</td>
<td>1.22</td>
<td>2.66</td>
<td>2.34</td>
<td>1.75</td>
<td>0.23 lb</td>
</tr>
<tr>
<td></td>
<td></td>
<td>69.9</td>
<td>34.9</td>
<td>31.0</td>
<td>67.5</td>
<td>59.5</td>
<td>44.4</td>
<td>0.10 kg</td>
</tr>
</tbody>
</table>

### E6 6-Port External Air Connection

<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>CPI-RDN-40-10-6P-HF</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>RDN-40-10-6AS</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>
<tr>
<td></td>
<td></td>
<td>2.75</td>
<td>1.38</td>
<td>1.22</td>
<td>2.66</td>
<td>2.43</td>
<td>1.75</td>
<td>0.37 lb</td>
</tr>
<tr>
<td></td>
<td></td>
<td>69.9</td>
<td>34.9</td>
<td>31</td>
<td>67.5</td>
<td>59.5</td>
<td>44.4</td>
<td>0.17 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
Plug & Strap CPI-RDH-F5S-5MCM
Plug RDH-F5S-5MCM
Strap 540-22005

REPLACEMENT PART
CPI-TTH-F3S-3B3

Dimensions and technical information are subject to change without notice
5-Pin Mini Electric Connection

CPI-RDN-40-F5S-3MNM

CPI-RDN-40-F5S-4MNM

CPI-RDN-40-F5S-5MNM

PLUG COLOR: BLACK

PLUG COLOR: GREEN

PLUG COLOR: YELLOW

Strap not included

10-Pin Amphenol

REPLACEMENT PART

CPI-RDN-40-5-10
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\text{*}m [225 ft-lb]
- Material: Body: Aluminum
- Pins: Steel
- Weight: 0.69 kg [3.5 lb]

Dimensions

How To Order

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

Add “-1” after Boom/Tube (Ø) for No Options
TOOLING ERROR PROOF KEYS
Manual Tool Changers | RDC-40/150 Series Bayonets | Dimensions

S4 4-Port Internal Air Connection and Kx Locating Key

“S4” 4-Port Internal Air Connection

“Kx” Locating Key
(x) Refers to Position

REPLACEMENT PART
RDC-40-4-IAB

REPLACEMENT PART
RDC-40-4-IKB

S4 and Kx Internal Key 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)
## 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>
</tr>
<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>
<td>1</td>
</tr>
<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>
</tr>
<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>
<td>2</td>
</tr>
<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>
<td>2</td>
</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>

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

---

### 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] |
“E6” (Standard High Flow) | RDC-40-E6-HF | 66.3 | 33.4 | 65.9 | 59.6 | 44.5 | 4.5 kg
66.9 | 34.9 | 79.2 | 66.5 | 46.5 | 4.6 kg

---

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

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

**MC** 5-Pin Micro Electric Connection

![Diagram of MC 5-Pin Micro Electric Connection]

**MN** 3-Pin Mini Electric Connection

![Diagram of MN 3-Pin Mini Electric Connection]
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 180º 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 Mtng.
- Steel handle actuation allows quick and accurate installation, pulling the bayonet into a fixed position within the housing. This action also engages optional air and electric connectors.
- Internal urethane rings eliminate vibration and seat the bayonet securely.

**Specifications:**
- Max. Static Product Load: 949 N·m [700 ft-lb]
- Material:
  - Body: Aluminum
  - Knuckles: Brass
  - Handle and Hooks: Steel
  - Inserts: Urethane
- Weight: 4.00 kg [8.90 lb]

**Dimensions**

**How To Order**

<table>
<thead>
<tr>
<th>Model</th>
<th>RDN-25-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>“RDN-25-6” Ø60mm/2.50” Quick Disconnect Housing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Air Port Connection</th>
<th>A3 (3 Port) or A6 (6-Port)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“O(x)” = (Qty) of Open Ports / “S(x)” = (Qty) of Shutoff Ports</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electrical Mounting</th>
<th>EL10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mounting for Large Connectors (Leave blank for Standard Mounting)</td>
<td></td>
</tr>
</tbody>
</table>

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

**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.
#### SOCKET #5

- **A-Side:** Pin
- **B-Side:** Socket

#### SOCKET #4

- **A-Side:** Pin
- **B-Side:** Socket

#### SOCKET #3

- **A-Side:** Pin
- **B-Side:** Socket

#### SOCKET #2

- **A-Side:** Pin
- **B-Side:** Socket

#### SOCKET #1

- **A-Side:** Pin
- **B-Side:** Socket

---

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

**MODEL NUMBER**

- **CPI-RDH-F5S-3B3**
- **CPI-RDH-F5S-4B4**
- **CPI-RDH-F5S-5B5**

---

**5 Pin Connectors for Housing - Standard Pin Configurations**

<table>
<thead>
<tr>
<th>3-Pin to 5-Pin Connector</th>
<th>4-Pin to 5-Pin Connector</th>
<th>5-Pin to 5-Pin Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A-Side</strong></td>
<td><strong>3-Pin, Single Key</strong></td>
<td><strong>A-Side</strong></td>
</tr>
<tr>
<td><strong>B-Side</strong></td>
<td><strong>5-Pin, Male Plug, Female Socket</strong></td>
<td><strong>B-Side</strong></td>
</tr>
</tbody>
</table>

---

**PLUG COLOR:** GREEN

**PLUG COLOR:** GREEN

**PLUG COLOR:** YELLOW

**PLUG COLOR:** YELLOW

**PLUG COLOR:** PINK
10 Pin Configuration

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A-Side</th>
<th>B-Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-RDH-F10S-A10</td>
<td>10-Pin</td>
<td>10-Pin, Male Plug, Female Socket</td>
</tr>
<tr>
<td>CPI-RDH-F10S-B10</td>
<td>10-Pin</td>
<td></td>
</tr>
</tbody>
</table>

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

**M5 FASTENERS**

- (2) PLACES
- [3.13] 79.4
- [2.25] 57.2
- [2.25] [2.76] 57.2 70.0
- [.50] 12.7

**CONNECTOR**

- (SEE PIN CONFIGURATION)
- [1.28] 32.5
- [2.40] 61.0
- [1.62] 41.1
- [.25] 6.2
- [2.01] 51.1
- [3.31] 84.0

---

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></td>
<td>“RDC” Quick Disconnect Bayonet</td>
<td>25&quot; 2.50&quot; (in)</td>
<td>2</td>
<td>“A3” 3-Port</td>
<td>Mounting for Large Connectors (Leave blank for Standard Mounting)</td>
</tr>
</tbody>
</table>

|     | 60" 60mm | “2” Version 2 | “A6” 6-Port |     |

Dimensions and technical information are subject to change without notice
Feautres:
- Extended clamp area increases the holding surface and torque capacity for high speed applications.
- (2) Hardened alignment pins allows quick and accurate installation into the bayonet.
- Optional “EL10” machined surface for large electrical connectors.

Specifications:
Max. Static Product Load: 949 N*m [700 ft-lb]
Material:
Body: Aluminum
Pins: Steel
Weight: 2.1 kg [4.7 lb]

---

Dimensions

---

How To Order

<table>
<thead>
<tr>
<th>CPI</th>
<th>Model</th>
<th>Boom/Tube (Ø)</th>
<th>Version</th>
<th>Air Port Connection</th>
<th>Electrical Mounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>“RDC”</td>
<td>25</td>
<td>“25” 2.50”(in)</td>
<td>2HT</td>
<td>“A3” 3-Port</td>
<td>“EL10”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“60” 60mm</td>
<td></td>
<td>“A6” 6-Port</td>
<td>Mounting for Large Connectors (Leave blank for Standard Mounting)</td>
</tr>
</tbody>
</table>

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

**REPLACEMENT PART**
- CPI-BC-250-6-U18 (1/8 NPT ports)
- CPI-BC-60-6-G18 (G1/8 ports)
5 Pin Connectors for Bayonet (Tool Side)- Standard Pin Configurations

A-Side

B-Side

3-Pin to 5-Pin Connector

A-Side  3-Pin, Single Key

B-Side  5-Pin, Male Pin, Female Plug

4-Pin to 5-Pin Connector

A-Side  4-Pin, Single Key

B-Side  5-Pin, Male Pin, Female Plug

5-Pin to 5-Pin Connector

A-Side  5-Pin, Single Key

B-Side  5-Pin, Male Pin, Female Plug

MODEL NUMBER

CPI-RDB-M5P-3B3

MODEL NUMBER

CPI-RDB-M5P-4B4

MODEL NUMBER

CPI-RDB-M5P-5B5
ELECTRICAL CONNECTIONS

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

<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>

10 Pin Configuration

Connector (See Pin Configuration)

M5 Fasteners (2) Places

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

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

Dimensions and technical information are subject to change without notice
Stored Position

In Use, Locked into Bolster

MODEL NUMBER  WEIGHT
CPI-BLC-100-15-6  5.50 kg [12.12 lb]
IDLE STATION
Automation Adaptors | (3) RDN-25-6 Disconnect Housings and Mobile Flexibility | Dimensions

OPTIONAL JUNCTION OR DISTRIBUTION BOX

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