

# DESIGNING INNOVATION



## End Effector Visual Selection Guide

## A Global Presence

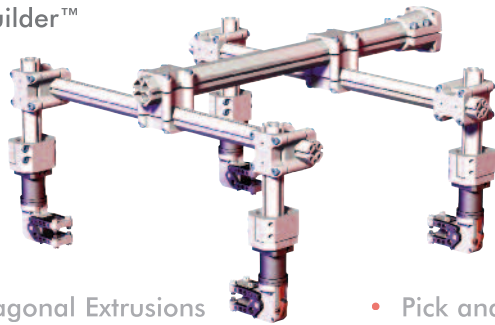


### The Best Products. Unmatched Service. Worldwide.

With a support network spanning the globe, DE-STA-CO offers consistent, comprehensive service to any location in the world. Whether your operations are localized or span multiple continents, you will always have access to the highest levels of customer service and technical support.

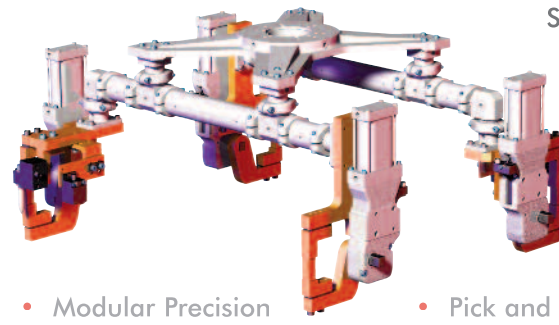
### End Effector Systems Overview

BodyBuilder™



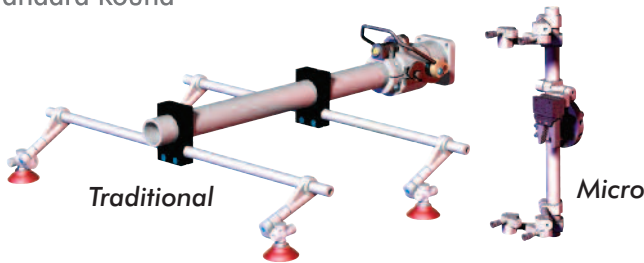
- Octagonal Extrusions
- Modular Components
- Patented Crash Recovery System
- Pick and Place
- Material Handling
- Robot Welding

SpiderGrip



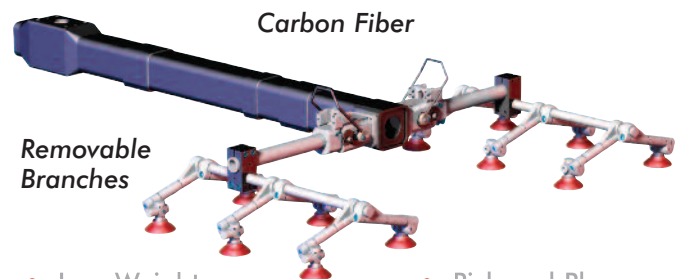
- Modular Precision
- Geometric Tolerances
- Pre-Engineered Break Away
- Pick and Place
- Fixture Welding

Standard Round



- Lightweight Aluminum
- Modular Components
- Easy Reconfiguration
- Pick and Place
- Material Handling
- Plastics

Customized Solutions



- Low Weight
- High Stiffness
- Low Deflection
- Pick and Place
- Faster Cycle Times
- Use Smaller Robot



Modular Solutions  
Table of Contents

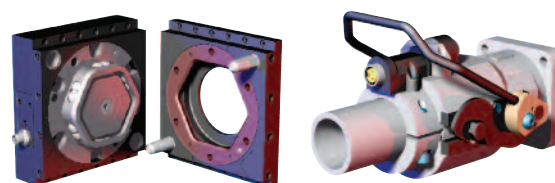
**DE-STA-CO Vacuum Products . . . . . 4 - 16**

Vacuum Cups and Part Lifting Magnets  
Auto Release Venturi (ARV)  
Vacuum Generators and Port Only Adaptors  
Spring Loaded Cup Mounts  
Manifolds



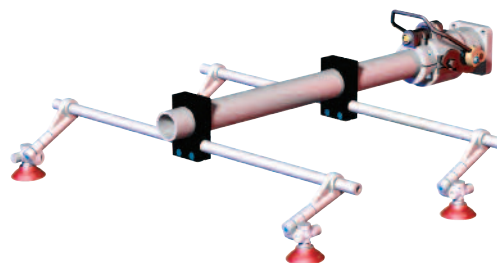
**Tool Changers and Adaptors . . . . . 17 - 35**

RQC/RTP-400/800/1200 Automatic Tool Changers  
QC/TP-30/60/150 Automatic Tool Changers  
Quick Disconnect Manual Tool Changers  
Automation Adaptors  
Nest Stands



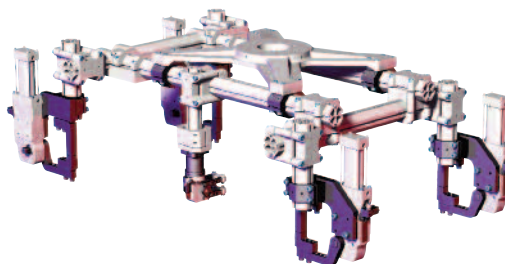
**Round Tooling Components . . . . . 36 - 55**

World Toom Booms (Carbon Fiber and Aluminum)  
Aluminum Round Tooling Structures  
Steel Round Structures  
Transition Brackets and Blocks  
Swivel Arms and Accessories



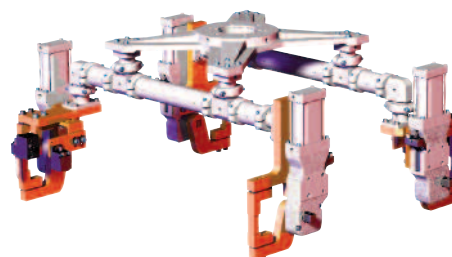
**BodyBuilder™ End Effector Systems . . . . . 56 - 65**

Octagonal Aluminum Booms  
RM4 Heavy Duty Mid Mounts  
Transition Brackets and Blocks  
Accessory Brackets and Gripper Mounts  
Swivel Arms Mounts and Accessories



**SpiderGrip End Effector Systems . . . . . 66 - 67**

RM4 Heavy Duty Mid Mounts  
Anchors and Collar Assemblies  
Booms, Adaptors, and Spacers  
Corner and Transition Junctions  
Single End Extension Mounts  
Offset, 90° and Inline Edge Components



## Vacuum Products - Standard Vacuum Cups Durometers and Mounts

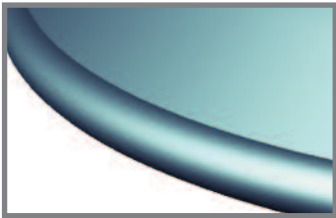


US Patents# 7,309,089 - 7,712,807

DE-STA-CO 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. Vacuum cups of this durometer will have the longest life span.

= Durometer **not** available in cup style.

### Imperial Vacuum Cup Mounting Options (**M**)



1/4" NPT



3/8" NPT



1.25" SQUARE

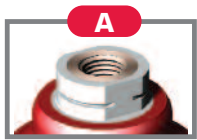


1/2" NPT



1/8" NPT MALE

### Metric Vacuum Cup Mounting Options (**M**)



1/4" G



3/8" G



1.25" SQUARE

### Specialty Vacuum Cup Mounting Options (**M**)



M10 MALE



M8 FEMALE



QUICK DISCONNECT



SMOOTH BORE

**M** = Mount **only** available in this cup size.

**M** = Mount **not** available in this cup size.



Vacuum Products - Standard Vacuum Cups  
Best Vacuum Cup for the Job

Vacuum Cup Family

DESTACKER APPLICATION	FLAT CONTOURS	MILD CONTOURS	HIGH CONTOURS	SLICK/OILY SURFACES	DRY SURFACES
-----------------------	---------------	---------------	---------------	---------------------	--------------

**Application Direction**



Destacker Vacuum Cups

US Patents #7,309,089  
7,712,807


VERTICAL

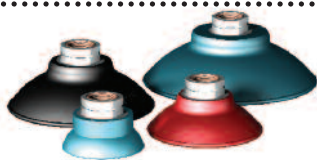
HORIZONTAL



Round Traction Vacuum Cups


VERTICAL

HORIZONTAL



Round Flatfoot Vacuum Cups


VERTICAL

HORIZONTAL



Round Belcup Vacuum Cups


VERTICAL

HORIZONTAL



Round Deepdish Vacuum Cups


VERTICAL

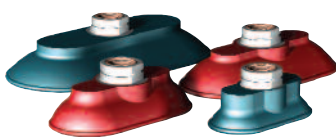
HORIZONTAL



Oval Deepdish Vacuum Cups


VERTICAL

HORIZONTAL



Oval Flatfoot Vacuum Cups


VERTICAL

HORIZONTAL

Worst Cup for the Job Best Cup for the Job Not Advised for the application

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

## Vacuum Products - Standard Vacuum Cups

### DC Destacker Stress Relieving



US Patents #7,309,089  
7,712,807

(DR) = Durometer  
 60

Imperial	
Ø3.00"	CPI-30DC-(M)-60
Ø4.00"	CPI-40DC-(M)-60

(M) = Mounts Available

**K B C D E1**

Metric	
Ø75mm	CPI-75DC-(M)-60
Ø100mm	CPI-100DC-(M)-60

(M) = Mounts Available

**A B C**

### TC/HT Round Traction



(DR) = Durometer  
 45 60

Imperial	
Ø2.00"	CPI-20TC-(M)-(DR)
Ø3.50"	CPI-35TC-(M)-(DR)
Ø4.50"	CPI-45TC-(M)-(DR)
Ø5.50"	CPI-55TC-(M)-(DR)

(M) = Mounts Available

**K B C D ~~20TC~~ E1 ~~20TC~~**

Metric	
Ø50mm	CPI-50HT-(M)-(DR)
Ø90mm	CPI-90HT-(M)-(DR)
Ø115mm	CPI-115HT-(M)-(DR)
Ø140mm	CPI-140HT-(M)-(DR)

(M) = Mounts Available

**A B C**

### AC/BT Round Belcup



(DR) = Durometer  
 45 60

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)

(M) = Mounts Available

**K B C D ~~15AC~~ ~~20AC~~ E1 ~~20AC~~ M8F 20AC**

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)

(M) = Mounts Available

**A B C M10**

### CC Series Round Flatfoot



Ø1.25"	CPI-10CC-U18-60
--------	-----------------



Vacuum Products - Standard Vacuum Cups  
**FF/PF** Round Flatfoot

Imperial

Ø2.00"	.....	CPI-20FF-(M)-(DR)
Ø3.00"	.....	CPI-30FF-(M)-(DR)
Ø4.00"	.....	CPI-40FF-(M)-(DR)
Ø5.00"	.....	CPI-50FF-(M)-(DR)

.....(M) = Mounts Available

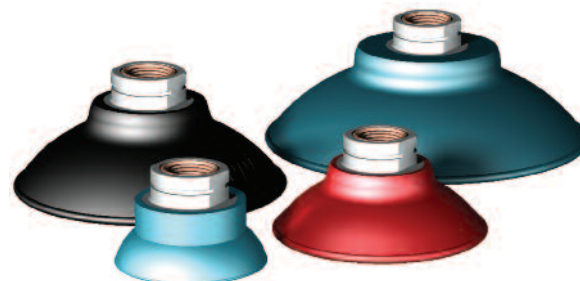
**K B C D** ~~40FF~~ ~~50FF~~ **E1**

Metric

Ø50mm	.....	CPI-50PF-(M)-(DR)
Ø75mm	.....	CPI-75PF-(M)-(DR)
Ø100mm	.....	CPI-100PF-(M)-(DR)
Ø125mm	.....	CPI-125PF-(M)-(DR)

.....(M) = Mounts Available

**A B C**



(DR) = Durometer  
**30 45 60**

Imperial

Ø2.00"	.....	CPI-20DD-(M)-(DR)
Ø3.00"	.....	CPI-30DD-(M)-(DR)
Ø4.00"	.....	CPI-40DD-(M)-(DR)

.....(M) = Mounts Available

**K B C**

Metric

Ø50mm	.....	CPI-50DM-(M)-(DR)
Ø75mm	.....	CPI-75DM-(M)-(DR)
Ø100mm	.....	CPI-100DM-(M)-(DR)

.....(M) = Mounts Available

**A B C**

**DD/DM** Round Deepdish



(DR) = Durometer  
**30 45** ~~60~~

Imperial

1.50" x 3.00"	.....	CPI-153FF-(M)-(DR)
2.00" x 4.00"	.....	CPI-24FF-(M)-(DR)
2.50" x 5.00"	.....	CPI-255FF-(M)-(DR)
3.00" x 6.00"	.....	CPI-36FF-(M)-(DR)

.....(M) = Mounts Available

**K B C D** ~~24FF~~ **E1** ~~24FF~~

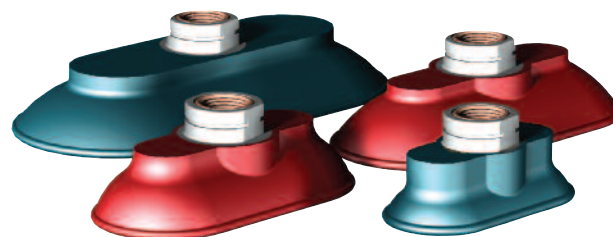
Metric

40 x 75mm	.....	CPI-40-75PF-(M)-(DR)
50 x 100mm	.....	CPI-50-100PF-(M)-(DR)
63 x 125mm	.....	CPI-63-125PF-(M)-(DR)
75 x 150mm	.....	CPI-75-150PF-(M)-(DR)

.....(M) = Mounts Available

**A B C** ~~63-125PF~~

**FF/PF** Oval Flatfoot



(DR) = Durometer  
**30 45** ~~60~~

Imperial

1.00" x 5.00"	.....	CPI-15DD-(M)-45
3.00" x 6.00"	.....	CPI-36DD-(M)-45

.....(M) = Mounts Available

**K** ~~15DD~~ **B C U18** ~~36DD~~

Metric

25 x 125mm	.....	CPI-25-125DM-(M)-45
75 x 150mm	.....	CPI-75-150DM-(M)-45

.....(M) = Mounts Available

**A** ~~25-125DM~~ **B C U18** ~~75-150DM~~

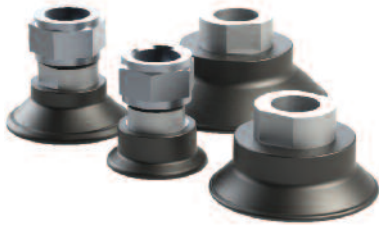
**DD/DM** Oval Deepdish



(DR) = Durometer  
~~30~~ **45** ~~60~~

Vacuum Products - Hot Forming Vacuum Cups

**MFF** Round Flat



<b>Metric</b>	
Ø30mm	CPI- <b>30MFF</b> -B-HT
Ø40mm	CPI- <b>40MFF</b> -B-HT
Ø50mm	CPI- <b>50MFF</b> -B-HT
Ø60mm	CPI- <b>60MFF</b> -B-HT

**MTC** Round Bellows



<b>Metric</b>	
Ø22mm	CPI- <b>22MTC</b> -B-HT
Ø30mm	CPI- <b>30MTC</b> -B-HT
Ø40mm	CPI- <b>40MTC</b> -B-HT
Ø50mm	CPI- <b>50MTC</b> -B-HT
Ø60mm	CPI- <b>60MTC</b> -B-HT

**MFF** Oval Flat



<b>Metric</b>	
Ø60x23mm	CPI- <b>6023MFF</b> -B-HT
Ø90x30mm	CPI- <b>9030MFF</b> -B-HT
Ø80x40mm	CPI- <b>8040MFF</b> -B-HT
Ø100x50mm	CPI- <b>10050MFF</b> -B-HT

**MAC** Oval Bellows



<b>Metric</b>	
Ø60x30mm	CPI- <b>6030MAC</b> -B-HT
Ø80x40mm	CPI- <b>8040MAC</b> -B-HT

**MAG** Magnetic Grippers



<b>Metric</b>	
□30mm	CPI- <b>MAG-30M</b>
□40mm	CPI- <b>MAG-40M</b>
□50mm	CPI- <b>MAG-50M</b>
□70mm	CPI- <b>MAG-70M</b>

**MAG** Magnetic Gripper Mounts



<b>Metric</b>	
for CPI-MAG-30M/40M	CPI- <b>MAG30M40M-A</b>
for CPI-MAG-50M/70M	CPI- <b>MAG50M70M-A</b>



## Vacuum Products - Micro Vacuum Cups

### Fxx Flat Micro

**Metric**

Ø15mm	VC-F15(M)-(T)
Ø20mm	VC-F20(M)-(T)
Ø30mm	VC-F30(M)-(T)
Ø40mm	VC-F40(M)-(T)
Ø50mm	VC-F50(M)-(T)

(T) = Thread

**10M 18M 18F**

Only Available in  
Ø15 and Ø20mm

(M) = Material

**V** Viton Hi-Temp applications where silicon is not allowed  
Not Available in Ø15 and Ø20mm

**S** Silicon Extremely hot or cold environments

**N** Nitrile General Purpose



**Metric**

Ø05mm	VC-B05(M)-(T)
Ø10mm	VC-B10(M)-(T)
Ø15mm	VC-B15(M)-(T)
Ø20mm	VC-B20(M)-(T)
Ø30mm	VC-B30(M)-(T)
Ø40mm	VC-B40(M)-(T)
Ø50mm	VC-B50(M)-(T)

(T) = Thread

**10M 18M 18F**

Only Available in  
Ø5, Ø10, Ø15, Ø20mm

(M) = Material

**V** Viton Hi-Temp applications where silicon is not allowed

**S** Silicon Extremely hot or cold environments

**N** Nitrile General Purpose



### Bxx Bellows Micro

**Metric**

Ø20mm	VC-BM20(M)-(T)
Ø30mm	VC-BM30(M)-(T)
Ø40mm	VC-BM40(M)-(T)
Ø50mm	VC-BM50(M)-(T)

(T) = Thread

**10M 18M 18F**

Only Available in  
Ø20mm

(M) = Material

~~V~~ Viton Hi-Temp applications where silicon is not allowed

**S** Silicon Extremely hot or cold environments

**N** Nitrile General Purpose



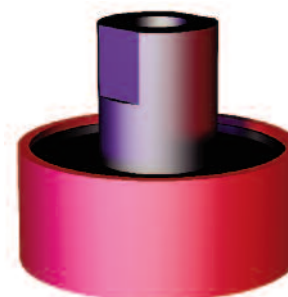
### BMxx Multi-Bellows Micro

### TPLP Mag-Lift Part Lifting Magnets



Ø1.50" Magnet Complete Assembly  
CPI-TPLP15RB

Ø1.50" Magnet Pad Only  
RB15-CPI



Ø1.50" Magnet Complete Assembly  
CPI-TPLP50373

Ø1.50" Magnet Pad Only  
RB30-CPI



### Vacuum Products - Venturi Style Vacuum Generator/Cup Mounts

#### ARV Auto Release Venturi (Standard Flow, Aluminum)



Left Hand Apple Core  
CPI-VSA-ARVL-750-(X)



Right Hand Apple Core  
CPI-VSA-ARVR-750-(X)



Without Apple Core  
CPI-VSA-ARVR-000-(X)



RH/LH Spherical Ball  
CPI-VSA-ARV(R/L)-B112-(X)



(X) = Mounting Thread  
U38 = 3/8" NPT Male  
G38 = 3/8" G Male



Vacuum Sensor Option  
Add "-VS" to end of "ARV"  
order code

#### ARV Auto Release Venturi Block Style for Remote Mounting



Block Style  
CPI-VSA-ARVR-312-(X)  
(X) = Vacuum Port Thread  
U38 = 3/8" NPT Female  
G38 = 3/8" G Female

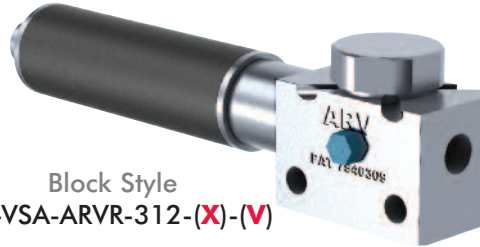


SCARA Block Style  
CPI-VSA-ARVS-5-U18  
Also compatible with  
**Robohand  
DIRECTCONNECT**

#### Multi-Flow ARV Auto Release Venturi (Available in all Mounting Styles)



Right Hand Apple Core  
CPI-VSA-ARVR-750-(X)-(V)



Block Style  
CPI-VSA-ARVR-312-(X)-(V)



(X) = Mounting Thread  
U38 = 3/8" NPT Male  
G38 = 3/8" G Male

(V) = Vacuum Flow Option  
MF = Medium Flow  
HF = High Flow



Vacuum Sensor Option  
Add "-VS" to end of "ARV"  
order code

#### Standard Cartridge



(1.00 s.c.f.m @ 60 psi)

- Smooth Plastic
- Glass
- Smooth Metal
- Fiberglass
- (Non-porous products)

#### Medium-flow Cartridge



(2.80 s.c.f.m @ 60 psi)

- High-Density Cardboard
- Plastic Bags
- Textured Metal
- Smooth Wood
- Drywall

#### High-flow Cartridge

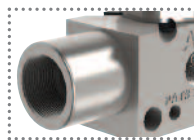


(4.20 s.c.f.m @ 60 psi)

- Paper
- Medium-Density Cardboard
- Wood
- Styrofoam
- High-Density Cloth
- Textured Plastic

#### Stainless Steel ARV Auto Release Venturi

(Ideal for Clean Room Solutions)



Stainless Steel Block Style  
CPI-VSA-ARVS-5-U18-SS  
Also compatible with

**Robohand  
DIRECTCONNECT**



Patented Technology



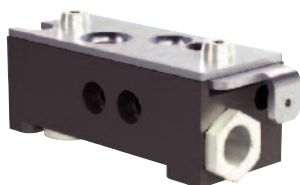
Vacuum Products - Intelligent Vacuum Products  
**VSAX** Centuri Vacuum Generator



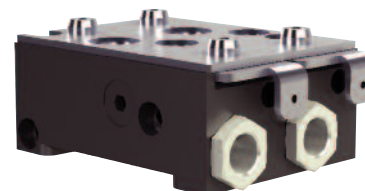
Model	Description
CPI-VSAX-30NC-H-M12	Centuri/3mm Nozzle/Normally Closed/Horizontal/M12
CPI-VSAX-30NC-Q-M12	Centuri/3mm Nozzle/Normally Closed/Quick Change/M12
CPI-VSAX-30IMP-H-M12	Centuri/3mm Nozzle/Impulse Valve/Horizontal/M12
CPI-VSAX-30IMP-Q-M12	Centuri/3mm Nozzle/Impulse Valve/Quick Change/M12



**VSAX** Centuri Quick Change Modules



Quick Change Module  
**CPI-VSAX-QCB1**



Dual Quick Change Module  
**CPI-VSAX-QCB2**

**RP** Air Saver Venturi



Model	Description
CPI-VSA-10-RP-R	Air Saver Venturi - Right Hand
CPI-VSA-10-RP-R-VS-T	Air Saver Venturi - Right Hand - Vacuum Switch
CPI-VSA-10-RP-L	Air Saver Venturi - Left Hand
CPI-VSA-10-RP-L-VS-T	Air Saver Venturi - Left Hand - Vacuum Switch

**RP** Air Saver Venturi Mounts



Model	Description
CPI-VSA-10-RP-750	Apple-Core Mount
CPI-VSA-10-RP-B112	Spherical Ball Mount

Vacuum Products - Venturi Style Vacuum Generator Cup Mounts

**VSA-750/19 Series** Standard Apple Core



Low-Profile **750/19** with Blow-off (No Options)  
CPI-VSA-(X)-**BO-LP**



Low-Profile **750/19** with Blow-off and Detector Port  
CPI-VSA-(X)-**BO-LP-DET**



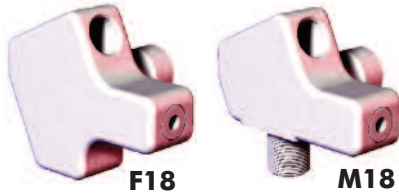
Low-Profile **750/19** with Blow-off and Switch Port  
CPI-VSA-(X)-**BO-LP-VS**



Silencer Option  
Add "**-ST2**" to end of order code

**VSA-500 Series** Micro Apple Core

Model Number  
CPI-VSA-500-(A)



F18

M18

(A) Vacuum port to External Mounting Tread

<b>F18</b>	Female 1/8" NPT to Female 1/8" NPT
<b>M18</b>	Female 1/8" NPT to Male 1/8" NPT

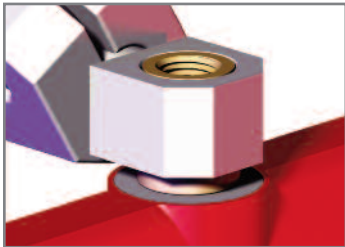
**PA-750/19** Port Only Adaptor

Model Number  
CPI-PA-(X)



(X)	Mount Thread	Vacuum Port
<b>19</b>	3/8" G Male	1/4" G
<b>750</b>	3/8" NPT Male	1/4" NPT

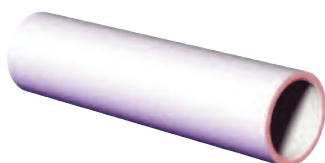
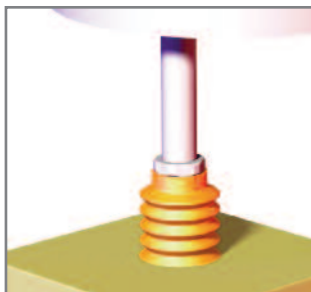
**PA-500** Micro Port Only Adaptor



Model Number  
CPI-PA-500-(A)-(B)

Description	Port (A)	Port (B)
Female 1/8" NPT to Female 1/8" NPT	<b>F18</b>	<b>F18</b>
Female 1/8" G to Female 1/8" G	<b>FG18</b>	<b>FG18</b>
Female M5 to Female M5	<b>FM5</b>	<b>FM5</b>
Female 1/8" NPT to Male 1/8" NPT	<b>F18</b>	<b>M18</b>
Female 1/8" G to Male 1/8" G	<b>FG18</b>	<b>MG18</b>
Female M5 to Male M5	<b>FM5</b>	<b>MM5</b>

**PA-500** Micro Port Only Adaptor



Ø0.50"-1/8" Micro Series Vacuum Extension  
CPI-PAT-50T-"L"-U18

"L" = Specify Length

Standard Lengths

- 02** (2.00")
- 03** (3.00")
- 04** (4.00")
- 05** (5.00")
- 06** (6.00")



Vacuum Products - Spring-Loaded Cup Mounts  
**LC** Bulk Head Style Micro Series Level Compensators



0.30" Travel  
 Micro Series  
 Level Compensator  
**CPI-LC10**

Mounting Tread  
 G1/8" BSPP

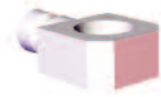
Ports  
 Vacuum = M5 Female  
 Mounting = M5 Female



0.75" Travel  
 Micro Series  
 Level Compensator  
**CPI-LC18**

Mounting Tread  
 M16 x 1

Ports  
 Vacuum = G1/8" NPS Female  
 Mounting = G1/8" NPS Male



Micro Series  
 Level Compensator Mount  
**CPI-LCM-10-"D"**

"D" = (Ø) Diameter  
**16** (Ø16mm [.63"])  
**10** (Ø10mm [.39"])

**RCM** Standard Travel Bulkhead Style



CPI-RCM-150-U14-NR  
 Shown with CPI-SAP-30

Imperial Travel

- 0.75" ..... CPI-RCM-30
- 1.50" ..... CPI-RCM-150-U14-NR
- 3.00" ..... CPI-RCM-300-U14-NR

Version	Mount Thread	Vacuum Port
Imperial	3/8" NPT Female	1/4" NPT

**SCM** Standard Travel Apple Core Style



CPI-SCM-075-U14-NR  
 Shown



CPI-SCM-150-U14-NR  
 Shown

Imperial Travel

- 0.75" ..... CPI-SCM-075-(X)-NR
- 1.50" ..... CPI-SCM-150-(X)-NR
- 3.00" ..... CPI-SCM-300-(X)-NR

Metric Travel

- 19mm ..... CPI-SCM-19-(X)-NR
- 40mm ..... CPI-SCM-40-(X)-NR
- 75mm ..... CPI-SCM-75-(X)-NR

CPI-SCM-(19/075)-(X)-NR

(X)	Mount Thread	Vacuum Port	Version
<b>G14</b>	3/8" G	1/4" G	Metric
<b>U14</b>	3/8" NPT	1/4" NPT	Imperial

CPI-SCM-(40/150 & 75/300)-(X)-NR

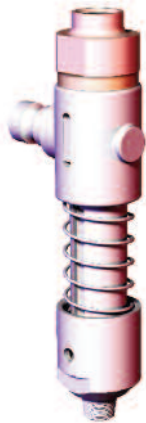
(X)	Mount Thread	Vacuum Port	Version
<b>G14</b>	3/8" G	3/8" G	Metric
<b>U14</b>	3/8" NPT	3/8" NPT	Imperial

Vacuum Products - Spring-Loaded Cup Mounts

**SCM** Extended-Travel



Ø1.25"  
Bulkhead Mount  
CPI-SCMB-(T)



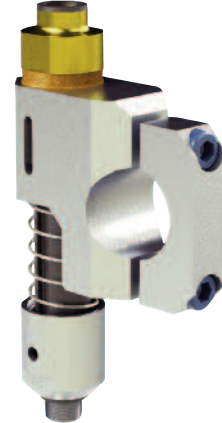
Ø0.75"  
Apple Core Mount  
CPI-SCMA-(T)



Ø1.00"/25MM  
Extension Mount  
CPI-SCM10/25-(T)

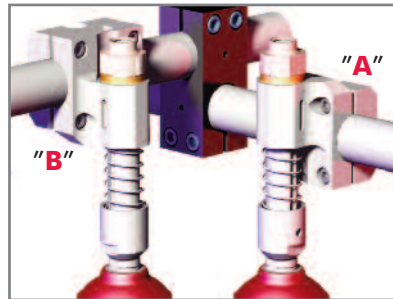
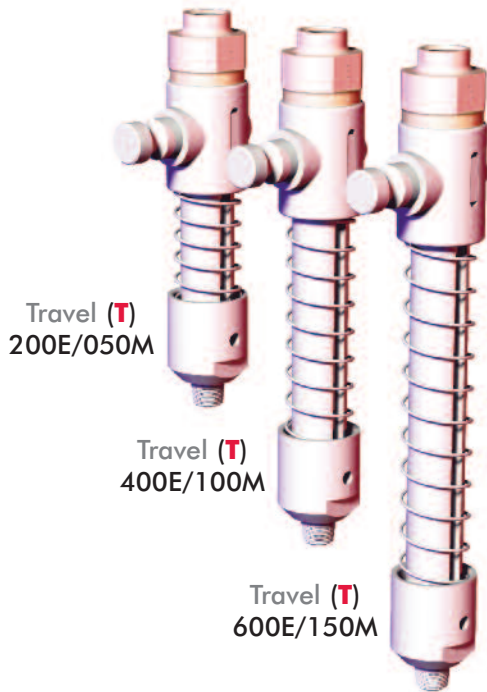


Ø1.50"/40MM  
Tube Mount  
CPI-SCMC-(D)-(T)-(O)



Ø1.50"/40MM  
Single Strap Tube Mount  
CPI-SCMS-(D)-(T)-(O)

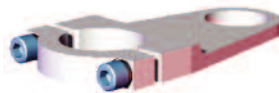
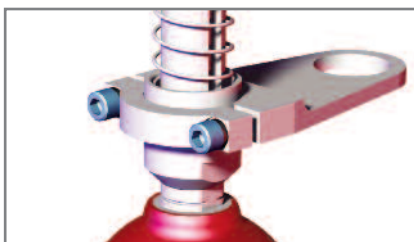
**SCM** Vertical Travel Length for SCM(A,B,C, S, 10/25)



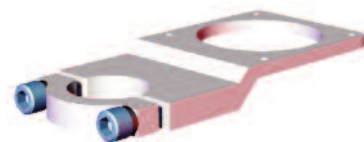
(O) = SMC Mounting Orientation  
A (Lowered Position)  
B (Raised Position)

Version	Travel (T)	Mounting/Vacuum	(D)
<b>Imperial</b>	200E (2.00")	3/8" NPT	150 (Ø1.50")
	400E (4.00")	3/8" NPT	150 (Ø1.50")
	600E (6.00")	3/8" NPT	150 (Ø1.50")
<b>Metric</b>	050M (50mm)	3/8" G	40M (Ø40mm)
	100M (100mm)	3/8" G	40M (Ø40mm)
	150M (50mm)	3/8" G	40M (Ø40mm)

**SAP** Proximity Switch Mounts for SCM(A,B,C, S, 10/25)



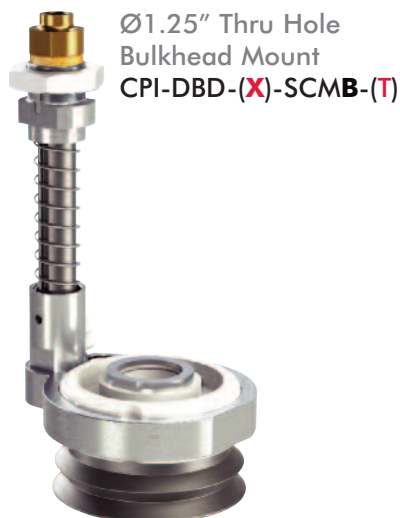
30mm Barrel Style  
CPI-SAP-30-PM-150



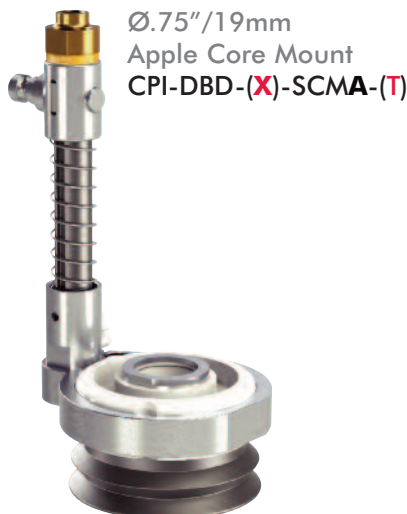
50mm Square Style  
CPI-SAP-NI50-PM-150



Vacuum Products - Spring-Loaded Cup Mounts  
**DBD** Destacker Double Blank Detector Spring Mounts



Ø1.25" Thru Hole Bulkhead Mount  
 CPI-DBD-(X)-SCMB-(T)



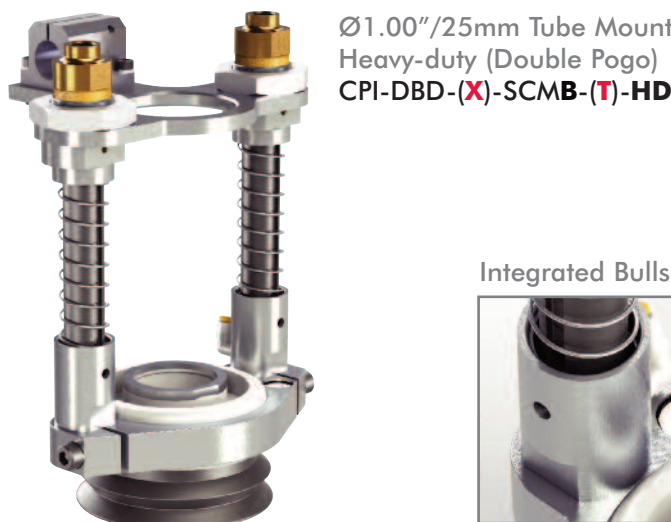
Ø.75"/19mm Apple Core Mount  
 CPI-DBD-(X)-SCMA-(T)



Ø1.00"/25mm Extension Mount  
 CPI-DBD-(X)-SCM10/25-(T)



Ø1.25"/40mm Tube Mount  
 CPI-DBD-(X)-SCMC-(T)

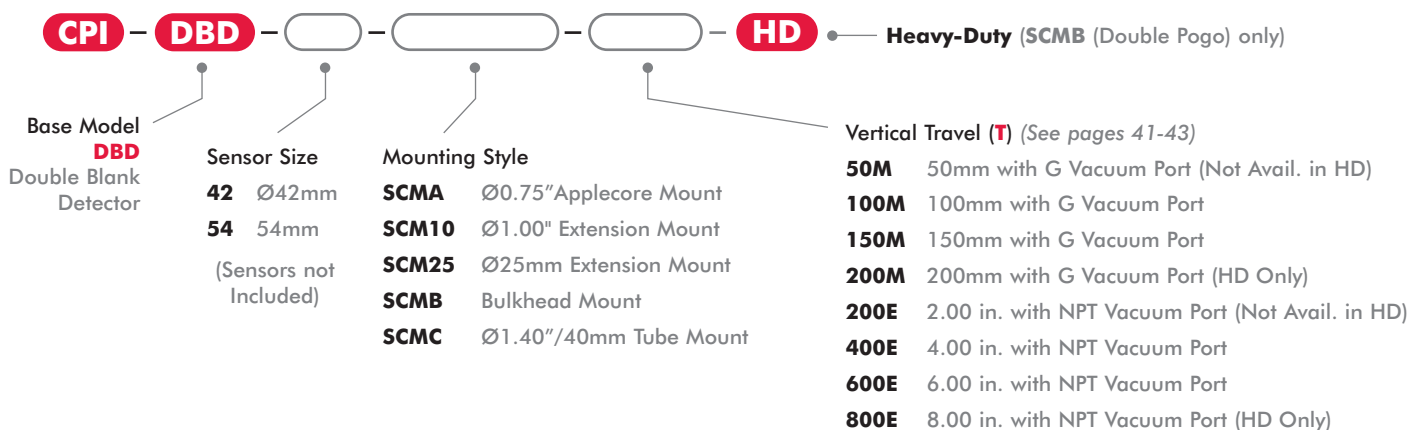


Ø1.00"/25mm Tube Mount Heavy-duty (Double Pogo)  
 CPI-DBD-(X)-SCMB-(T)-HD

Integrated Bullseye Level



**DBD** Ordering Information



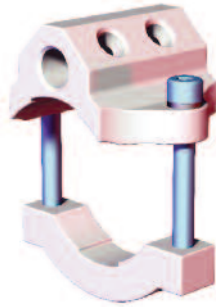
Vacuum Products - Manifolds

**MLK/MBC** Boom Mounted 4 and 8-Port Manifolds



**MLK/MBC** (Single 4-Port)  
with 30° Angled Input Port

Model	Tube (Ø)
CPI-MLK-60-G44-30	60mm
CPI-MBC-250-4-4-30	2.50"(in)



**MLK/MBC** (Single 4-Port)

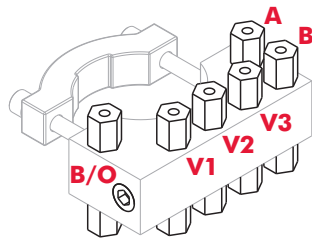
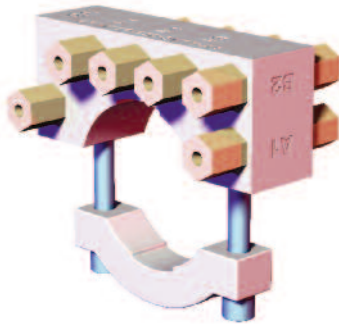
Model	Tube (Ø)
CPI-MLK-40-G44	40mm
CPI-MBC-150-4-4	1.50"(in)
CPI-MLK-60-G44	60mm
CPI-MBC-250-4-4	2.50"(in)



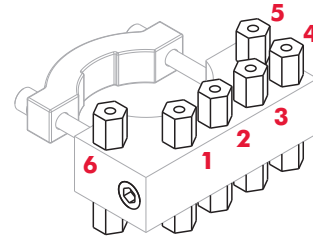
**MLK/MBC** (Double 8-Port)

Model	Tube (Ø)
CPI-MLK-40-G88	40mm
CPI-MBC-150-8-8	1.50"(in)
CPI-MLK-60-G88	60mm
CPI-MBC-250-8-8	2.50"(in)

**MBC** Boom Mounted 6-Port Manifolds

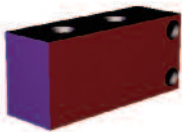


6-Port (with Blow-off)  
CPI-MBC-250-3V1B-AB

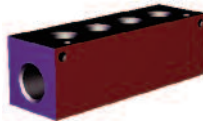


6-Port  
CPI-MBC-250-4V2B

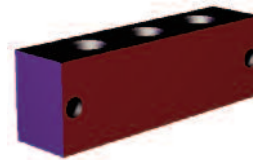
**GDA/MMB** Block Style Manifolds



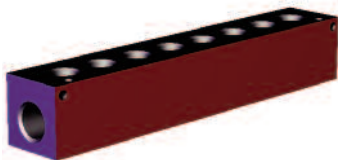
(2) in/(4) Out  
CPI-GDA-M24-37327



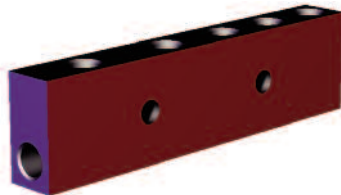
(1) in/(4) Out  
CPI-MMB-4P



(3) in/(6) Out  
CPI-MMB-4V2B-LG



(1) in/(8) Out  
CPI-MMB-8P



(5) in/(7) Out  
CPI-MMB-4V5P-AB



(4) in/(6) Out  
CPI-MMB-3V1B-AB



## Tool Changers and Adaptors - Automatic Tool Changers

### RQC/RTP Application 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:**

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

**Additional Optional Air, Fluid, Electrical and Weld Gun Modules are Available.**

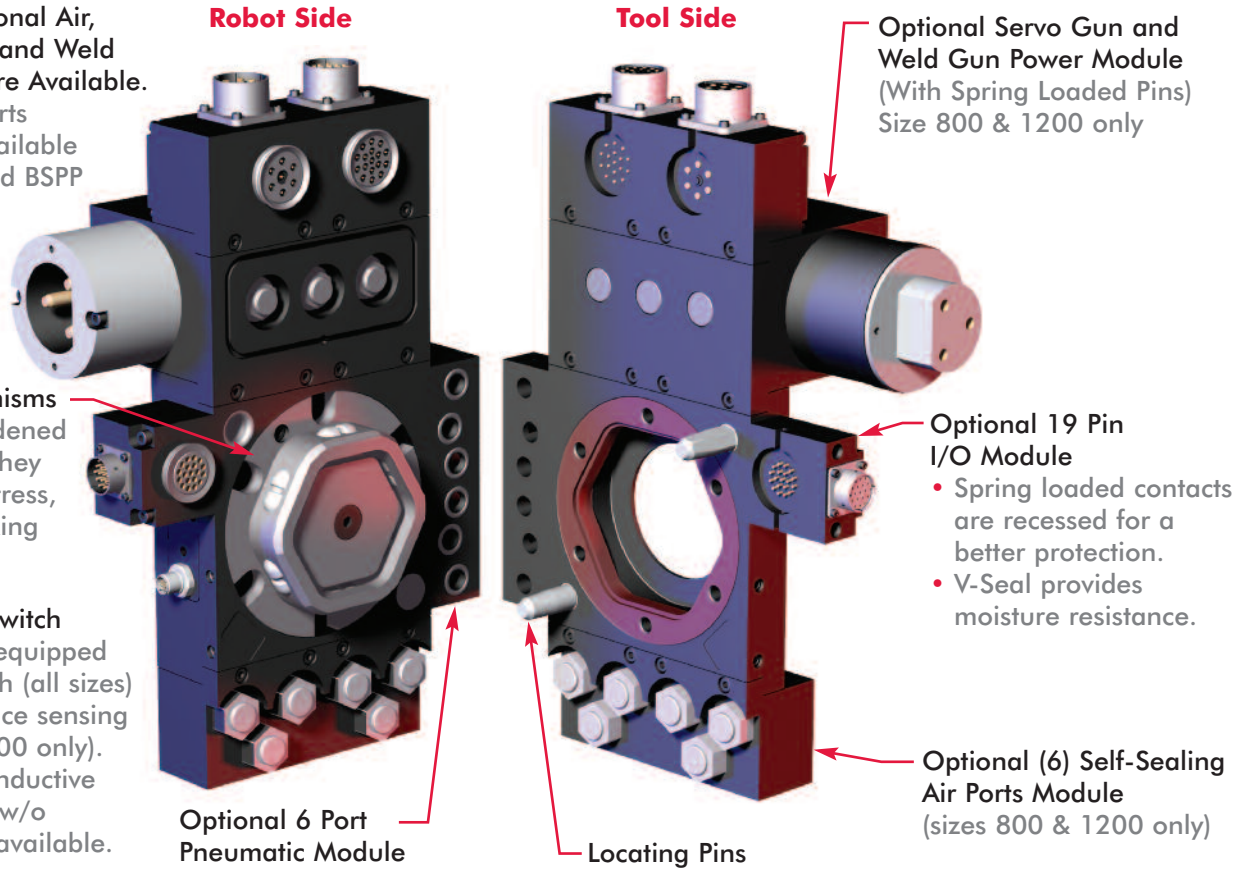
Air and fluid ports modules are available in NPT, BSPP, and BSPP (See Page 6)

**Locking Mechanisms**

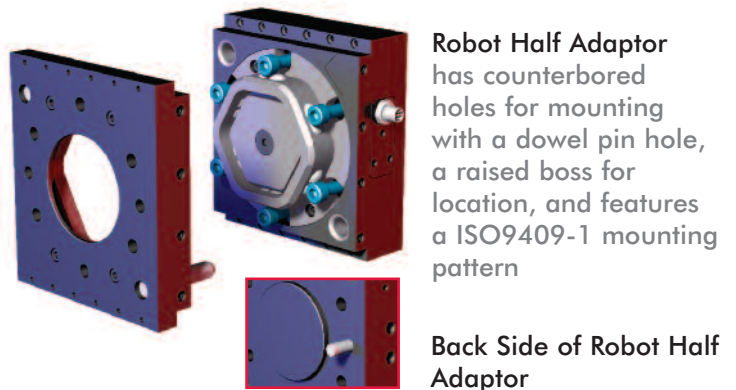
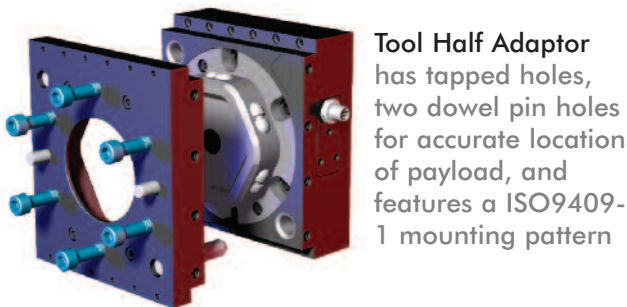
Made from hardened stainless steel, they provide a low stress, highly rigid locking capability.

**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.



**RQC/RTP Mounting Information**

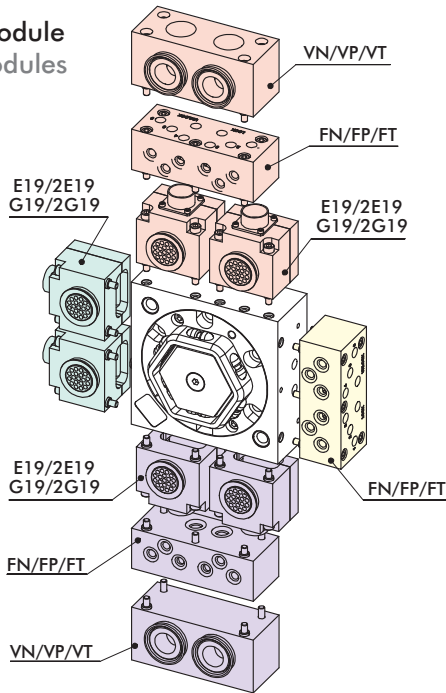


# Tool Changers and Adaptors - Automatic Tool Changers

## RQC/RTP - Module Usage Illustrations

### RQC-400

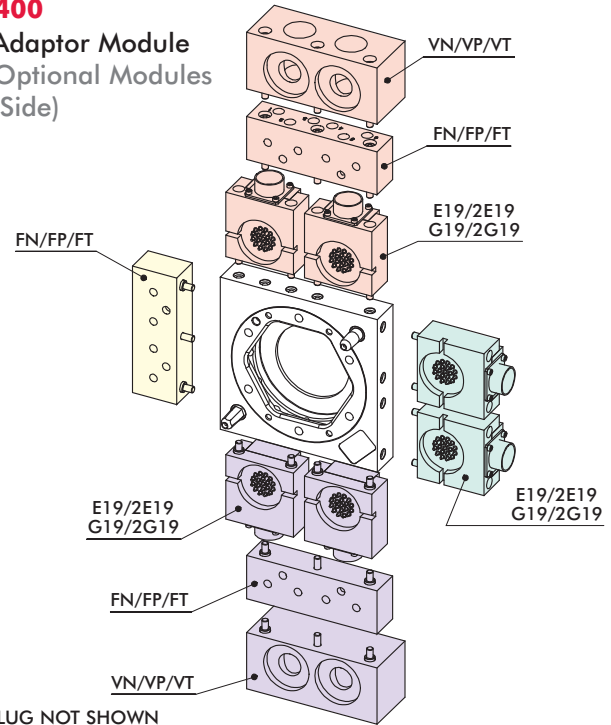
Robot Adaptor Module with Optional Modules (Robot Side)



USER PLUG NOT SHOWN

### RTP-400

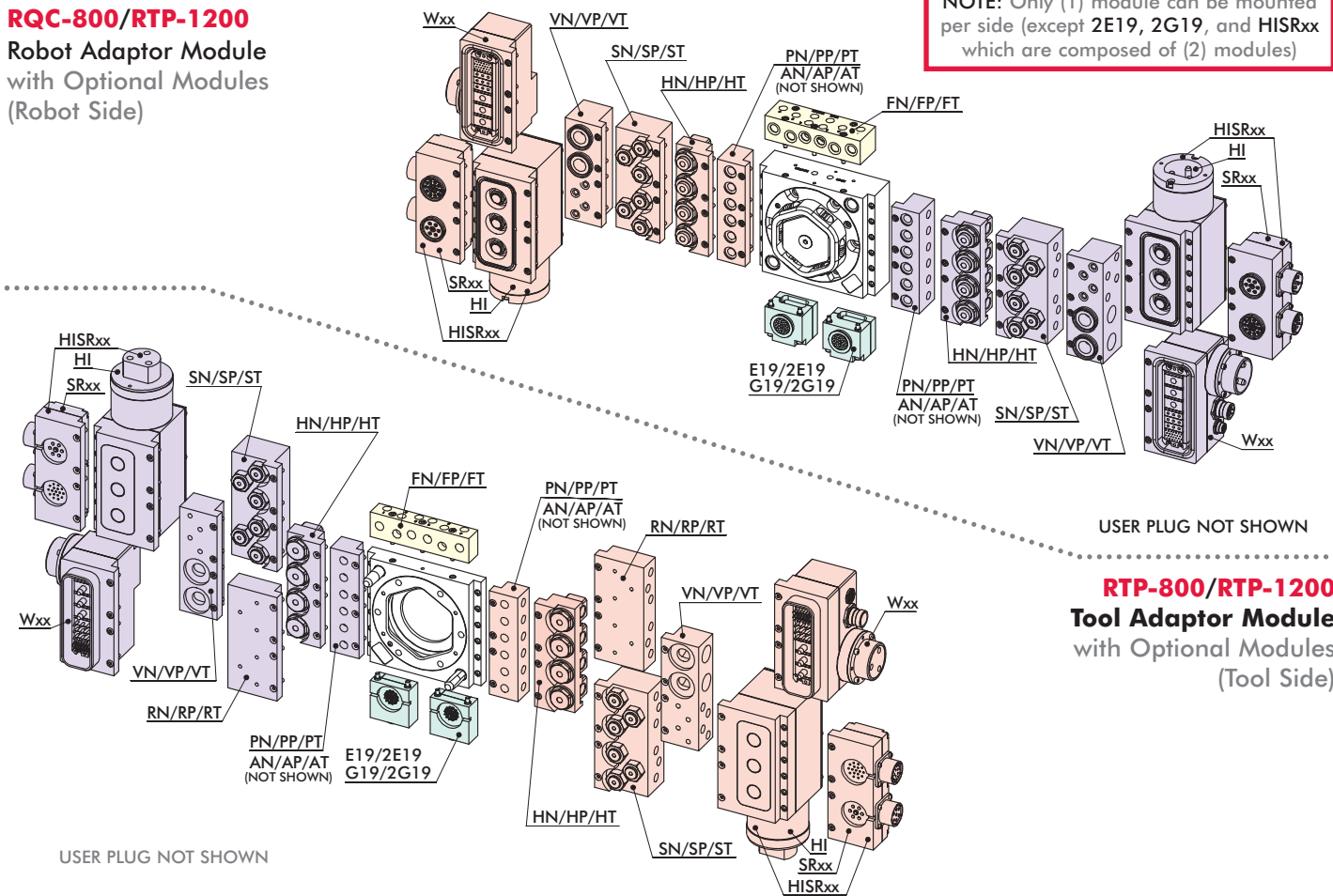
Tool Adaptor Module with Optional Modules (Tool Side)



USER PLUG NOT SHOWN

### RQC-800/RTP-1200

Robot Adaptor Module with Optional Modules (Robot Side)



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

USER PLUG NOT SHOWN

USER PLUG NOT SHOWN

**RTP-800/RTP-1200**  
Tool Adaptor Module with Optional Modules (Tool Side)



## Tool Changers and Adaptors - Automatic Tool Changers RQC/RTP - Configured Tool Changer - Order Information

Base Model	Model Size	Port Options	Sensing (RQC-only)	Side "A" MODULES	Side "B" MODULES	Side "C" MODULES	Side "D" MODULES
<b>RQC</b>	<b>400</b>	<b>N</b>	<b>L0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>"RQC"</b> Robot Side Adaptor Module  <b>"RTP"</b> Tool Side Adaptor Module	<b>"400"</b> 180 kg [400 lb] Max. Payload  <b>"800"</b> 360 kg [800 lb] Max. Payload  <b>"1200"</b> 550 kg [1200 lb] Max. Payload	<b>"N"</b> NPT Port  <b>"M"</b> BSPP Port  <b>"A"</b> BSPT Port	<b>"L0"</b> No Sensing <b>"LP+"</b> PNP Inductive Sensing <b>"CP+†"</b> PNP Inductive Sensing with M12 connector <b>"LN+"</b> NPN Inductive Sensing <b>"CN+†"</b> NPN Inductive Sensing with M12 connector <b>"LD+†"</b> Dry contact sensor <b>"CD+†"</b> Dry contact sensor with M12 connector (*) Requires E19 module or G19 module mounted on side C. (†) Cordset or plug are sold separately.	Optional Air, Vacuum and Electrical Module can be order with Base Model.  See below for Module Description  (See Page 6 for Illustrated Module Use Configuration)			

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

Modules usage is based on the size of the Base Model and which side the Module is can be Mounted. (See page 6)

**SIDE "A" Optional Modules**

- "0"** No Optional Module
- "FN"** 6 X 1/4" NPT Air Ports Module, Face Seal, 10 Bar
- "FP"** 6 X 1/4" BSPP Air Ports Module, Face Seal, 10 Bar
- "FT"** 6 X 1/4" BSPT Air Ports Module, Face Seal, 10 Bar

**SIDE "B" and/or SIDE "D"**

- "0"** No optional module
- "FN"** 6 X 1/8" NPT Air Ports Module, Face Seal, 10 Bar
- "FP"** 6 X 1/8" BSPP Air Ports Module, Face Seal, 10 Bar
- "FT"** 6 X 1/8" BSPT Air Ports Module, Face Seal, 10 Bar
- "PN"** 6 X 1/4" NPT Air Ports Module, Face Seal, 10 Bar
- "PP"** 6 X 1/4" BSPP Air Ports Module, Face Seal, 10 Bar
- "PT"** 6 X 1/4" BSPT Air Ports Module, Face Seal, 10 Bar
- "AN"** 4 X 1/4" "ARV" NPT Air Ports Module, Face Seal, 10 Bar
- "AP"** 4 X 1/4" "ARV" BSPP Air Ports Module, Face Seal, 10 Bar
- "AT"** 4 X 1/4" "ARV" BSPT Air Ports Module, Face Seal, 10 Bar
- "HN"** 4 X 3/8" NPT Fluid Ports Module, 100 Bar
- "HP"** 4 X 3/8" BSPP Fluid Ports Module, 100 Bar
- "HT"** 4 X 3/8" BSPT Fluid Ports Module, 100 Bar
- "SN"** 6 X 1/4" NPT Air Ports Module, Self Sealing, 10 Bar
- "SP"** 6 X 1/4" BSPP Air Ports Module, Self Sealing, 10 Bar
- "ST"** 6 X 1/4" BSPT Air Ports Module, Self Sealing, 10 Bar
- "VN"** 2 X 3/4" Vacuum + 4 X 1/4" Air NPT Ports Module, Face Sealing
- "VP"** 2 X 3/4" Vacuum + 4 X 1/4" Air BSPP Ports Module, Face Sealing
- "VT"** 2 X 3/4" Vacuum + 4 X 1/4" Air BSPT Ports Module, Face Sealing
- "Wxx+†"** Servo Gun and Welding Gun Module (Pin And Socket)
- "HI"** Welding Gun Module (3 X 180 Amp Spring Loaded Pins)
- "SRxx+†"** Servo Gun Module (with Spring Loaded Pins)
- "HISRxx+††"** Servo Gun and Welding Gun Module (with Spring Loaded Pins)

RTP/RQC 400 only (Mounted on Side A, Side B and Side D)

RTP/RQC 400 Modules has no "Air Ports"

(\*\*) XX are attributed according to the customer wiring diagram. Consult factory.  
(††) SRXX Module can be mounted on the HI module to use with electric welding gun.

**SIDE "C"**

- "0"** No optional module
- "E19+†"** 19 pin, 3 Amp, 48 VDC Module w/Turck M12 connector, w/o Cordset
- "2E19+†††"** 2x 19 pin, 3 Amp, 48 VDC Module w/Turck M12 connector, 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

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

Electrical and pneumatic accessories are ordered separately.

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

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

**Electrical Accessories**

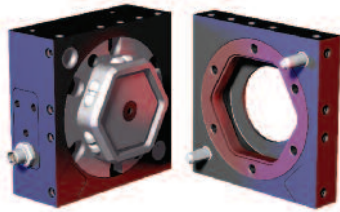
- "ELCT-048"** 90° Female Plug, w/o Cable, Solder Type, Cable Clamp for G19 (RQC Only)
- "ELCT-049"** 90° male Plug, w/o Cable, Solder Type, Cable Clamp for G19 (RTP Only)
- "CABL-028"** 90° Female M12 Cordset with 2M Cable for CP, CN, and CD (RQC Only)
- "CABL-029"** 90° Female Cordset with 4M Cable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

**Pneumatic Accessories**

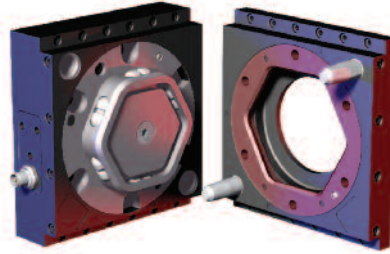
- "SLKT-402"** RQC-400 Standard Seal Repair Kit
- "SLKT-403"** RQC-800 Standard Seal Repair Kit
- "SLKT-404"** RQC-1200 Standard Seal Repair Kit

## Tool Changers and Adaptors - Automatic Tool Changers

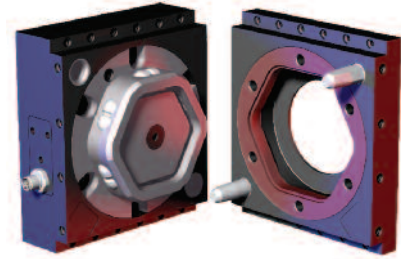
**RQC/RTP** - Base Models, Optional Electrical and Air Modules



Robot Side RQC-400  
Tool Side RTP-400



Robot Side RQC-800  
Tool Side RTP-800

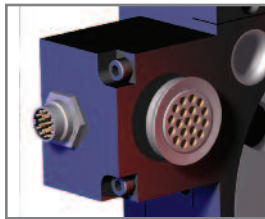


Robot Side RQC-1200  
Tool Side RTP-1200

Base Model	Model Size	Port Options	Sensing (RQC-only)	No Modules (for Base Models)
<b>RQC</b>	<b>400</b>	<b>N</b>	<b>CP</b>	<b>0000</b>
"RQC" Robot Side Adaptor Module	"400" 180kg [400 lb] Max. Payload	"N" NPT Port	"LO" No Sensing	
"RTP" Tool Side Adaptor Module	"800" 360kg [800 lb] Max. Payload	"M" BSPP Port	"LP*" PNP Inductive Sensing	
	"1200" 550kg [1200 lb] Max. Payload	"A" BSPT Port	"CP†" PNP Inductive Sensing with M12 connector	
			"LN*" NPN Inductive Sensing	
			"CN†" NPN Inductive Sensing with M12 connector	
			"LD*" Dry contact sensor	
			"CD†" Dry contact sensor with M12 connector	

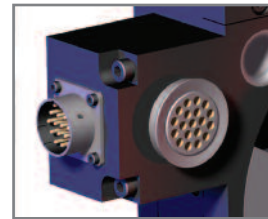
(\*) Requires E19 module or G19 module mounted on side C.  
(†) Cordset or plug are sold separately.

### Optional Electrical Modules



19 Pin Module, 3 Amp - 48 VDC

Module	Robot Side	Tool Side
<b>E19</b>	<b>KE19-RQC</b>	<b>KE19-RTP</b>

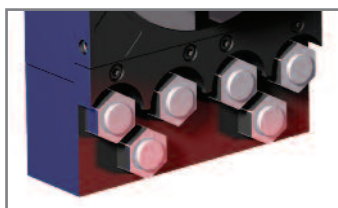


19 Pin Module, 5 Amp - 120 VDC

Module	Robot Side	Tool Side
<b>G19</b>	<b>KG19-RQC</b>	<b>KG19-RTP</b>

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

### Optional Air Modules with Shut Off



Double shut-off			Single shut-off	
Module	Robot Side	Tool Side	Module	Tool Side
<b>SN</b>	<b>KSN-RQC800</b>	<b>KSN-RTP800</b>	<b>RN</b>	<b>KRN-RTP800</b>
<b>SP</b>	<b>KSP-RQC800</b>	<b>KSP-RTP800</b>	<b>RP</b>	<b>KRP-RTP800</b>
<b>ST</b>	<b>KST-RQC800</b>	<b>KST-RTP800</b>	<b>RT</b>	<b>KRT-RTP800</b>

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



Tool Changers and Adaptors - Automatic Tool Changers  
**RQC/RTP** - Optional Air, Vacuum and Fluid Ports Modules, Weld Gun Modules

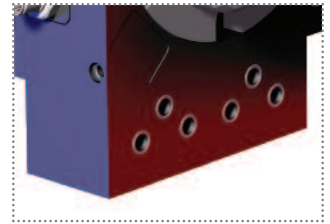
Air Ports Modules with Face Seals

For **RQC/RTP 400**

Module	Robot Side	Tool Side
<b>FN</b>	KFN-RQC200	KFN-RTP200
<b>FP</b>	KFP-RQC200	KFP-RTP200
<b>FT</b>	KFT-RQC200	KFT-RTP200

For **RQC/RTP 800 & RQC/RTP 1200**

Module	Robot Side	Tool Side
<b>FN</b>	KFN-RQC800	KFN-RTP800
<b>FP</b>	KFP-RQC800	KFP-RTP800
<b>FT</b>	KFT-RQC800	KFT-RTP800



For **RQC/RTP 800 & RQC/RTP 1200**

Module	Robot Side	Tool Side
<b>PN</b>	KPN-RQC800	KPN-RTP800
<b>PP</b>	KPP-RQC800	KPP-RTP800
<b>PT</b>	KPT-RQC800	KPT-RTP800

For **RQC/RTP 800 & RQC/RTP 1200**

Module	Robot Side	Tool Side
<b>AN</b>	KAN-RQC800	KAN-RTP800
<b>AP</b>	KAP-RQC800	KAP-RTP800
<b>AT</b>	KAT-RQC800	KAT-RTP800



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

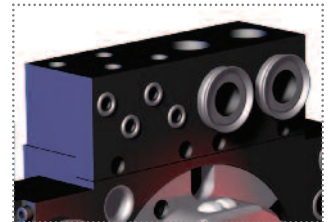
Vacuum Ports Modules with Face Seal

For **RQC/RTP 400**

Module	Robot Side	Tool Side
<b>VN</b>	KVN-RQC200	KVN-RTP200
<b>VP</b>	KVP-RQC200	KVP-RTP200
<b>VT</b>	KVT-RQC200	KVT-RTP200

For **RQC/RTP 800 & RQC/RTP 1200**

Module	Robot Side	Tool Side
<b>VN</b>	KVN-RQC800	KVN-RTP800
<b>VP</b>	KVP-RQC800	KVP-RTP800
<b>VT</b>	KVT-RQC800	KVT-RTP800



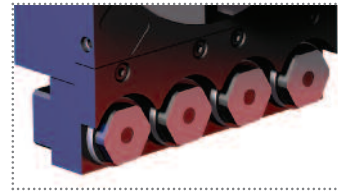
Module kits above include: Couplings, indexing sleeves and hardware.

Fluid Ports Modules, Non-Spilling, Double Shut-off

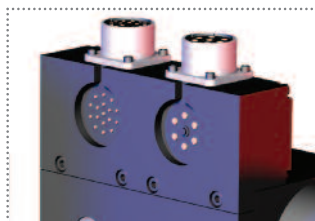
For **RQC/RTP 800 & RQC/RTP 1200**

Module	Robot Side	Tool Side
<b>HN</b>	KHN-RQC800	KHN-RTP800
<b>HP</b>	KHP-RQC800	KHP-RTP800
<b>HT</b>	KHT-RQC800	KHT-RTP800

Module kits include:  
Couplings, indexing sleeves and hardware.

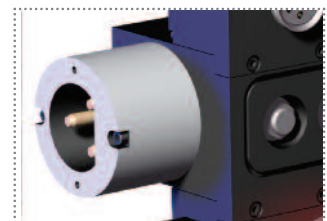


Weld Gun Modules



(†) The (xx) is replaced by two digits depending on wiring request. Wiring may depend on robot and welding gun specifications. Please consult factory.

(\*) SRxx module can be mounted on the HI module to use with electric welding gun. Order HISR(xx).



For **RQC/RTP 800 & RQC/RTP 1200**

Module	Robot Side	Tool Side
<b>SR(xx) †*</b>	KSR(xx)-RQC800 †*	KSR(xx)-RTP800 †*

Module kits include: Straight plug (without cable, crimp contacts), seals, indexing sleeves and hardware.

For **RQC/RTP 800 & RQC/RTP 1200**

Module	Robot Side	Tool Side
<b>HI</b>	KHI-RQC800	KHI-RTP800

Module kits above include: Plugs, seals, indexing sleeves and hardware.

## Tool Changers and Adaptors - Automatic Tool Changers

### QC/TP - Base Models



Base Model	Model Size	Port Options	I/O Block	Optional Modules	10-Port (for QC/TP-60 only)
<b>QC</b>	<b>60</b>	<b>M</b>	<b>E15</b>	<b>PN18</b>	<b>10P</b>

<p><b>"QC"</b> Robot Side Adaptor Module</p> <p><b>"TP"</b> Tool Side Adaptor Module</p>	<p><b>"30"</b> 13.6kg [30 lb] Max. Payload</p> <p><b>"60"</b> 27kg [60 lb] Max. Payload</p> <p><b>"150"</b> 68kg [150 lb] Max. Payload</p>	<p><b>"Blank"</b> NPT Port</p> <p><b>"M"</b> BSPP Port</p> <p><b>"A"</b> BSPT Port</p>	<p><b>"0"</b> No I/O Block</p> <p><b>"E15"</b> 15-pin, Sub-D</p> <p><b>"D15"</b> (2) x E15 (QC/TP-30 only)</p> <p><b>"E12"</b> 12-pin, Turck</p>	<p><b>Optional modules</b> below are used with QC/TP-60 and QC/TP-150 only</p> <p><b>"E26"</b> 26-PIN 5A Module</p> <p><b>"E19**"</b> 19-PIN 5A Module</p> <p><b>"E10"</b> 10-PIN 13A Module</p> <p><b>"PN18"</b> 4 X 1/8" NPT Pneumatic Port</p> <p><b>"PP18"</b> 4 X 1/8" BSPP Pneumatic Port</p> <p><b>"PT18"</b> 4 X 1/8" BSPT Pneumatic Port</p> <p><b>"PN14"</b> 2 X 1/4" NPT Pneumatic Port</p> <p><b>"PP14"</b> 2 X 1/4" BSPP Pneumatic Port</p> <p><b>"PT14"</b> 4 X 1/4" BSPT Pneumatic Port</p> <p><b>"HN38"</b> 2 X 3/8" NPT Fluid Port</p>
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QC/TP-30 and QC/TP-60-10P cannot be ordered with optional modules

### Electric and Pneumatic Accessories (Ordered Separately)

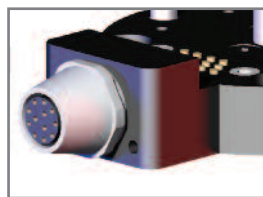
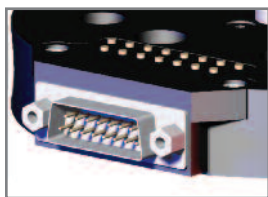
#### Electrical Accessories

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

#### Pneumatic Accessories

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

### QC/TP I/O Block



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

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

12 Pin w/Turck M12 Conn w/o Cordset

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

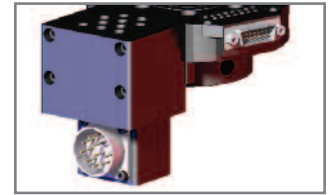


## Tool Changers and Adaptors - Automatic Tool Changers E10/E19/E26 Optional Electric Modules

### 10-Pin Module 5Amp @ 120VDC

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)

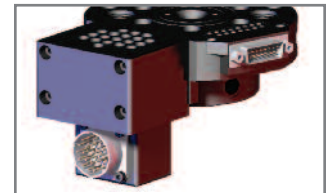
\*Straight Plug, (w/o Cable), Solder Type, Cable Clamp



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

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)

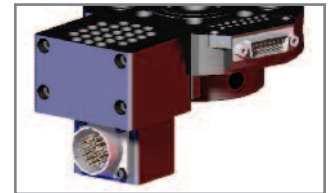
\*Straight Plug, (w/o Cable), Solder Type, Cable Clamp



### 26-Pin Module 5Amp @ 120VDC

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.

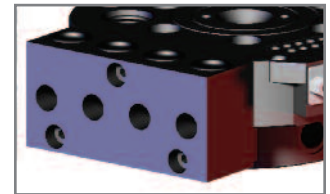
### 4 X 1/8" Air Ports Module, Face Seal

For QC/TP-60

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

For QC/TP-150

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



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

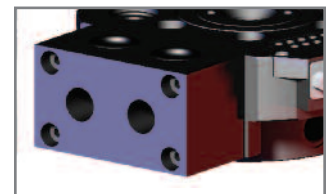
### 2 X 1/4" Air Ports Module, Face Seal

For QC/TP-60

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

For QC/TP-150

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



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

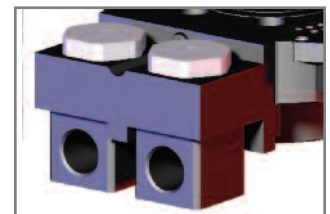
### 2 X 3/8" Fluid Ports Module, Non-Spilling Double Shut-off

For QC/TP-60

Module	Robot Side	Tool Side
HN38	KHN38-QC60	KHN38-TP60

For QC/TP-150

Module	Robot Side	Tool Side
HN38	KHN38-QC150	KHN38-TP150



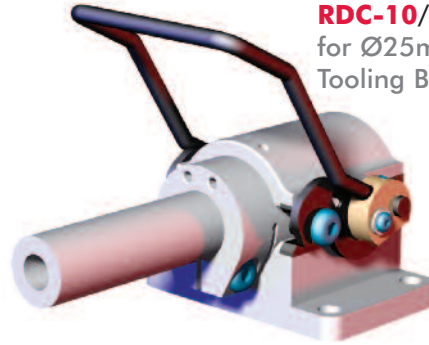
Module kits include: Flat for module mounting couplings, locating pins and hardware.

## Tool Changers and Adaptors - Manual Tool Changers

### RDN/RDC - Product Overview

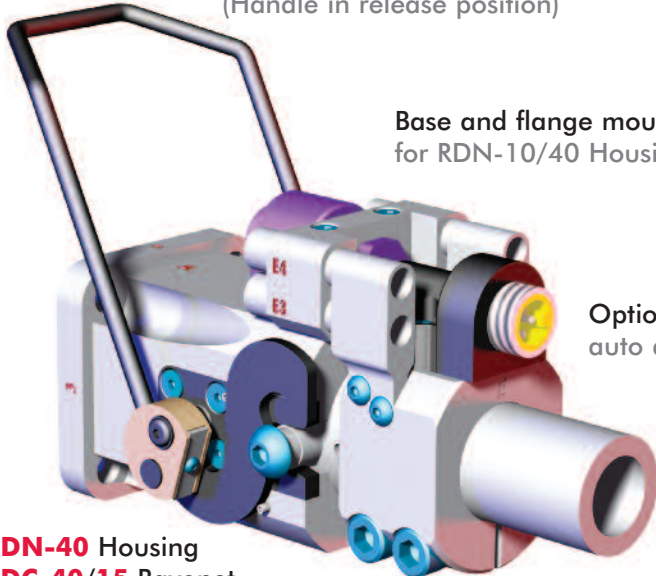
(Handle in locking position)

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



(Handle in release position)

Base and flange mounting  
for RDN-10/40 Housing

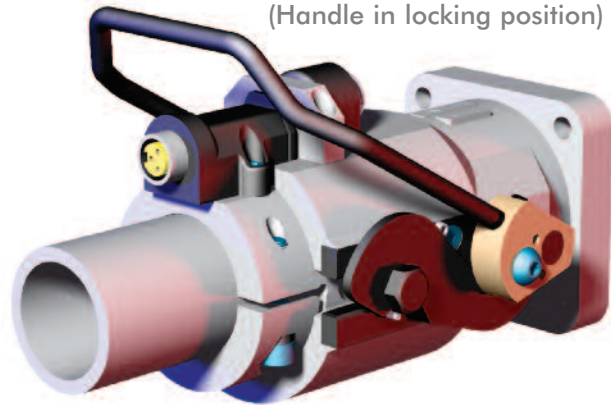


**RDN-40** Housing  
**RDC-40/15** Bayonet  
for Ø40mm/1.50"(in)  
Tooling Boom/Tubes

Patented internal urethane bumpers  
ensure a tight interface between the  
robot and tool sides

Optional air port modules  
auto disconnect when handle is released

(Handle in locking position)

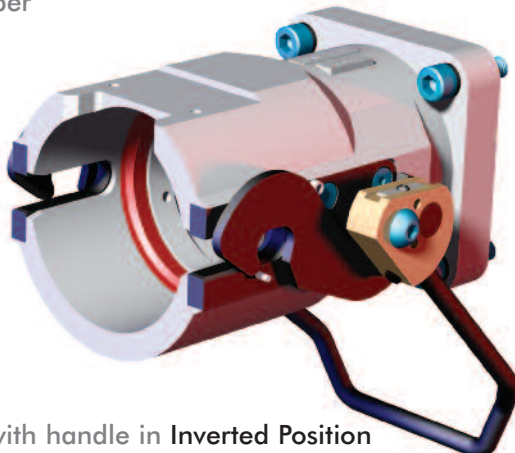


**RDN-25** Housing  
**RDC-60/25** Bayonet  
for Ø60mm/2.50"(in)  
Tooling Boom/Tubes

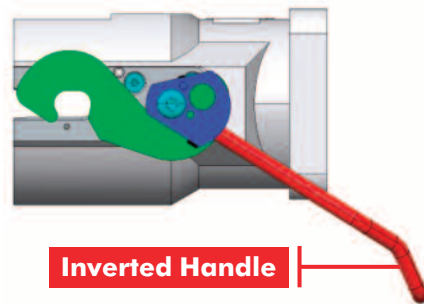
Air & electrical connections  
stay properly sequenced when tool is removed.

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

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



Housing with handle in Inverted Position



**Inverted Handle**

Figure 3



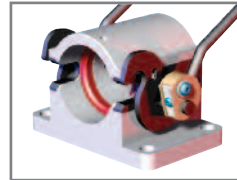
Tool Changers and Adaptors - Manual Tool Changers

**RDN-10** Ø1.00"/25mm Quick Disconnect Housing

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

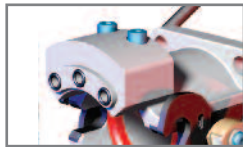


"1F"  
Flange Type

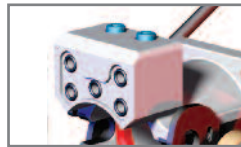


"1B"  
Base Type

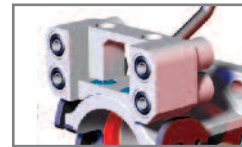
**RDN-10** Quick Disconnect Housing Air and Electric Connection



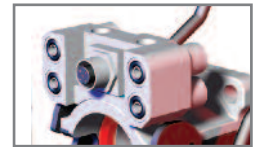
3-Port Air Connection  
**RDN-10-8**



5-Port Air Connection  
**RDN-10-9**



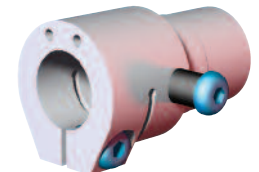
4-Port Air Connection  
with Shut-off  
**RDN-10-4AS**



5-Pin Micro Electric  
Connection  
**CPI-RDH-F5S-5MCM**

**RDC-10/25M** Quick Disconnect Bayonet

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



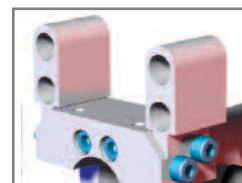
**RDN-10** Quick Disconnect Housing Air and Electric Connection



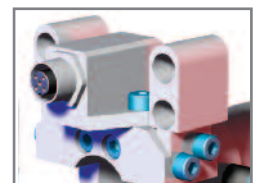
3-Port Air Connection  
**RDC-10-3**



5-Port Air Connection  
**RDC-10-5**



4-Port Air Connection  
with Shut-off  
**RDC-10-4**  
(2) Required

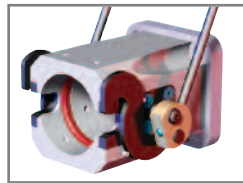


5-Pin Micro Electric  
Connection  
**CPI-RDB-M5P-5MCF**

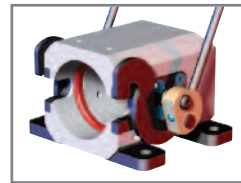
## Tool Changers and Adaptors - Manual Tool Changers

### RDN-40 Ø1.50"/40mm Quick Disconnect Housing

Model	Mounting	Air Port Connection	Key Position	Electrical Connection
<b>CPI</b> — <b>RDN-40</b>	<b>1F</b>	<b>S4</b>	<b>K2</b>	<b>MC</b> — <b>HF</b>
 "RDN-40" Ø40mm/1.50" Housing	 "1F" Flange Type "1B" Base Type	 "S4" (4-Port Internal) "E4" (4-Port External) "E6" (6-Port External) "SE4" (4-Port Int & Ext) (Leave blank for No Options)	 "K1" "K2" "K3" "K4" (Leave blank for No Options)	 "MC" (Micro 5-Pin) "MN" (Mini 3-Pin) (Leave blank for No Options)  Add <b>HF</b> for "E4" Air Port Connection Only



"1F" Flange Type

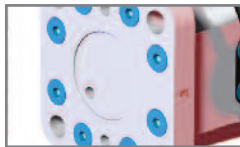


"1B" Base Type

#### RDN-40-1F Flange Type Mounting Internal Air and Locating Key

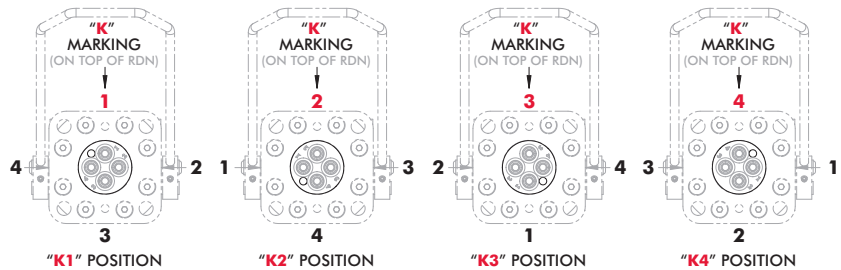


4-Port Internal Air Connection  
**RDN-40-10-1AB**  
Air fittings (4) Needed  
**RDN-AS-U18**

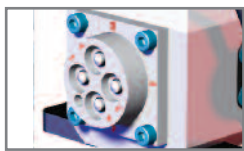


Locating Key  
**RDN-40-10-1KB**  
**1AB & 1KB** options  
Each requires (1)  
M6 x 25mm Dowel

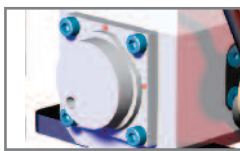
Key Location: Match "K" Mark to number mark as shown below



#### RDN-40-1B Base Type Mounting Internal Air and Locating Key

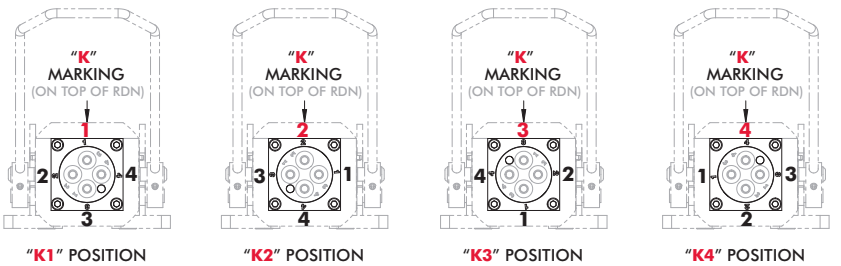


4-Port Internal Air Connection  
**RDN-40-10-1AB**  
Air fittings (4) Needed  
**RDN-SAS-U18**

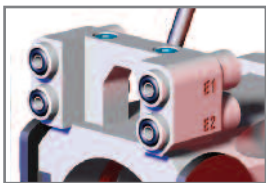


Locating Key  
**RDN-40-10-1KB**  
Base Mount Ring (1) Required  
**RDN-40-3-MR**

Key Location: Match "K" Mark to number mark as shown below

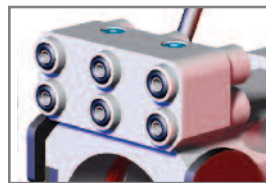


#### RDN-40 Base Type External Air and Electric Connection



4-Port Air Connection  
**CPI-RDN-40-4AS-HF**

Air fittings  
**RDN-AS-U18**  
Qty needed dependant on # of Ports



6-Port Air Connection  
**RDN-40-10-6PA**



5-Pin Micro Electric Connection  
**CPI-RDH-F5S-5MCM**

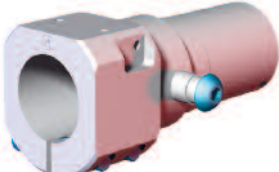


3-Pin Mini Electric Connection  
**CPI-TTH-F3S-3B3**



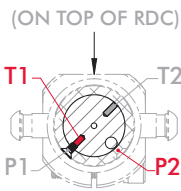
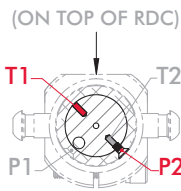
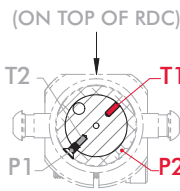
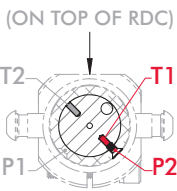






Tool Changers and Adaptors - Manual Tool Changers  
**RDC-15/40** Ø1.50"/40mm Quick Disconnect Bayonet

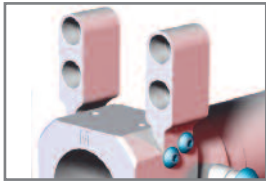

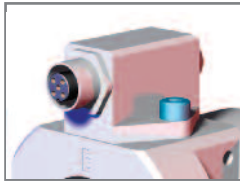
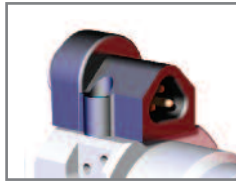
Model	Boom/Tube (Ø) "D"	Air Port Connection	Key Position	Electrical Connection
<b>CPI</b> — <b>RDC</b>	<b>40</b>	<b>S4</b>	<b>K1</b>	<b>MC</b> — <b>HF</b>
 "RDC" Bayonet	 "15" 1.50"(in) "40" 40mm Add "-1" after Boom/Tube (Ø) for No Options	 "S4" (4-Port Internal) "E4" (4-Port External) "E6" (6-Port External) "SE4" (4-Port Int & Ext) (Leave blank for No Options)	 "K1" "K2" "K3" "K4" (Leave blank for No Options)	 "MC" (Micro 5-Pin) "MN" (Mini 3-Pin) (Leave blank for No Options)  Add <b>HF</b> for "E4" Air Port Connection Only



**RDC-15/40** Internal Air Connection and Locating Key


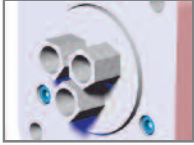

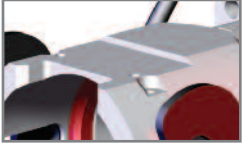
		(ON TOP OF RDC) 	(ON TOP OF RDC) 	(ON TOP OF RDC) 	(ON TOP OF RDC) 
4-Port Internal Air Connection <b>RDC-40-4-1AB</b>	Locating Key <b>RDC-40-4-1KB</b>	"K1" POSITION FASTENER IN (P1/T1)	"K2" POSITION FASTENER IN (P2/T2)	"K3" POSITION FASTENER IN (P1/T2)	"K4" POSITION FASTENER IN (P2/T1)
					

**RDC-15/40** External Air and Electric Connection

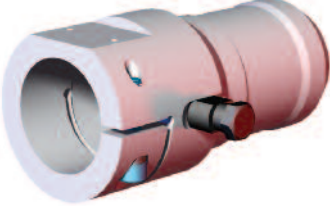

			
4-Port Air Connection <b>RDC-40-4-HF</b> (2) Required	6-Port Air Connection <b>RDC-40-4-6PA</b>	5-Pin Micro Electric Connection <b>CPI-RDB-M5P-5MCF</b>	3-Pin Mini Electric Connection <b>CPI-TTB-M3P-3B3</b>

Tool Changers and Adaptors - Manual Tool Changers



**RDN/RDC** Ø2.50"/60mm Quick Disconnect Housing

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

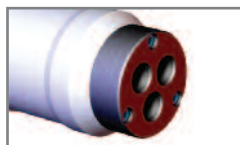
**RDC-xx-2** Ø2.50"/60mm Quick Disconnect Bayonet

<p>Model</p> <p><b>CPI</b> — <b>RDC</b></p> <p> </p> <p>"RDC" Ø60mm/2.50" Bayonet</p> 	<p>Boom/Tube (Ø) "D"</p> <p><b>25</b></p> <p> </p> <p>"25" 2.50"(in) "60" 60mm</p>	<p>Version</p> <p><b>2</b></p> <p> </p> <p>"2" Version 2</p>	<p>Air Port Connection</p> <p><b>A3</b></p> <p> </p> <p>"A3" 3-Port "A6" 6-Port</p>	<p>Electrical Mounting</p> <p><b>EL10</b></p> <p> </p> <p>Mounting for Large Connectors (Leave blank for Standard Mounting)</p>
			 "EL10"	

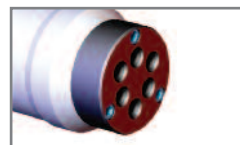
**RDC-xx-2-2HT** Ø2.50"/60mm Quick Disconnect Hi-Torque Bayonet

<p>Model</p> <p><b>CPI</b> — <b>RDC</b></p> <p> </p> <p>"RDC" Ø60mm/2.50" Hi-Torque Bayonet</p> 	<p>Boom/Tube (Ø) "D"</p> <p><b>25</b></p> <p> </p> <p>"25" 2.50"(in) "60" 60mm</p>	<p>Version</p> <p><b>2HT</b></p> <p> </p> <p>"2HT" Version 2 Hi-Torque</p>	<p>Air Port Connection</p> <p><b>A3</b></p> <p> </p> <p>"A3" 3-Port "A6" 6-Port</p>	<p>Electrical Mounting</p> <p><b>EL10</b></p> <p> </p> <p>Mounting for Large Connectors (Leave blank for Standard Mounting)</p>
			 "EL10"	

**RDC** Bayonet 3 and 6-Port Air Connections



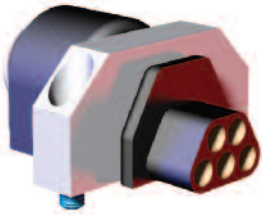
3-Port Air Connection  
CPI-BC-250-3-U38



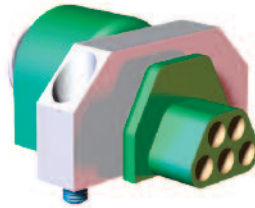
6-Port Air Connection  
CPI-BC-250-6-U18

Tool Changers and Adaptors - Manual Tool Changers  
 Electric Connectors for **RDN/RDC** Quick Disconnect Housing/Bayonets

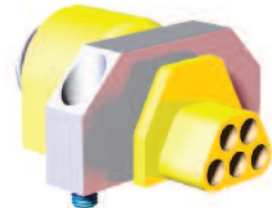
**RDH** 5-Pin (Housing)



3-Pin to 5-Pin Housing  
 Electric Connection  
**CPI-RDH-F5S-3B3**

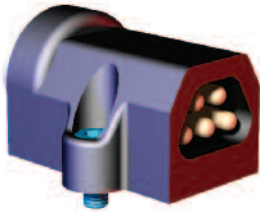


4-Pin to 5-Pin Housing  
 Electric Connection  
**CPI-RDH-F5S-4B4**

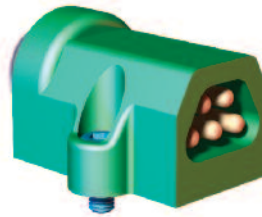


5-Pin to 5-Pin Housing  
 Electric Connection  
**CPI-RDH-F5S-4B4**

**RDB** 5-Pin (Tool Side)



3-Pin to 5-Pin Tool Side  
 Electric Connection  
**CPI-RDB-M5P-3B3**

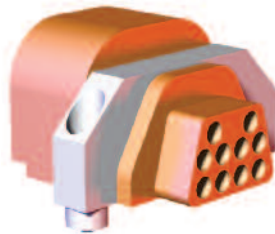


4-Pin to 5-Pin Tool Side  
 Electric Connection  
**CPI-RDB-M5P-4B4**



5-Pin to 5-Pin Tool Side  
 Electric Connection  
**CPI-RDB-M5P-5B5**

**RDH/RDB** 10-Pin (for EL10)

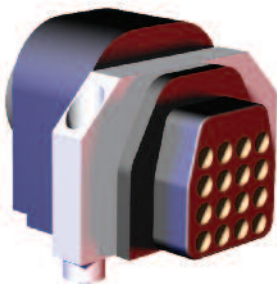


10-Pin to 10-Pin Housing  
 Electric Connection  
**CPI-RDH-F10S-A10**



10-Pin to 10-Pin Tool Side  
 Electric Connection  
**CPI-RDB-M10P-A10**

**RDH/RDB** 19-Pin (for EL10)



16-Pin to 19-Pin Housing  
 Electric Connection  
**CPI-RDH-F16S-A19**

19-Pin to 19-Pin Housing  
 Electric Connection  
**CPI-RDH-F19S-A19**



16-Pin to 19-Pin Tool Side  
 Electric Connection  
**CPI-RDB-M16P-A19**

19-Pin to 19-Pin Tool Side  
 Electric Connection  
**CPI-RDB-M19P-A19**

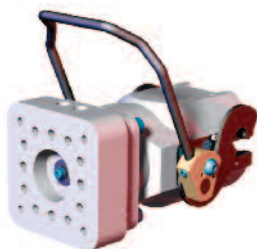
Tool Changers and Adaptors - Automation Adaptors

Ø2.50" Series Robot Adaptors - Selection Guide

250 Series Robot Adaptor										
Adaptor Mounts		Mounting Pattern			Dowels			Pilot		Dwg Page
STYLE (Model)	Type Avail.	BOLT CIRCLE	BOLT SIZE	BOLTS QTY	BOLT CIRCLE	DWL SIZE	DWL QTY	DIAMETER (Ø)	DEPTH	
STYLE 1 (ACMX58)	DM/90	Ø90mm [Ø3.54"]	M8	8	Ø80mm [Ø3.15"]	10mm	4	N/A	N/A	50
STYLE 2 (FA500)	DM/90	Ø90mm [Ø3.54"]	M10	8	Ø90mm [Ø3.54"]	10mm	4	Ø59.5mm [Ø2.34"]	4.8 [1.19]	51
STYLE 3 (KW150)	DM/90	Ø92mm [Ø3.62"]	M10	6	Ø92mm [Ø3.62"]	9mm	2	Ø54mm [Ø2.13"]	6.4 [2.25]	52
STYLE 4 (FA900)	DM/90	Ø125mm [Ø4.92"]	M10	6	Ø125mm [Ø4.92"]	10mm	2	Ø79.5mm [Ø3.13"]	6.4 [2.25]	53
STYLE 5 (KA760)	DM/90	Ø160mm [Ø6.30"]	M10	6	Ø160mm [Ø6.30"]	10mm	2	Ø99.9mm [Ø3.94"]	6.4 [2.25]	54
STYLE 6 (MMNY300)	DM	Ø200mm [Ø7.87"]	M12	6	Ø200mm [Ø7.87"]	12mm	1	N/A	N/A	55
STYLE 7 (FA430I)	DM/90	Ø125mm [Ø4.92"]	M10	6	Ø125mm [Ø4.92"]	10mm	2	Ø79.5mm [Ø3.13"]	6.4 [2.25]	56
STYLE 8 (FA420)	DM	Ø92mm [Ø3.62"]	M10	8	Ø92mm [Ø3.62"]	10mm	4	Ø79.5mm [Ø3.13"]	4.8 [1.19]	57
STYLE 9 (ABB44)	DM/90	Ø100mm [Ø3.94"]	M10	6	Ø100mm [Ø3.94"]	8mm	2	Ø61.9mm [Ø2.44"]	6.4 [2.25]	58
STYLE 10 (KWZ165)	DM/90	Ø125mm [Ø4.92"]	M10	10	Ø125mm [Ø4.92"]	10mm	2	Ø79.5mm [Ø3.13"]	6.4 [2.25]	59
STYLE 11 (KWUT120)	90	Ø120mm [Ø4.72"]	M8	8	Ø120mm [Ø4.92"]	8mm	2	N/A	N/A	60
STYLE 12 (FA710)	DM	Ø100mm [Ø3.94"]	M8	6	Ø100mm [Ø3.94"]	8mm	2	N/A	N/A	61
STYLE 14 (MMK100)	90	Ø125mm [Ø4.92"]	M10	6	Ø125mm [Ø4.92"]	10mm	2	Ø61mm [Ø2.40"]	6.4 [2.25]	62
STYLE 15 (KA660)	DM/90	Ø160mm [Ø6.30"]	M12	6	Ø160mm [Ø6.30"]	12mm	1	Ø99mm [Ø3.90"]	6.4 [2.25]	63
STYLE 16 (FA2000)	DM	Ø125mm [Ø4.92"]	M10	10	Ø125mm [Ø4.92"]	10mm	2	Ø79.5mm [Ø3.13"]	6.4 [2.25]	64
STYLE 18 (MMHP165)	DM/90	Ø125mm [Ø4.92"]	M10	6	Ø125mm [Ø4.92"]	10mm	2	Ø62.5mm [Ø2.46"]	6.4 [2.25]	65
STYLE 19 (MMHP165)	90	Ø92mm [Ø3.62"]	M10	6	Ø125mm [Ø4.92"]	9mm	2	Ø62.5mm [Ø2.46"]	6.4 [2.25]	66
STYLE 21 (EOAMC30)	DM	Ø127mm [Ø5.00"]	3/8-16	6	Ø108mm [Ø4.25"]	.25"(in)	2	N/A	N/A	67
STYLE 22 (FA900-SSM)	DM	Ø125mm [Ø4.92"]	M10	6	Ø125mm [Ø4.92"]	10mm	2	Ø79.5mm [Ø3.13"]	4.8 [1.19]	68
STYLE 23 (MD350)	DM/90	Ø187.3mm [Ø7.38"]	3/8-16	4	Ø187.3mm [Ø7.38"]	3/8	2	N/A	N/A	69
STYLE 24 (SA000)	DM	Ø69.5mm [Ø2.74"]	M10	4	N/A	N/A	N/A	N/A	N/A	70

Tool Changers and Adaptors - Automation Adaptors  
 Ø2.50" Series Robot Adaptors Direct Mounts and 90° Adaptors

Robot Models Supported  
**ACMA X58**

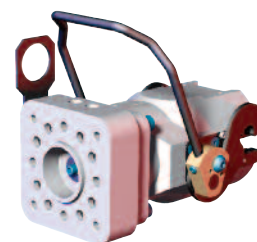


Style 01 **ACMX58** (Ø90mm Bolt Circle/Ø80mm Dowel Circle)  
 Direct Mount Adaptor  
**CPI-ACMX58-DM-RD25-(X)**

Direct Mount Porting		
(X)	Porting	# of Ports
<b>A3</b>	3/8 NPT	3 (2/1)
<b>A6</b>	1/8 NPT	6 (3/3)



Robot Models Supported  
**FANUC**  
 M-400, M-500  
 S-420\*  
 (\*With FANUC Flange)



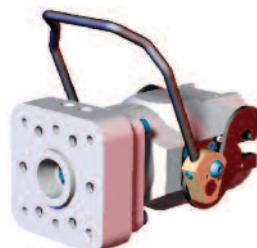
Direct Mount Adaptor  
**CPI-FA500-DM-RD25-(X)**

Direct Mount Porting		
(X)	Porting	# of Ports
<b>A3</b>	3/8 NPT	3 (2/1)
<b>A6</b>	1/8 NPT	6 (3/3)



Style 02 **FA500** (Ø90mm Bolt Circle)

Robot Models Supported  
**KAWASAKI**  
 UX100, UX120  
 UX150



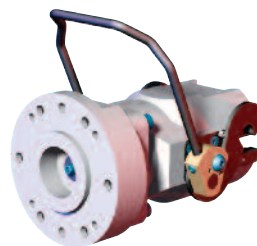
Direct Mount Adaptor  
**CPI-KW150-DM-RD25-(X)**

Direct Mount Porting		
(X)	Porting	# of Ports
<b>A3</b>	3/8 NPT	3 (2/1)
<b>A6</b>	1/8 NPT	6 (3/3)



Style 03 **KW150** (Ø92mm Bolt Circle)

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



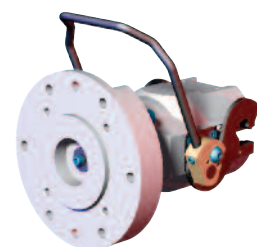
Direct Mount Adaptor  
**CPI-FA900-DM-RD25-(X)**

Direct Mount Porting		
(X)	Porting	# of Ports
<b>A3</b>	3/8 NPT	3 (2/1)
<b>A6</b>	1/8 NPT	6 (3/3)



Style 04 **FA900** (Ø125mm Bolt Circle)

Robot Models Supported  
**KUKA**  
 IW 125, PL 150,  
 IW 150, PL 125  
 KR 125, ZH 125,  
 IR 760, ZH 150



Direct Mount Adaptor  
**CPI-KA760-DM-RD25-(X)**

Direct Mount Porting		
(X)	Porting	# of Ports
<b>A3</b>	3/8 NPT	3 (2/1)
<b>A6</b>	1/8 NPT	6 (3/3)



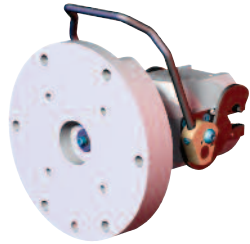
Style 05 **KA760** (Ø160mm Bolt Circle)

## Tool Changers and Adaptors - Automation Adaptors

### Ø2.50" Series Robot Adaptors Direct Mounts and 90° Adaptors

Style 06 **MMNY300** (Ø200mm Bolt Circle)

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

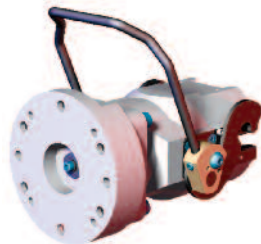


Direct Mount Adaptor  
**CPI-MMNY300-DM-RD25-(X)**

Direct Mount Porting		
(X)	Porting	# of Ports
<b>A3</b>	3/8 NPT	3 (2/1)
<b>A6</b>	1/8 NPT	6 (3/3)

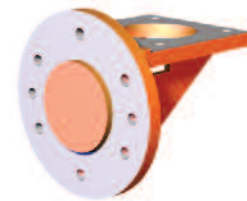
Style 07 **FA430I** (Ø125mm Bolt Circle)

Robot Models Supported  
**FANUC S430I**



Direct Mount Adaptor  
**CPI-FA430I-DM-RD25-(X)**

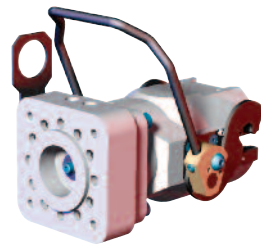
Direct Mount Porting		
(X)	Porting	# of Ports
<b>A3</b>	3/8 NPT	3 (2/1)
<b>A6</b>	1/8 NPT	6 (3/3)



90° Adaptor  
**CPI-FA430I-90-RD25-A36**

Style 08 **FA420** (Ø92mm Bolt Circle)

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

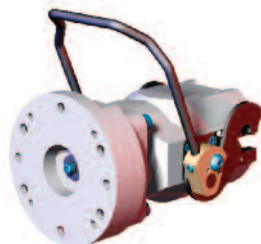


Direct Mount Adaptor  
**CPI-FA420-DM-RD25-(X)-SPC**

Direct Mount Porting		
(X)	Porting	# of Ports
<b>A3</b>	3/8 NPT	3 (2/1)
<b>A6</b>	1/8 NPT	6 (3/3)

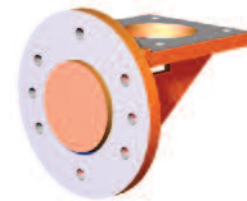
Style 09 **ABB44** (Ø100mm Bolt Circle)

Robot Models Supported  
**ABB IRB**  
 4400/S, 4400/60  
 4400/45,  
 4400/L30



Direct Mount Adaptor  
**CPI-ABB44-DM-RD25-(X)**

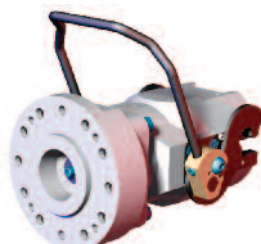
Direct Mount Porting		
(X)	Porting	# of Ports
<b>A3</b>	3/8 NPT	3 (2/1)
<b>A6</b>	1/8 NPT	6 (3/3)



90° Adaptor  
**CPI-ABB44-90-RD25-A36**

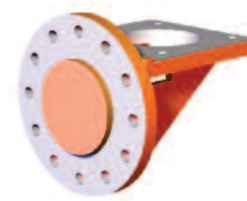
Style 10 **KWZ165** (Ø125mm Bolt Circle)

Robot Models Supported  
**KAWASAKI Z165**



Direct Mount Adaptor  
**CPI-KWZ165-DM-RD25-(X)**

Direct Mount Porting		
(X)	Porting	# of Ports
<b>A3</b>	3/8 NPT	3 (2/1)
<b>A6</b>	1/8 NPT	6 (3/3)



90° Adaptor  
**CPI-FKWZ165-90-RD25-A36**

Tool Changers and Adaptors - Automation Adaptors  
 Ø2.50" Series Robot Adaptors - Direct Mounts and 90° Adaptors

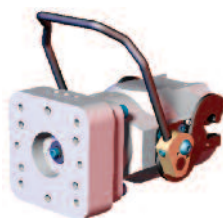
Style 11 - KWUT120-90  
 (Ø120mm Bolt Circle)



90° Adaptor  
 CPI-KWUT120-90-RD25-A36

Robot Models Supported  
 KAWASAKI UT120

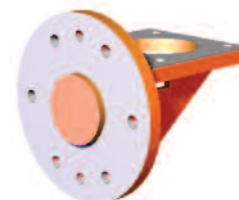
Style 12 - FA710-DM  
 (Ø100mm Bolt Circle)



Direct Mount Adaptor  
 CPI-FA710-DM-RD25-A6

Robot Models Supported  
 FANUC M710

Style 14 - MMK100-90  
 (Ø125mm Bolt Circle)



90° Adaptor  
 CPI-MMK100-90-RD25-A36

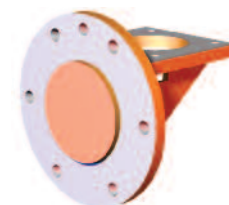
Robot Models Supported  
 COMAU CMH3.2  
 MOTOMAN K100, UP130

Style 15 - KA660 (Ø160mm Bolt Circle)

Robot Models Supported  
 KUKA 660



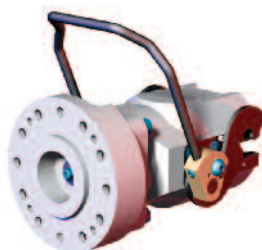
Direct Mount Adaptor  
 CPI-KA660-DM-RD25-00



90° Adaptor  
 CPI-KA660-90-RD25-A36

Style 16 - FA2000 (Ø125mm Bolt Circle)

Robot Models Supported  
 FANUC R2000I



Direct Mount Adaptor  
 CPI-FA2000-DM-RD25-(X)

Direct Mount Porting		
(X)	Porting	# of Ports
A3	3/8 NPT	3 (2/1)
A6	1/8 NPT	6 (3/3)



90° Adaptor  
 CPI-FA2000-90-RD25-A36

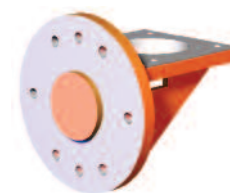
Style 18 - MMHP165 (Ø125mm Bolt Circle)

Robot Models Supported  
 MOTOMAN  
 ES165N  
 HP165



Direct Mount Adaptor  
 CPI-MMHP165-125-RD25-(X)

Direct Mount Porting		
(X)	Porting	# of Ports
A3	3/8 NPT	3 (2/1)
A6	1/8 NPT	6 (3/3)



90° Adaptor  
 CPI-MMHP165-125-90-RD25-A36

Tool Changers and Adaptors - Automation Adaptors

Ø2.50" Series Robot Adaptors Direct Mounts and 90° Adaptors

Style 19 - **MMHP165-92-90**  
(Ø92mm Bolt Circle)

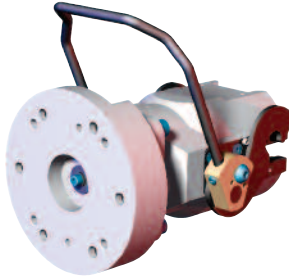


90° Adaptor

CPI-**MMHP165-92-90-RD25-A36**

Robot Models Supported  
HP165, ES165N

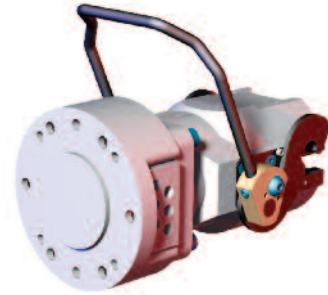
Style 21 - **EOAMC30**  
(Ø127mm Bolt Circle/  
Ø108mm Dowel Circle)



Direct Mount Adaptor

CPI-**EOAMC30-DM-RD25-A6**

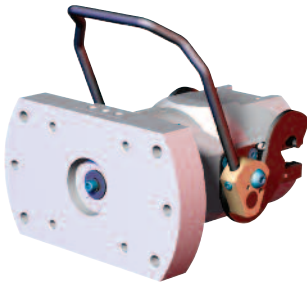
Style 22 - **FA900-SSM**  
(Ø125mm Bolt Circle)



Direct Mount Adaptor

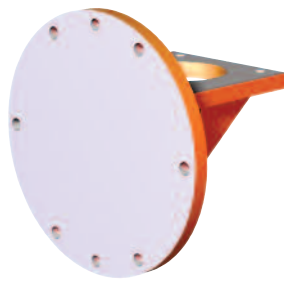
CPI-**FA900-SSM-RD25-A6**

Style 23 - **MD350** (Ø187mm Bolt Circle)



Direct Mount Adaptor

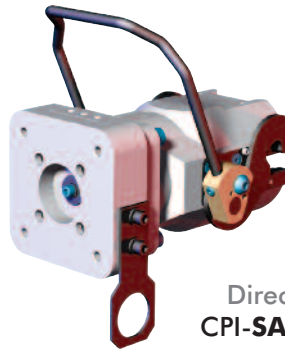
CPI-**EOAMC30-DM-RD25-A6**



90° Adaptor

CPI-**MD350-90-RD25-A36**

Style 24 - **SA000** (Ø69.5mm Bolt Circle)



Direct Mount Adaptor

CPI-**SA000-DM-RD25-A6**

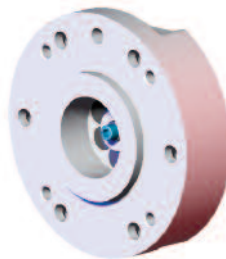
**CM675XL** (Ø76mm Bolt Circle)



Direct Mount Adaptor

CPI-**CM675XL-DM-RD25-A3**

**CHM32** (Ø125mm Bolt Circle)



Direct Mount Adaptor  
CPI-**CHM32-DM-RD25-(X)**

Direct Mount Porting

(X)	Porting	# of Ports
<b>A3</b>	3/8 NPT	3 (2/1)
<b>A6</b>	1/8 NPT	6 (3/3)

**FA710** (Ø100mm Bolt Circle)



Direct Mount Adaptor

CPI-**FA710-DM-TT15-A3**

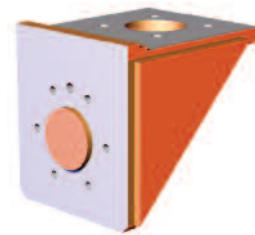
**FA710IC** (Ø100mm Bolt Circle)



90° Adaptor

CPI-**FA710IC-90-RD40-A3**

**KWFS45N-90** (Ø100mm Bolt Circle)



90° Adaptor

CPI-**KWFS45N-90-TTN40-A3**

Tool Changers and Adaptors - Automation Adaptors  
Direct Mount Adaptors Plates and ATI Adaptors

TDA-150F Adaptor Plate



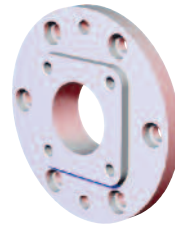
(Ø85mm Bolt Circle)  
CPI-TDA-150F-312F

TDA-250F Adaptor Plate



(Ø125mm Bolt Circle)  
CPI-TDA-250F-312F

FA900 Adaptor Plate



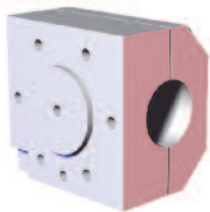
(Ø125mm Bolt Circle)  
CPI-FA900-DM-238F

KW150 Adaptor Plate



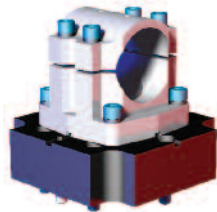
(Ø92mm Bolt Circle)  
CPI-KW150-25-312F

CL-LAN Adaptor Plate



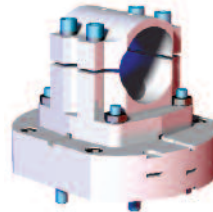
(Ø125mm Bolt Circle)  
CPI-CL-LAN-EOL

ATI-151 90° Medium Duty



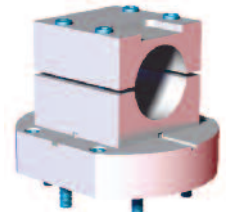
(Ø125mm Bolt Circle)  
CPI-ATI-151-90-WT

ATI-90 Light Duty



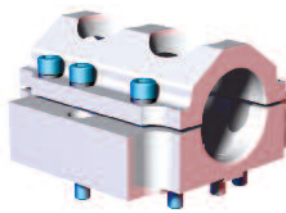
(Ø125mm Bolt Circle)  
CPI-ATI-90

ATI-90-SP 90° Light Duty



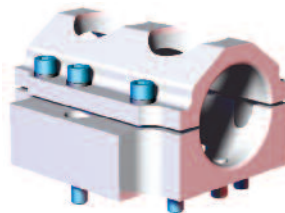
(Ø125mm Bolt Circle)  
CPI-ATI-90-SP

ATI-201 - Ø60mm



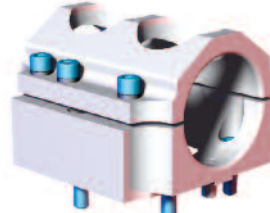
(Ø125mm Bolt Circle)  
CPI-ATI-201-60

ATI-201-90 Ø2.50"



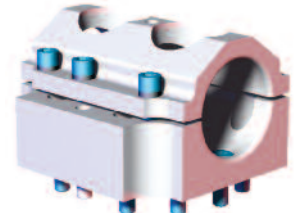
(Ø125mm Bolt Circle)  
CPI-ATI-201-90-HD

ATI-201-90 Ø3.00"



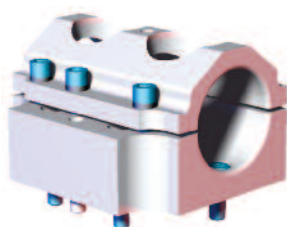
(Ø125mm Bolt Circle)  
CPI-ATI-201-90-3HD

ATI 90° World Tool Ø2.50"



(Ø125mm Bolt Circle)  
CPI-ATI-201-250-10S

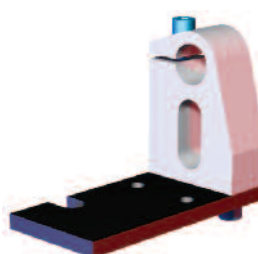
ATI-201 90°



(Ø125mm Bolt Circle)  
CPI-ATI-201-(X)-90

ATI-201 90°	
(X)	Tube (Ø)
60	Ø60mm
250	Ø2.50"(in)

NAV Assembly and Block



CPI-NAV-(X)-CM



CPI-NAV-(X)-BL

NAV Series	
(X)	Tube (Ø)
25	Ø25mm
100	Ø1.00"(in)

## Round End Effector Tooling - Structures

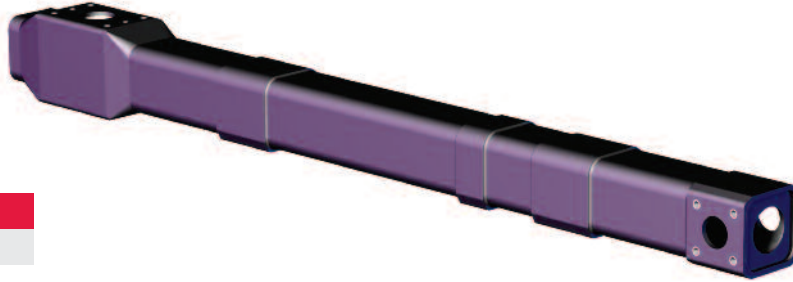
Main and World Tool Booms, Aluminum Tubing, and Rods

### CFRP Carbon Fiber World Tool Booms

Interpress  
Main Boom

Model

CPI-CFRP-T1-1250



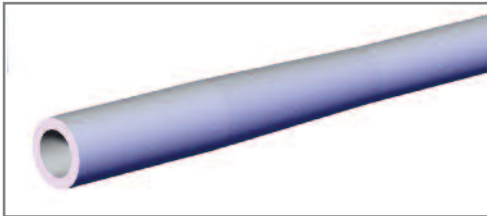
End of Line/Destacker  
Main Boom

Model

CPI-CFRP-T2-1675



### PAT Tapered Aluminum Round World Tool Booms

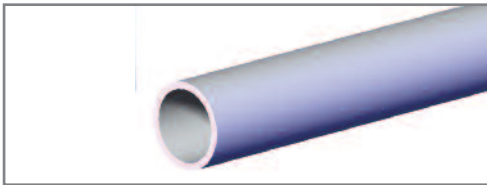


(Ø) Diameter: Ø3.00" Tapered to Ø2.50"

Length

1600mm	CPI-PAT-30TP-0M-1600
30.00"	CPI-PAT-30TP-0M-30
34.00"	CPI-PAT-30TP-0M-34
36.00"	CPI-PAT-30TP-0M-36
60.00"	CPI-PAT-30TP-0M-60
55.00"	CPI-PAT-30TP-1M-55
60.00"	CPI-PAT-30TP-1M-60
64.00"	CPI-PAT-30TP-1M-64
55.00"	CPI-PAT-30TP-2M-55

### PAT Thin Wall Aluminum Round Tubing

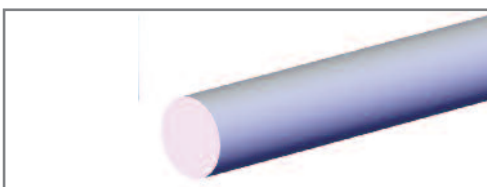


(Ø) Diameter

Ø0.50"	CPI-PAT-50T-(L)
Ø0.75"	CPI-PAT-75T-(L)
Ø1.00"	CPI-PAT-10T-(L)

(L) = Specify Length in 12.00" [300mm] Increments  
Imperial Example: 12 (12.00") (CPI-PAT-50T-12)

### PAB Solid Aluminum Rods



(Ø) Diameter

Ø1.00"	CPI-PAB-10-(L)
Ø25mm	CPI-PAB-25-(L)

(L) = Specify Length in 6.00" [150mm] Increments  
Imperial Example: 06 (6.00") (CPI-PAB10-06)  
Metric Example: 150 (150mm) (CPI-PAB-10-150)



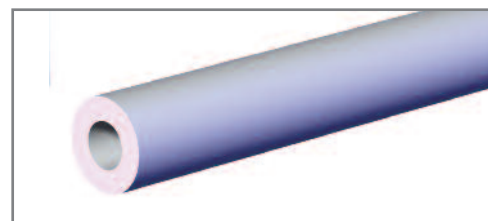
## Round End Effector Tooling - Structures

Aluminum and Steel Round Tubing, Aluminum Bushings

### PAT Aluminum Round Tubing

(Ø) Diameter

Ø1.00" .....	CPI-PAT-1025-(L)
Ø1.25" .....	CPI-PAT-12-(L)
Ø1.50" .....	CPI-PAT-15-(L)
Ø40mm .....	CPI-PAT-40-(L)
Ø2.50" .....	CPI-PAT-25-(L)
Ø60mm .....	CPI-PAT-60-(L)
Ø2.50" (0.375" wall) .....	CPI-PAT-2538-(L)

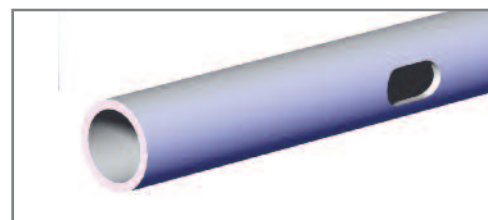


(L) = Specify Length in 6.00" [150mm] Increments  
 Imperial Example: **06** (6.00") (CPI-PAT-1025-**06**)  
 Metric Example: **150** (150mm) (CPI-PAT-60-**150**)

### BTI Aluminum Round Slotted Tubing

(Ø) Diameter

Ø1.50" .....	CPI-BTI-150-7S-(L)
Ø2.50" .....	CPI-BTI-250-9S-(L)
Ø2.50" (0.375 Wall) .....	CPI-BTI-2538-9S-(L)
Ø60mm .....	CPI-BTI-60-9S-(L)

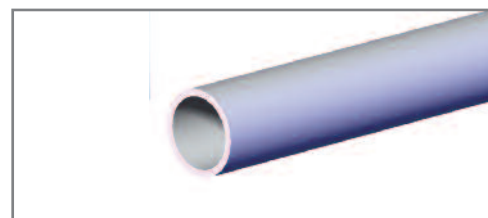


(L) = Specify Length in 6.00" [150mm] Increments  
 Imperial Example: **06** (6.00) (CPI-BTI-150-7S-**06**)  
 Metric Example: **150** (150mm) (CPI-BTI-60-9S-**150**)

### Steel Round Tubing

(Ø) Diameter

Ø1.00" .....	CPI-PST-10-(L)
Ø1.25" .....	CPI-PST-1212-(L)
Ø1.00" (0.19" Wall) .....	M1512-(L)

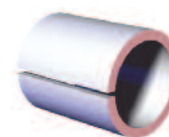


(L) = Specify Length  
 PST-10: 150, 200, 225, 250, 275, 300 [mm] (CPI-PST-10-150)  
 PST-1212: 6, 8, 10, 12, 14, 16, 18 [in] (CPI-PST-1212-6)  
 M1512: 125, 160, 300, 350, 350, 600, 900 [mm] (M1512-150)

### CB Aluminum Bushings

(Ø) Outside/Inside Diameter

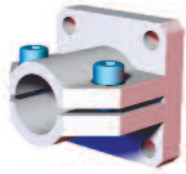
Ø1.50"/Ø1.00" .....	CPI-CB-15-10
Ø2.00"/Ø1.50" .....	CPI-CB-20-15
Ø2.50"/Ø2.00" .....	CPI-CB-25-75



(Ø) "D" vs. Actual (Ø) Bore Sizes (Micro)				(Ø) "D" vs. Actual (Ø) Bore Sizes (Typical)					
(Ø) "D"	Tolerance	(Ø) "D"	Tolerance	(Ø) "D"	Tolerance	(Ø) "D"	Tolerance	(Ø) "D"	Tolerance
.50"(in)	±.002	12mm	±.13	1.00"(in)	±.002	25mm	±.13	1.25"(in)	±.002
.75"(in)	±.002	20mm	±.13	1.50"(in)	±.006	40mm	±.15	3.00"(in)	±.006
1.00"(in)	±.002	25mm	±.13'	2.50"(in)	±.006	60mm	±.15	30mm	±.13

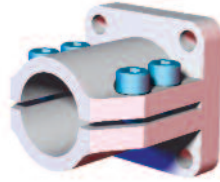
Round End Effector Tooling - Transition Brackets and Blocks  
End Flange, Offset, Swivel and Guide Mounts

Nominal (Ø) given  
See chart on Page 46  
for actual (Ø) size



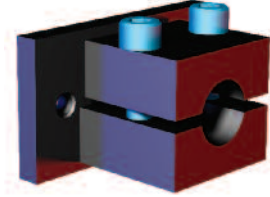
Ø20mm/0.75"  
End Flange Mount

Model	Tube (Ø)
CPI-CLM-20M-15F	20mm
CPI-CLM-75-15F-ATI	.75"(in)



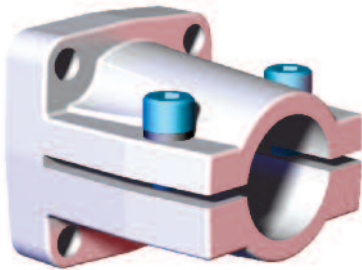
Ø25mm/1.00"  
End Flange Mount

Model	Tube (Ø)
CPI-CLM-25M-15F	25mm
CPI-CLM-10-15F	1.00"(in)



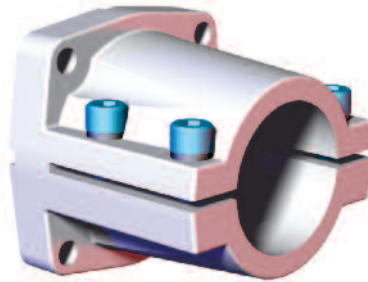
Ø25mm/1.00"  
End Flange Mount

Model	Tube (Ø)
M1511	1.00"(in)



Ø40mm/1.50"  
End Flange Mount

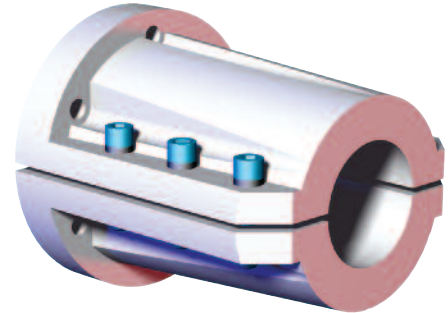
Model	Tube (Ø)
CPI-KL-40-60F	40mm
CPI-CL-15-238F	1.50"(in)



Ø60mm/2.50"  
End Flange Mount

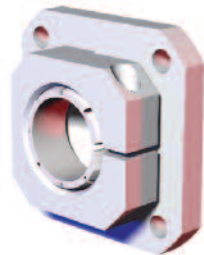
Model	Tube (Ø)
CPI-KL-60-78F	60mm
CPI-CL-25-312BBF	2.50"(in)
CPI-CL-25-312F*	2.50"(in)

\*312BBF without Keyway



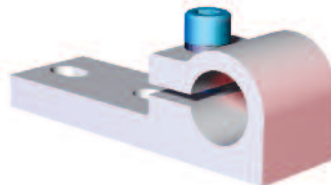
Ø60mm/2.50"/3.00"  
End Flange Mount

Model	Tube (Ø)
CPI-CL-60-125F	60mm
CPI-CL-250-125F	2.50"(in)
CPI-CL-300-125F	3.00"(in)



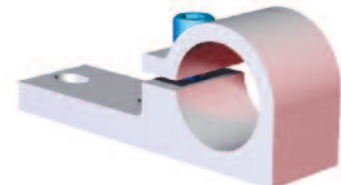
Ø40mm  
Swivel Flange Mount

Model	Tube (Ø)
CPI-RJM-78F-40S	40mm



Ø25mm/1.00"  
Offset Flange Mount

Model	Tube (Ø)
CPI-BC-00-25	25mm
CPI-BC-00-100	1.00"(in)



Ø40mm/1.50"  
Offset Flange Mount

Model	Tube (Ø)
CPI-BC-00-40	40mm
CPI-BC-00-150	1.50"(in)



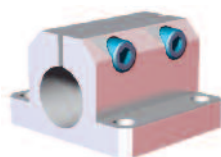
Ø30mm **Guide** Mount for  
Crossbar Tooling Systems

Model	Tube (Ø)
CPI-SGM-191	30mm



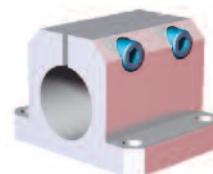
Nominal (Ø) given  
See chart on Page 46  
for actual (Ø) size

## Round End Effector Tooling - Transition Brackets and Blocks Mid Flange and Direct Mounts



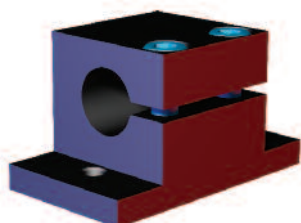
Ø20mm/0.75"  
Mid Flange Mount

Model	Tube (Ø)
CPI-CLM-20M-1517F-90	20mm
CPI-CLM-75-1517F-90	0.75"(in)



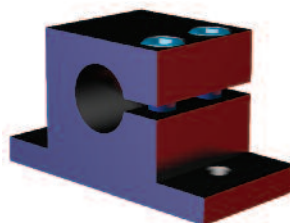
Ø25mm/1.00"  
Mid Flange Mount

Model	Tube (Ø)
CPI-CLM-25M-152F-90	25mm
CPI-CLM-10-152F-90	1.00"(in)



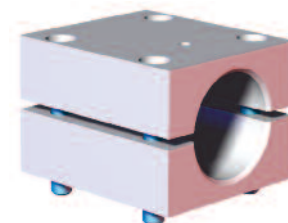
Ø1.00" Inline  
Mid Flange Block

Model	Tube (Ø)
M1509	1.00"(in)



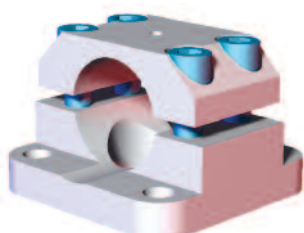
Ø1.00"  
Mid Flange Block

Model	Tube (Ø)
M1510	1.00"(in)



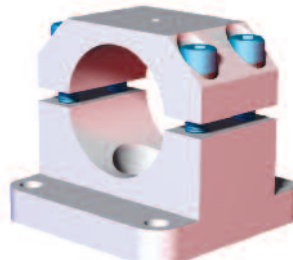
Ø40mm  
Mid Flange Mount

Model	Tube (Ø)
CPI-TP-40M-100	40mm



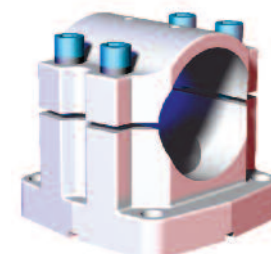
Ø40mm/1.50"  
Mid Flange Mount

Model	Tube (Ø)
CPI-KL-40-60F-90	40mm
CPI-CL-15-238F-90	1.50"(in)



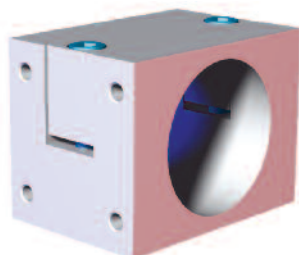
Ø60mm with 78/80mm Mounting  
Mid Flange Mount

Model	Mounting
CPI-KL-60-78F-90	78mm sq.
CPI-KL-60-80F-90	80mm sq.



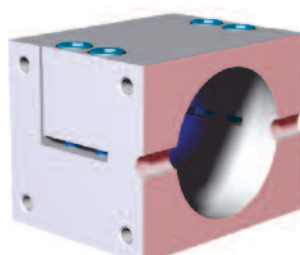
Ø2.50" with 3.125" Mounting  
Mid Flange Mount

Model	Mounting
CPI-CL-25-312F-90	3.125" sq.



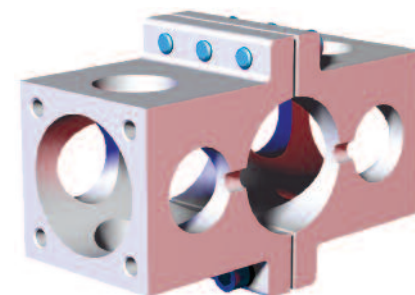
Ø2.50" Direct Mount  
for RDN-10 Housings

Model	Tube (Ø)
CPI-CL-25-DM-10F	2.50"(in)



Ø60mm/2.50" Direct Mount  
for RDN-40 Housings

Model	Tube (Ø)
CPI-CL-60-DM-40F	60mm
CPI-CL-25-DM-15F	2.50"(in)



Ø2.50" World Tool Direct Mount  
for RDN-40 Housings

Model	Tube (Ø)
CPI-TP-40M-100	40mm

Round End Effector Tooling - Transition Brackets and Blocks

Cross Transition Brackets and Blocks

Nominal (Ø) given  
See chart on Page 46  
for actual (Ø) size

**CLM** (Micro) Cross Transition Brackets



Ø20mm/.75" to Ø12mm/0.50"

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-CLM-20M-12M	12mm	20mm
CPI-CLM-75-50	.50"(in)	0.75"(in)



Ø12mm/0.50" to Ø12mm/0.50"

Model	Tube (Ø)
CPI-CLM-12M-12M	12mm
CPI-CLM-50-50	0.50"(in)



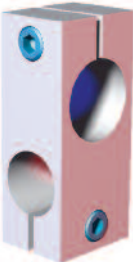
Ø25mm/1.00" to Ø12mm/.50"

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-CLM-25M-12M	12mm	25mm
CPI-CLM-10-50	.50"(in)	1.00"(in)



Ø12mm/0.50" to Ø12mm/0.50"

Model	Tube (Ø)
CPI-CLM-20M-20M	20mm
<i>Material:</i> Aluminum	
CPI-CLM-20M-20M-ST	20mm
<i>Material:</i> Steel	
CPI-CLM-75-75	.75"(in)
<i>Material:</i> Aluminum	



Ø25mm/1.00" to Ø20mm/.75"

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-CLM-25M-20M	20mm	25mm
CPI-CLM-10-75	.75"(in)	1.00"(in)



Ø25mm/1.00" to Ø25mm/1.00"

Model	Tube (Ø)
CPI-CLM-25M-25M	25mm
CPI-CLM-10-10	1.00"(in)

**M Series** Cross Transition Blocks



Ø1.00" to Ø1.00"

Model
M1513

**SC** (Single Bolt) Cross Transition Blocks



Ø25mm/1.00" to Ø25mm/1.00"  
Single Bolt

Model	Tube (Ø)	Finish
CPI-SC-25-25	25mm	Silver
CPI-SC-25-25-BL	25mm	Blue
CPI-SC-10-10	1.00"(in)	Silver



Ø1.00" to Ø0.50"

Model
M1563



Ø25mm to Ø30mm  
Single Bolt

Model
CPI-SC-25-30



Ø25mm to Ø40mm  
Single Bolt

Model
CPI-SC-25-40



Ø40mm to Ø40mm  
Single Bolt

Model
CPI-SC-40-40

Nominal (Ø) given  
See chart on Page 46  
for actual (Ø) size

## Round End Effector Tooling - Transition Brackets and Blocks Cross Transition Brackets and Blocks/Single End Assembly Cross Clamp

### M-Block (Double Bolt) Cross Transition Blocks



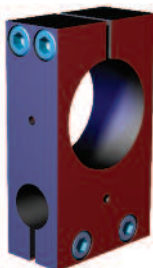
Ø25mm/1.00" to Ø25mm/1.00"

Model	Tube (Ø)	Finish
M-25M-25M-M	25mm	Blue
M-10E-10E-M	1.00"(in)	Black



Ø25mm/1.00" to Ø40mm/1.25"/1.50"

Model	Tube 1 (Ø)	Tube 2 (Ø)	Finish
M-10E-12E-M	1.25"(in)	1.00"(in)	Black
M-10E-15E-M	1.50"(in)	1.00"(in)	Black
M-25M-40M-M	40mm	25mm	Blue



Ø25mm/1.00" to Ø60mm/2.50"

Model	Tube 1 (Ø)	Tube 2 (Ø)	Finish
M-25M-60M-M	60mm	25mm	Blue
M-10E-25E-M	2.50"(in)	1.00"(in)	Black



Ø40mm/1.25"/1.50" to Ø40mm/1.25"/1.50"

Model	Tube 1 (Ø)	Tube 2 (Ø)	Finish
M-12E-12E-M	1.25"(in)	1.25"(in)	Black
M-12E-15E-M	1.25"(in)	1.50"(in)	Black
M-15E-15E-M	1.50"(in)	1.50"(in)	Black
M-40M-40M-M	40mm	40mm	Blue



Ø40mm/1.50" to Ø60mm/2.50"

Model	Tube 1 (Ø)	Tube 2 (Ø)	Finish
M-40M-60M-M	60mm	40mm	Blue
M-15E-25E-M	2.50"(in)	1.50"(in)	Black



Ø60mm/2.50" to Ø60mm/2.50"

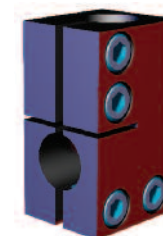
Model	Tube (Ø)	Finish
M-60M-60M-M	60mm	Blue
M-25E-25E-M	2.50"(in)	Black



Ø1.00" to Ø1.00"  
(72mm [2.83]  
Center to Center)

Model
M1584

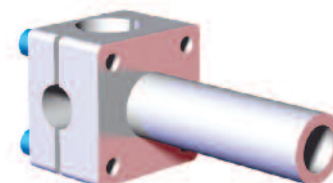
### M-Block (Double Bolt) T-Clamp



Ø1.00" to Ø1.00"

Model
M-1519

### TA15E Single End Extension



Ø1.50"/1.00" to Ø1.50"  
Single End Extension  
Bracket Assembly

Model
CPI-TA15E-1015-M

Round End Effector Tooling - Transition Brackets and Blocks

**C** Duo-Clamp Cross Transition Blocks

Nominal (Ø) given  
See chart on Page 46  
for actual (Ø) size



Ø25mm[1.00] to Ø25mm[1.00]

Model

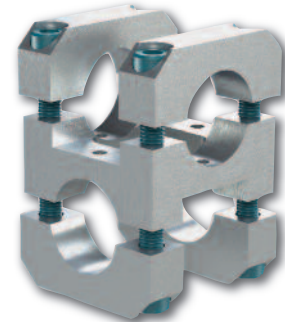
C-25M-250M-C



Ø25mm[1.00] to Ø40mm[1.50]

Model

C-25M-40M-C



Ø40mm[1.50] to Ø40mm[1.50]

Model

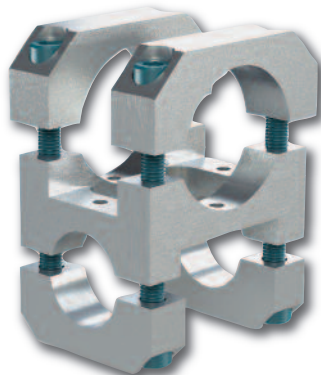
C-40M-40M-C



Ø25mm[1.00] to Ø60mm[2.50]

Model

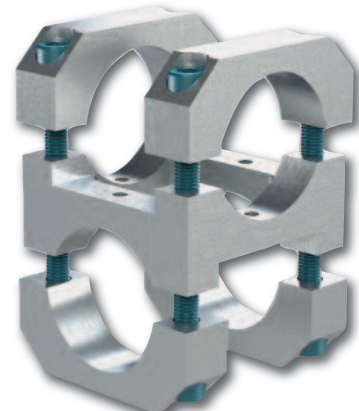
C-25M-60M-C



Ø40mm[1.50] to Ø60mm[2.50]

Model

C-40M-60M-C



Ø60mm[2.50] to Ø60mm[2.50]

Model

C-60M-60M-C

Parallel Transition Blocks



Ø1.00" to Ø0.50"

Model

M1581



Ø40mm to Ø25mm

Model

CPI-PC-25-40



Ø60mm/2.50" to Ø60mm/2.50"

Model

M-1523-MT

M1523

Tube (Ø)

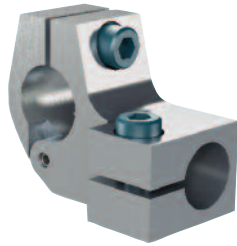
25mm

1.00"(in)



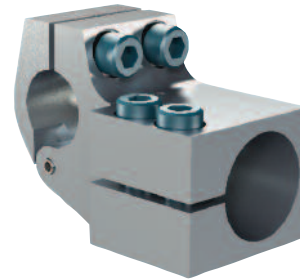
Nominal (Ø) given  
See chart on Page 46  
for actual (Ø) size

## Round End Effector Tooling - Transition Brackets and Blocks TCA T-Clamps for Crossbar Tooling



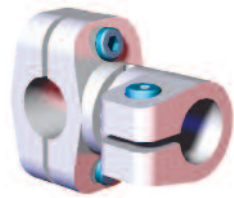
Ø40mm to Ø25mm

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-TCAH30M-25M	40mm	25mm



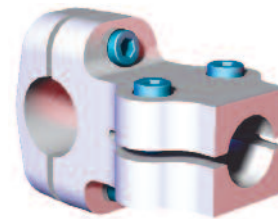
Ø30mm to Ø40mm

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-TCAH30M-40M	30mm	40mm



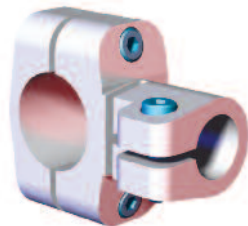
Ø25mm/1.00"

Model	Tube (Ø)
CPI-TCA25-25-SGM	25mm
CPI-TCA10-10-SGM	1.00"(in)



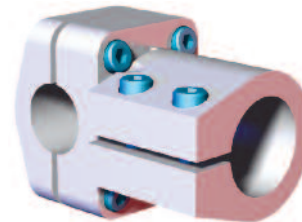
Ø30mm to Ø25mm

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-TCA25-30-HD	30mm	25mm



Ø40mm to Ø25mm

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-TCA-25-40-SGM	40mm	25mm



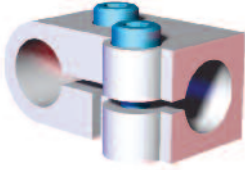
Ø30mm to Ø40mm

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-TCA40-30	30mm	40mm

Round End Effector Tooling - Transition Brackets and Blocks

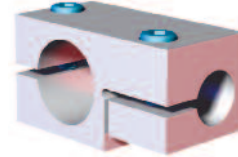
TCA T-Clamps Transition Brackets and Blocks

Nominal (Ø) given  
See chart on Page 46  
for actual (Ø) size



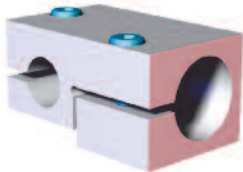
Ø25mm/1.00"

Model	Tube (Ø)
CPI-TCA-25-25	25mm
CPI-TCA10-10	1.00"(in)



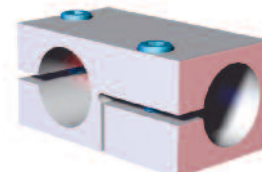
Ø40mm/1.50" to Ø25mm/1.00"

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-TCA-25-40	40mm	25mm
CPI-TCA10-15	1.50"(in)	1.00"(in)



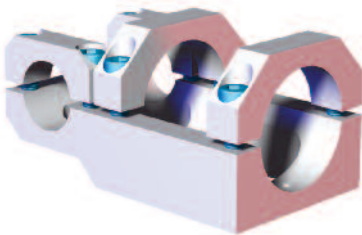
Ø25mm/1.00" to Ø40mm/1.50"

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-TCA-40-25	25mm	40mm
CPI-TCA15-10	1.00"(in)	1.50"(in)



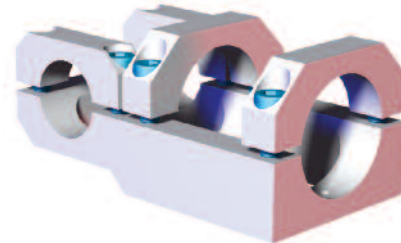
Ø40mm/1.50"

Model	Tube (Ø)
CPI-TCA-40-40	40mm
CPI-TCA15-15	1.50"(in)



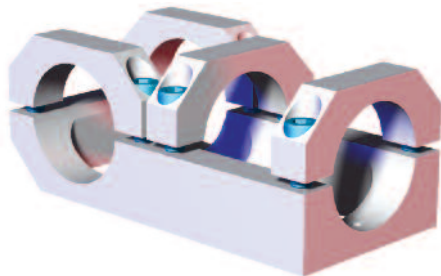
Ø1.50" to Ø2.50"

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-TCA-250-150	1.50"(in)	2.50"(in)



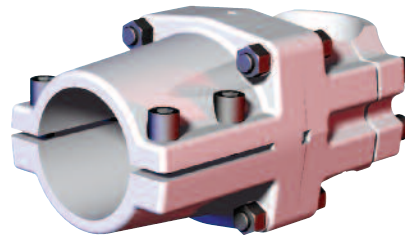
Ø40mm to Ø60mm/2.50"

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-TCA-60M-40M	40mm	60mm
CPI-TCA-250-40M	40mm	2.50"(in)



Ø60mm/2.50" to Ø60mm/2.50"

Model	Tube (Ø)
CPI-TCA-60M-60M	60mm
CPI-TCA-250-250	2.50"(in)



Ø60mm/2.50" to Ø60mm/2.50"  
90° Adjustable

Model	Tube (Ø)
CPI-HD-250-BBF	2.50"(in)



Nominal (Ø) given  
See chart on Page 46  
for actual (Ø) size

## Round End Effector Tooling - Transition Brackets and Blocks

**SECM** (Micro) Low-Profile Wrist



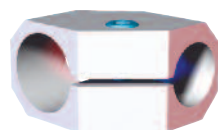
Ø20mm/0.75" to Ø12mm/0.50"

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-SECM-2012M	12mm	20mm
CPI-SECM-7550	.50"(in)	.75"(in)



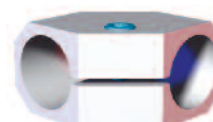
Ø25mm/1.00"

Model	Tube (Ø)
CPI-SECM-2020M	20mm
CPI-SECM-7575	.75"(in)



Ø25mm/1.00" to Ø20mm/0.75"

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-SECM-2520M	25mm	20mm
CPI-SECM-1075	1.00"(in)	.75"(in)



Ø25mm/1.00"

Model	Tube (Ø)
CPI-SECM-2525M	25mm
CPI-SECM-1010	1.00"(in)

**SEC/SLK** Low-Profile Wrist



Ø40mm/1.50" to Ø25mm/1.00"

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-SEC-1510	1.50"(in)	1.00"(in)
CPI-SLK-4025	40mm	25mm



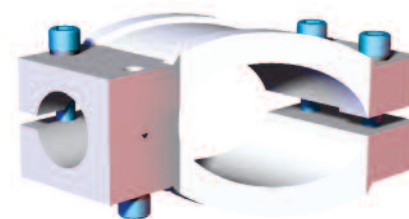
Ø34mm to Ø25mm/34mm

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-SEC-3425	25mm	34mm
CPI-SEC-3434	34mm	34mm



Ø60mm/2.50" to Ø25mm/1.00"

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-SLK-6025	60mm	25mm
CPI-SEC-2510	2.50"(in)	1.00"(in)

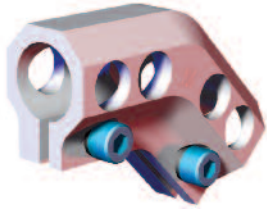


Ø2.50" to Ø1.50"

Model	Tube 1 (Ø)	Tube 2 (Ø)
CPI-SEC-2515	2.50"(in)	1.50"(in)

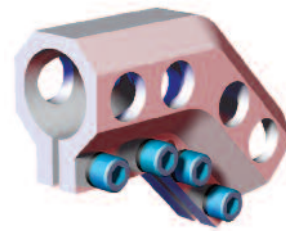
Round End Effector Tooling - Transition Brackets and Blocks

**DC** Elbow and Swivel Transition Brackets



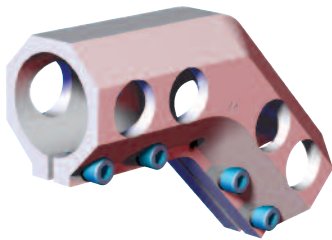
Ø25mm/1.50" 45° Elbow

Model	Tube (Ø)
CPI-DC-2525M-45	25mm
CPI-DC-1010-45	1.00"(in)



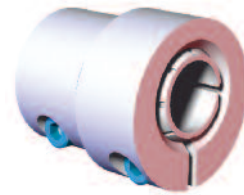
Ø60mm/2.50" 45° Elbow

Model	Tube (Ø)
CPI-DC-40-40-45	40mm
CPI-DC-1515-45	1.50"(in)



Ø60mm/2.50" 45° Elbow

Model	Tube (Ø)
CPI-DC-6060M-45	60mm
CPI-DC-2525-45	2.50"(in)



Ø25mm/1.00" Swivel

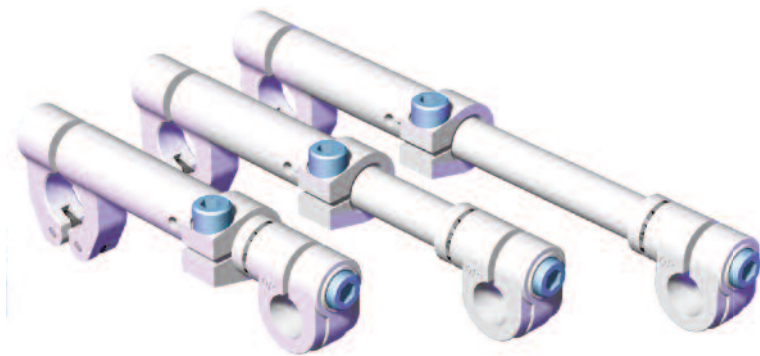
Model	Tube (Ø)
CPI-DC-2525S-8	25mm
CPI-DC-1010S-8	1.00"(in)

(Ø) "D" vs. Actual (Ø) Bore Sizes (Micro)				(Ø) "D" vs. Actual (Ø) Bore Sizes (Typical)					
(Ø) "D"	(Ø) Actual	(Ø) "D"	(Ø) Actual	(Ø) "D"	(Ø) Actual	(Ø) "D"	(Ø) Actual	(Ø) "D"	(Ø) Actual
.50"(in)	.508"(±.003)	12mm	12.22mm(±.08)	1.00"(in)	1.010"(±.003)	25mm	25.25mm(±.08)	1.25"(in)	1.260"(±.003")
.75"(in)	.758"(±.003)	20mm	20.32mm(±.08)	1.50"(in)	1.514"(±.003)	40mm	40.36mm(±.08)	3.00"(in)	3.010"(±.003")
1.00"(in)	1.008"(±.003)	25mm	25.32mm(±.08)	2.50"(in)	2.518"(±.003)	60mm	60.45mm(±.08)	30mm	30.28mm(±.08)

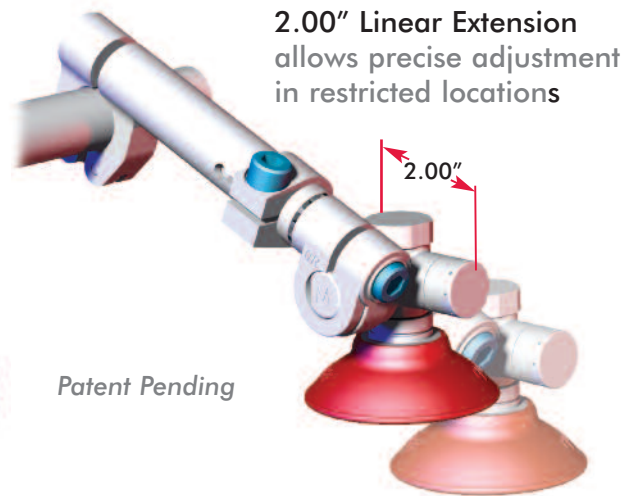
## Round End Effector Tooling - Swivel Arms and Accessories

### Features and Benefits

“Extend Arm” Swivel Arms are available in (3) standard lengths to offer (3) ranges of linear adjustability



2.00” Linear Extension allows precise adjustment in restricted locations



Patent Pending

Three-bolt adjustment system; (2) bolts for individual adjustment of each joint along with (1) bolt for linear adjustment. Adjust a single point of axis while the other areas of adjustment remains secure

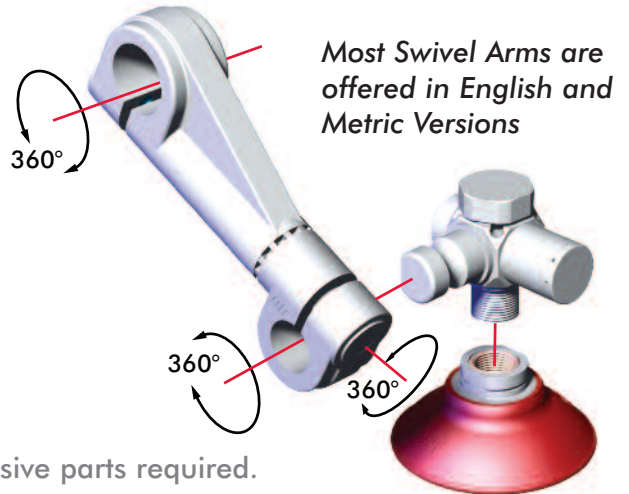
Double-Hinge Design provides even clamping force to better hold mounting position. End opens to allow mounting in the center of tube/bar without removing existing components. These features reduce downtime for setup and adjustment



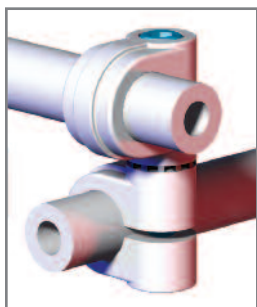
Standard Swivel Arms offers a versatile attachment point for vacuum generators and adaptors, proximity switches and nest mounts brackets

Single-Bolt adjustment for (3) axis  
Standard Swivel Arms, as well as Single-Bolt Transition Swivel Arms, and Single End Extensions all share the convenient one-bolt design for quick setup, easy assembly and adjustment. Tool setup is therefore quick and easy, saving time and money

360° of adjustment in (3) different axes  
Easily locate cups on most panels. No special or expensive parts required.



Most Swivel Arms are offered in English and Metric Versions



Transition Swivel Arms can be used in the same fashion as a Standard Swivel Arm or as a transition junction from tube to Single End Extensions or tube

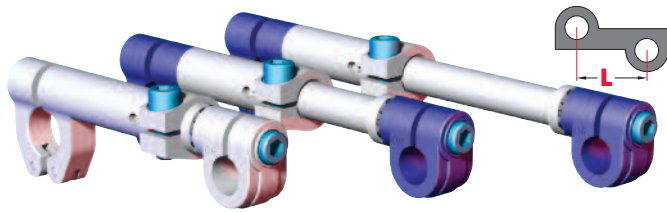
Double-Bolt Transition Swivel Arms allow individual adjustment at each end of the swivel arm for more flexibility

Single End Extensions can be used to add linear adjustment to the 360° (3) axes adjustment, when used in conjunction with Transition Swivel Arms or Transition Blocks.



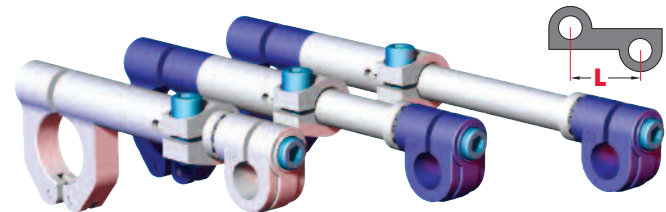
## Round End Effector Tooling - Swivel Arms and Accessories

### TSA Telescoping Swivel Arms for Apple Core and Swivel Ball Mount Accessories



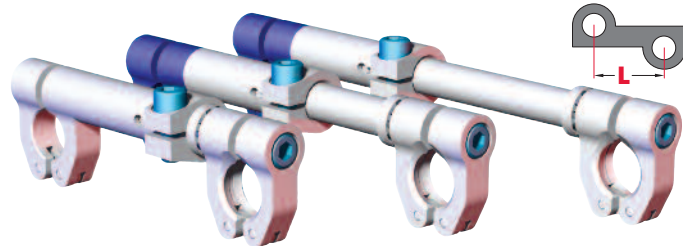
Ø25mm/1.00" for Ø0.75" Apple Core

Model	Tube (Ø)	(L)	Finish
CPI-55-1-TSA	1.00"(in)	[5.66] 143.7	SILVER
CPI-140-25-TSA	25mm		BLUE
CPI-75-1-TSA	1.00"(in)	[7.66] 194.5	SILVER
CPI-190-25-TSA	25mm		BLUE
CPI-95-1-TSA	1.00"(in)	[9.66] 245.3	SILVER
CPI-240-25-TSA	25mm		BLUE



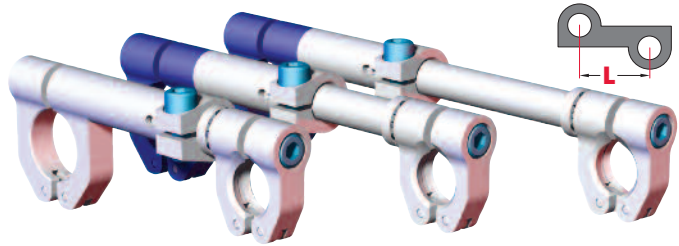
Ø40mm/1.50" for Ø0.75" Apple Core

Model	Tube (Ø)	(L)	Finish
CPI-55-150-TSA	1.50"(in)	[5.94] 150.9	SILVER
CPI-140-40-TSA	40mm		BLUE
CPI-75-150-TSA	1.50"(in)	[7.94] 201.7	SILVER
CPI-190-40-TSA	40mm		BLUE
CPI-95-150-TSA	1.50"(in)	[12.00] 304.8	SILVER
CPI-240-40-TSA	40mm		BLUE



Ø25mm/1.00" for Ø1.125" Swivel Ball Mount

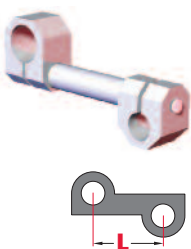
Model	Tube (Ø)	(L)	Finish
CPI-55-1-TSA-B112	1.00"(in)	[5.65] 143.6	SILVER
CPI-140-25-TSA-B112	25mm		BLUE
CPI-75-1-TSA-B112	1.00"(in)	[7.65] 194.4	SILVER
CPI-190-25-TSA-B112	25mm		BLUE
CPI-95-1-TSA-B112	1.00"(in)	[9.65] 245.2	SILVER
CPI-240-25-TSA-B112	25mm		BLUE



Ø40mm/1.50" for Ø1.125" Swivel Ball Mount

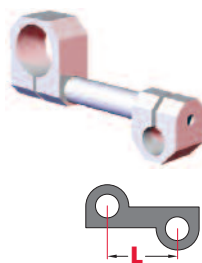
Model	Tube (Ø)	(L)	Finish
CPI-55-150-TSA-B112	1.50"(in)	[5.93] 150.7	SILVER
CPI-140-40-TSA-B112	40mm		BLUE
CPI-75-150-TSA-B112	1.50"(in)	[7.93] 201.5	SILVER
CPI-190-40-TSA-B112	40mm		BLUE
CPI-95-150-TSA-B112	1.50"(in)	[9.93] 252.3	SILVER
CPI-240-40-TSA-B112	40mm		BLUE

### MSA (Micro) Swivel Arms for Ø0.50" Apple Core Accessories



Ø20mm/0.75" for Ø0.50 Apple Core

Model	Tube (Ø)	(L)
CPI-200-7550-MSA	.75"(in)	[2.00] 50.8
CPI-200-20M50-MSA	20mm	
CPI-300-7550-MSA	.75"(in)	[3.00] 76.2
CPI-300-20M50-MSA	20mm	
CPI-400-7550-MSA	.75"(in)	[4.00] 101.7
CPI-400-20M50-MSA	20mm	
CPI-500-7550-MSA	.75"(in)	[5.00] 127.1
CPI-500-20M50-MSA	20mm	
CPI-600-7550-MSA	.75"(in)	[6.00] 152.5
CPI-600-20M50-MSA	20mm	



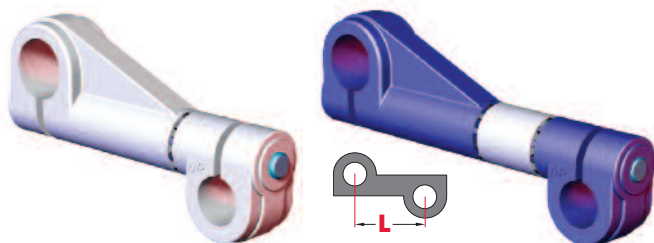
Ø25mm/1.00" for Ø0.50 Apple Core

Model	Tube (Ø)	(L)
CPI-200-1050-MSA	1.00"(in)	[2.00] 50.7
CPI-200-25M50-MSA	25mm	
CPI-300-1050-MSA	1.00"(in)	[3.00] 76.1
CPI-300-25M50-MSA	25mm	
CPI-400-1050-MSA	1.00"(in)	[4.00] 101.6
CPI-400-25M50-MSA	25mm	
CPI-500-1050-MSA	1.00"(in)	[5.00] 127.0
CPI-500-25M50-MSA	25mm	
CPI-600-1050-MSA	1.00"(in)	[6.00] 152.4
CPI-600-25M50-MSA	25mm	



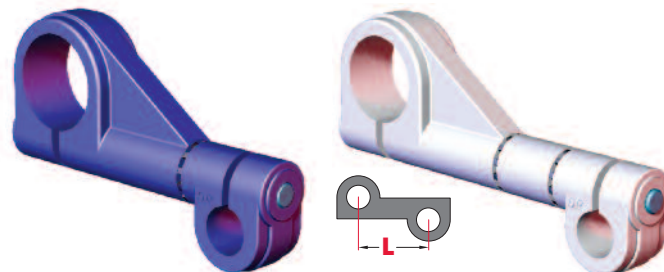
### Round End Effector Tooling - Swivel Arms and Accessories

**SA** Standard Swivel Arms for Apple Core and Swivel Ball Mount Accessories



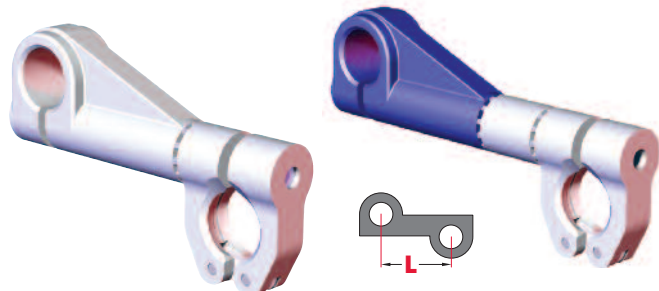
Ø25mm/1.00" for Ø0.75" Apple Core

Model	Tube (Ø)	(L)	Finish
CPI-400-1-SA	1.00"(in)	[3.90]	SILVER
CPI-100-25-SA	25mm	99.1	BLUE
CPI-500-1-SA	1.00"(in)	[5.12]	SILVER
CPI-140-25-SA	25mm	130.1	BLUE
CPI-600-1-SA	1.00"(in)	[5.90]	SILVER
CPI-160-25-SA	25mm	149.9	BLUE
CPI-700-1-SA	1.00"(in)	[6.67]	SILVER
CPI-180-25-SA	25mm	169.4	BLUE
CPI-800-1-SA	1.00"(in)	[8.25]	SILVER
CPI-200-25-SA	25mm	209.6	BLUE



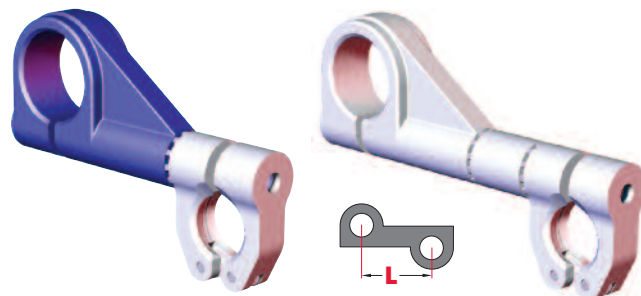
Ø40mm/1.50" for Ø0.75" Apple Core

Model	Tube (Ø)	(L)	Finish
CPI-400-15-SA	1.50"(in)	[3.75]	SILVER
CPI-100-40-SA	40mm	95.2	BLUE
CPI-500-15-SA	1.50"(in)	[4.97]	SILVER
CPI-140-40-SA	40mm	126.1	BLUE
CPI-600-15-SA	1.50"(in)	[5.75]	SILVER
CPI-160-40-SA	40mm	146.0	BLUE
CPI-700-15-SA	1.50"(in)	[6.52]	SILVER
CPI-180-40-SA	40mm	165.5	BLUE
CPI-800-15-SA	1.50"(in)	[8.10]	SILVER
CPI-200-40-SA	40mm	205.6	BLUE



Ø25mm/1.00" for Ø1.125" Swivel Ball Mount

Model	Tube (Ø)	(L)	Finish
CPI-400-1-SA-B112	1.00"(in)	[3.90]	SILVER
CPI-100-25-SA-B112	25mm	98.9	BLUE
CPI-500-1-SA-B112	1.00"(in)	[5.12]	SILVER
CPI-140-25-SA-B112	25mm	129.9	BLUE
CPI-600-1-SA-B112	1.00"(in)	[5.90]	SILVER
CPI-160-25-SA-B112	25mm	149.7	BLUE
CPI-700-1-SA-B112	1.00"(in)	[6.67]	SILVER
CPI-180-25-SA-B112	25mm	169.3	BLUE
CPI-800-1-SA-B112	1.00"(in)	[8.25]	SILVER
CPI-200-25-SA-B112	25mm	209.4	BLUE

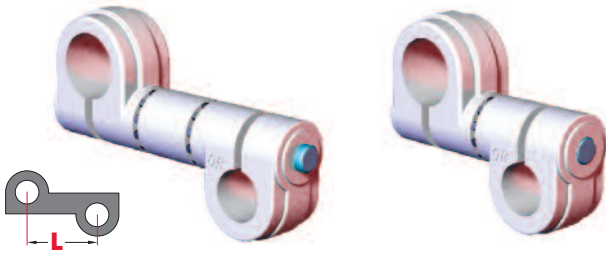


Ø40mm/1.50" for Ø1.125" Swivel Ball Mount

Model	Tube (Ø)	(L)	Finish
CPI-400-15-SA-B112	1.50"(in)	[3.74]	SILVER
CPI-100-40-SA-B112	40mm	95.0	BLUE
CPI-500-15-SA-B112	1.50"(in)	[4.96]	SILVER
CPI-140-40-SA-B112	40mm	126.0	BLUE
CPI-600-15-SA-B112	1.50"(in)	[5.74]	SILVER
CPI-160-40-SA-B112	40mm	145.8	BLUE
CPI-700-15-SA-B112	1.50"(in)	[6.51]	SILVER
CPI-180-40-SA-B112	40mm	165.4	BLUE
CPI-800-15-SA-B112	1.50"(in)	[8.09]	SILVER
CPI-200-40-SA-B112	40mm	205.5	BLUE

Round End Effector Tooling - Swivel Arms and Accessories

**SAxx/EDxx** Ø25mm/1.00" Transition Swivel Arms for Ø19mm/0.75" Apple Core

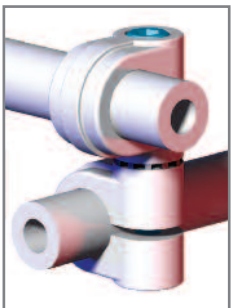


Ø25mm/1.00" for Ø0.75" Apple Core (Single-Bolt)

Model	Tube (Ø)	(L)	Finish
CPI-SA10-100-075-02	1.00"(in)	[1.96] 49.8	SILVER
CPI-SA25-25-19-50	25mm		BLUE
CPI-SA10-100-075-03	1.00"(in)	[3.02] 76.8	SILVER
CPI-SA25-25-19-75	25mm		BLUE

Ø25mm/1.00" for Ø0.75" Apple Core (Double-Bolt)

Model	Tube (Ø)	(L)	Finish
CPI-ED10-100-075-04	1.00"(in)	[4.05] 102.9	SILVER
CPI-ED25-25-19-100	25mm	[4.00] 101.6	BLUE
CPI-ED10-100-075-05	1.00"(in)	[5.05] 128.3	SILVER
CPI-ED10-100-075-06	1.00"(in)	[6.05] 153.7	SILVER
CPI-ED25-25-19-150	25mm	[5.98] 151.9	BLUE
CPI-ED10-100-075-07	1.00"(in)	[7.05] 179.1	SILVER
CPI-ED10-100-075-08	1.00"(in)	[8.05] 204.5	SILVER
CPI-ED25-25-19-200	25mm	[7.95] 201.9	BLUE
CPI-ED10-100-075-09	1.00"(in)	[9.05] 229.9	SILVER
CPI-ED10-100-075-10	1.00"(in)	[10.05] 255.3	SILVER
CPI-ED25-25-19-250	25mm	[9.92] 252.0	BLUE
CPI-ED10-100-075-11	1.00"(in)	[11.05] 280.7	SILVER
CPI-ED10-100-075-12	1.00"(in)	[12.05] 306.1	SILVER
CPI-ED25-25-19-300	25mm	[11.89] 302.0	BLUE
CPI-ED10-100-075-13	1.00"(in)	[13.05] 331.5	SILVER
CPI-ED10-100-075-14	1.00"(in)	[14.05] 356.9	SILVER
CPI-ED25-25-19-350	25mm	[13.85] 351.8	BLUE
CPI-ED10-100-075-15	1.00"(in)	[15.05] 382.3	SILVER
CPI-ED10-100-075-16	1.00"(in)	[16.05] 407.7	SILVER
CPI-ED25-25-19-400	25mm	[15.82] 401.8	BLUE

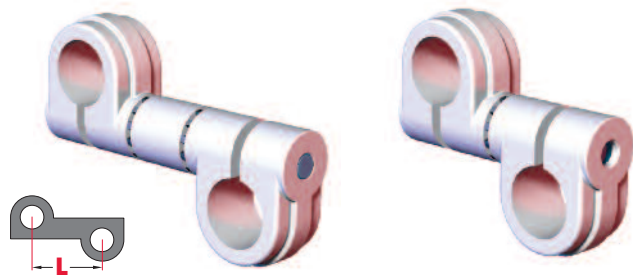


Transition Swivel Arms can be used in the same fashion as a Standard Swivel Arm or as a transition junction from tube to Single End Extensions or tube

Double-Bolt Transition Swivel Arms allow individual adjustment at each end of the swivel arm for more flexibility.



Round End Effector Tooling - Swivel Arms and Accessories  
**SAxx/EDxx** Ø25mm/1.00" to Ø25mm/1.00" Transition Swivel Arms

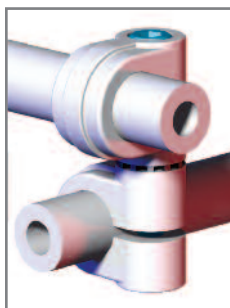


Ø25mm/1.00" to Ø25mm/1.00" (Single-Bolt)

Model	Tube (Ø)	(L)	Finish
CPI-SA10-100-100-02	1.00"(in)	[2.00] 50.9	SILVER
CPI-SA25-25-25-50	25mm		BLUE
CPI-SA10-100-100-03	1.00"(in)	[3.07] 77.9	SILVER
CPI-SA25-25-25-75	25mm		BLUE
CPI-SA10-100-100-04	1.00"(in)	[4.04] 102.7	SILVER
CPI-SA25-25-25-100	25mm		BLUE
CPI-SA10-100-100-05	1.00"(in)	[5.03] 127.9	SILVER
CPI-SA25-25-25-125	25mm		BLUE
CPI-SA10-100-100-06	1.00"(in)	[6.02] 153.0	SILVER
CPI-SA25-25-25-150	25mm		BLUE
CPI-SA10-100-100-07	1.00"(in)	[7.00] 177.9	SILVER
CPI-SA25-25-25-175	25mm		BLUE
CPI-SA10-100-100-08	1.00"(in)	[7.99] 203.0	SILVER
CPI-SA25-25-25-200	25mm		BLUE

Ø25mm/1.00" to Ø25mm/1.00" (Double-Bolt)

Model	Tube (Ø)	(L)	Finish
CPI-ED10-100-100-04	1.00"(in)	[4.09] 104.0	SILVER
CPI-ED25-25-25-100	25mm	[4.04] 102.7	BLUE
CPI-ED10-100-100-05	1.00"(in)	[5.09] 129.4	SILVER
CPI-ED10-100-100-06	1.00"(in)	[6.09] 154.8	SILVER
CPI-ED25-25-25-150	25mm	[6.02] 153.0	BLUE
CPI-ED10-100-100-07	1.00"(in)	[7.09] 180.2	SILVER
CPI-ED10-100-100-08	1.00"(in)	[8.09] 205.6	SILVER
CPI-ED25-25-25-200	25mm	[7.99] 203.0	BLUE
CPI-ED10-100-100-09	1.00"(in)	[9.09] 231.0	SILVER
CPI-ED10-100-100-10	1.00"(in)	[10.09] 256.4	SILVER
CPI-ED25-25-25-250	25mm	[9.96] 253.1	BLUE
CPI-ED10-100-100-11	1.00"(in)	[11.09] 281.8	SILVER
CPI-ED10-100-100-12	1.00"(in)	[12.09] 307.2	SILVER
CPI-ED25-25-25-300	25mm	[11.93] 303.1	BLUE
CPI-ED10-100-100-13	1.00"(in)	[13.09] 332.6	SILVER
CPI-ED10-100-100-14	1.00"(in)	[14.09] 358.0	SILVER
CPI-ED25-25-25-350	25mm	[13.89] 352.9	BLUE
CPI-ED10-100-100-15	1.00"(in)	[15.09] 383.4	SILVER
CPI-ED10-100-100-16	1.00"(in)	[16.09] 408.8	SILVER
CPI-ED25-25-25-400	25mm	[15.86] 402.9	BLUE

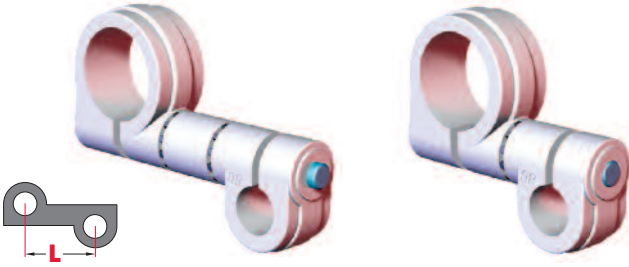


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Double-Bolt Transition Swivel Arms allow individual adjustment at each end of the swivel arm for more flexibility.

Round End Effector Tooling - Swivel Arms and Accessories

**SAxx/EDxx** Ø40mm/1.50" Transition Swivel Arms for Ø19mm/0.75" Apple Core

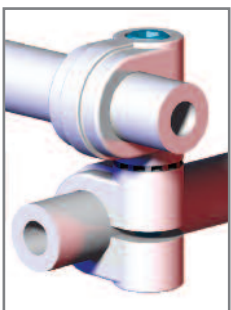


Ø40mm/1.50" for Ø0.75" Apple Core (Single-Bolt)

Model	Tube (Ø)	(L)	Finish
CPI-SA10-150-075-02	1.50"(in)	[[1.96] 49.8	SILVER
CPI-SA25-40-19-50	40mm		BLUE
CPI-SA10-150-075-03	1.50"(in)	[3.03] 76.9	SILVER
CPI-SA25-40-19-75	40mm		BLUE

Ø40mm/1.50" for Ø0.75" Apple Core (Double-Bolt)

Model	Tube (Ø)	(L)	Finish
CPI-ED10-150-075-04	1.50"(in)	[4.05] 102.9	SILVER
CPI-ED25-40-19-100	40mm	[4.00] 101.7	BLUE
CPI-ED10-150-075-05	1.50"(in)	[5.05] 128.3	SILVER
CPI-ED10-150-075-06	1.50"(in)	[6.05] 153.7	SILVER
CPI-ED25-40-19-150	40mm	[5.98] 152.0	BLUE
CPI-ED10-150-075-07	1.50"(in)	[7.05] 179.1	SILVER
CPI-ED10-150-075-08	1.50"(in)	[8.05] 204.5	SILVER
CPI-ED25-40-19-200	40mm	[7.95] 202.0	BLUE
CPI-ED10-150-075-09	1.50"(in)	[9.05] 229.9	SILVER
CPI-ED10-150-075-10	1.50"(in)	[10.05] 255.3	SILVER
CPI-ED25-40-19-250	40mm	[9.92] 252.0	BLUE
CPI-ED10-150-075-11	1.50"(in)	[11.05] 280.7	SILVER
CPI-ED10-150-075-12	1.50"(in)	[12.05] 306.1	SILVER
CPI-ED25-40-19-300	40mm	[11.89] 302.1	BLUE
CPI-ED10-150-075-13	1.50"(in)	[13.05] 331.5	SILVER
CPI-ED10-150-075-14	1.50"(in)	[14.05] 356.9	SILVER
CPI-ED25-40-19-350	40mm	[13.85] 351.9	BLUE
CPI-ED10-150-075-15	1.50"(in)	[15.05] 382.3	SILVER
CPI-ED10-150-075-16	1.50"(in)	[16.05] 407.7	SILVER
CPI-ED25-40-19-400	40mm	[15.82] 401.9	BLUE

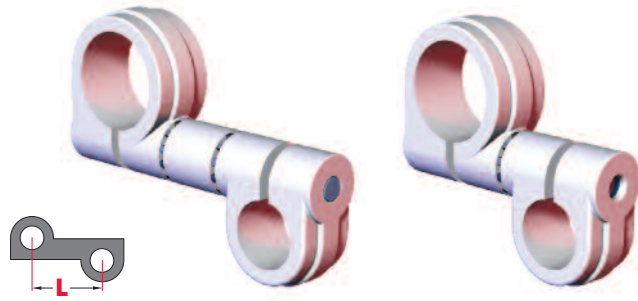


Transition Swivel Arms can be used in the same fashion as a Standard Swivel Arm or as a transition junction from tube to Single End Extensions or tube

Double-Bolt Transition Swivel Arms allow individual adjustment at each end of the swivel arm for more flexibility.



Round End Effector Tooling - Swivel Arms and Accessories  
**SAxx/EDxx** Ø40mm/1.50" to Ø25mm/1.00" Transition Swivel Arms

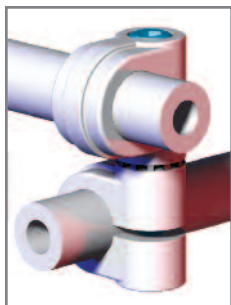


Ø40mm/1.50" to Ø25mm/1.00" (Single-Bolt)

Model	Tube (Ø)	(L)	Finish
CPI-SA10-150-100-02	1.50"(in)	[2.01] 51.0	SILVER
CPI-SA25-40-25-50	40mm		BLUE
CPI-SA10-150-100-03	1.50"(in)	[3.07] 78.0	SILVER
CPI-SA25-40-25-75	40mm		BLUE
CPI-SA10-150-100-04	1.50"(in)	[4.05] 102.8	SILVER
CPI-SA25-40-25-100	40mm		BLUE
CPI-SA10-150-100-05	1.50"(in)	[5.04] 127.9	SILVER
CPI-SA25-40-25-125	40mm		BLUE
CPI-SA10-150-100-06	1.50"(in)	[6.03] 153.1	SILVER
CPI-SA25-40-25-150	40mm		BLUE
CPI-SA10-150-100-07	1.50"(in)	[7.01] 178.0	SILVER
CPI-SA25-40-25-175	40mm		BLUE
CPI-SA10-150-100-08	1.50"(in)	[8.00] 203.1	SILVER
CPI-SA25-40-25-200	40mm		BLUE

Ø40mm/1.50" to Ø25mm/1.00" (Double-Bolt)

Model	Tube (Ø)	(L)	Finish
CPI-ED10-150-100-04	1.50"(in)	[4.10] 104.1	SILVER
CPI-ED25-40-25-100	40mm	[4.05] 102.8	BLUE
CPI-ED10-150-100-05	1.50"(in)	[5.10] 129.5	SILVER
CPI-ED10-150-100-06	1.50"(in)	[6.10] 154.9	SILVER
CPI-ED25-40-25-150	40mm	[6.03] 153.1	BLUE
CPI-ED10-150-100-07	1.50"(in)	[7.10] 180.3	SILVER
CPI-ED10-150-100-08	1.50"(in)	[8.10] 205.7	SILVER
CPI-ED25-40-25-200	40mm	[8.00] 203.1	BLUE
CPI-ED10-150-100-09	1.50"(in)	[9.10] 231.1	SILVER
CPI-ED10-150-100-10	1.50"(in)	[10.10] 256.5	SILVER
CPI-ED25-40-25-250	40mm	[9.97] 253.2	BLUE
CPI-ED10-150-100-11	1.50"(in)	[11.10] 281.9	SILVER
CPI-ED10-150-100-12	1.50"(in)	[12.10] 307.3	SILVER
CPI-ED25-40-25-300	40mm	[11.94] 303.2	BLUE
CPI-ED10-150-100-13	1.50"(in)	[13.10] 332.7	SILVER
CPI-ED10-150-100-14	1.50"(in)	[14.10] 358.1	SILVER
CPI-ED25-40-25-350	40mm	[13.90] 353.0	BLUE
CPI-ED10-150-100-15	1.50"(in)	[15.10] 383.5	SILVER
CPI-ED10-150-100-16	1.50"(in)	[16.10] 408.9	SILVER
CPI-ED25-40-25-400	40mm	[15.87] 403.0	BLUE

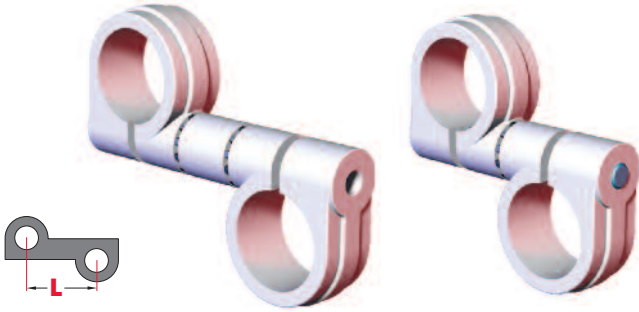


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Double-Bolt Transition Swivel Arms allow individual adjustment at each end of the swivel arm for more flexibility.

## Round End Effector Tooling - Swivel Arms and Accessories

**SAxx/EDxx** Ø40mm/1.50" to Ø40mm/1.50" Transition Swivel Arms

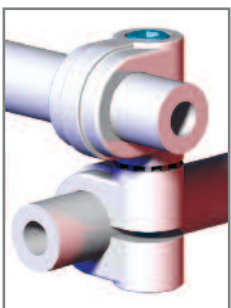


Ø40mm/1.50" to Ø40mm/1.50" (Single-Bolt)

Model	Tube (Ø)	(L)	Finish
CPI-SA10-150-150-02	1.50"(in)	[2.01] 51.1	SILVER
CPI-SA25-40-40-50	40mm		BLUE
CPI-SA10-150-150-03	1.50"(in)	[3.07] 78.1	SILVER
CPI-SA25-40-40-75	40mm		BLUE
CPI-SA10-150-150-04	1.50"(in)	[4.05] 102.9	SILVER
CPI-SA25-40-40-100	40mm		BLUE
CPI-SA10-150-150-05	1.50"(in)	[5.04] 128.0	SILVER
CPI-SA25-40-40-125	40mm		BLUE
CPI-SA10-150-150-06	1.50"(in)	[6.03] 153.2	SILVER
CPI-SA25-40-40-150	40mm		BLUE
CPI-SA10-150-150-07	1.50"(in)	[7.01] 178.1	SILVER
CPI-SA25-40-40-175	40mm		BLUE
CPI-SA10-150-150-08	1.50"(in)	[8.00] 203.2	SILVER
CPI-SA25-40-40-200	40mm		BLUE

Ø40mm/1.50" to Ø40mm/1.50" (Double-Bolt)

Model	Tube (Ø)	(L)	Finish
CPI-ED10-150-150-04	1.50"(in)	[4.10] 104.1	SILVER
CPI-ED25-40-40-100	40mm	[4.05] 102.9	BLUE
CPI-ED10-150-150-06	1.50"(in)	[6.10] 154.9	SILVER
CPI-ED25-40-40-150	40mm	[6.03] 153.2	BLUE
CPI-ED10-150-150-08	1.50"(in)	[8.10] 205.7	SILVER
CPI-ED25-40-40-200	40mm	[8.00] 203.2	BLUE
CPI-ED10-150-150-10	1.50"(in)	[10.10] 256.4	SILVER
CPI-ED25-40-40-250	40mm	[9.97] 253.2	BLUE
CPI-ED10-150-150-12	1.50"(in)	[12.10] 307.3	SILVER
CPI-ED25-40-40-300	40mm	[11.94] 303.3	BLUE
CPI-ED10-150-150-14	1.50"(in)	[14.10] 358.1	SILVER
CPI-ED25-40-40-350	40mm	[13.90] 353.1	BLUE
CPI-ED10-150-150-16	1.50"(in)	[16.10] 408.9	SILVER
CPI-ED25-40-40-400	40mm	[15.87] 403.1	BLUE



**Transition Swivel Arms** can be used in the same fashion as a Standard Swivel Arm or as a transition junction from tube to Single End Extensions or tube

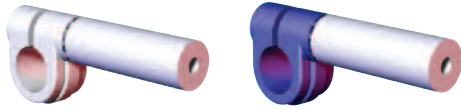
**Double-Bolt Transition Swivel Arms** allow individual adjustment at each end of the swivel arm for more flexibility.



## Round End Effector Tooling - Swivel Arms and Accessories

**ES** and **MSE** Single End Extensions

### ES Rod End Extensions



Ø25mm/1.00" Tube to Ø25mm/1.00" Rod

Model	Tube (Ø)	Rod (Ø)	Finish
CPI-ES10-100-(L)	1.00"(in)	1.00"(in)	SILVER
CPI-ES25-25-(L)	25mm	25mm	BLUE

"L" = Specify Length from Below

English Lengths:

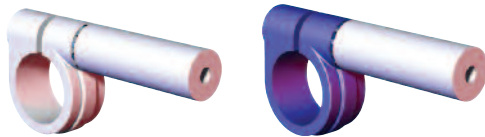
From 03(3.00") to 19(19.00") in 1.00" Increments

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)



Ø40mm/1.50" Tube to Ø25mm/1.00" Rod

Model	Tube (Ø)	Rod (Ø)	Finish
CPI-ES10-150-(L)	1.50"(in)	1.00"(in)	SILVER
CPI-ES25-40-(L)	40mm	25mm	BLUE

"L" = Specify Length from Below

English Lengths:

From 03(3.00") to 16(16.00") in 1.00" Increments

Order Example: CPI-ES10-150-06 (6.00" Length)

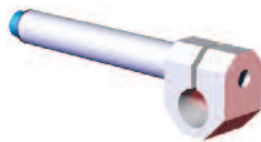
Metric Lengths:

From 50(50mm) to 400(400mm) in 50mm Increments

Order Example: CPI-ES25-40-250 (250mm Length)

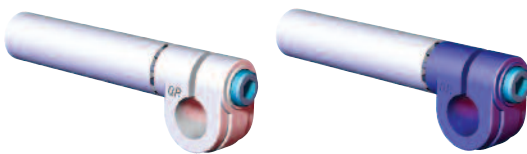
### MSE (Micro) Mounting End Extensions

Ø0.50" Rod for Ø0.50" Apple Core



Model	Rod (Ø)	(L)
CPI-MSE-50-50-03	[.50]	[3.48] 88.3
CPI-MSE-50-50-06	12.7	[6.23] 158.2

### ES Mounting End Extensions



Ø25mm/1.00" for Ø0.75" Apple Core

Model	Rod (Ø)	Finish
CPI-ES10-075-(L)	1.00"(in)	SILVER
CPI-ES25-19-(L)	25mm	BLUE

"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)



Ø25mm/1.00" for Ø1.125" Swivel Ball Mount

Model	Rod (Ø)	Finish
CPI-ES10-B112-(L)	1.00"(in)	SILVER
CPI-ES25-B112-(L)	25mm	BLUE

"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)

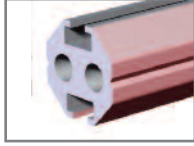
Metric Lengths:

From 50(50mm) to 400(400mm) in 50mm Increments

Order Example: CPI-ES25-B112-250 (250mm Length)

# BodyBuilder™ Octagonal End Effector System - Booms and Structures

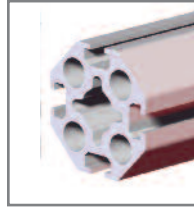
## Octagonal Booms, End Caps, and Accessory Mount



30mm Boom

Model

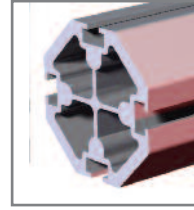
**B-30-(L)-0**



45mm Boom

Model

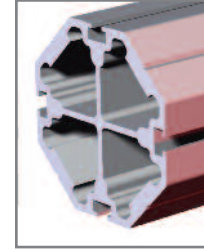
**B-45-(L)-0**



60mm Boom

Model

**B-60-(L)-0**



90mm Boom

Model

**B-90-(L)-0**

(L) = Specify Length in 50mm Increments starting from 150mm to 3000mm Ex: **B-60-450-0** = 450mm Length



### Boom End Caps

Boom

Model

45mm

**CPI-EC-45B**

60mm

**CPI-EC-60B**

90mm

**CPI-EC-90B**

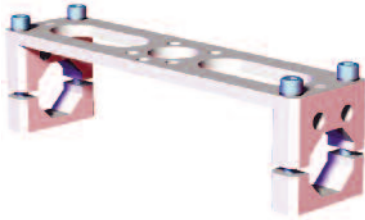


### Extrusion Accessory Mount

Model

**CPI-ETP-35**

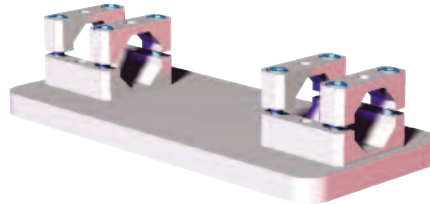
## RMM-30B 30mm Mid Mount Assembly



30mm Single Extrusion Mid Mount with 40mm Bolt Circle

Model

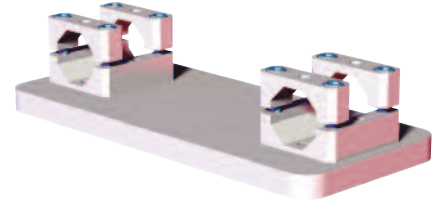
**CPI-RMM-30B-40BC-08-90**



30mm Single Extrusion Robot Adaptor Mid Mount

Model

**CPI-RMM-30B-SE**

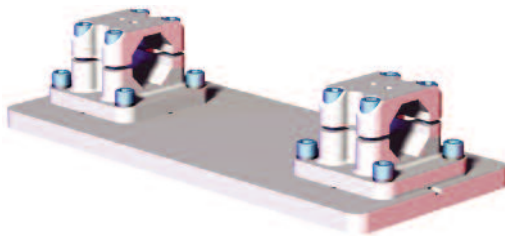


30mm Double Extrusion Robot Adaptor Mid Mount

Model

**CPI-RMM-30B-DE**

## BM1-45 45mm Mid Mount Assembly

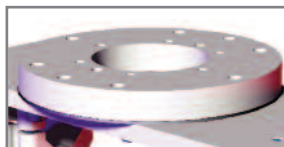


45mm Single Extrusion Robot Adaptor Mid Mount (Blank Plate)

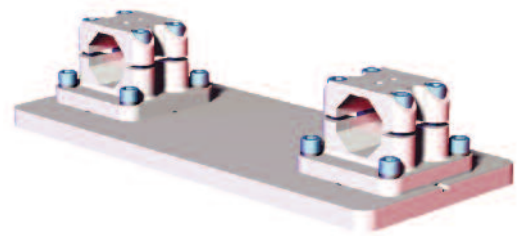
Model

**BM1-45-SE**

For Standard Robot Interface Mounting Patterns, Add -R(xx)  
Ex: **BM1-45-SE-R01**  
(See page 58- 60)



All Ø200mm mounting patterns includes an Adapter Plate.



45mm Double Extrusion Robot Adaptor Mid Mount (Blank Plate)

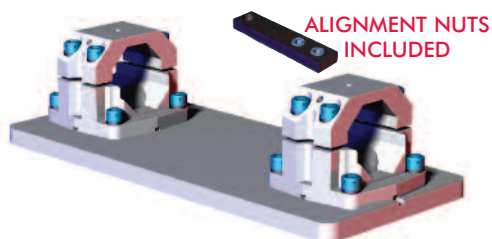
Model

**BM1-45-DE**



## BodyBuilder™ Octagonal End Effector System - Structures

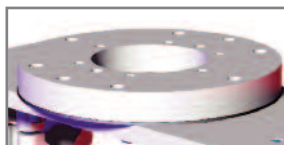
### BM1-60 60mm Mid Mount Assembly



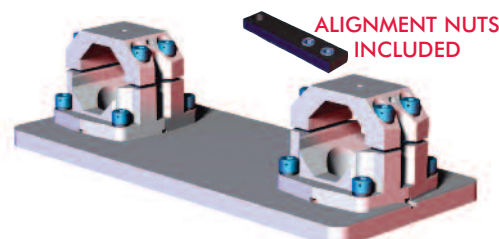
60mm **Single** Extrusion  
Robot Adaptor Mid Mount  
(Blank Plate)

Model
<b>BM1-60-SE</b>

For Standard Robot Interface Mounting Patterns, Add -R(xx)  
Ex: BM1-60-SE-R01  
(See Catalog for Details)



All Ø200mm mounting patterns includes an Adapter Plate.



60mm **Double** Extrusion  
Robot Adaptor Mid Mount  
(Blank Plate)

Model
<b>BM1-60-DE</b>

### RM4/BM3 Heavy Duty Mid Mount Assembly

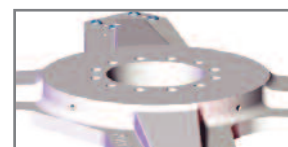


"RM4-45/60"

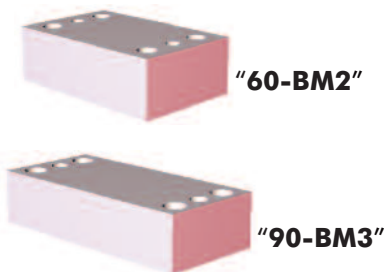
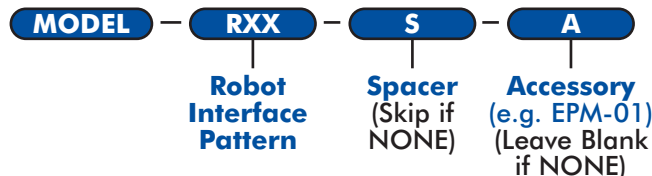
"BM3-90"

Heavy Duty Mid Mount Assembly

Boom	Model
45mm	<b>RM4-45</b>
60mm	<b>RM4-60</b>
90mm	<b>BM3-90</b>

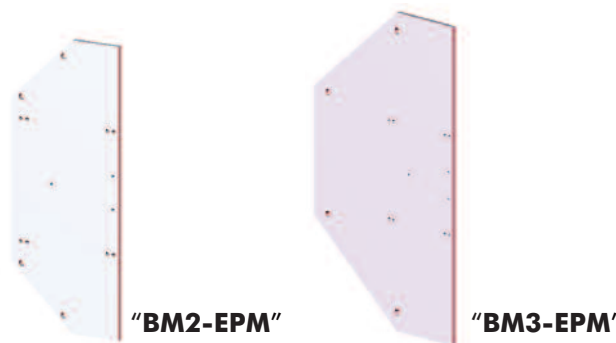


For Standard Robot Interface Mounting Patterns, Spacers and Accessory Plate, Add to end of Model as shown below.  
Ex: RM4-60-R01-S-EPM-01 (See page 58 - 60)



(S) = 1.00" Riser Spacers for Heavy Duty Mid Mount Assembly

Riser for	Model
RM4-45/60	TPMS-60-BM2-10R
BM3-90	TPMS-90-BM3-10R



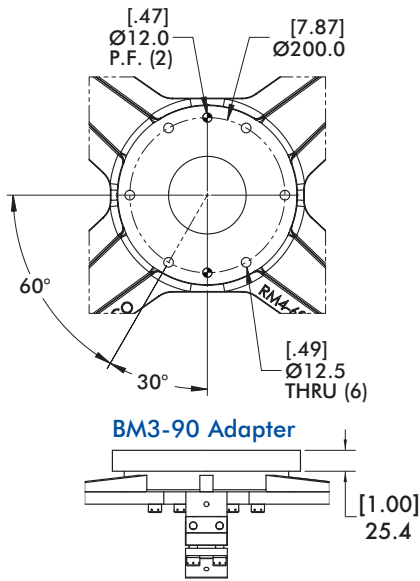
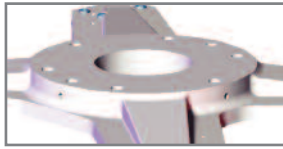
Accessory Plate for Heavy Duty Mid Mount Assembly

(A)	Pattern	Model RM4-45/60	Model BM3-90
<b>EPM-01</b>	Standard	CPI-BM2-EPM-01	CPI-BM3-EPM-01
<b>EPM-BLK</b>	Blank	CPI-BM2-EPM-BLK	CPI-BM3-EPM-BLK

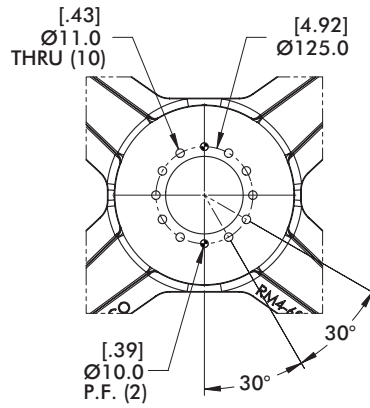
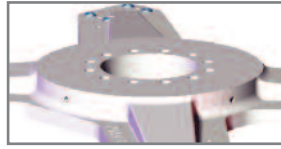
# BodyBuilder™ Octagonal End Effector System - Structures

## Standard Robot Interface Mounting Patterns

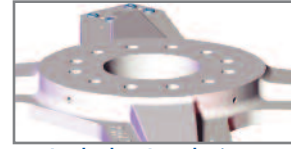
**R01** (Ø200mm Bolt Circle)



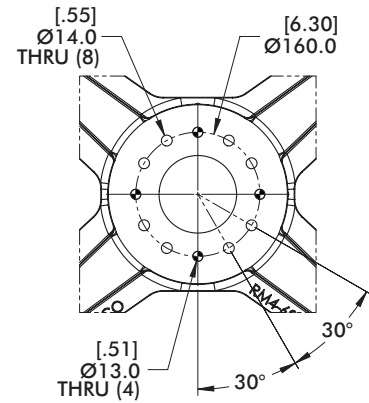
**R02** (Ø125mm Bolt Circle)



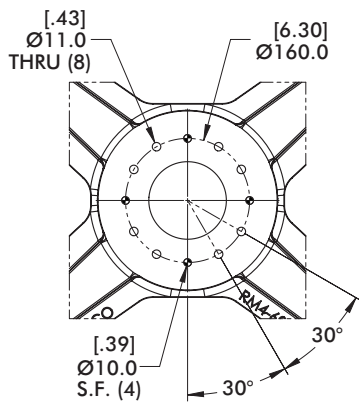
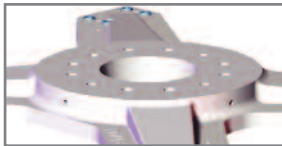
**R03** (Ø160mm Bolt Circle)



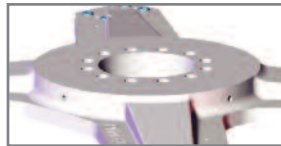
**Includes Insulation**  
Adds 1.5mm to height



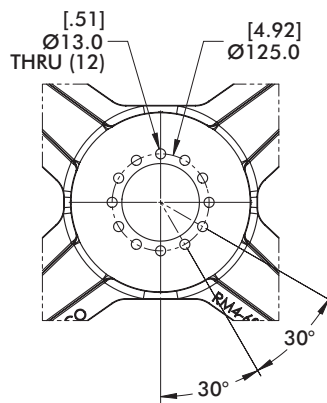
**R04** (Ø160mm Bolt Circle)



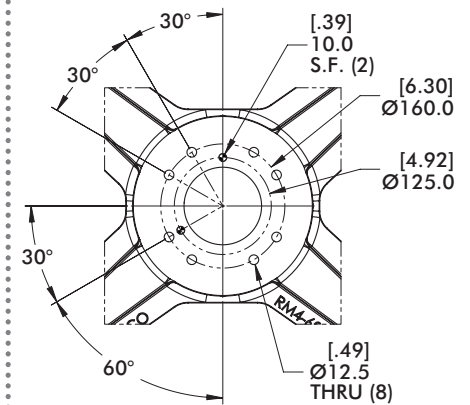
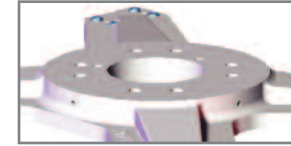
**R05** (Ø125mm Bolt Circle)



**Includes Insulation**  
Adds 1.5mm to height



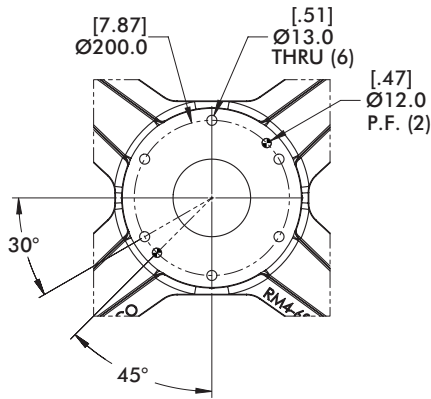
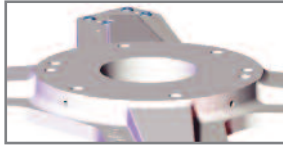
**R06** (Ø125/160mm Bolt Circle)



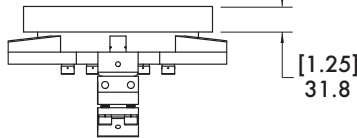
## BodyBuilder™ Octagonal End Effector System - Structures

### Standard Robot Interface Mounting Patterns

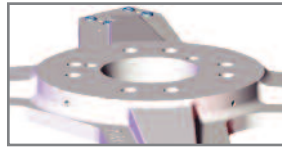
**R07** (Ø200mm Bolt Circle)



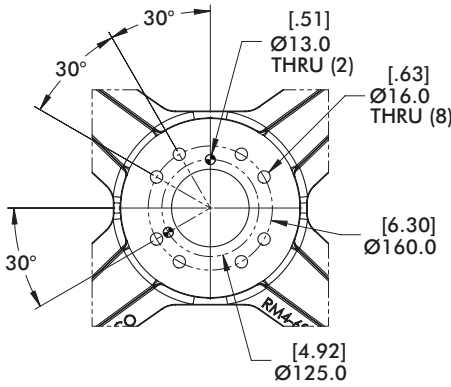
**BM3-90 Adapter**



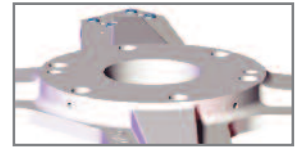
**R08** (Ø125/160mm Bolt Circle)



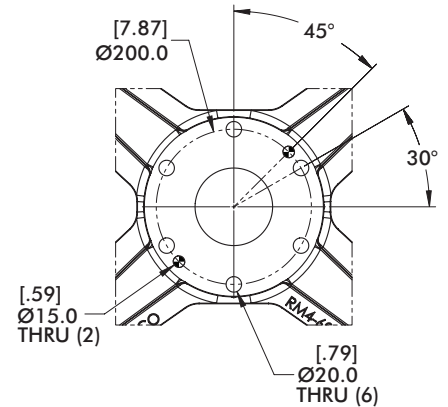
**Includes Insulation**  
Adds 1.5mm to height



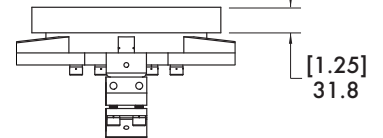
**R09** (Ø200mm Bolt Circle)



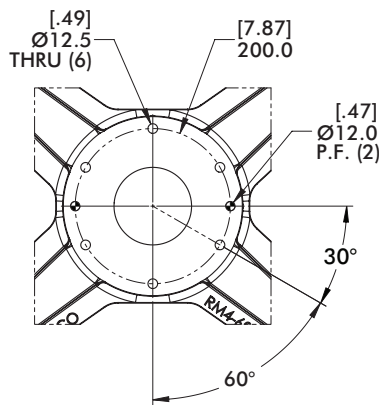
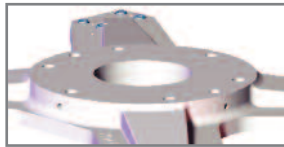
**Includes Insulation**  
Adds 1.5mm to height



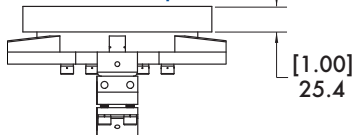
**BM3-90 Adapter**



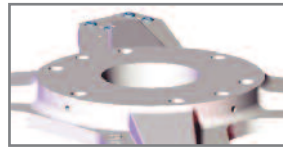
**R10** (Ø200mm Bolt Circle)



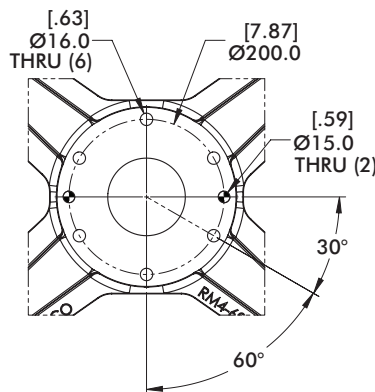
**BM3-90 Adapter**



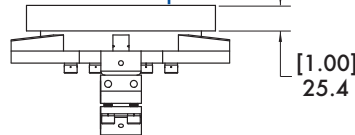
**R11** (Ø200mm Bolt Circle)



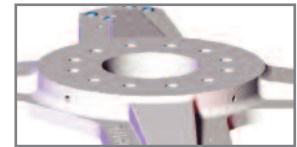
**Includes Insulation**  
Adds 1.5mm to height



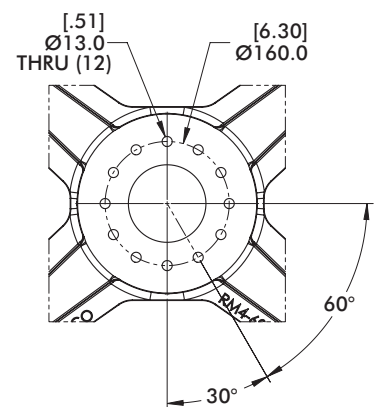
**BM3-90 Adapter**



**R12** (Ø160mm Bolt Circle)



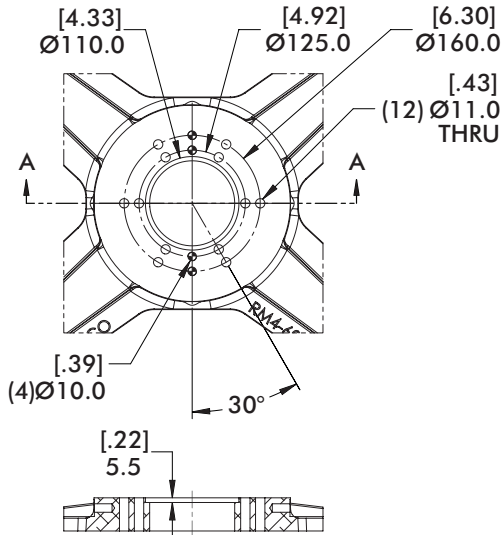
**Includes Insulation**  
Adds 1.5mm to height



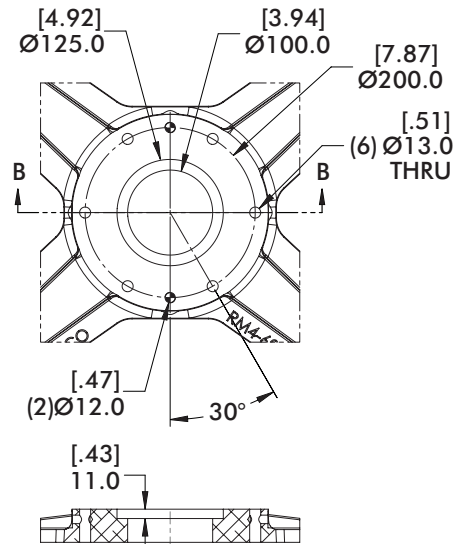
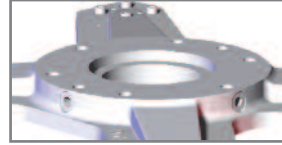
# BodyBuilder™ Octagonal End Effector System - Structures

## Standard Robot Interface Mounting Patterns

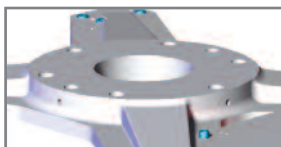
**R13** (Ø125/160mm Bolt Circle)  
(Ø110mm Pilot, 5.5mm Deep)



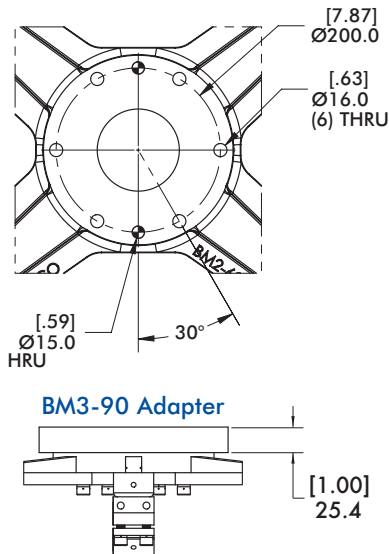
**R14** (Ø200mm Bolt Circle)  
(Ø125mm Pilot, 11mm Deep)



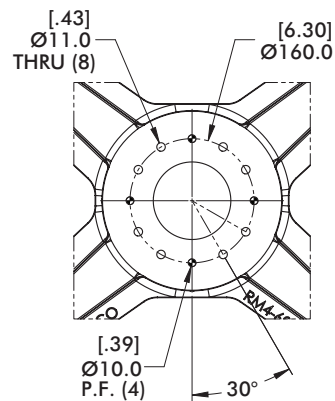
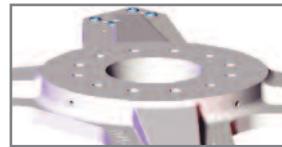
**R16** (Ø200mm Bolt Circle)



**Includes Insulation**  
Adds 1.5mm to height



**R17** (Ø160mm Bolt Circle)



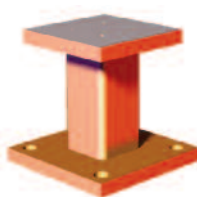


BodyBuilder™ Octagonal End Effector System - Structures  
 HTW Hold Table Weldments



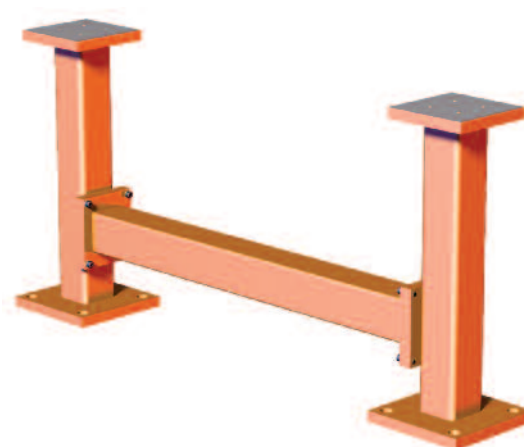
6" SQ Pedestal Hold Table  
 (6) M10 on Ø160 Bolt Circle

Model
CPI-HTW-(H)



4" SQ Pedestal Hold Table  
 (4) M10 on 3.125 SQ Pattern

Model
CPI-HTW-(H)-4



Pass-Thru Hold Table Weldment  
 (2) 4" SQ Pedestal Hold Tables with Bridge

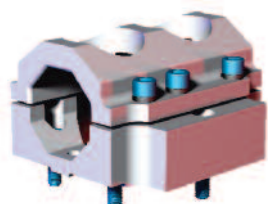
Center to Center	Model
1200mm [47.24]	CPI-HTW-1200-(H)
1400mm [55.12]	CPI-HTW-1400-(H)

(H) = Specify Height

4" and 6" SQ Pedestal Hold Tables:  
 From 250 (250mm) to 900 (900mm) in 50mm Increments  
 Order Example: CPI-HTW-250 (250mm Height)

1200mm and 1400mm Pass-Thru Hold Table Weldments:  
 350 (350mm) and from 400 (400mm) up to 900 (900mm)  
 in 100mm Increments  
 Order Example: CPI-HTW-1200-350 (350mm Height)

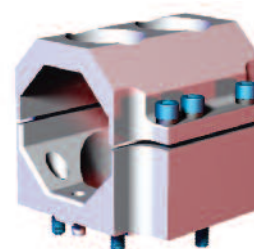
ATI Mid and End Mount Assemblies



60mm Mid Mount  
 (6) M10 on Ø125 Bolt Circle

Model
CPI-ATI-151-90HD-60BB

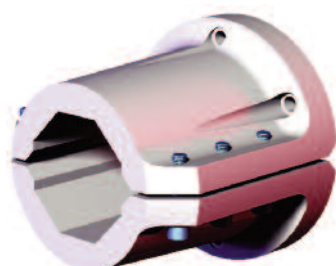
Only SHCS Fasteners included



90mm Mid Mount  
 (6) M10 on Ø125 Bolt Circle

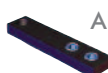
Model
CPI-ATI-151-90HD-90BB

Fasteners and Dowels Included



90mm End Mount  
 Ø160 Bolt Circle

Model
CPI-CL-90B-160F



Alignment Nut  
 Included



60mm End Mount  
 (Used with RDN-25-6 Housing)

Model
CPI-RDCF-60B-00-00-X

BodyBuilder™ Octagonal End Effector System - Transition Brackets and Blocks

M-Series Cross Bracket Assembly



30mm to 30mm

Model

M-30B-30B-M



45mm to 30mm

Model

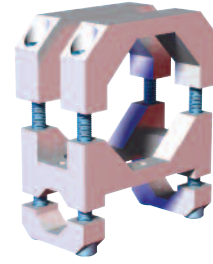
M-30B-45B-M



60mm to 30mm

Model

M-30B-60B-M



90mm to 30mm

Model

M-30B-90B-M



45mm to 45mm

Model

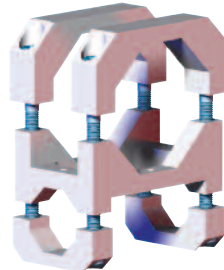
M-45B-45B-M



60mm to 45mm

Model

M-45B-60B-M



90mm to 45mm

Model

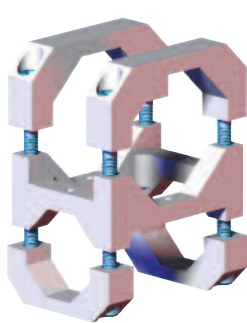
M-45B-90B-M



60mm to 60mm

Model

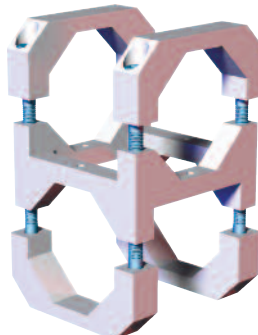
M-60B-60B-M



90mm to 60mm

Model

M-60B-90B-M



90mm to 90mm

Model

M-90B-90B-M



M-Series Octagon to Round Cross Brackets and Blocks



30mm to Ø0.50"

Model

CPI-CLM-30B-50-TR



30mm to Ø25mm

Model

M-30B-25M-M



45mm to Ø25mm

Model

M-45B-25M-M



60mm to Ø25mm

Model

M-45B-25M-M



60mm to Ø40mm

Model

M-60B-40M-M

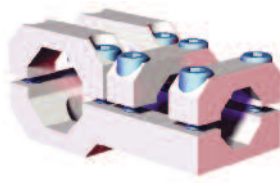
BodyBuilder™ Octagonal End Effector System - Transitions Brackets and Blocks  
**TCA** T-Clamp Bracket Assembly



30mm to 30mm

Model

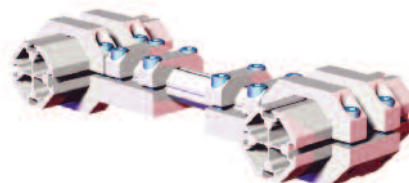
**CPI-TCAM-30B-30B-M**



45mm to 30mm

Model

**CPI-TCA-30B-45B**

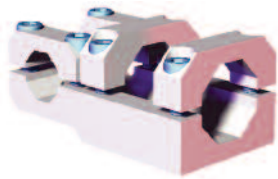


Can be configured as a connector between booms for added stability

60mm to 30mm

Model

**CPI-TCA-30B-60B**



30mm to 45mm

Model

**CPI-TCA-45B-30B**



45mm to 45mm

Model

**CPI-TCA-45B-45B**



60mm to 45mm

Model

**CPI-TCA-45B-60B**



Ø25mm to 45mm

Model

**CPI-TCA-45B-25M**



30mm to 60mm

Model

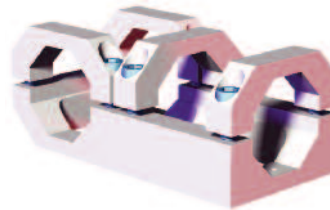
**CPI-TCA-60B-30B**



45mm to 60mm

Model

**CPI-TCA-60B-45B**



60mm to 60mm

Model

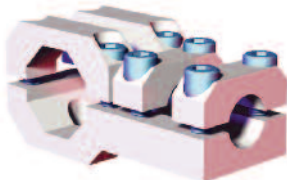
**CPI-TCA-60B-60B**



Ø25mm to 60mm

Model

**CPI-TCA-60B-25M**



45mm to Ø25mm

Model

**CPI-TCA-25M-45B**



Can be configured as a connector between booms for added stability



60mm to Ø25mm

Model

**CPI-TCA-25M-60B**



**DC** 45° Angular Boom Transition Bracket



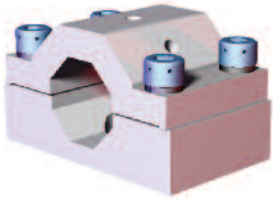
45° Angular Boom

Boom	Model
30mm	CPI-DC-3030B-45
45mm	CPI-DC-4545B-45
90mm	CPI-DC-6060B-45

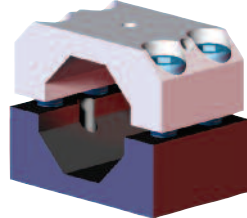
# BodyBuilder™ Octagonal End Effector System

## Accessory and Flange Mounts

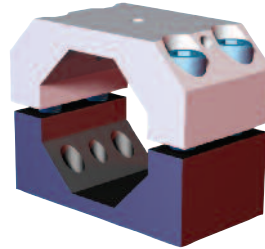
Alignment Nut(s) Included with all Accessory Mounts



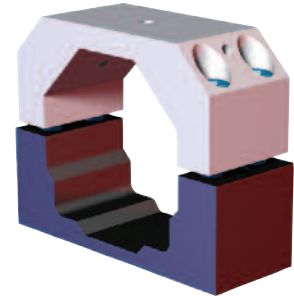
30mm Accessory Mount  
Model  
**TPM-30**



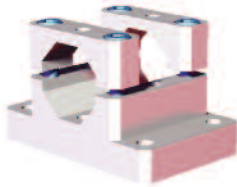
45mm Accessory Mount  
Material    Model  
Aluminum    **TPM-45**  
Steel        **TPMS-45**



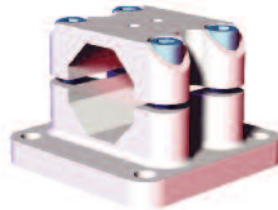
60mm Accessory Mount  
Model  
**TPMS-60**



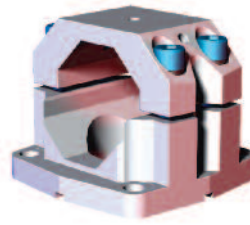
90mm Accessory Mount  
Model  
**TPMS-90**



30mm Mid Flange  
Model  
**CPI-CLM-30B-152F-90**



45mm Mid Flange  
Model  
**TBC-45-00**

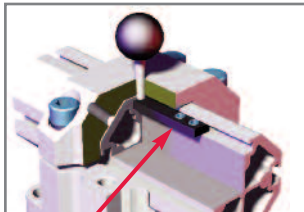


60mm Mid Flange  
Model  
**TBC-60-00**

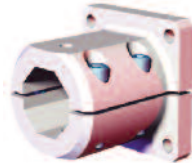
Cross Key  
Sold Separately:  
(2) x **540-25388**



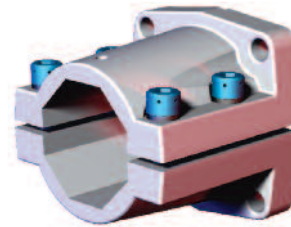
**Alignment Pin**  
Model: **505311**



**Alignment Nut**  
Model: **505264**



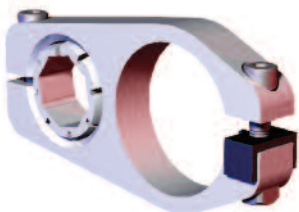
30mm End Flange  
Model  
**CPI-CLM-30B-20F**



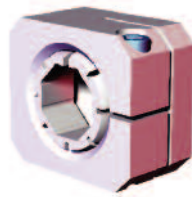
60mm End Flange  
Model  
**BECC-60-00**

Cross Key  
Sold Separately:  
(2) x **540-25388**

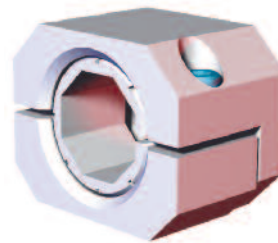
## Parallel and Rear End Gripper Mounts for 150 Series Grippers



30mm Parallel Mount  
Model  
**CPI-GPC-150-30BBS-DC**



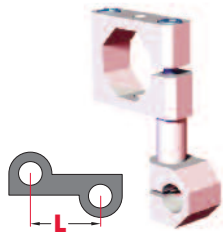
30mm End Mount  
Model  
**CPI-RJM-150-30BBS**



45mm End Mount  
Model  
**CPI-RJM-150-45BBS**

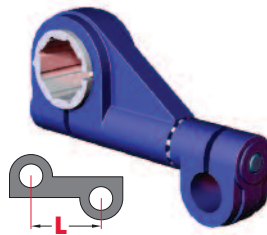
## BodyBuilder™ Octagonal End Effector System

### Swivel Arms and Swivel Arm Accessories



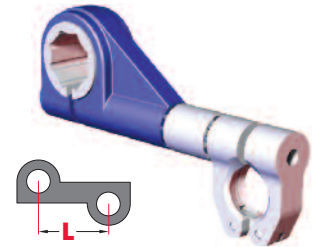
30mm for Ø.50" Apple Core

Model	(L)
CPI-200-30B50-MSA	[2.05] 52.1
CPI-300-30B50-MSA	[3.04] 77.2
CPI-400-30B50-MSA	[4.02] 102.1
CPI-500-30B50-MSA	[5.01] 127.3
CPI-600-30B50-MSA	[5.79] 147.1



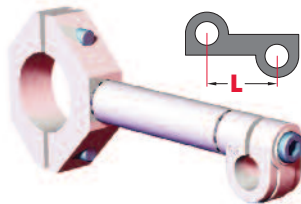
30mm for Ø.75" Apple Core

Model	(L)
CPI-400-30-SA	[3.74] 95.1
CPI-500-30-SA	[4.96] 126.0
CPI-600-30-SA	[5.75] 146.0
CPI-700-30-SA	[6.51] 165.4
CPI-800-30-SA	[8.09] 205.5



30mm for Swivel Ball Mounts

Model	(L)
CPI-400-30-SA-B112	[3.74] 95.0
CPI-500-30-SA-B112	[4.96] 126.0
CPI-600-30-SA-B112	[5.74] 145.8
CPI-700-30-SA-B112	[6.51] 165.4
CPI-800-30-SA-B112	[8.09] 205.5



45mm for Ø.75" Apple Core

Model	(L)
CPI-130-45B-CSA	[4.68] 118.8
CPI-180-45B-CSA	[6.66] 169.1
CPI-230-45B-CSA	[8.63] 219.1
CPI-280-45B-CSA	[10.60] 269.2



Swivel End Mount

Model
<b>BC-19</b>



Part Present Switch Mount

Model
<b>CPI-AB-750-SL</b>



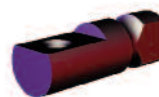
Nest Bumper Mount

Model
<b>240208-M</b>



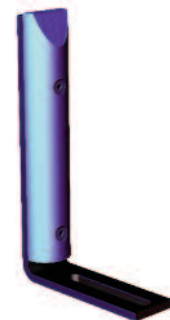
Mini-Clamp Mounts

Clamp	Model
DSC-82L25	<b>8LD-009-1</b>
DSC-82L40	<b>8LD-010-1</b>
DSC-82L32	<b>8LD-012-1</b>



Nest Bumper Mount

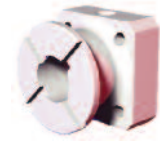
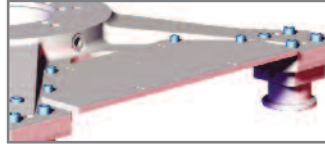
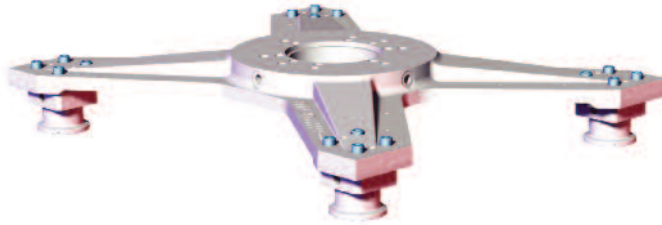
Model
<b>CPI-SAP-BM10</b>



Rough Locator

Model
<b>CPI-NPG-15RL-400</b>

## SpiderGrip Precision Tooling System Heavy Duty Mid Mount Assembly

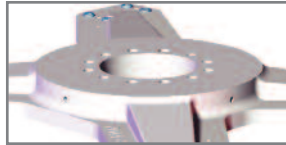
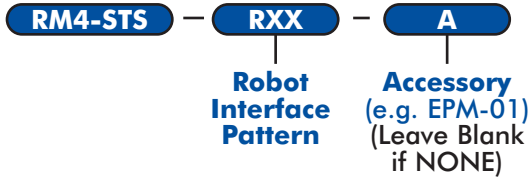


Mid Mount Anchor  
40 x 40mm M.P.  
50mm Offset

Assessory Plate for Heavy Duty Mid Mount

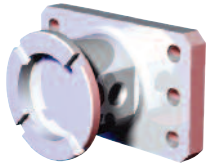
(A)	Pattern	Model
<b>EPM-01</b>	Standard	<b>CPI-BM2-EPM-01</b>
<b>EPM-BLK</b>	Blank	<b>CPI-BM2-EPM-BLK</b>

Model
<b>STS0013-BM2</b>



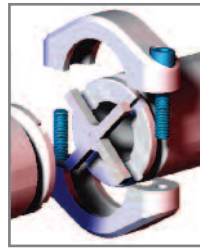
For Standard Robot Interface Mounting Patterns and Accessory Plate, Add to end of Model as shown below.  
Ex: **RM4-60-R01-EPM-01**  
(See Bodybuilder Section for mounting Patterns)

### ..... Anchors, Collar and Key Assemblies, and Tether Assemblies



Base Anchor  
Engineered Breakaway  
80 x 40mm M.P.  
50mm Face Offset

Model
<b>STS0016-NA</b>



Key & Collar Assembly

Model
<b>STCLLRX-NA</b>



Collar Assembly

Model
<b>STCLR2-NA</b>



X-Kex Assembly

Model
<b>STCXKEY-NA</b>



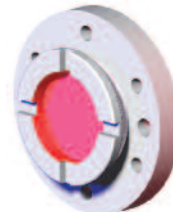
HD Anchor Mount  
(3) Hole, Ø190mm M.P.  
50mm Face Offset

Model
<b>STP0001-NA</b>



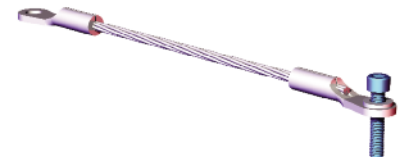
25mm Anchor Mount  
(6) Hole, Ø70mm M.P.  
25mm Face Offset

Model
<b>STS0025-NA</b>



25mm Anchor Mount  
Engineered Breakaway  
(6) Hole, Ø70mm M.P.  
25mm Face Offset

Model
<b>STS0025-NA-BA-1500</b>

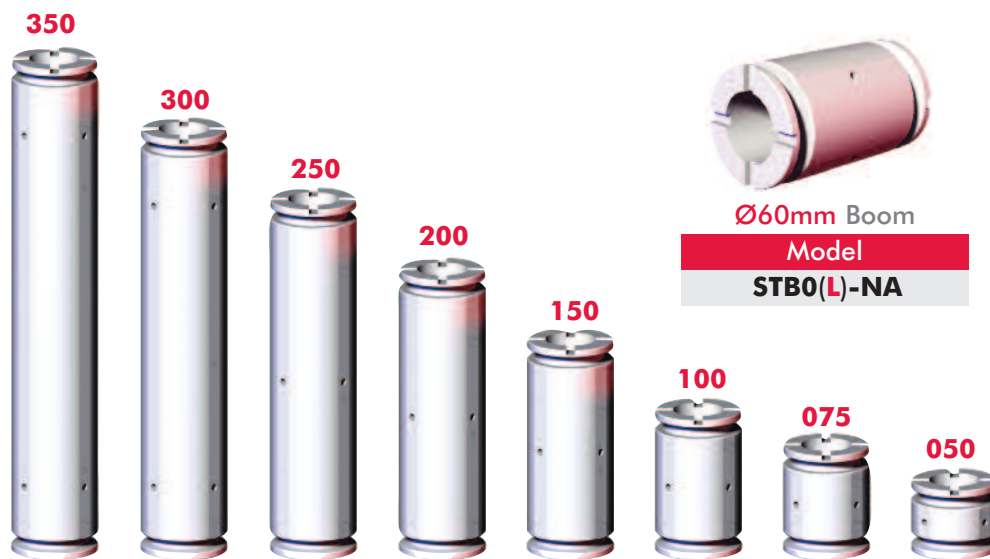


Tether Assembly

Length	Model
9.00"	<b>STS-TETHER-09</b>
16.00"	<b>STS-TETHER-16</b>



## SpiderGrip Precision Tooling System Booms and Boom Spacers



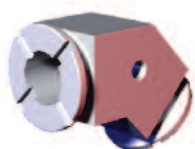
"L" = length ( $\pm 0.02$ ) in [mm]    Ex: **STB0200-NA** = 200mm Length

$\varnothing 60\text{mm}$  Boom  
Model  
**STB0(L)-NA**

25mm Boom Spacer  
Non-Breakaway  
Model  
**STB0025-NA**

25mm Boom Spacer  
Engineered Breakaway  
Model  
**STB0025-NA-800**

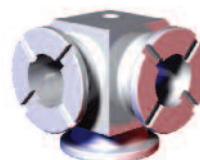
### Junction and Single End Extension Components



2-Face 45° Corner  
Model  
**STN0C45-NA**



2-Face 90° Corner  
Model  
**STN0C90-NA**



3-Face 90° Corner  
Model  
**STN0C3F-NA**



4-Face 90° Corner  
Model  
**STN0C4F-NA**



3-Face Transition  
Model  
**STN0T3F-NA**



4-Face Transition  
Model  
**STN0T4F-NA**

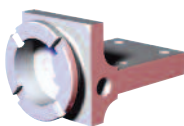


5-Face Transition  
Model  
**STN0T5F-NA**

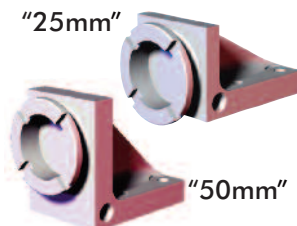


Offset	Model
100mm	<b>STV0100-NA</b>
200mm	<b>STV0200-NA</b>

### Edge Components



90° Mount with  
15mm Center Offset  
Model  
**STS0010-NA**



90° Mount with  
Center Offset

Offset	Model
25mm	<b>STS0011-NA</b>
50mm	<b>STS0012-NA</b>



Offset Mount with  
25mm Face Offset  
Model  
**STS0014-NA**



Inline Mount with  
80 x 40mm M.P.  
50mm Face Offset  
Model  
**STS0019-NA**



A DOVER COMPANY

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