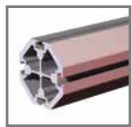


# BODYBUILDER™ TOOLING EXAMPLES



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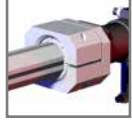
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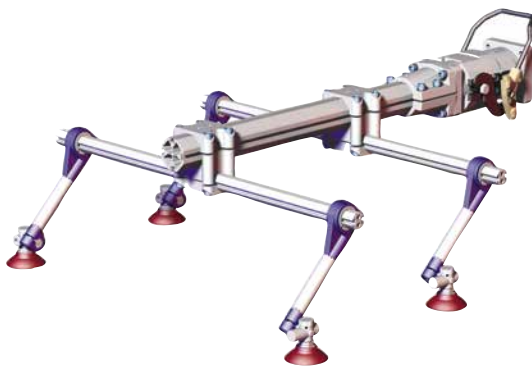
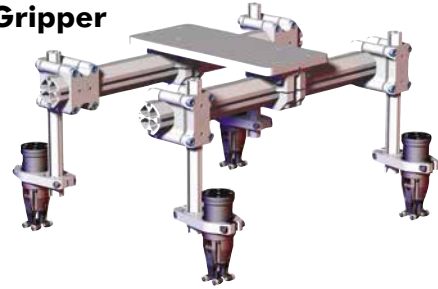


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**Mid Mount with GR84 Series Mini-Clamps**

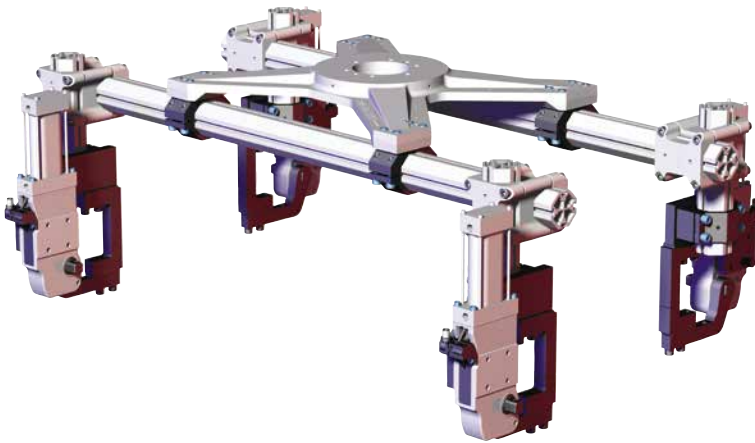
**Mid Mount with GR1 Series Gripper**



**End Mount with Venturi Cup Mounts and Vacuum Cups**

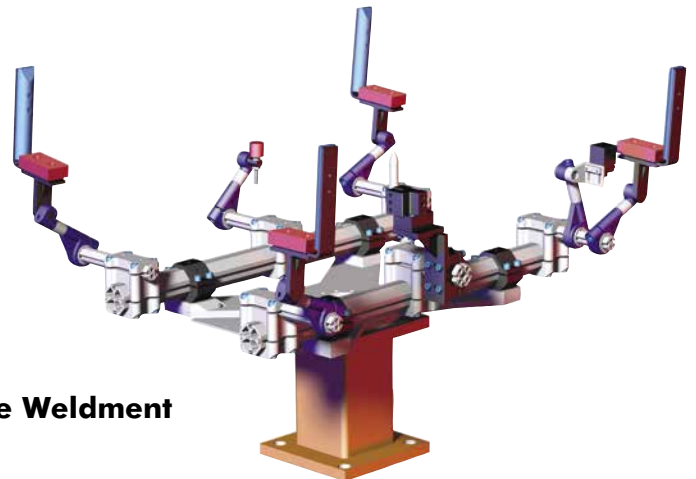


**End Mount with GR84 Series Mini Clamp**



**Mid Mount with 82M50 Enclosed Power Clamps**

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



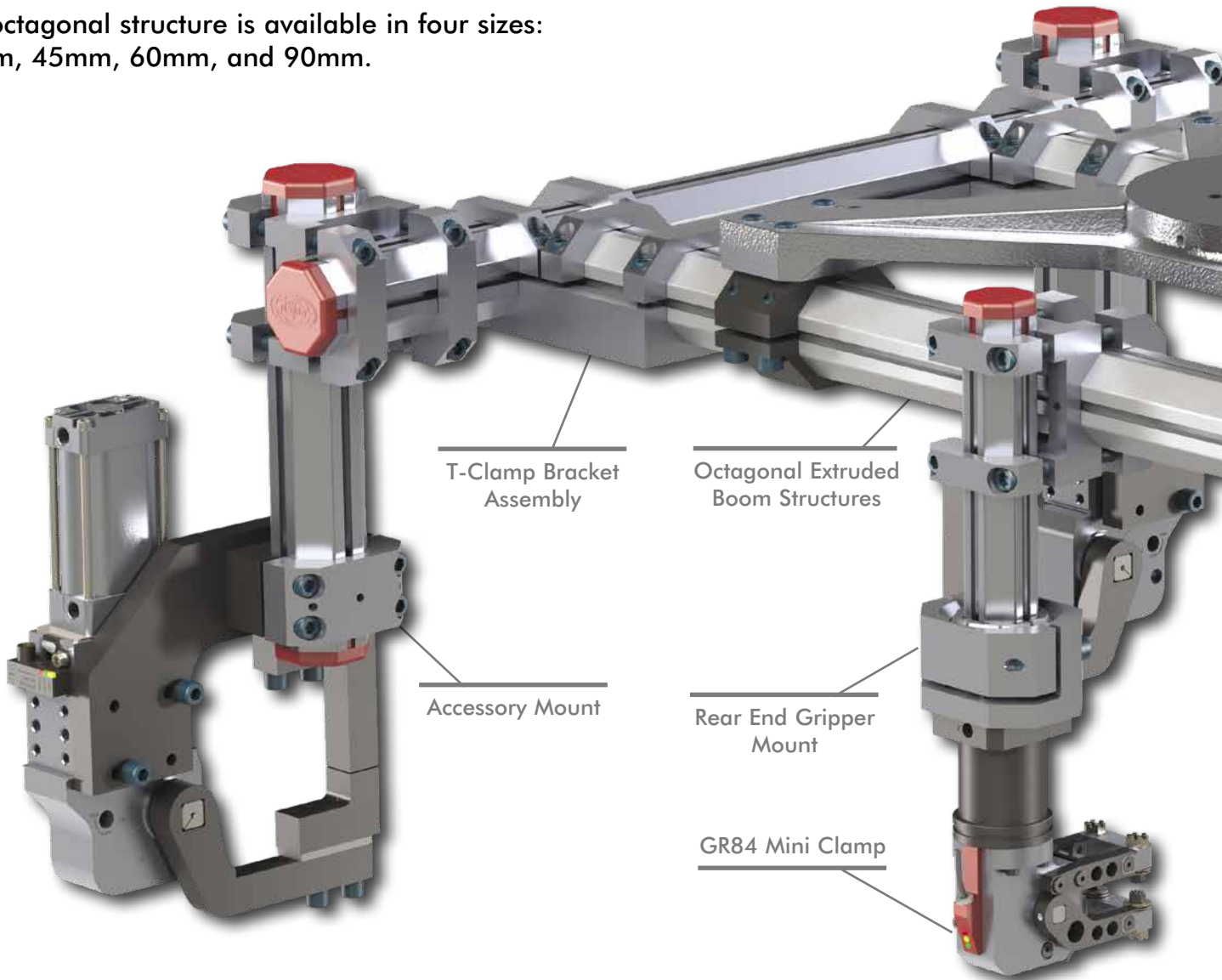
# BODYBUILDER™ END EFFECTOR SYSTEM



## Product Overview

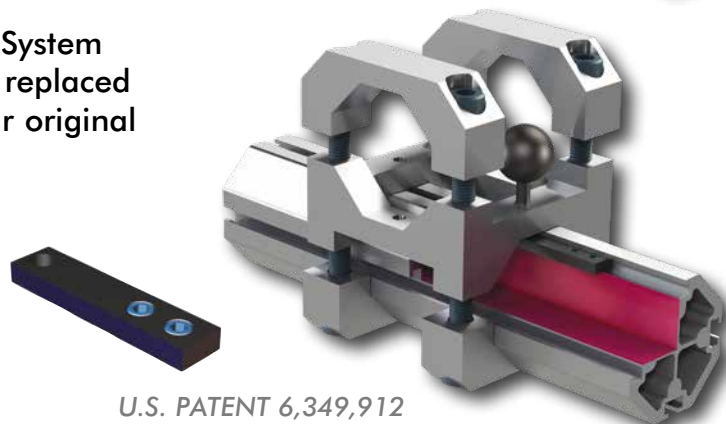
BodyBuilder™ is designed to maximize productivity, both before and after installation. The flexibility of the system allows modifications to the end effector in minutes, greatly reducing start up time to launch.

The octagonal structure is available in four sizes: 30mm, 45mm, 60mm, and 90mm.



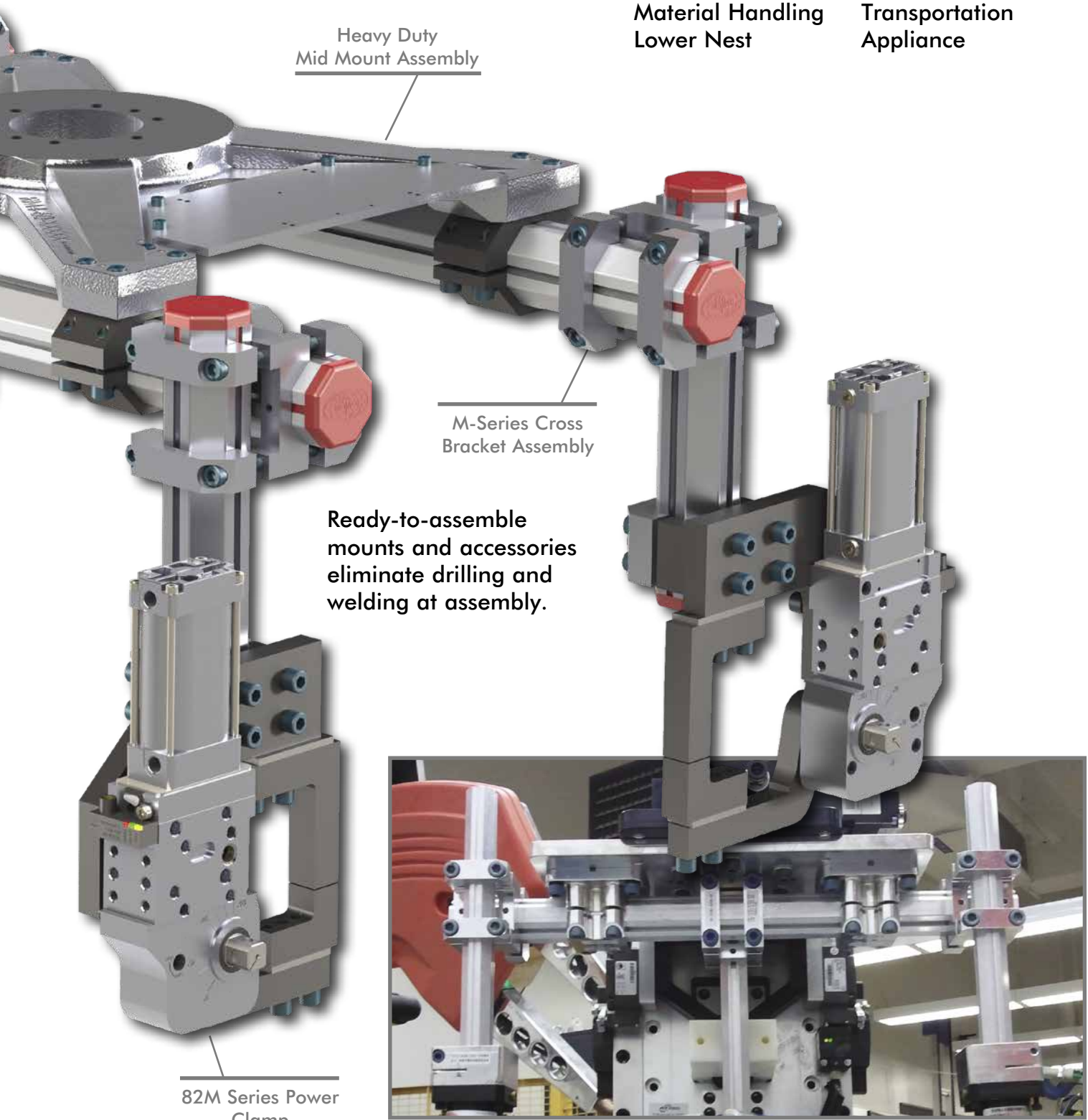
The patented BodyBuilder™ Alignment System allows the modular components to be replaced individually and easily returned to their original positions.

Alignment nut(s) are included with every Bodybuilder™ modular component, utilizing the patented alignment system.



**Most commonly used in:**

Applications	Markets
Robot Welding	Industrial
Pick and Place	Automotive
Material Handling	Transportation
Lower Nest	Appliance



Heavy Duty  
Mid Mount Assembly

M-Series Cross  
Bracket Assembly

Ready-to-assemble  
mounts and accessories  
eliminate drilling and  
welding at assembly.


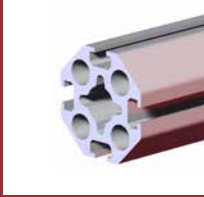
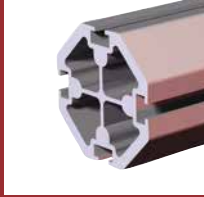
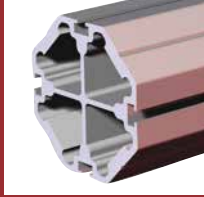
82M Series Power  
Clamp

# BODYBUILDER™ BOOM STRUCTURE

BodyBuilder™ Octagonal Tooling | Dimensions

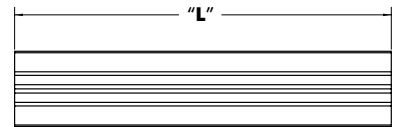
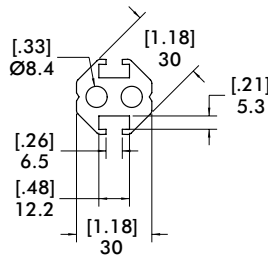
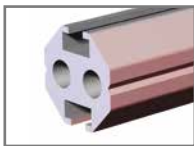


**30, 45, 60, and 90mm Boom** Lengths and Ordering Numbers

BODYBUILDER™ OCTAGONAL ALUMINUM BOOM LENGTHS & ORDER NUMBERS	   			
	(L) Length	B - 30 - (L) - 0	B - 45 - (L) - 0	B - 60 - (L) - 0
150 mm	B - 30 - 150 - 0	B - 45 - 150 - 0	B - 60 - 150 - 0	N/A
200 mm	B - 30 - 200 - 0	B - 45 - 200 - 0	B - 60 - 200 - 0	N/A
250 mm	B - 30 - 250 - 0	B - 45 - 250 - 0	B - 60 - 250 - 0	N/A
300 mm	B - 30 - 300 - 0	B - 45 - 300 - 0	B - 60 - 300 - 0	B - 90 - 300 - 0
400 mm	B - 30 - 400 - 0	B - 45 - 400 - 0	B - 60 - 400 - 0	B - 90 - 400 - 0
500 mm	B - 30 - 500 - 0	B - 45 - 500 - 0	B - 60 - 500 - 0	B - 90 - 500 - 0
600 mm	B - 30 - 600 - 0	B - 45 - 600 - 0	B - 60 - 600 - 0	B - 90 - 600 - 0
700 mm	B - 30 - 700 - 0	B - 45 - 700 - 0	B - 60 - 700 - 0	B - 90 - 700 - 0
750 mm	B - 30 - 750 - 0	B - 45 - 750 - 0	B - 60 - 750 - 0	B - 90 - 750 - 0
800 mm	B - 30 - 800 - 0	B - 45 - 800 - 0	B - 60 - 800 - 0	B - 90 - 800 - 0
900 mm	B - 30 - 900 - 0	B - 45 - 900 - 0	B - 60 - 900 - 0	B - 90 - 900 - 0
1200 mm	B - 30 - 1200 - 0	B - 45 - 1200 - 0	B - 60 - 1200 - 0	B - 90 - 1200 - 0
1500 mm	B - 30 - 1500 - 0	B - 45 - 1500 - 0	B - 60 - 1500 - 0	B - 90 - 1500 - 0
1800 mm	B - 30 - 1800 - 0	B - 45 - 1800 - 0	B - 60 - 1800 - 0	B - 90 - 1800 - 0
2100 mm	B - 30 - 2100 - 0	B - 45 - 2100 - 0	B - 60 - 2100 - 0	B - 90 - 2100 - 0
2400 mm	B - 30 - 2400 - 0	B - 45 - 2400 - 0	B - 60 - 2400 - 0	B - 90 - 2400 - 0
2700 mm	B - 30 - 2700 - 0	B - 45 - 2700 - 0	B - 60 - 2700 - 0	B - 90 - 2700 - 0
3000 mm	B - 30 - 3000 - 0	B - 45 - 3000 - 0	B - 60 - 3000 - 0	B - 90 - 3000 - 0

## 30mm Boom Profile Dimensions and Specifications

### BodyBuilder™ 30mm Boom



Model Number	Weight
B - 30 - (L) - 0	1.4 kg/m [0.9 lb/ft]

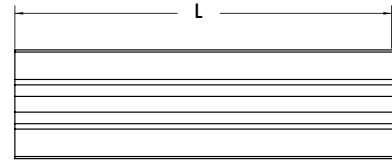
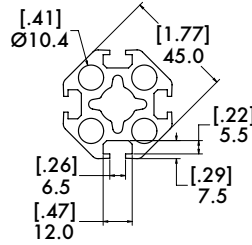
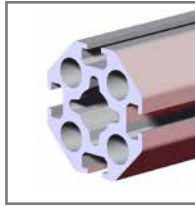


# BODYBUILDER™ BOOM STRUCTURE

BodyBuilder™ Octagonal Tooling | Dimensions

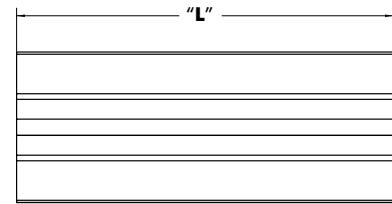
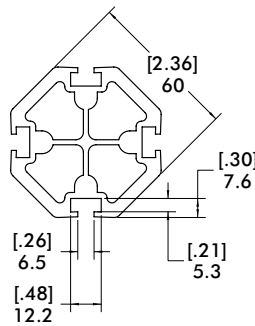
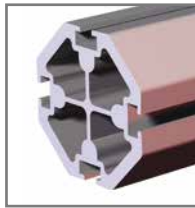
## 45, 60, and 90mm Boom Profile Dimensions and Specifications

### BodyBuilder™ 45mm Boom



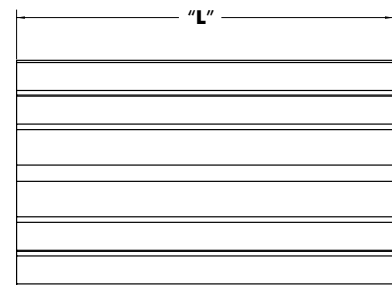
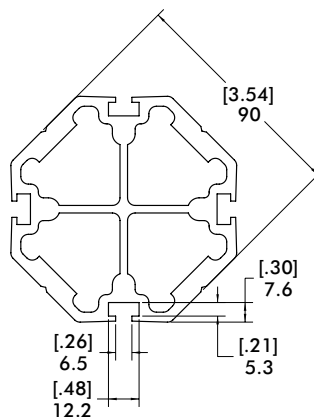
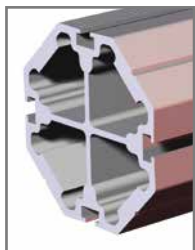
Model Number	Weight
<b>B - 45 - (L) - 0</b>	2.0 kg/m [1.4 lb/ft]

### BodyBuilder™ 60mm Boom



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

### BodyBuilder™ 90mm Boom



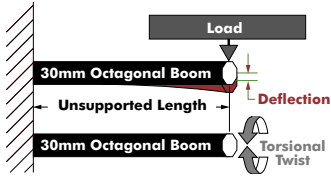
Model Number	Weight
<b>B - 90 - (L) - 0</b>	6.5 kg/m [4.4 lb/ft]

# BODYBUILDER™ BOOM STRUCTURE

BodyBuilder™ Octagonal Tooling | Technical Specifications

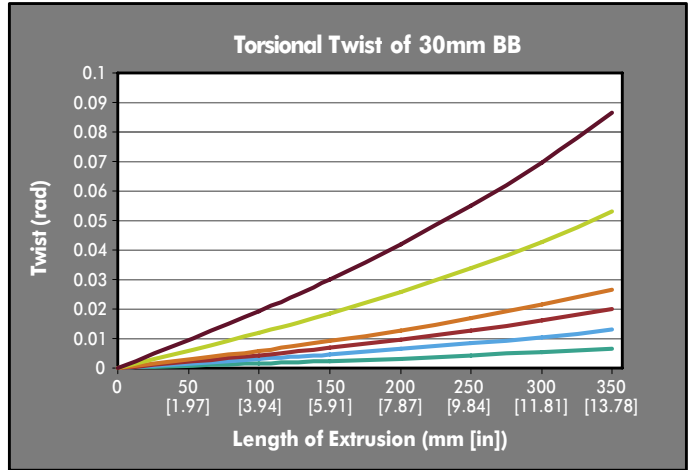
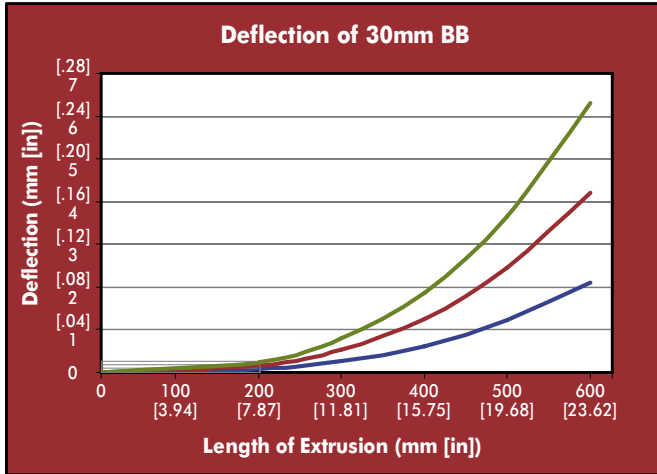
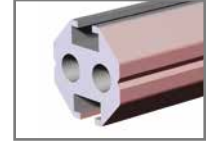


## 30mm Boom Deflection and Torsion Charts

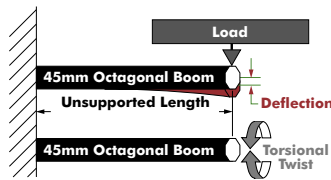


5 Kgf	11.0 lbf
10 Kgf	22.0 lbf
15 Kgf	33.0 lbf

100 Kgf-cm	86.8 lbf-in
200 Kgf-cm	173.6 lbf-in
300 Kgf-cm	260.4 lbf-in
400 Kgf-cm	347.2 lbf-in
800 Kgf-cm	694.4 lbf-in
1300 Kgf-cm	1128.4 lbf-in

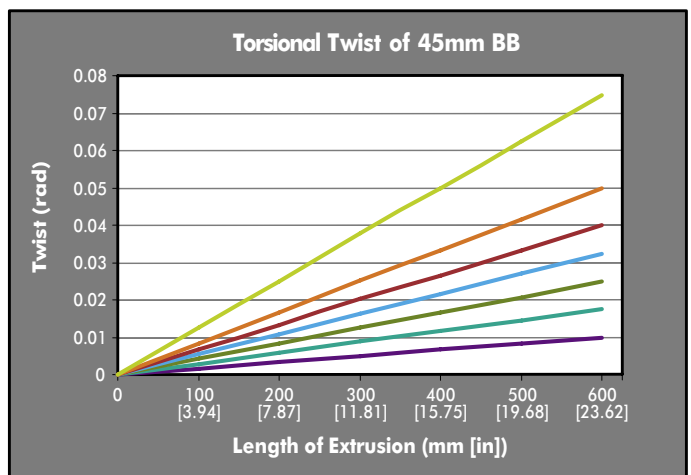
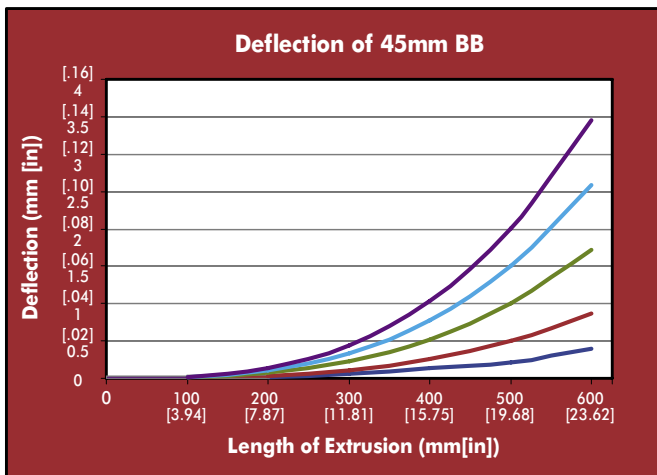
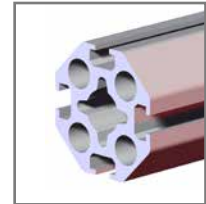


## 45mm Boom Deflection and Torsion Charts



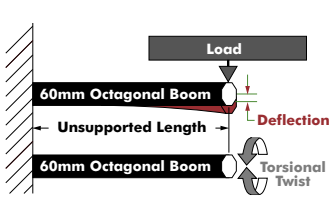
5 Kgf	11.0 lbf
10 Kgf	22.0 lbf
20 Kgf	44.1 lbf
30 Kgf	66.1 lbf
40 Kgf	88.2 lbf

400 Kgf-cm	347.2 lbf-in
700 Kgf-cm	607.6 lbf-in
1000 Kgf-cm	867.0 lbf-in
1300 Kgf-cm	1128.4 lbf-in
1600 Kgf-cm	1388.7 lbf-in
2000 Kgf-cm	1735.9 lbf-in
3000 Kgf-cm	2603.9 lbf-in



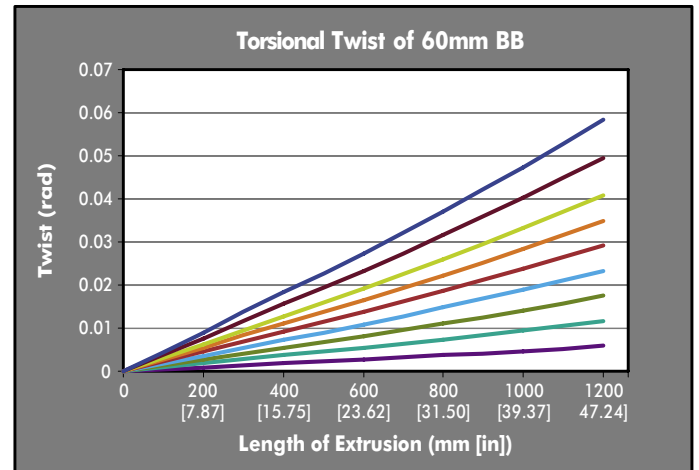
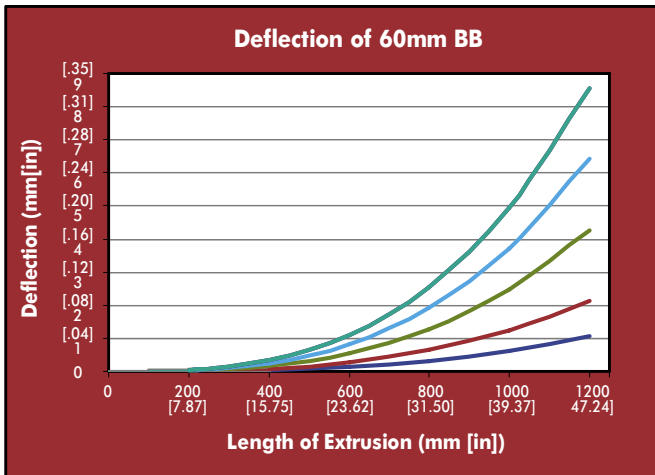
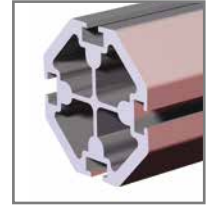
**Note:** Performance may vary if used with non-DESTACO components

## 60mm Boom Deflection and Torsion Charts

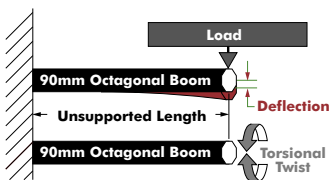


5 Kgf	11.0 lbf
10 Kgf	22.0 lbf
20 Kgf	44.1 lbf
30 Kgf	66.1 lbf
40 Kgf	88.2 lbf
50 Kgf	110.2 lbf

400 Kgf-cm	347.2 lbf-in
800 Kgf-cm	694.4 lbf-in
1200 Kgf-cm	1041.6 lbf-in
1600 Kgf-cm	1388.7 lbf-in
2000 Kgf-cm	1735.9 lbf-in
2400 Kgf-cm	2083.1 lbf-in
2800 Kgf-cm	2430.3 lbf-in
3400 Kgf-cm	2951.1 lbf-in
4000 Kgf-cm	3471.8 lbf-in

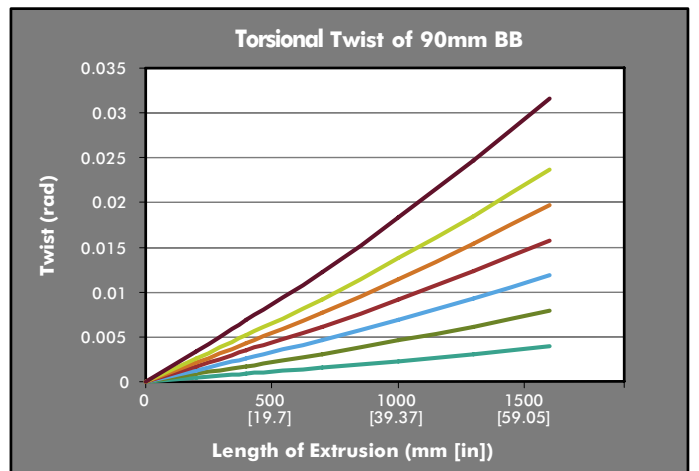
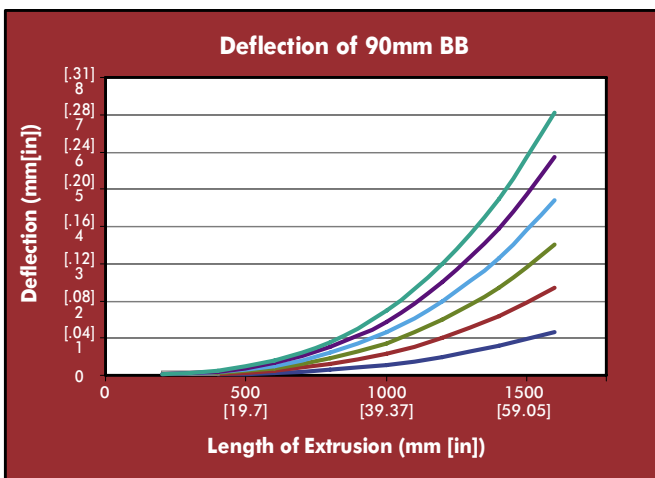
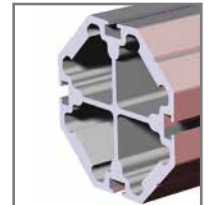


## 90mm Boom Deflection and Torsion Charts



10 Kgf	22.0 lbf
20 Kgf	44.1 lbf
30 Kgf	66.1 lbf
40 Kgf	88.2 lbf
50 Kgf	110.2 lbf
60 Kgf	132.3 lbf

1000 Kgf-cm	867.0 lbf-in
2000 Kgf-cm	1735.9 lbf-in
3000 Kgf-cm	2603.9 lbf-in
4000 Kgf-cm	3471.8 lbf-in
5000 Kgf-cm	4339.8 lbf-in
6000 Kgf-cm	5207.8 lbf-in
8000 Kgf-cm	6943.7 lbf-in



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



# BODYBUILDER™ BOOM STRUCTURE ACCESSORIES

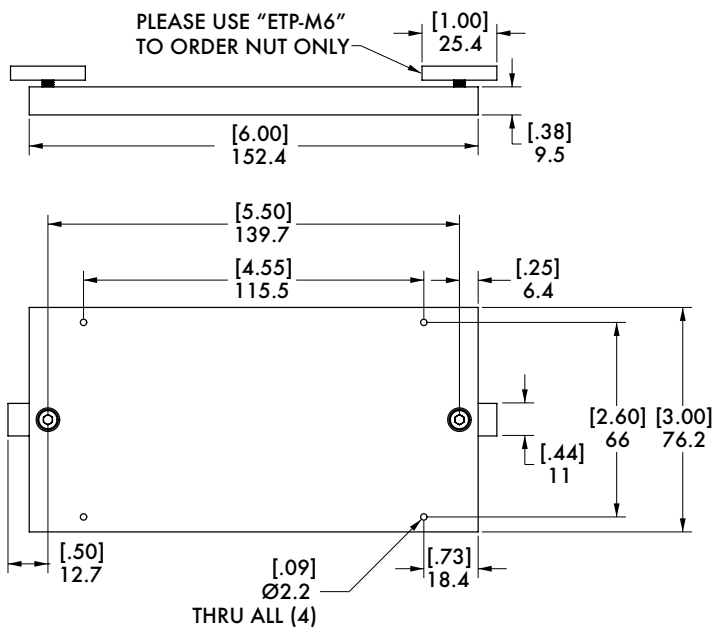
BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## ETP-35 Extrusion Accessory Mount

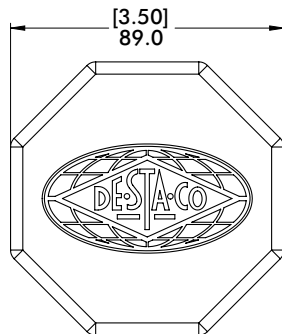


**Specifications:**  
Material: Aluminum

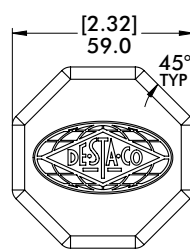


Model Number	Weight
CPI-ETP-35	.31 kg [.68 lb]

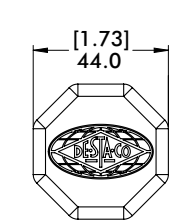
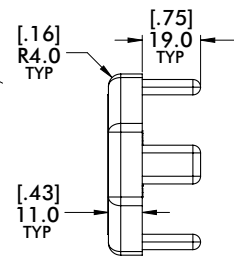
## EC-60 60mm Bodybuilder Octagonal Boom End Cap



End Cap



60mm End Cap



45mm End Cap



Model Number	Weight
CPI-EC-45B	.02 kg [.05 lb]
CPI-EC-60B	.04 kg [.09 lb]
CPI-EC-90B	.09 kg [.20 lb]



# BODYBUILDER™ MID-MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**RMM-30B-40BC-08-90** Single Extrusion 30mm Mid Mount with 40mm Bolt Circle

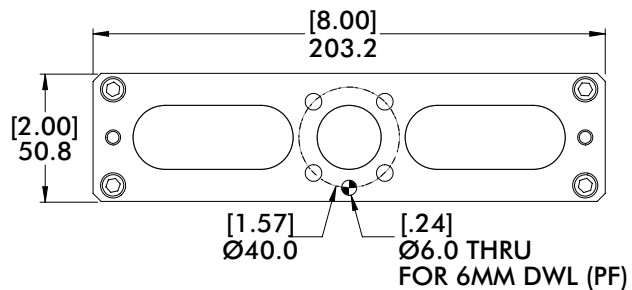
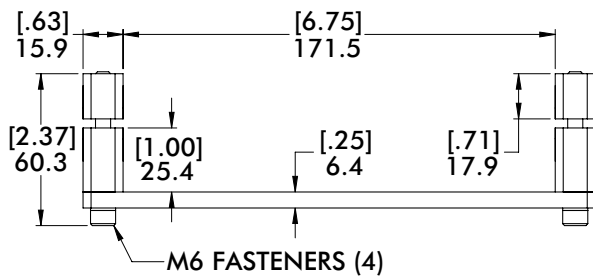
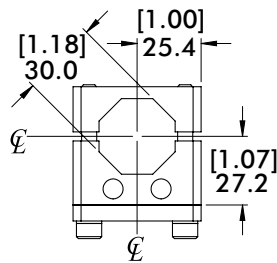
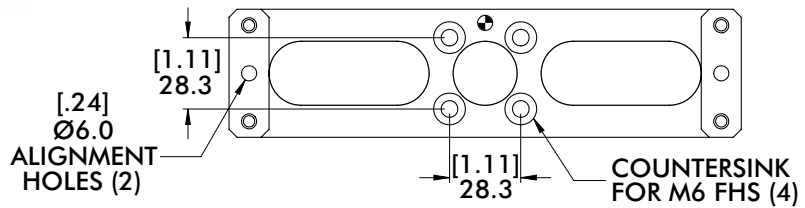
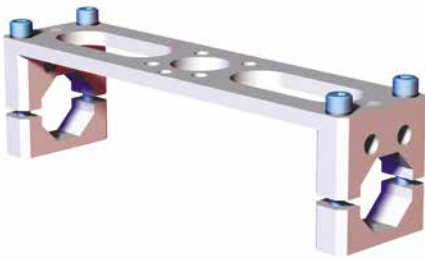


**Specifications:**

Max. Static Product Load:

102 Nm [75 ft-lb]

Material: Aluminum



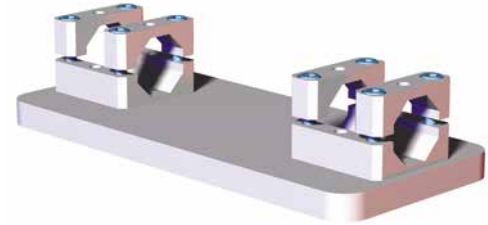
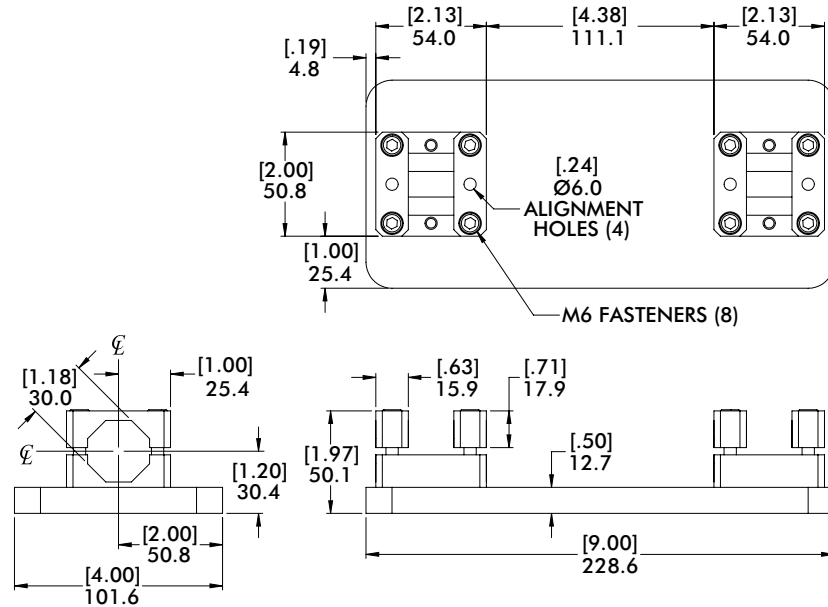
Model Number	Weight
CPI-RMM-30B-40BC-08-90	.28 kg [.62 lb]

# BODYBUILDER™ MID-MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## RMM-30B-SE Single Extrusion 60mm Robot Adaptor Mid Mount

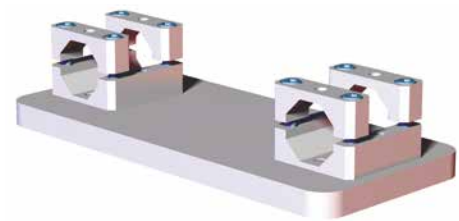
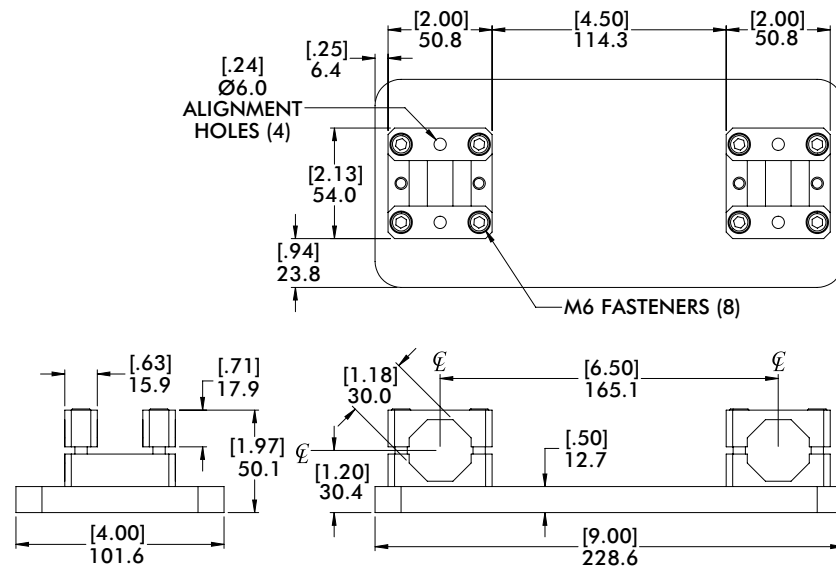


### Specifications:

Max. Static Product Load:  
102 Nm [75 ft-lb] Material:  
Aluminum

Model Number	Weight
CPI-RMM-30B-SE	1.05 kg [2.31 lb]

## RMM-30B-DE Double Extrusion 30mm Robot Adaptor Mid Mount

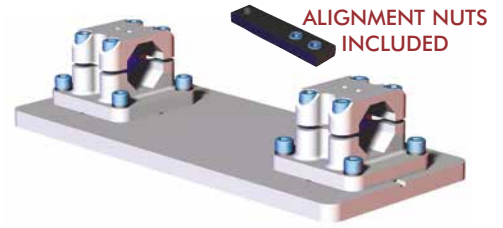
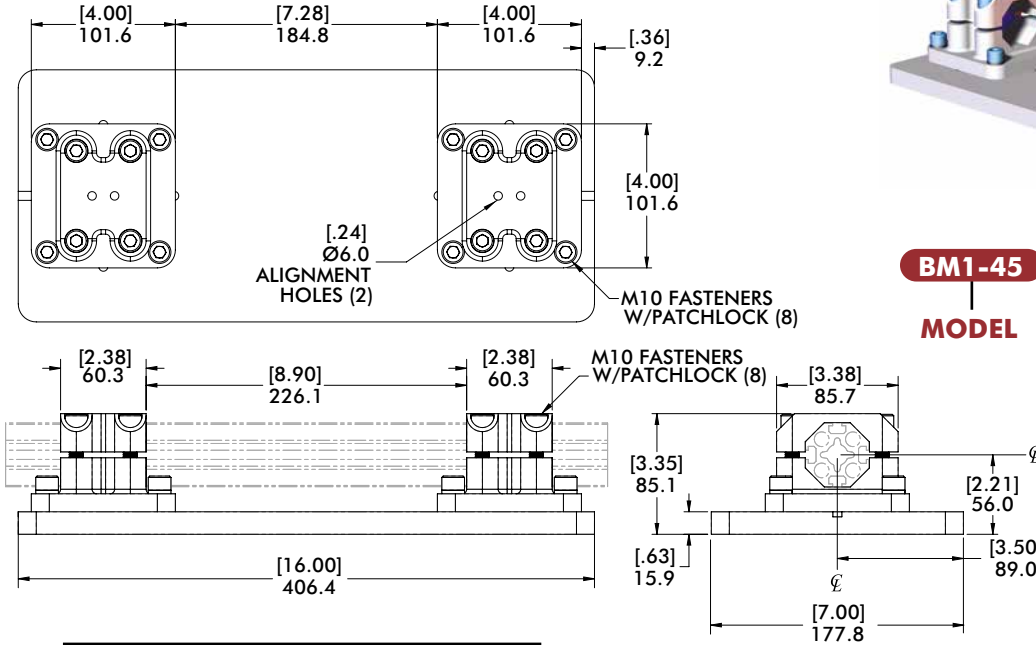


### Specifications:

Max. Static Product Load:  
102 Nm [75 ft-lb] Material:  
Aluminum

Model Number	Weight
CPI-RMM-30B-DE	1.05 kg [2.31 lb]

## BM1-45-SE Single Extrusion 45mm Mid Mount



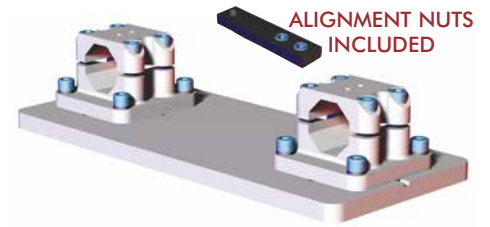
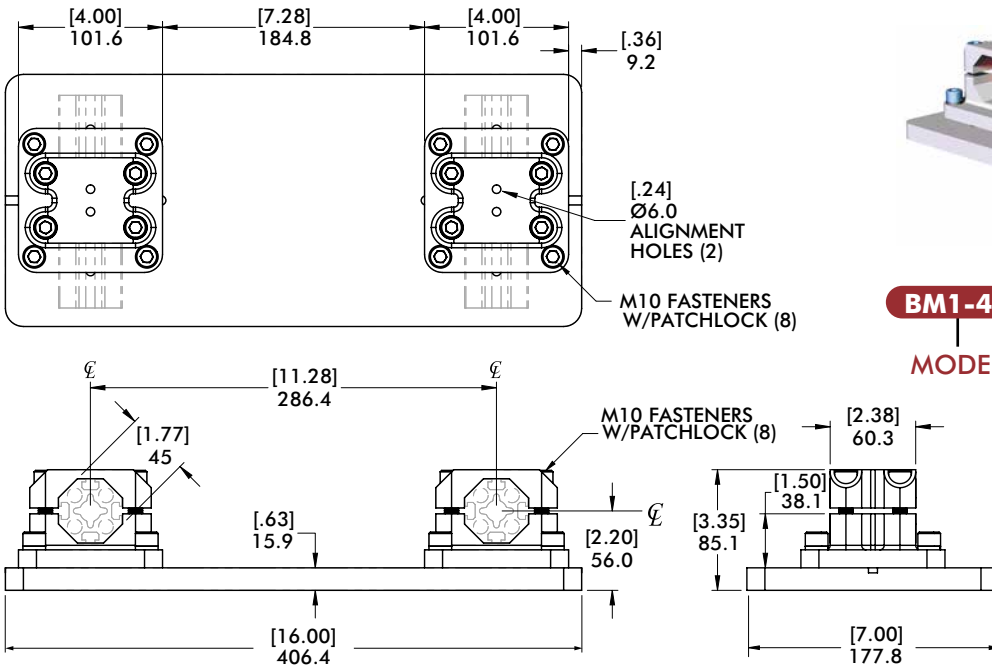
**BM1-45** — **SE** — **RXX**  
**MODEL** — **BOOM SETUP (SINGLE)** — **ROBOT INTERFACE PATTERN (PAGE 19-21)**

**Specifications:**  
 Max. Static Product Load:  
 350 Nm [258 ft-lb]  
 Material: Aluminum

**Weight**  
 5.05 kg [11.1 lb]

Can be supplied with robot interface hole patterns. (See pages 19-21).

## BM1-45-DE Double Extrusion 45mm Mid Mount



**BM1-45** — **DE** — **RXX**  
**MODEL** — **BOOM SETUP (DOUBLE)** — **ROBOT INTERFACE PATTERN (PAGE 19-21)**

**Specifications:**  
 Max. Static Product Load:  
 350 Nm [258 ft-lb]  
 Material: Aluminum

**Weight**  
 5.05 kg [11.1 lb]

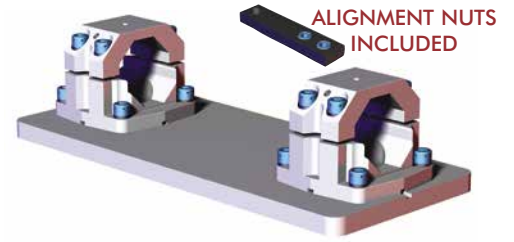
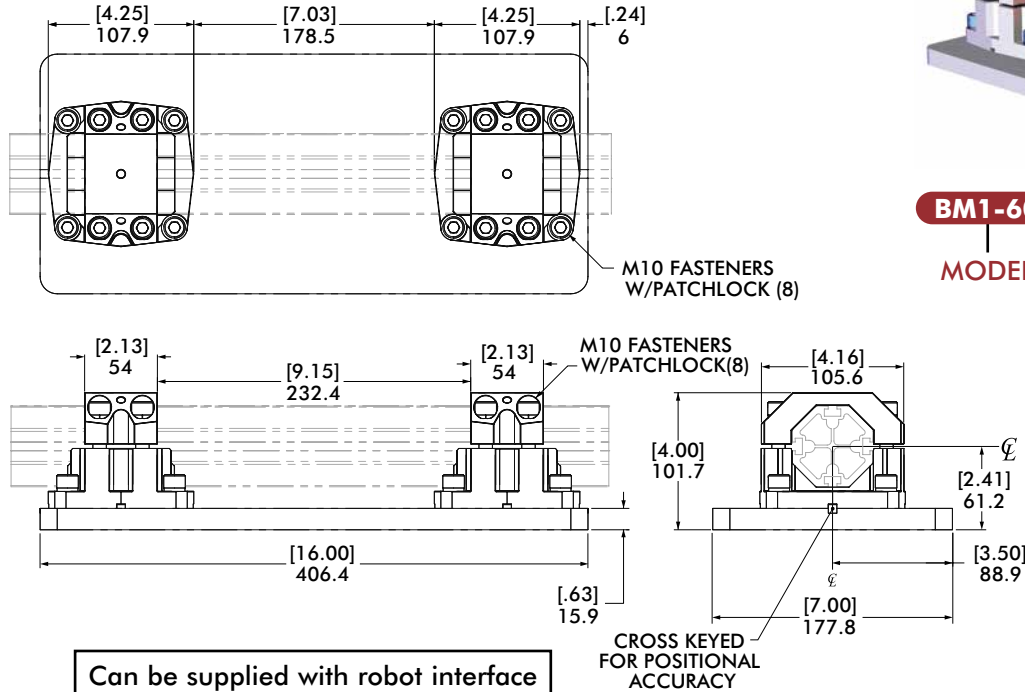
Can be supplied with robot interface hole patterns. (See pages 19-21).

# BODYBUILDER™ MID MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## BM1-60-SE 60mm Single Extrusion Mid Mount Assembly



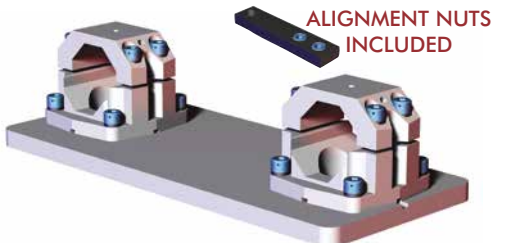
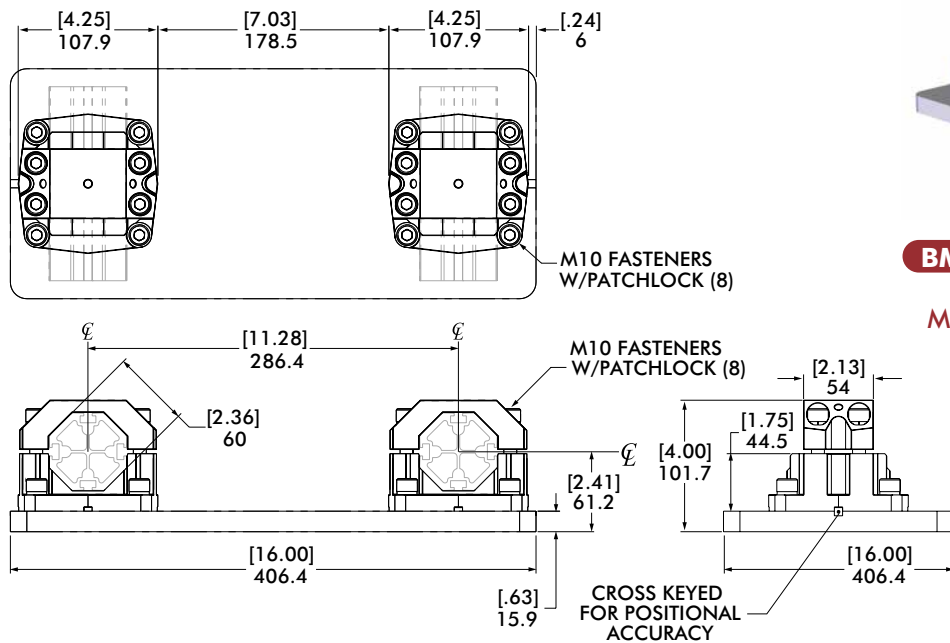
**BM1-60** — **SE** — **RXX**  
**MODEL** — **BOOM SETUP (SINGLE)** — **ROBOT INTERFACE PATTERN (PAGE 19-21)**

**Specifications:**  
 Max. Static Product Load:  
 675 Nm [500 ft-lb]  
 Material: Aluminum

**Weight**  
 5.2 kg [11.5 lb]

Can be supplied with robot interface hole patterns. (See pages 19-21).

## BM1-60-DE 60mm Double Extrusion Mid Mount Assembly



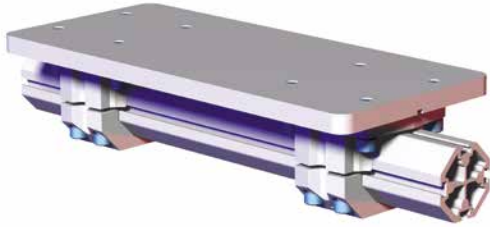
**BM1-60** — **DE** — **RXX**  
**MODEL** — **BOOM SETUP (DOUBLE)** — **ROBOT INTERFACE PATTERN (PAGE 19-21)**

**Specifications:**  
 Max. Static Product Load:  
 675 Nm [500 ft-lb]  
 Material: Aluminum

**Weight**  
 5.2 kg [11.5 lb]

Can be supplied with robot interface hole patterns. (See pages 19-21).

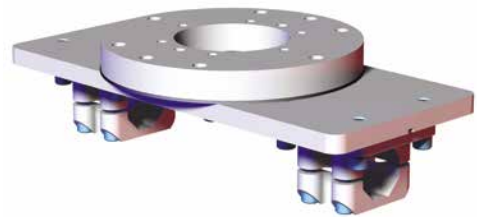
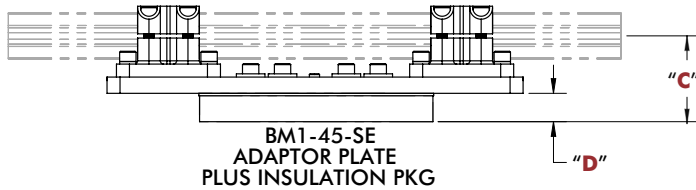
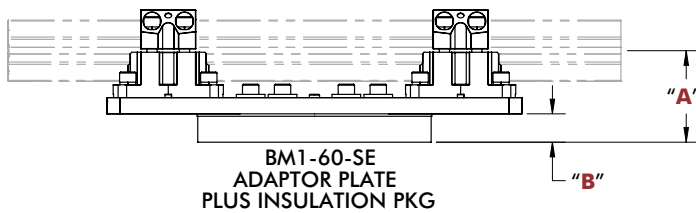
## BM1-45/BM1-60 Mid Mount Assembly - Mount Plate



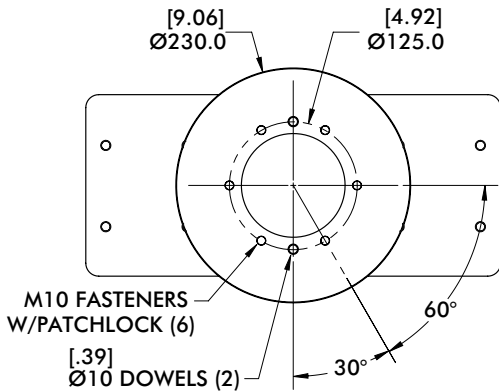
**Specifications:**  
Material: Aluminum

- Features:**
- Can be machined or left blank.
  - Can be supplied with robot interface hole patterns. (See pages 19-21).

## BM1-45/BM1-60 Mid Mount Assembly - Adapter Plate



All mounting patterns on pages 19-21 can be used for **BM1-60** and **BM1-45** Mid Mount Assemblies. All  $\varnothing 200\text{mm}$  mounting patterns, when used on the **BM1-45** and **BM1-60**, includes an Adapter Plate as shown.



### MID MOUNT ASSEMBLY ADAPTER PLATE

PATTERN	"A"	"B"	"C"	"D"
<b>R01, R10, R11, R16</b>	89.6 [3.53]	27.8 [1.09]	83.8 [3.30]	27.8 [1.09]
<b>R07, R09</b>	96.0 [3.78]	34.1 [1.34]	99.6 [3.92]	34.1 [1.34]

# BODYBUILDER™ MID MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## RM4-45 45mm, RM4-60 60mm Heavy Duty Mid Mount Assembly - Dimensions

### Features:

- Can be used as a direct robot interface.
- Provide robust clamping of each extrusion for maximum stability.
- Standard robot interface patterns provided. Plate can also be left blank.

### Specifications:

**Max. Static Product Load:**  
453.6 kg [1000 lb]  
**Material:**  
Mid Mount:  
Cast Aluminum  
Clamps: Steel

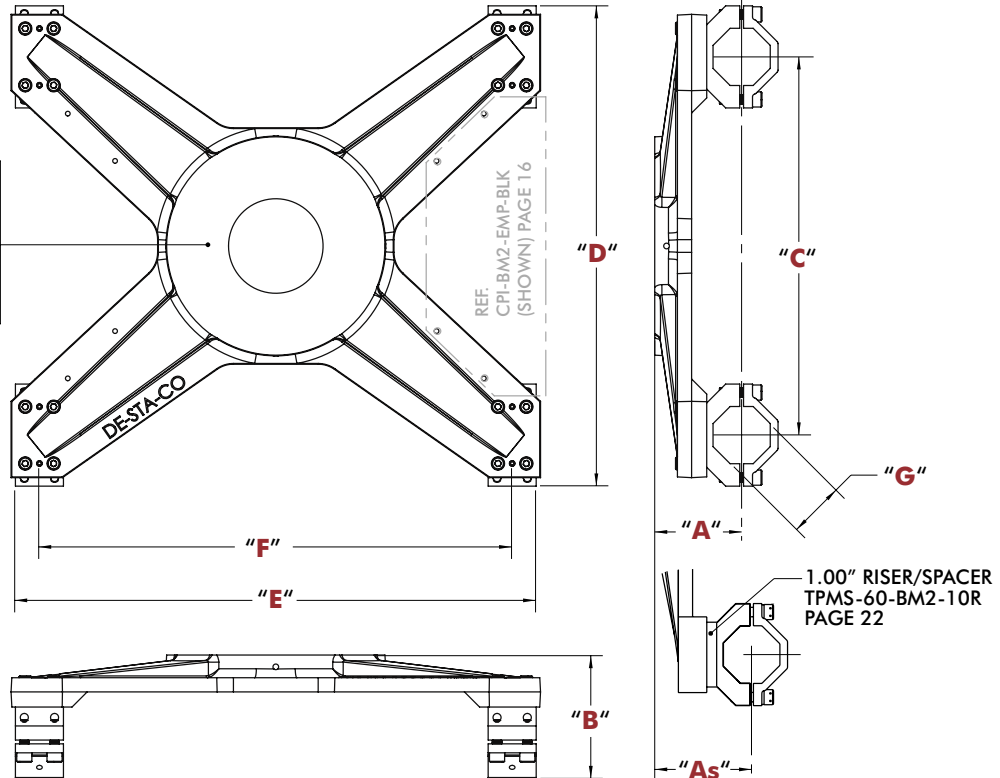


**ROBOT INTERFACE PLATE SHOWN BLANK.**  
PLEASE REFER TO PAGES 20-22 FOR STANDARD ROBOT INTERFACE BOLT PATTERNS & DIMENSIONS

**NOTE:**  
SCREWS AND FASTENERS FOR MOUNTING ARE NOT INCLUDED

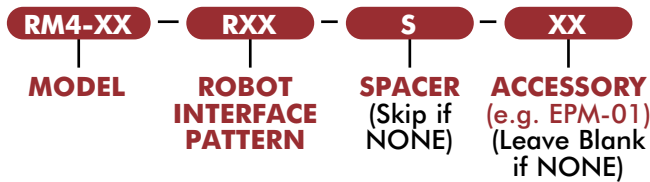
ADD 1.5MM TO "A"/"AS"  
DIM FOR INSULATION PACKAGE IF REQUIRED.

INSULATION PACKAGE INCLUDES:  
(1) INSULATION PLATE, BUSHINGS AND WASHERS



### HEAVY-DUTY MID MOUNT ASSEMBLY DIMENSIONS

Model	"A"	"As"	"B"	"C"	"D"	"E"	"F"	"G"	Weight
<b>RM4-45 (45mm)</b>	85.6 [3.37]	111 [4.37]	117.6 [4.63]	400 [15.75]	490 [19.29]	560 [22.05]	500.0 [19.69]	45	13.6 kg [30.0 lb]
<b>RM4-60 (60mm)</b>	91.9 [3.62]	117.3 [4.62]	131.7 [5.185]	400.0 [15.75]	508 [20.00]	560.8 [22.85]	500.0 [19.69]	60	15.5 kg [34.2 lb]

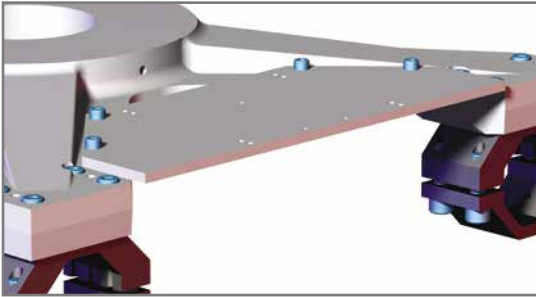




# BODYBUILDER™ MID MOUNT ACCESSORY PLATE

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## BM2-EPM Accessory Mount Plate

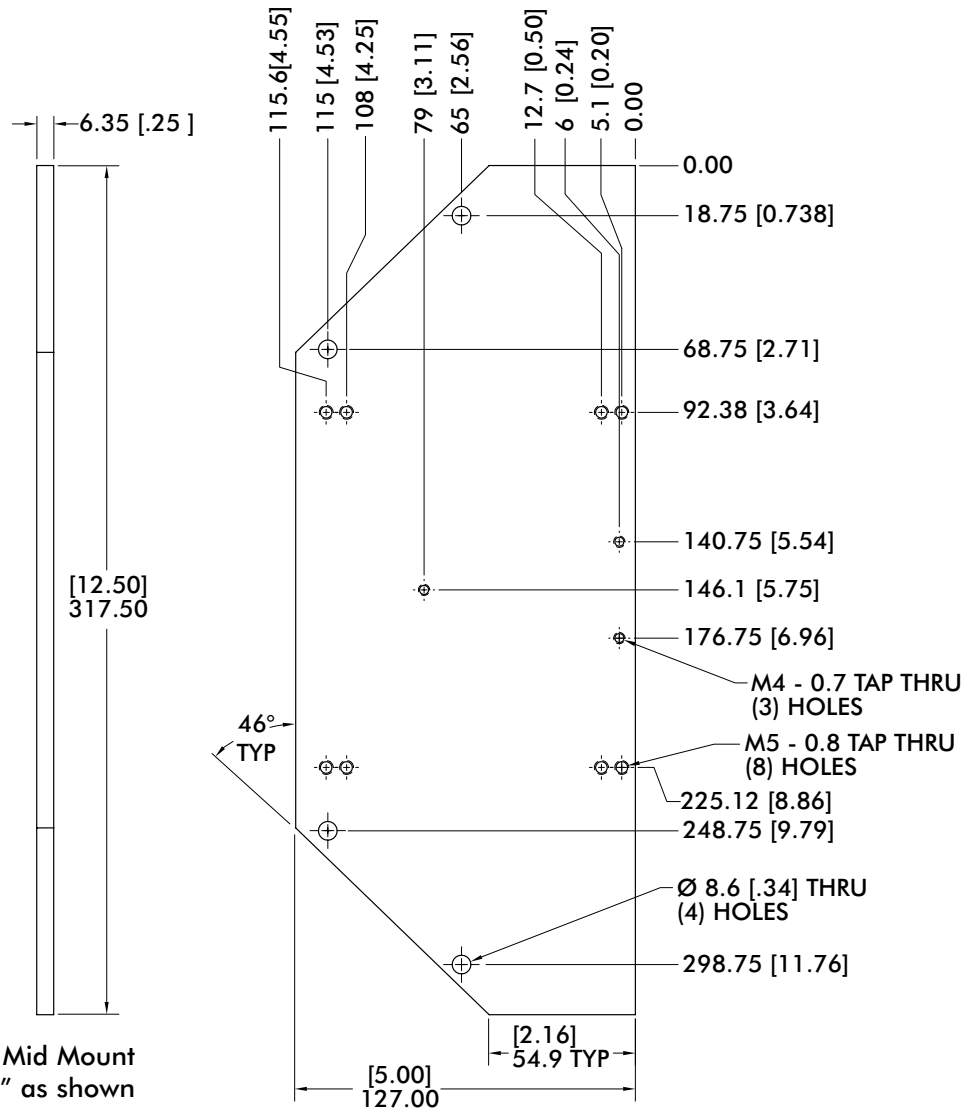


### Specifications:

Material: Aluminum

### Features:

- Mount directly to the RM4-45 or RM4-60 Heavy Duty Mid-Mount Assembly.
- Used to mount pneumatic manifolds and electric proximity blocks.



When ordering with Heavy Duty Mid Mount  
Please add designation "EPM-01" as shown  
RM4-XX-RXX-EPM-01 or  
add designation "EPM-BLK" to order blank  
RM4-XX-RXX-EPM-BLK  
To order separately use Model Number

(A)	Pattern	Model RM4-45/60	Weight
EPM-01	Standard	CPI-BM2-EPM-01	.63 kg [1.39 lb]
EPM-BLK	Blank	CPI-BM2-EPM-BLK	



# BODYBUILDER™ STRUCTURE MID MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## BM3-90 90mm Heavy Duty Mid Mount Assembly - Dimensions

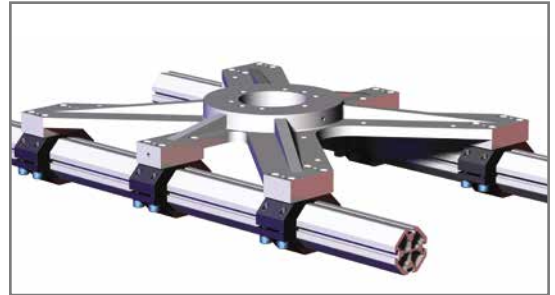
### Features:

- Can be used as a direct robot interface.
- Provide robust clamping of each extrusion for maximum stability.
- Standard robot interface patterns provided. Plate can also be left blank.

### Specifications:

**Max. Static Product Load:**  
589.7 kg [1300 lb]

**Material:**  
Mid Mount:  
Cast Aluminum  
Clamps: Steel

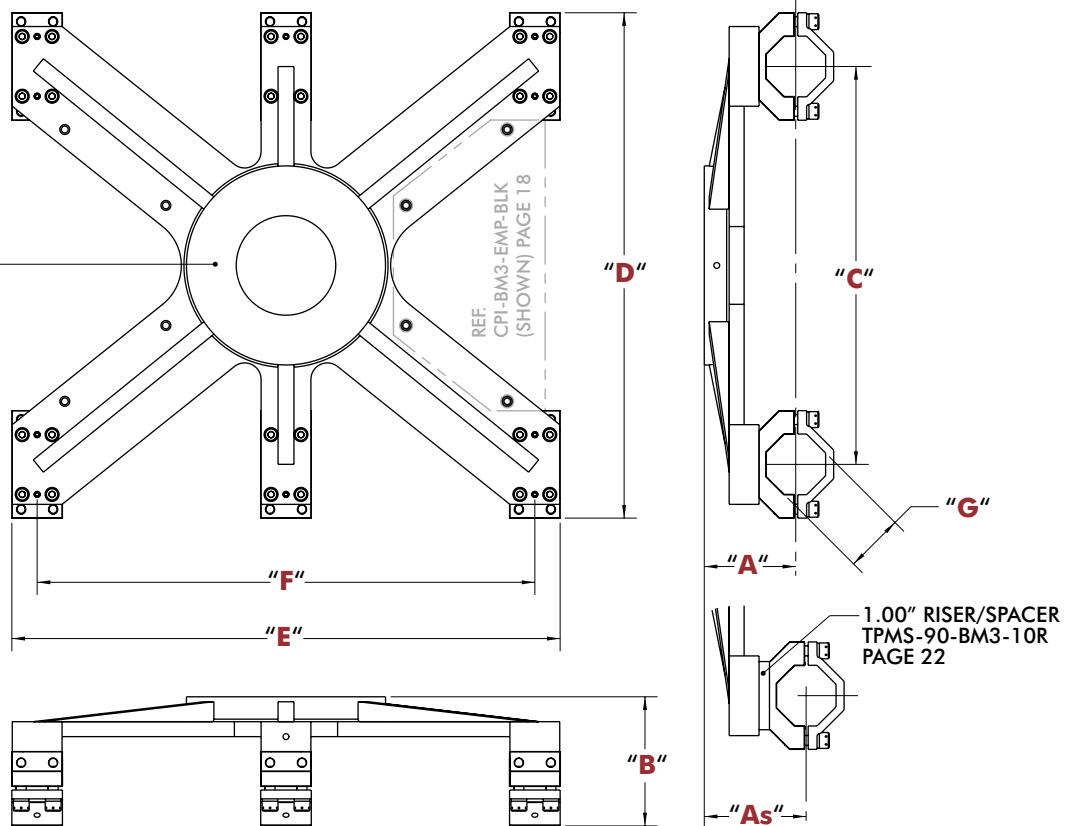


**ROBOT INTERFACE PLATE SHOWN BLANK.**  
PLEASE REFER TO PAGES 19-21 FOR STANDARD ROBOT INTERFACE BOLT PATTERNS & DIMENSIONS

**NOTES:**  
SCREWS AND FASTENERS FOR MOUNTING ARE NOT INCLUDED

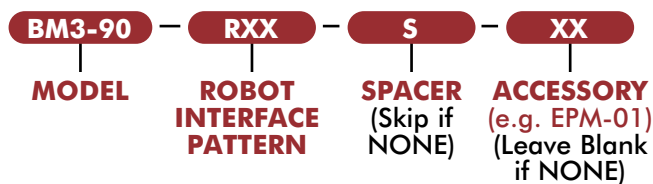
ADD 1.5MM TO "A"/"AS"  
DIM FOR INSULATION PACKAGE IF REQUIRED.

INSULATION PACKAGE INCLUDES:  
(1) INSULATION PLATE, BUSHINGS AND WASHERS



### HEAVY-DUTY MID MOUNT ASSEMBLY DIMENSIONS

Model	"A"	"As"	"B"	"C"	"D"	"E"	"F"	"G"	Weight
<b>BM3-90</b>	107.8 [4.24]	133.2 [5.24]	165.3 [6.51]	600.0 [23.62]	738.0 [29.06]	750.0 [29.53]	700.0 [29.53]	90	24.1 kg [53.1 lb]

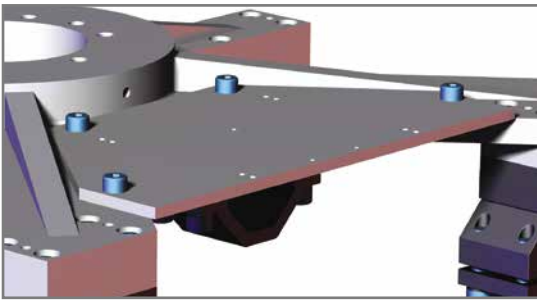




# BODYBUILDER™ MID MOUNT ACCESSORY PLATE

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## BM3-EPM Accessory Mount Plate

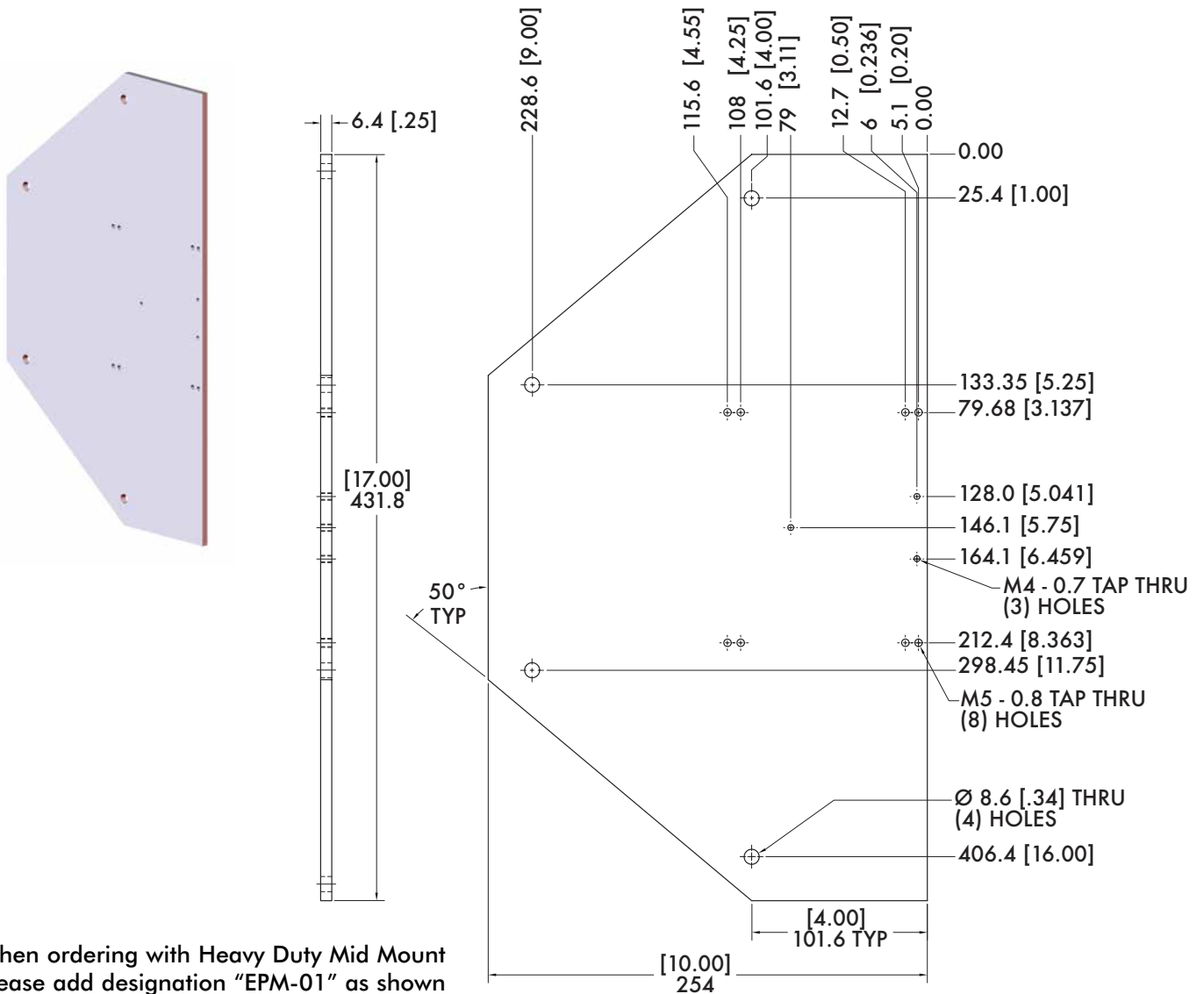


### Specifications:

Material: Aluminum

### Features:

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



When ordering with Heavy Duty Mid Mount Please add designation "EPM-01" as shown BM3-90-RXX-EPM-01 or add designation "EPM-BLK" to order blank BM3-90-RXX-EPM-BLK

To order separately use Model Number

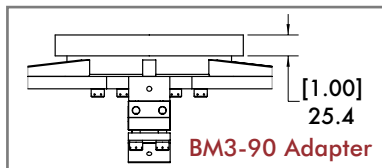
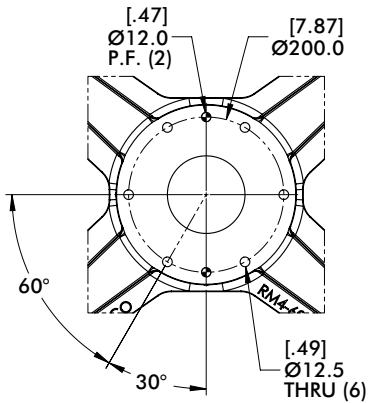
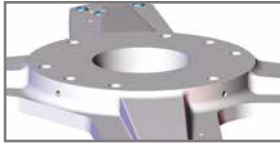
Model Number	Weight
CPI-BM3-EPM-xx	1.54 kg [3.39 lb]

# BODYBUILDER™ MID MOUNT BOLT PATTERNS

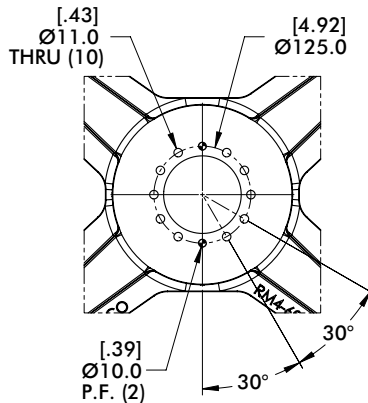
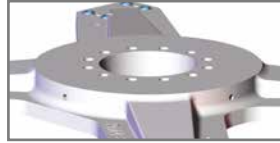
BodyBuilder™ Octagonal Tooling | Robot Interface Bolt Patterns



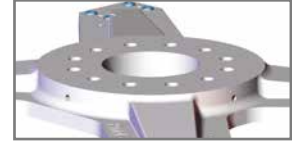
**R01 (Ø200mm Bolt Circle)**



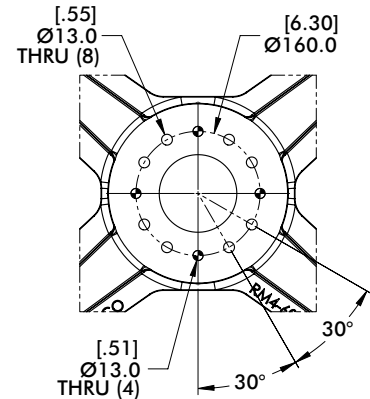
**R02 (Ø125mm Bolt Circle)**



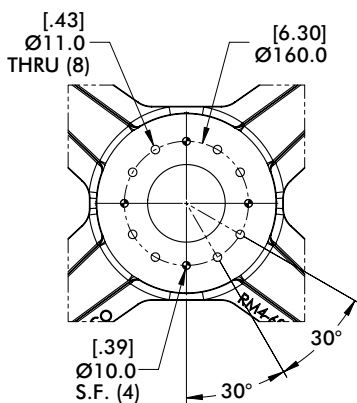
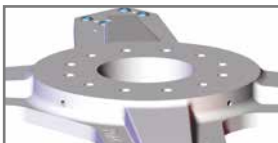
**R03 (Ø160mm Bolt Circle)**



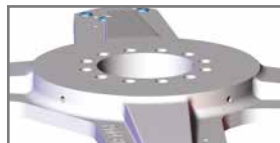
**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"



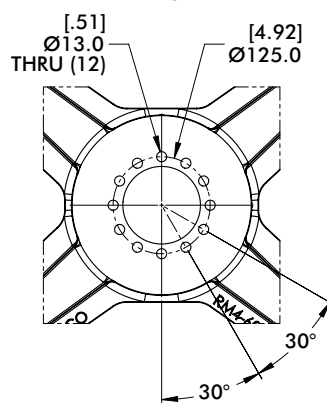
**R04 (Ø160mm Bolt Circle)**



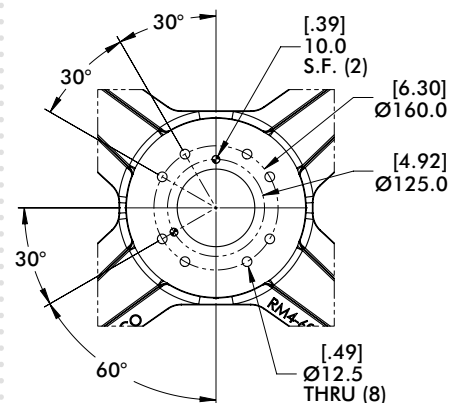
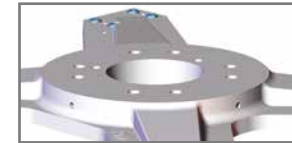
**R05 (Ø125mm Bolt Circle)**



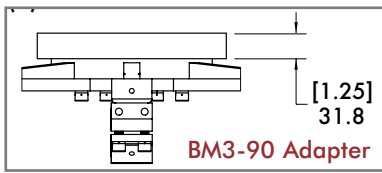
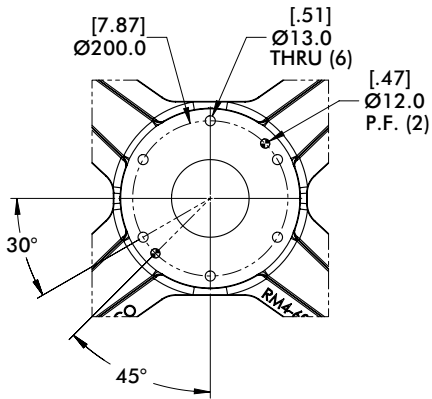
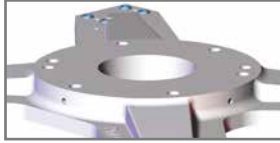
**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"



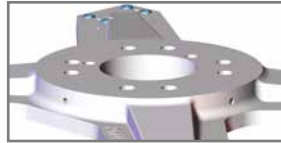
**R06 (Ø125/160mm Bolt Circle)**



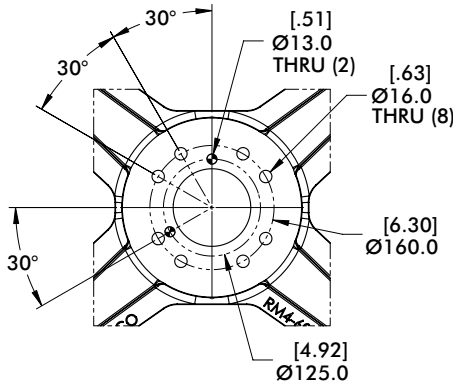
**R07 (Ø200mm Bolt Circle)**



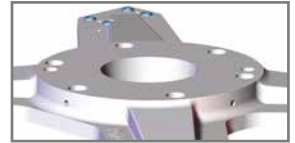
**R08 (Ø125/160mm Bolt Circle)**



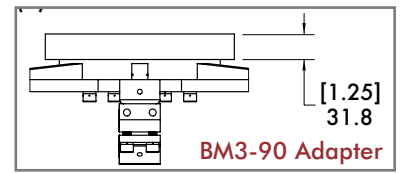
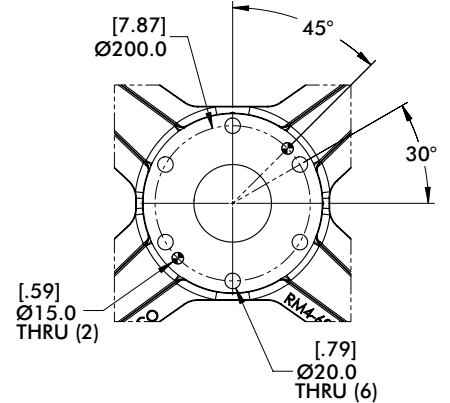
**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"



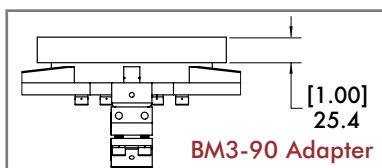
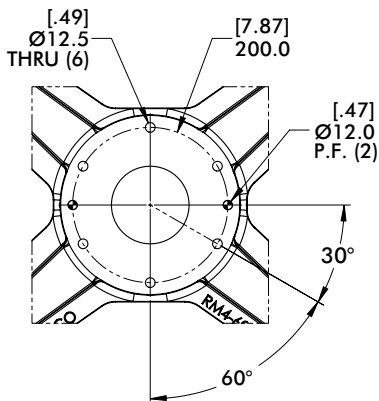
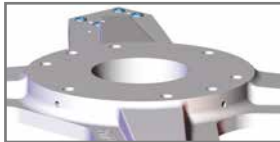
**R09 (Ø200mm Bolt Circle)**



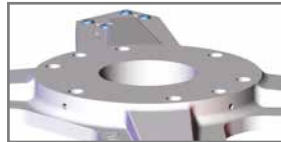
**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"



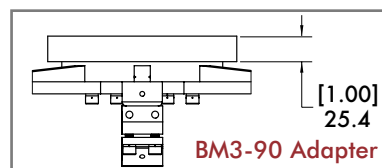
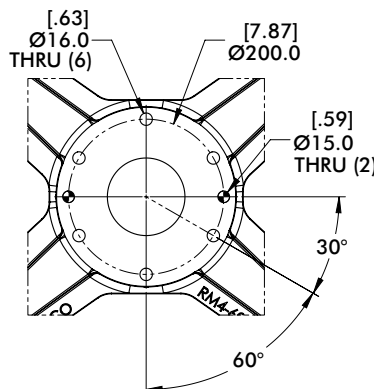
**R10 (Ø200mm Bolt Circle)**



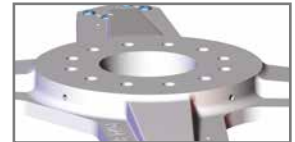
**R11 (Ø200mm Bolt Circle)**



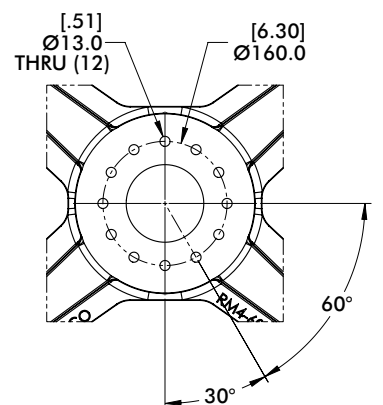
**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"



**R12 (Ø160mm Bolt Circle)**



**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"

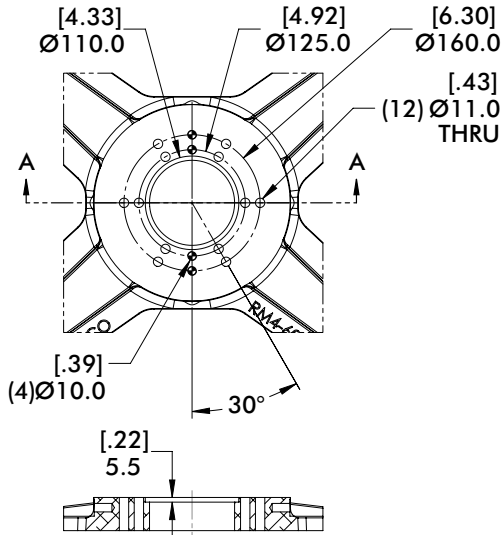
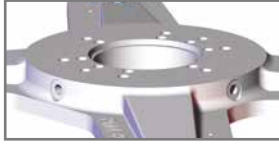


# BODYBUILDER™ MID MOUNT BOLT PATTERNS

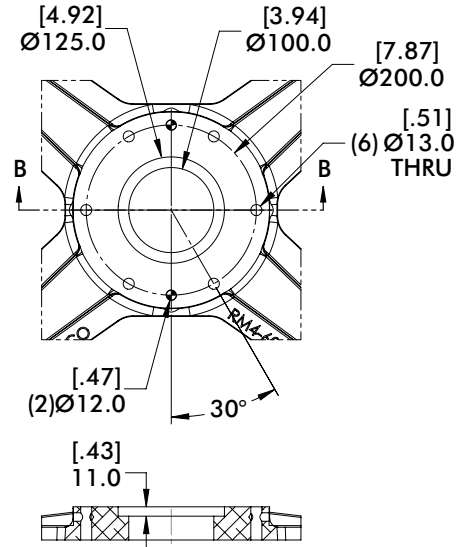
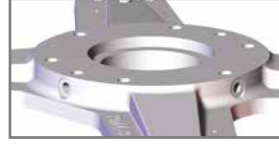
BodyBuilder™ Octagonal Tooling | Robot Interface Bolt Patterns



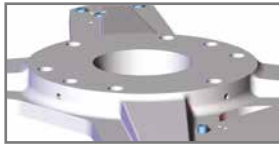
**R13 (Ø125/160mm Bolt Circle)  
(Ø110mm Pilot, 5.5mm Deep)**



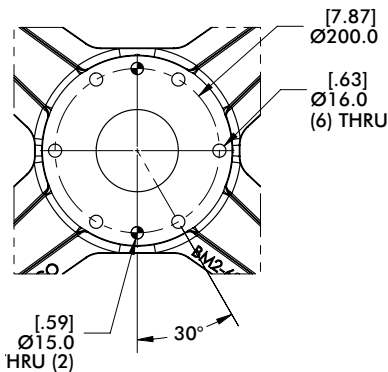
**R14 (Ø200mm Bolt Circle)  
(Ø125mm Pilot, 11mm Deep)**



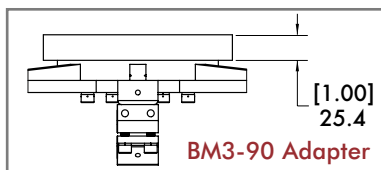
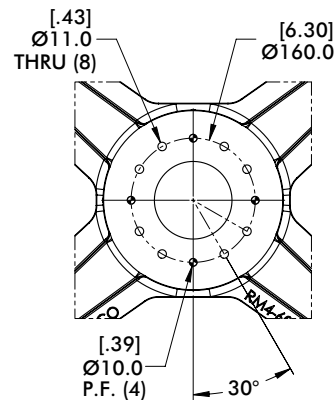
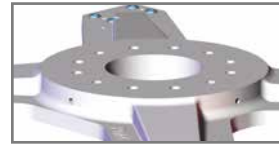
**R16 (Ø200mm Bolt Circle)**



**Includes Insulation**  
Add 1.5mm to Height Dim "A"/"AS"



**R17 (Ø160mm Bolt Circle)**

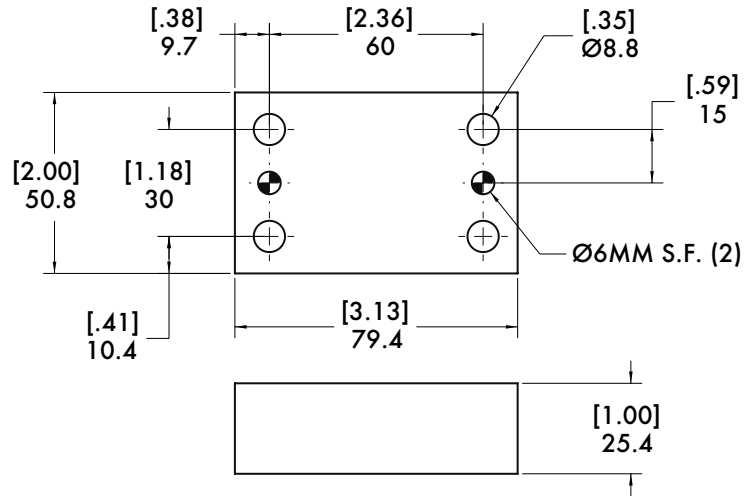
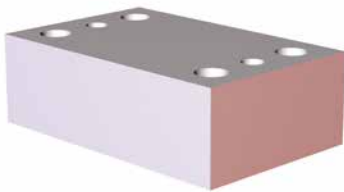
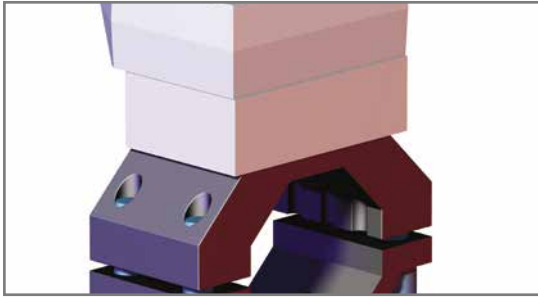




# BODYBUILDER™ MID MOUNT RISERS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## RM4-60 Heavy Duty Mid Mount Assembly - 1.00" Riser/Spacer



When ordering with Heavy Duty Mid Mount add designation (S) as shown:

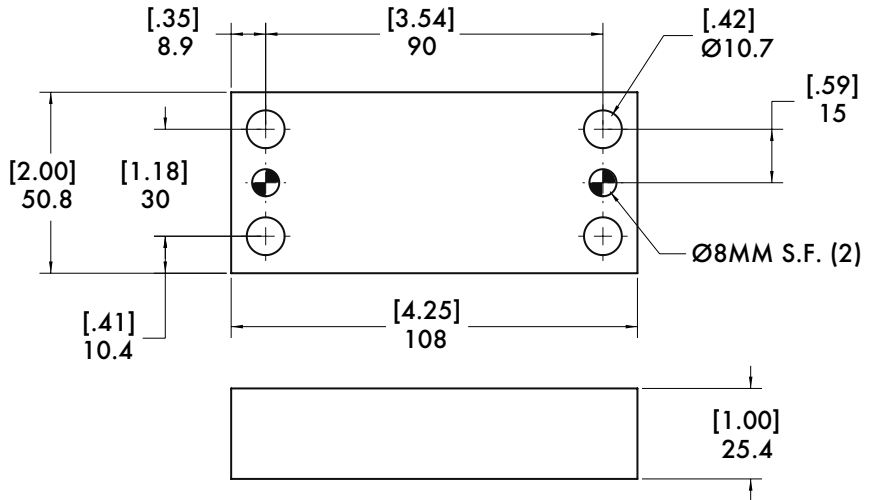
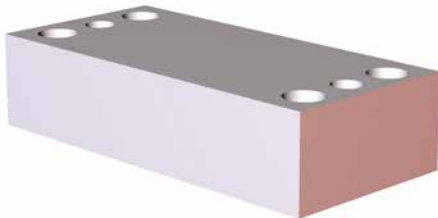
RM4-60-RXX-S

To order Riser separately use Model Number.

Riser for	Model	Weight
RM4-45/60	TPMS-60-BM2-10R	.26 kg [.56 lb]

**Specifications:**  
Material: Aluminum

## BM3-90 Heavy Duty Mid Mount Assembly - 1.00" Riser/Spacer



When ordering with Heavy Duty Mid Mount add designation (S) as shown:

BM3-90-RXX-S

To order Riser separately use Model Number.

Model Number	Weight
TPMS-90-BM3-10R	.34 kg [.76 lb]

**Specifications:**  
Material: Aluminum

# BODYBUILDER™ HOLD TABLE

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



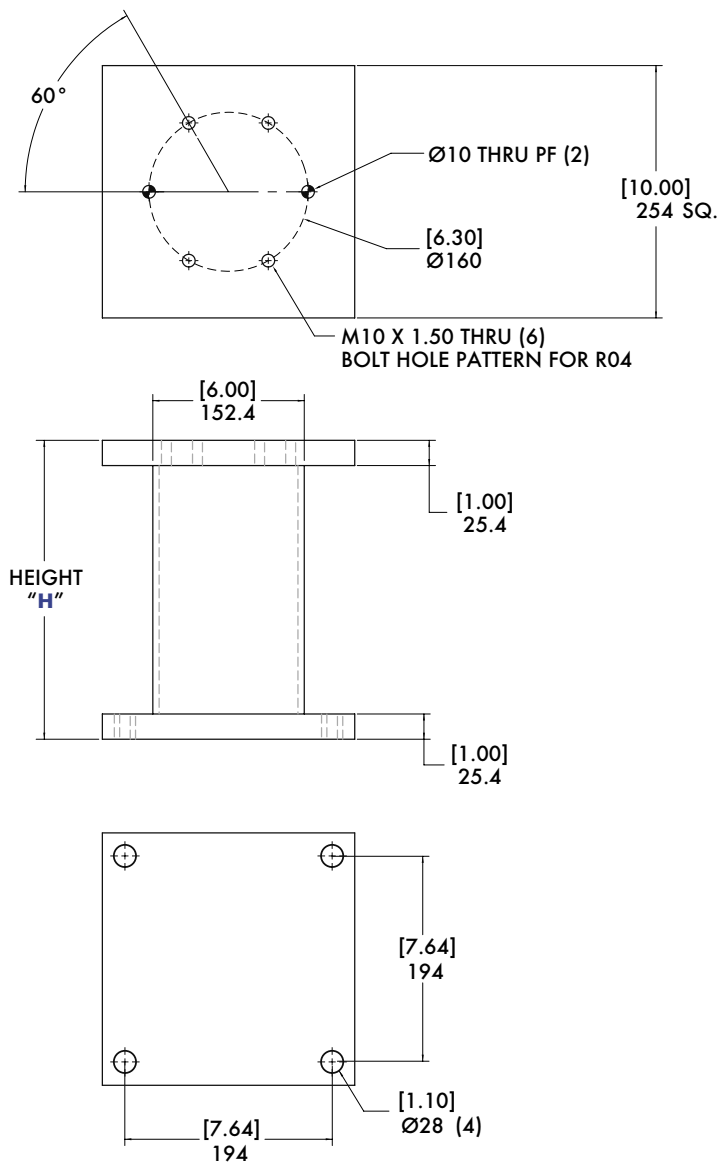
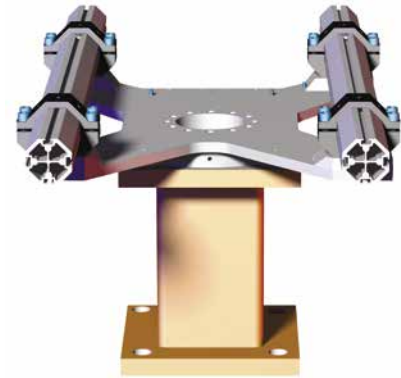
## HTW 6" SQ. Pedestal Hold Table Weldment

### Features:

- Pedestal Hold Table Weldment when used in conjunction with Mid Mount assemblies serves as a pedestal base for a robust parts nest.

### Specifications:

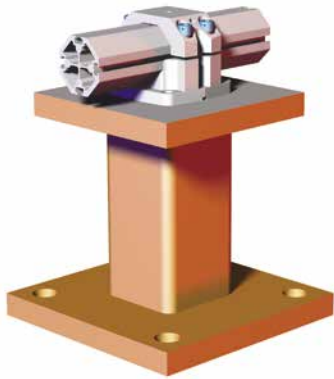
Material: Steel



### CPI-HTW-"H" HOLD TABLE WELDMENT

"H"	Model Number	Weight
250	<b>CPI-HTW-250</b>	32.43 kg [71.30lb]
300	<b>CPI-HTW-300</b>	33.75 kg [74.40lb]
350	<b>CPI-HTW-350</b>	35.16 kg [77.50lb]
400	<b>CPI-HTW-400</b>	36.56 kg [80.60lb]
450	<b>CPI-HTW-450</b>	37.97 kg [83.70lb]
500	<b>CPI-HTW-500</b>	39.37 kg [86.81lb]
550	<b>CPI-HTW-550</b>	40.78 kg [89.91lb]
600	<b>CPI-HTW-600</b>	42.19 kg [93.01lb]
650	<b>CPI-HTW-650</b>	43.59 kg [96.11lb]
700	<b>CPI-HTW-700</b>	45.00 kg [99.21lb]
750	<b>CPI-HTW-750</b>	46.41 kg [102.31lb]
800	<b>CPI-HTW-800</b>	47.81 kg [105.41lb]
850	<b>CPI-HTW-850</b>	49.22 kg [108.51lb]
900	<b>CPI-HTW-900</b>	50.62 kg [111.61lb]

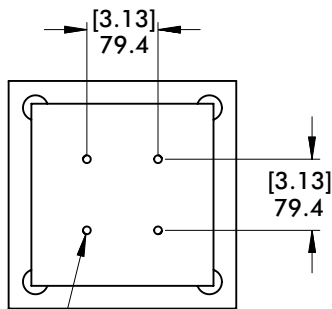
## HTW-4 4" SQ. Pedestal Hold Table Weldment



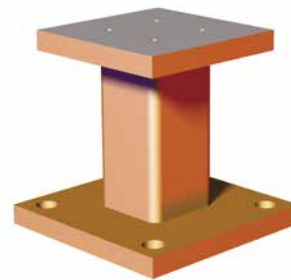
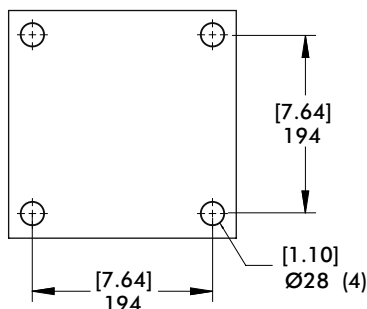
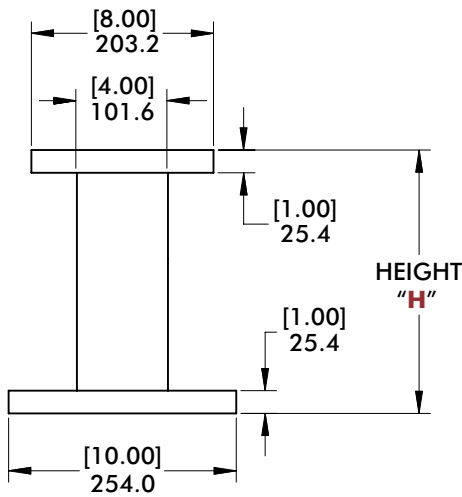
**Specifications:**  
Material: Steel

**Features:**

- Pedestal Hold Table Weldment when used in conjunction with 45mm or 60mm flange and end mount assemblies serves as a pedestal base for a robust parts nest.



M10 X 1.50 THRU (6)  
HOLE PATTERN FOR  
TBC-60-00 AND  
TBC-45-00



### CPI-HTW-"H"-4 HOLD TABLE WELDMENT

"H"	Model Number	Weight
250	CPI-HTW-250-4	24.02 kg [52.97lb]
300	CPI-HTW-300-4	24.93 kg [54.96lb]
350	CPI-HTW-350-4	25.83 kg [56.95lb]
400	CPI-HTW-400-4	26.73 kg [58.94lb]
450	CPI-HTW-450-4	27.63 kg [60.93lb]
500	CPI-HTW-500-4	28.54 kg [62.92lb]
550	CPI-HTW-550-4	29.44 kg [63.82lb]
600	CPI-HTW-600-4	30.35 kg [66.90lb]
650	CPI-HTW-650-4	31.25 kg [68.89lb]
700	CPI-HTW-700-4	32.15 kg [70.88lb]
750	CPI-HTW-750-4	33.05 kg [72.87lb]
800	CPI-HTW-800-4	33.96 kg [74.87lb]
850	CPI-HTW-850-4	34.86 kg [76.86lb]
900	CPI-HTW-900-4	35.76 kg [78.85lb]

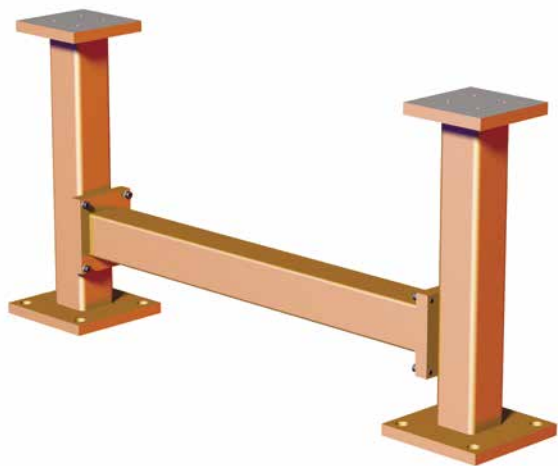
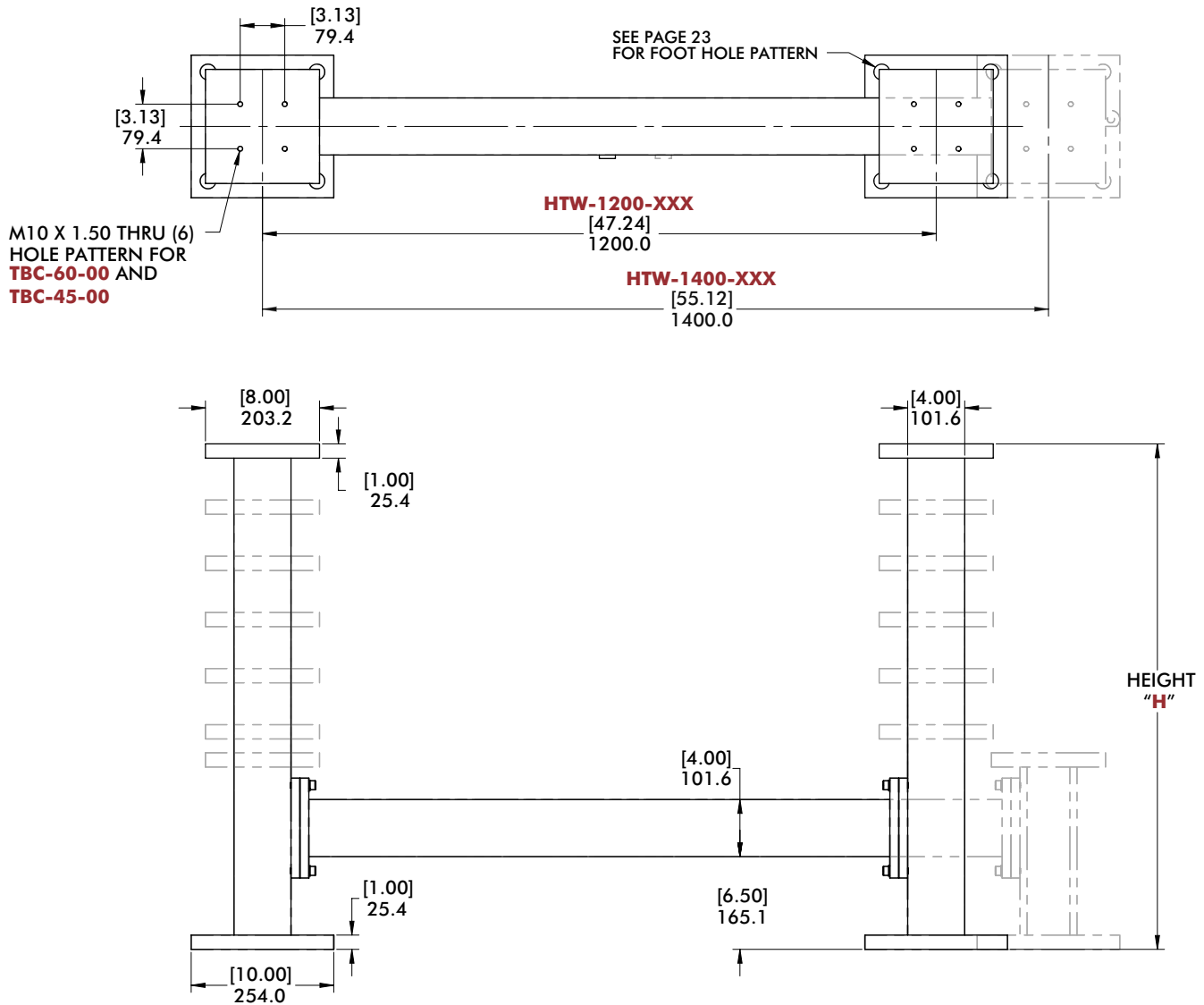


# BODYBUILDER™ HOLD TABLE

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



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



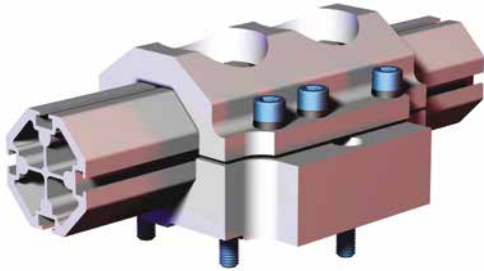
CPI-"MODEL"- "H" PASS THROUGH TABLE WELDMENT				
" H "	"Model"	Weight	"Model"	Weight
350	<b>HTW-1200</b>	84.62 kg [186.55lb]	<b>HTW-1400</b>	88.39 kg [194.87lb]
400	<b>HTW-1200</b>	86.42 kg [190.53lb]	<b>HTW-1400</b>	90.02 kg [198.85lb]
500	<b>HTW-1200</b>	90.04 kg [198.50lb]	<b>HTW-1400</b>	93.81 kg [206.82lb]
600	<b>HTW-1200</b>	93.65 kg [206.46lb]	<b>HTW-1400</b>	97.42 kg [214.78lb]
700	<b>HTW-1200</b>	97.26 kg [214.42lb]	<b>HTW-1400</b>	101.04 kg [222.74lb]
800	<b>HTW-1200</b>	100.87 kg [222.39lb]	<b>HTW-1400</b>	104.65 kg [230.71lb]
900	<b>HTW-1200</b>	104.49 kg [230.35lb]	<b>HTW-1400</b>	108.26 kg [238.67lb]



# BODYBUILDER™ MID MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## ATI-151-90HD-60BB 60mm Mid Mount



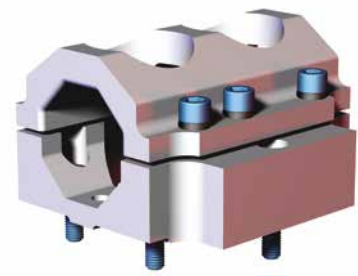
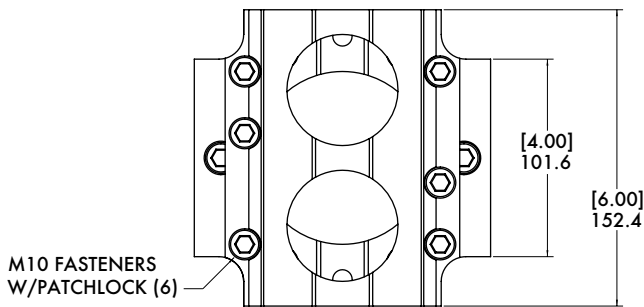
### Specifications:

**Max. Static Product Load:**  
746 Nm [550 ft-lb]

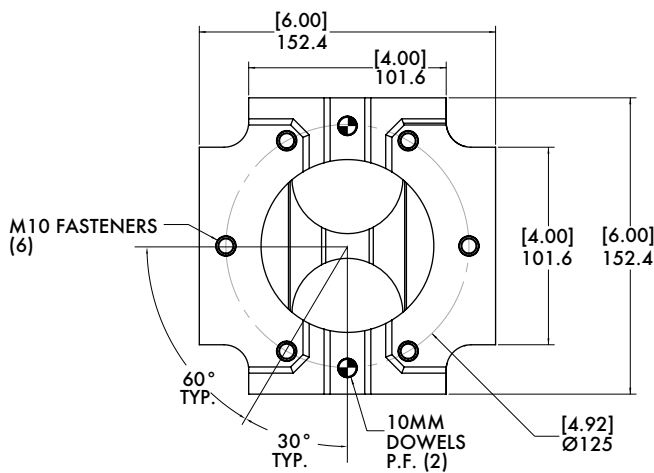
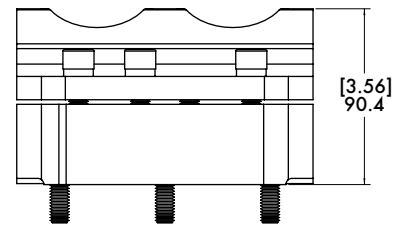
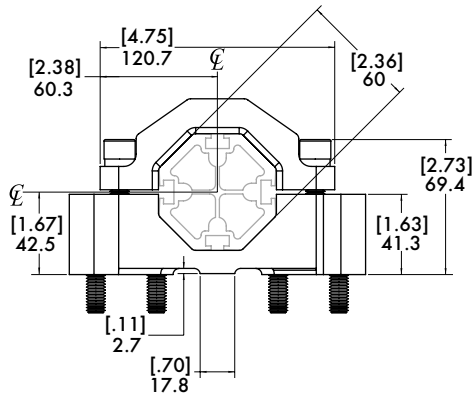
**Material:** Aluminum

### Features:

- Can be used as direct robot interface.



Fasteners included, Dowels not included



Model Number	Weight
<b>CPI-ATI-151-90HD-60BB</b>	<b>3.22 kg [7.10 lb]</b>

# BODYBUILDER™ MID MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



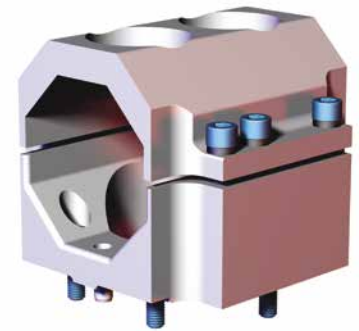
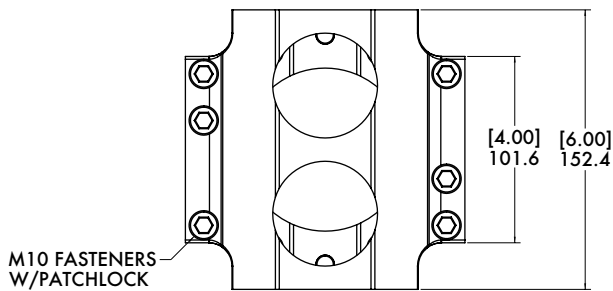
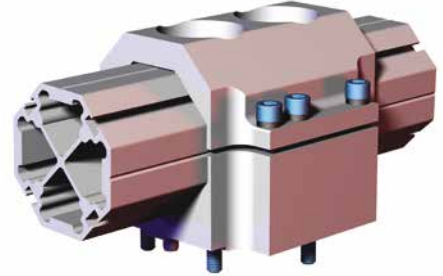
## ATI-151-90HD-90BB 90mm Mid Mount

### Features:

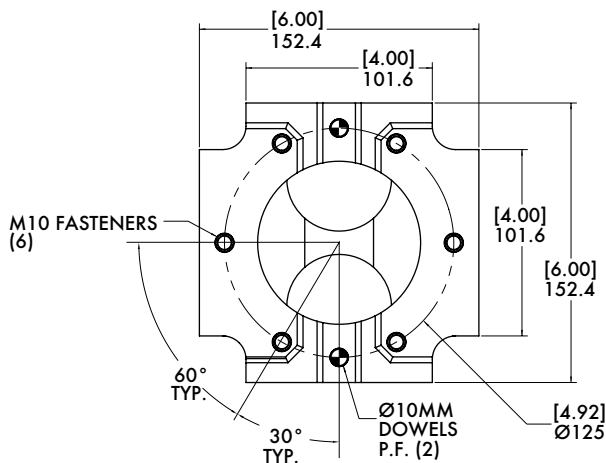
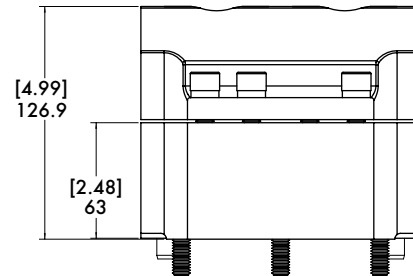
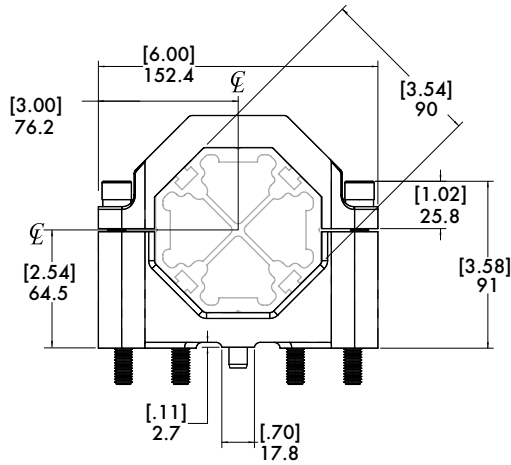
- Can be used as direct robot interface.

### Specifications:

**Max. Static Product Load:**  
1355 Nm [1000 ft-lb]  
**Material:** Aluminum



Fasteners and Dowels Included



Model Number	Weight
CPI-ATI-151-90HD-90BB	2.89 kg [6.38 lb]



# BODYBUILDER™ END MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## CL-90B-160F 90mm End Mount



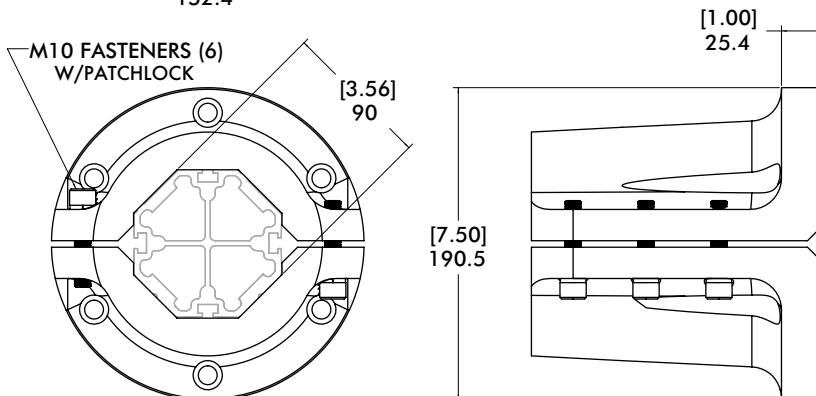
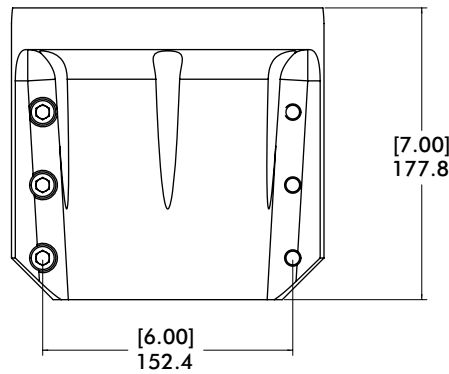
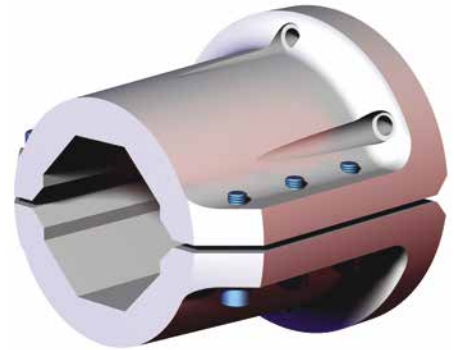
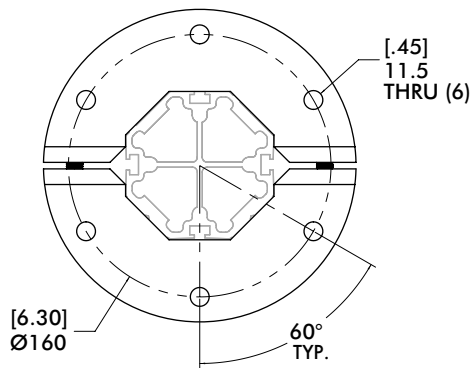
### Specifications:

**Max. Static Clamp Load:**  
746 Nm [550 ft-lb]

**Material:** Aluminum

### Features:

- Can be used as direct robot interface.



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

# BODYBUILDER™ BAYONETS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## RDCF-60B 60mm BodyBuilder™ Bayonet

### Features:

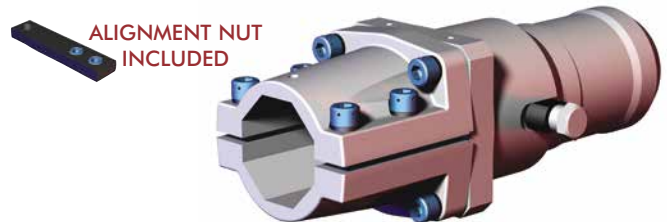
- Used in conjunction with Quick Disconnect Housing to provide an efficient method for changing tools manually.
- Two, hardened alignment pins allow quick and accurate installation into the housing.
- Optional 4-port air and electric available.

### Specifications:

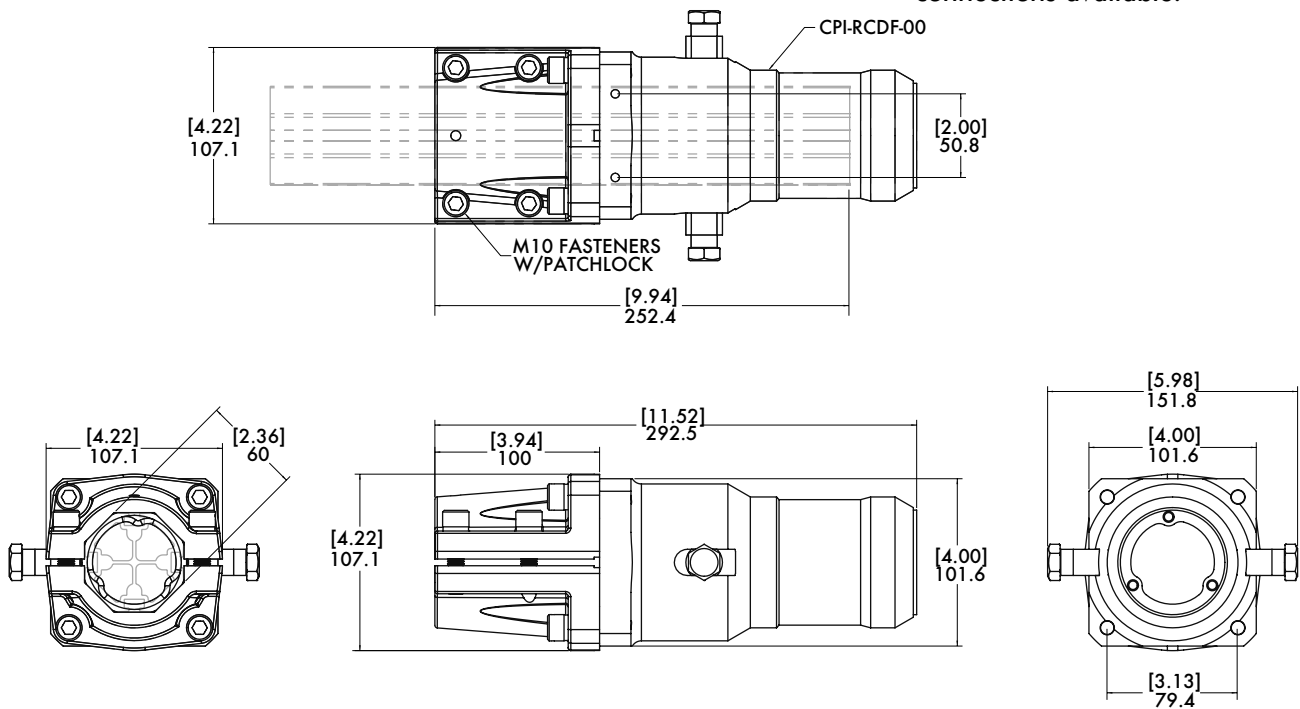
**Max. Static Product Load:**  
746 Nm [550 ft-lb]  
**Material:**  
Body: Aluminum  
Pins: Steel



Used in conjunction with Quick Disconnect Housing to provide an efficient method for changing tools manually.



Optional 4-port air and electric connections available.



Model Number	Weight
CPI-RDCF-60B-00-00-X	3.16 kg [6.96 lb]

# BODYBUILDER™ STRUCTURE END MOUNT ASSEMBLIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## RDN-25-6 Manual Quick Disconnect Housing



### Specifications:

**Max. Static Product Load:**  
746 Nm [550 ft-lb]

### Material:

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

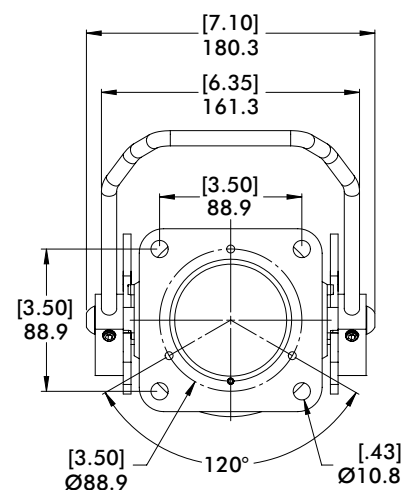
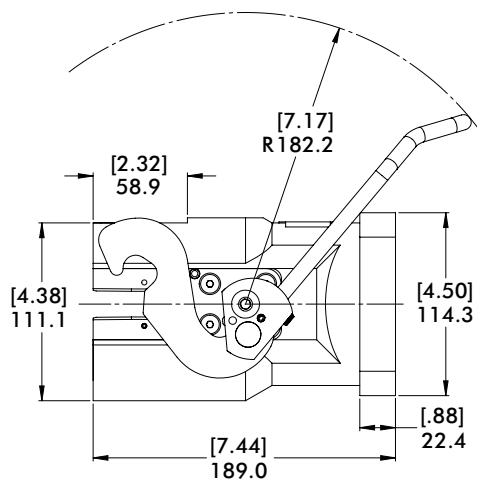
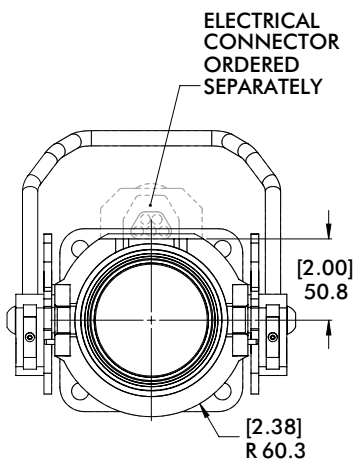
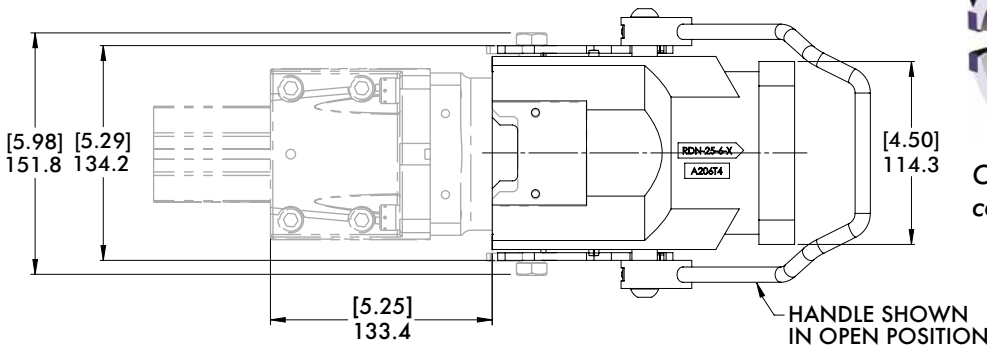
### Features:

- Actuation of handle allows quick and accurate installation by pulling the bayonet into a fixed position within the housing.
- The internal rings eliminate vibration and seat the bayonet into a clamped position.
- Hardened steel retainer slots reduce wear and extend product life.

Used in conjunction with 60 mm BodyBuilder™ Bayonet to provide an efficient method for changing tools manually.



Optional 4-port air and electric connections available.



Model Number	Weight
CPI-RDN-25-6	4.00 kg [8.90 lb]

# BODYBUILDER™ ALIGNMENT SYSTEM

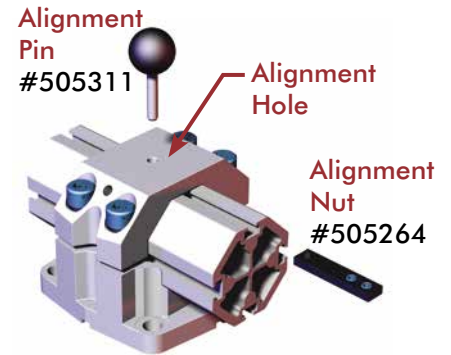


BodyBuilder™ Octagonal Tooling | Explaining the Patented Alignment System

BodyBuilder™ Robotic Tooling System offers a patented alignment system, ensuring that all BodyBuilder™ components can be adjusted to the original set-up position.

Once the BodyBuilder™ structure bracket mount is secured into place during set-up, insert the alignment nut into the octagonal boom channel groove.

Be sure the alignment nut is inserted so that when it is slid under the bracket mount, the set screws can still be accessed outside the bracket mount as shown.

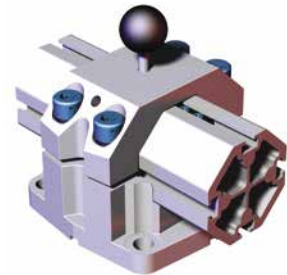


Slide the alignment nut along the boom groove and underneath the bracket mount until the hole in the block and the appropriate calibration hole in the bracket mount is aligned visual.

Insert the alignment pin into the alignment hole of the bracket mount, through the alignment nut until it stops in the groove of the boom channel.



With the alignment pin in place, the alignment nut should not move. Secure bracket mount in the channel groove by tightening the two set screws. Remove alignment pin as it is used as a probe for alignment purposes only.



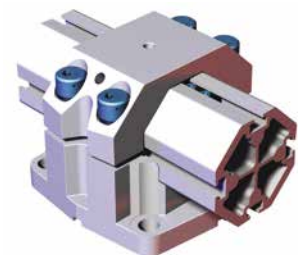
The alignment nut remains in place even when the bracket mount is removed.

To order replacement alignment pin or nut, please use the following order numbers:

Alignment Pin #505311, Alignment Nut #505264



To Replace the Bracket mount, place the assembled bracket mount on the Bodybuilder™ boom until the alignment holes are visually aligned. Insert the alignment pin to secure bracket mount in place, and tighten the fasteners.



Remove the alignment pin and continue tightening the fasteners to specified torque values.

U.S. PATENT 6,349,912



# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

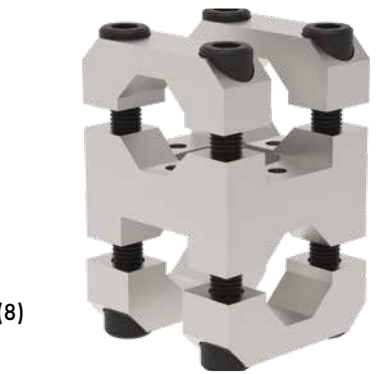
## 30B-30B 30mm to 30mm Transition Bracket Assembly

### Features:

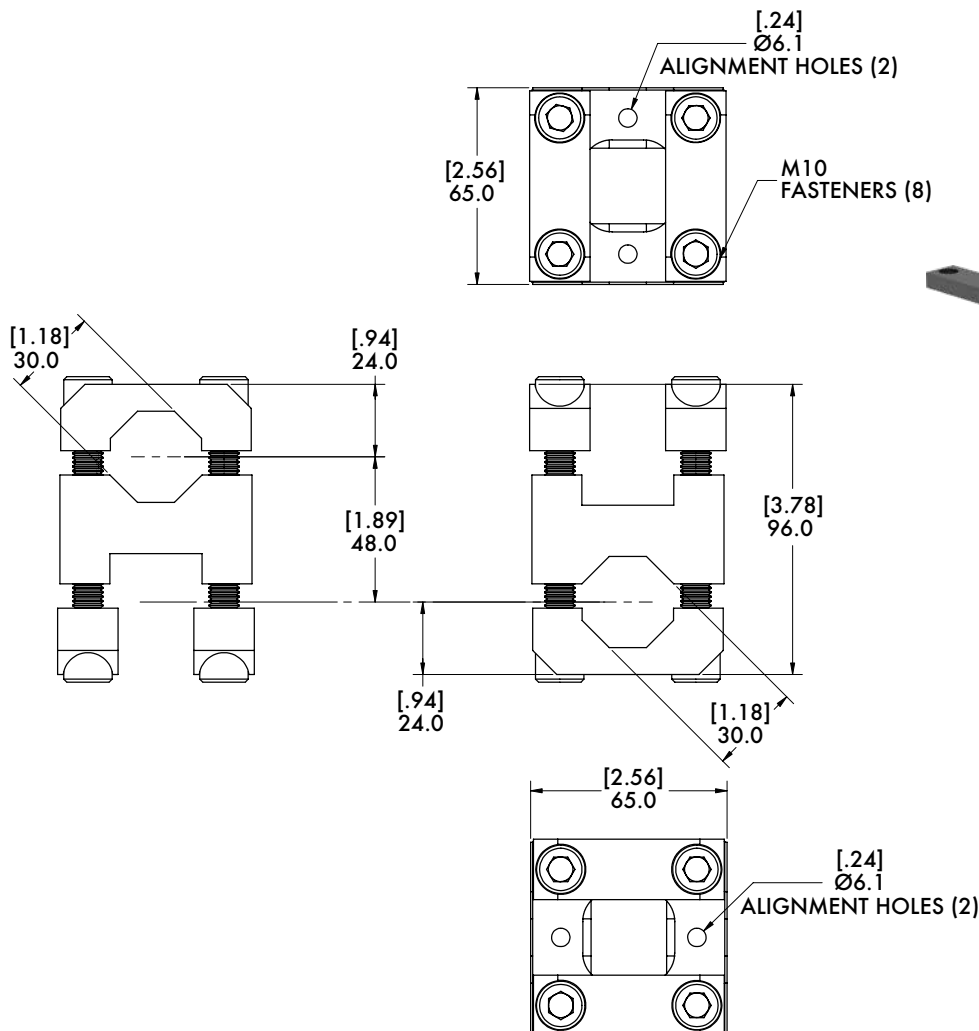
- Connects (2) 30mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

### Specifications:

**Max. Static Clamp Load:**  
30mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum



ALIGNMENT NUTS INCLUDED



Model Number	Weight
M-30B-30B-M	.82 kg [1.80 lb]



# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## 30B-45B 30mm to 45mm Transition Bracket Assembly

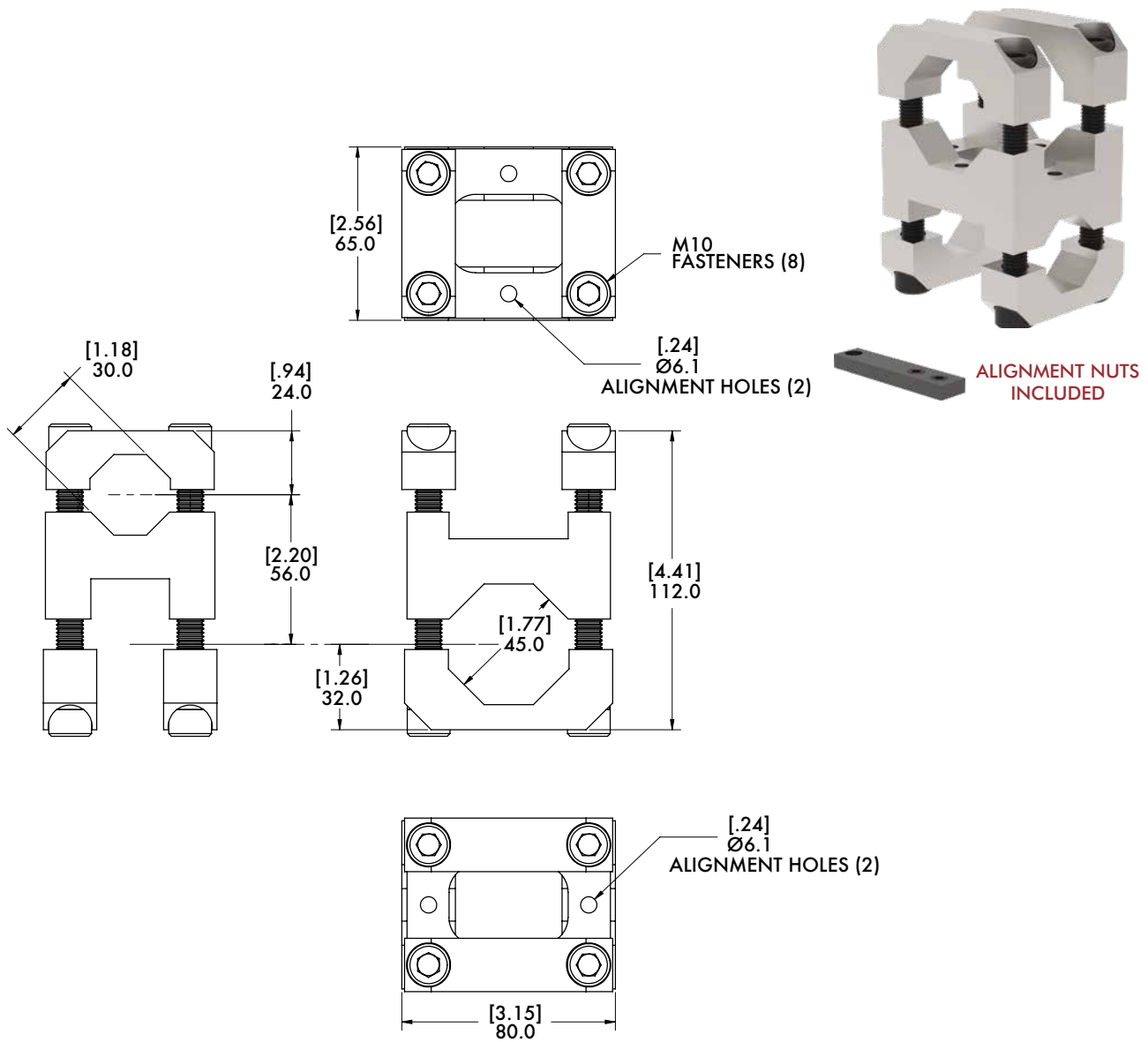


### Specifications:

**Max. Static Clamp Load:**  
 45mm: 475 Nm [350 ft-lb]  
 30mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum

### Features:

- Connects 30mm and 45mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.



Model Number	Weight
M-30B-45B-M	1.00 kg [2.20 lb]

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

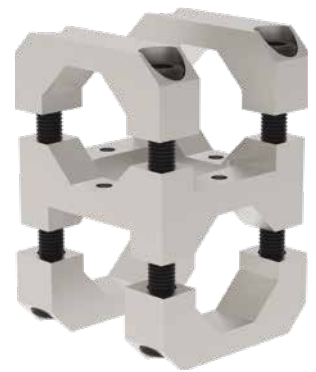
## 45B-45B 45mm to 45mm Transition Bracket Assembly

### Features:

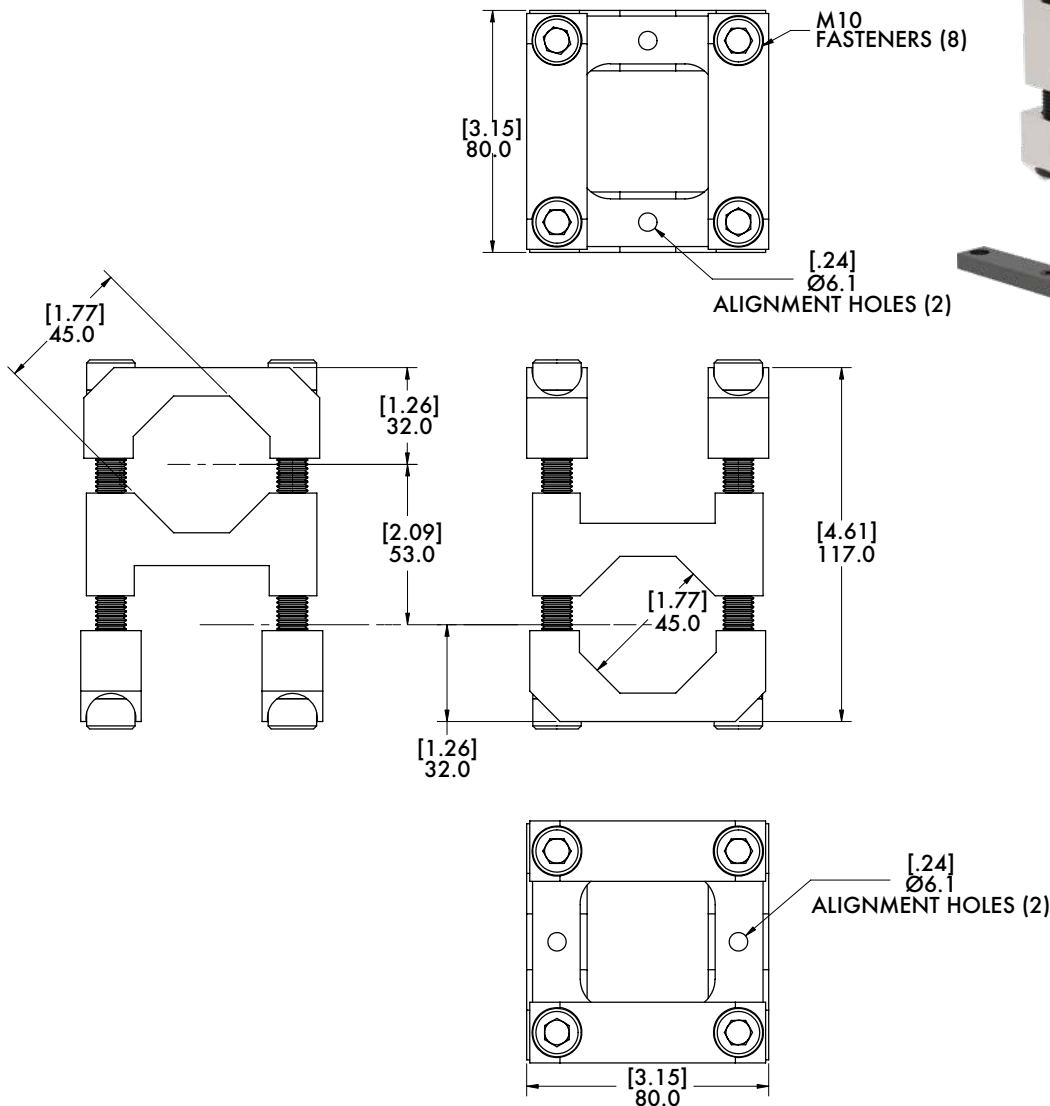
- Connects (2) 45mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design

### Specifications:

**Max. Static Clamp Load:**  
45mm: 475 Nm [350 ft-lb]  
**Material:** Aluminum



ALIGNMENT NUTS INCLUDED



Model Number	Weight
M-45B-45B-M	1.05 kg [2.31 lb]

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## 30B-60B 30mm to 60mm Transition Bracket Assembly

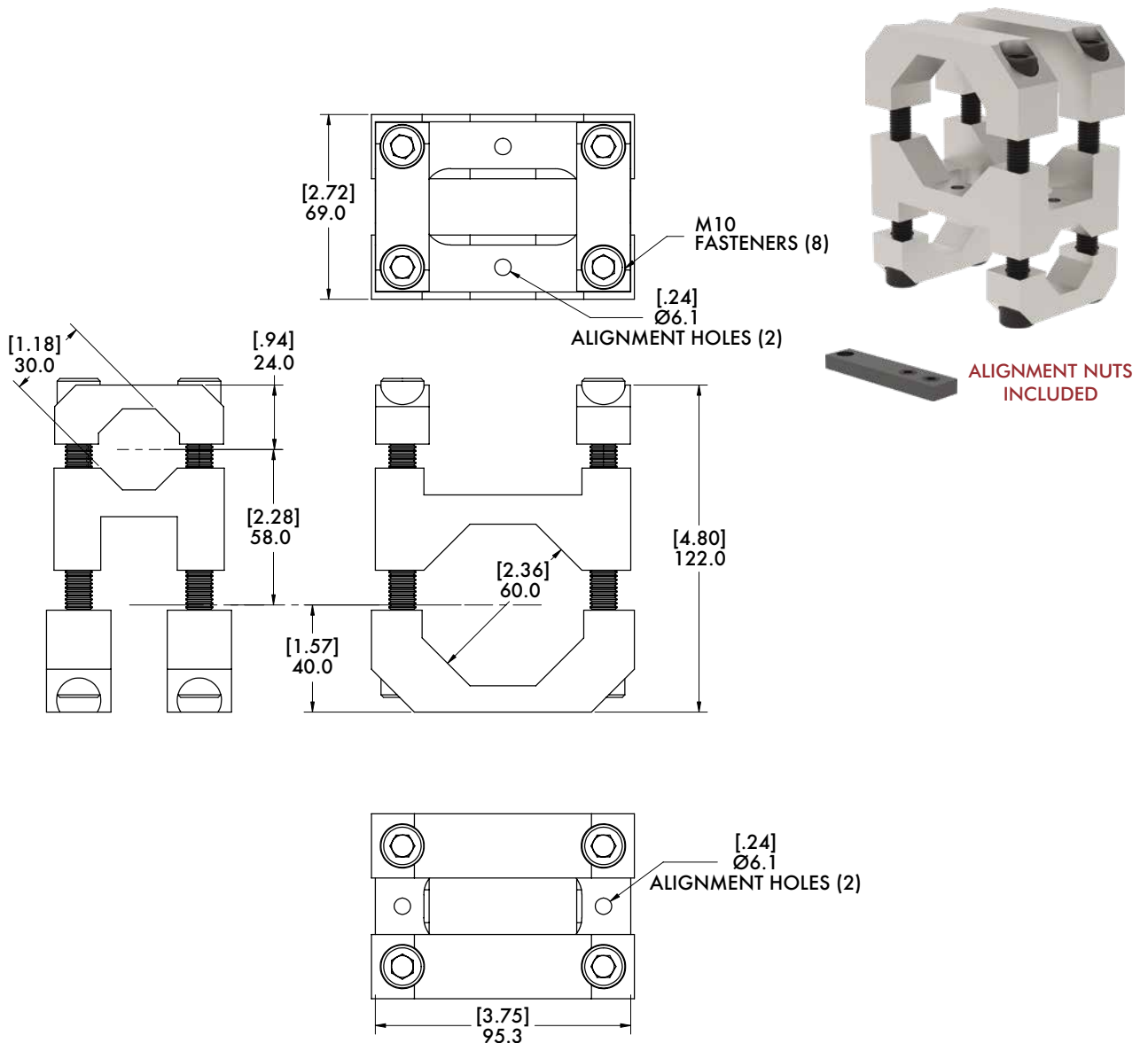


### Specifications:

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

### Features:

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



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

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

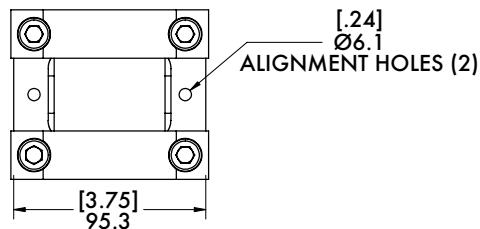
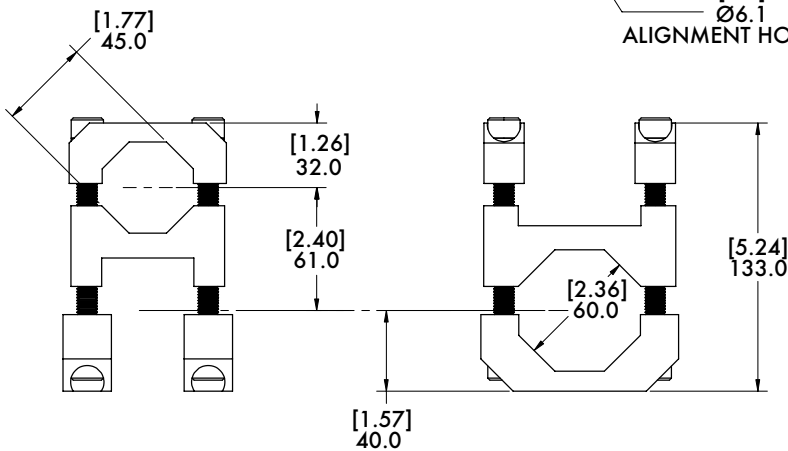
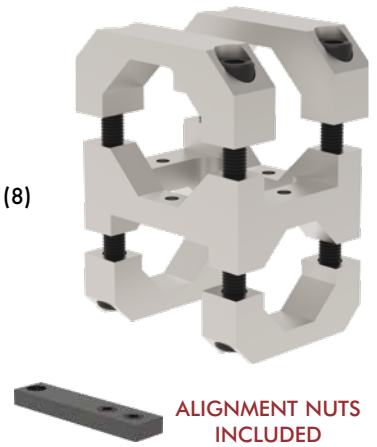
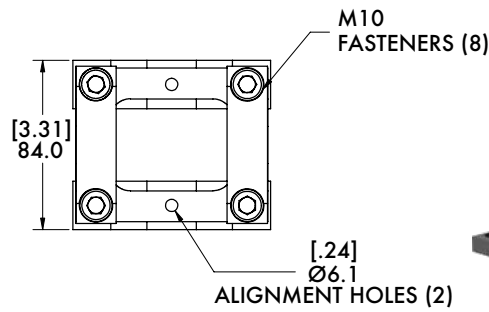
## 45B-60B 45mm to 60mm Transition Bracket Assembly

### Features:

- Connects 45mm and 60mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

### Specifications:

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



Model Number	Weight
M-45B-60B-M	1.23 kg [2.70 lb]

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



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

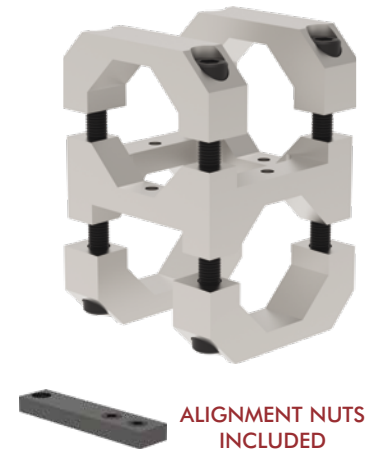
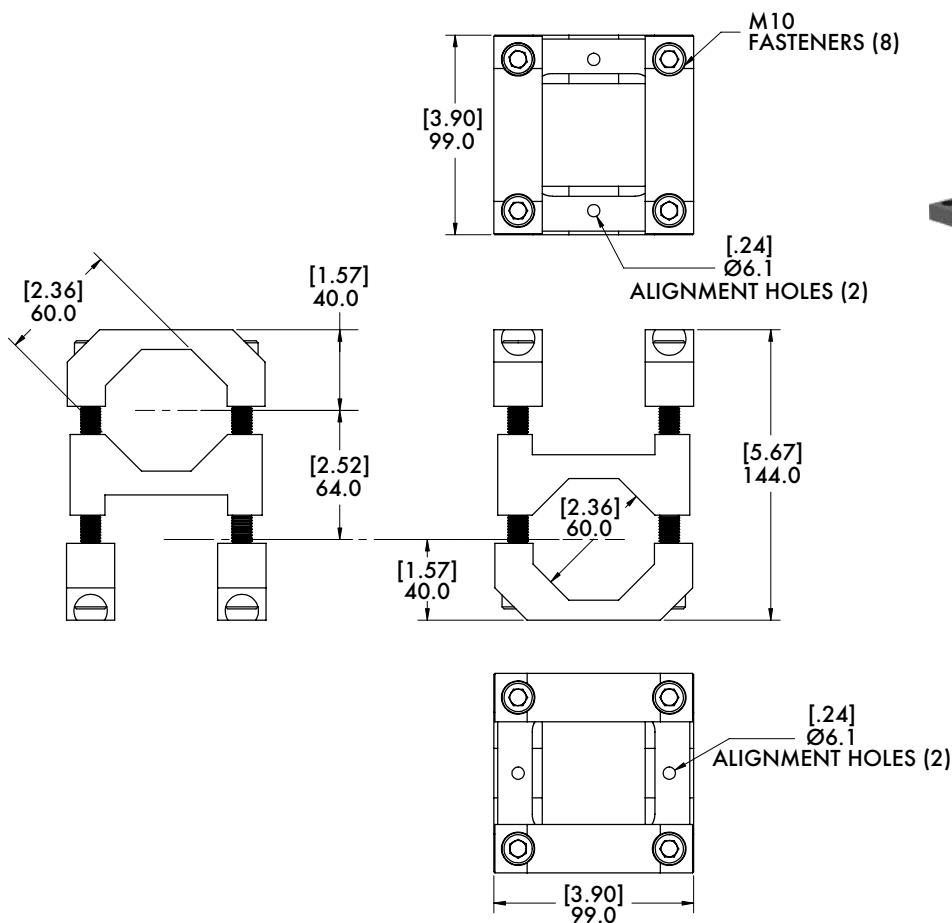


### Specifications:

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

### Features:

- Connects (2) 60mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design



Model Number	Weight
M-60B-60B-M	1.36 kg [3.00 lb]

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

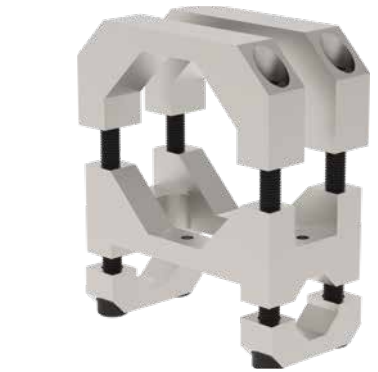
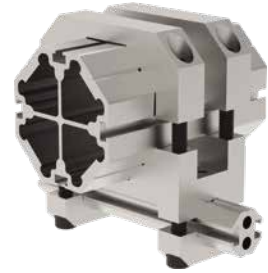
## 30B-90B 30mm to 90mm Transition Bracket Assembly

### Features:

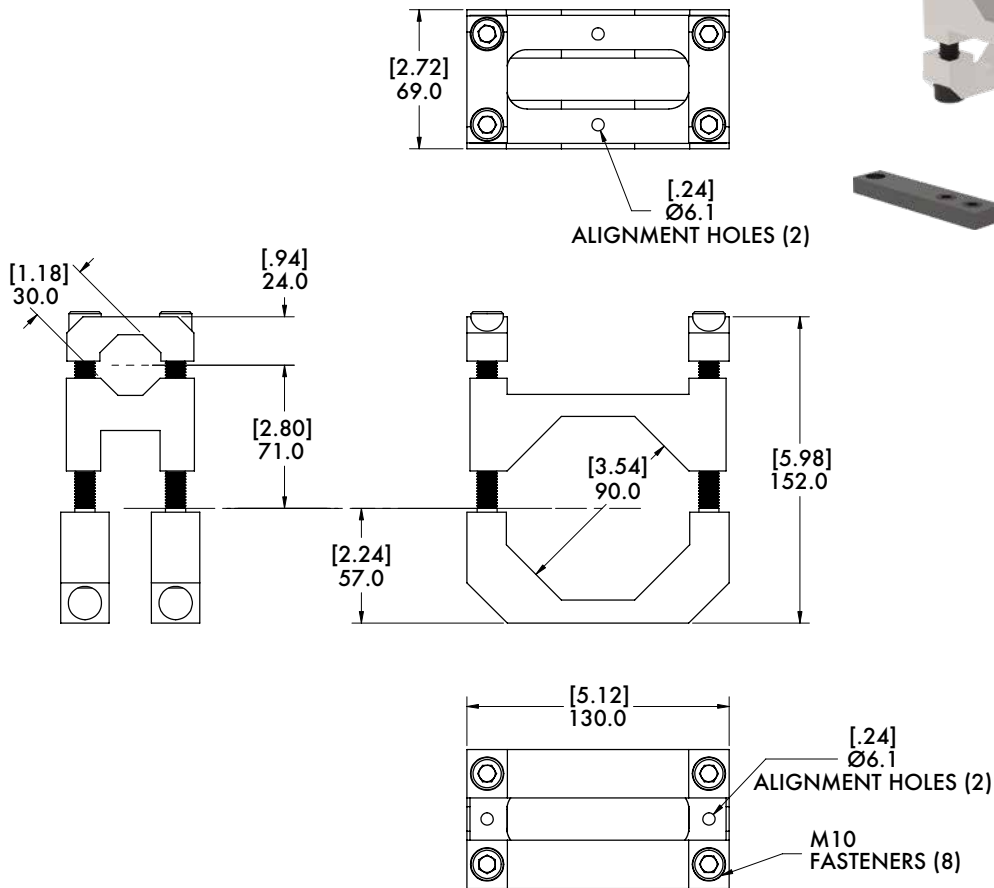
- Connects 30 and 90mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

### Specifications:

**Max. Static Clamp Load:**  
 30mm: 271 Nm [200 ft-lb]  
 90mm: 746 Nm [550 ft-lb]  
**Material:** Aluminum



ALIGNMENT NUTS INCLUDED



Model Number	Weight
M-30B-90B-M	1.78 kg [3.93 lb]

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## 45B-90B 45mm to 90mm Transition Bracket Assembly

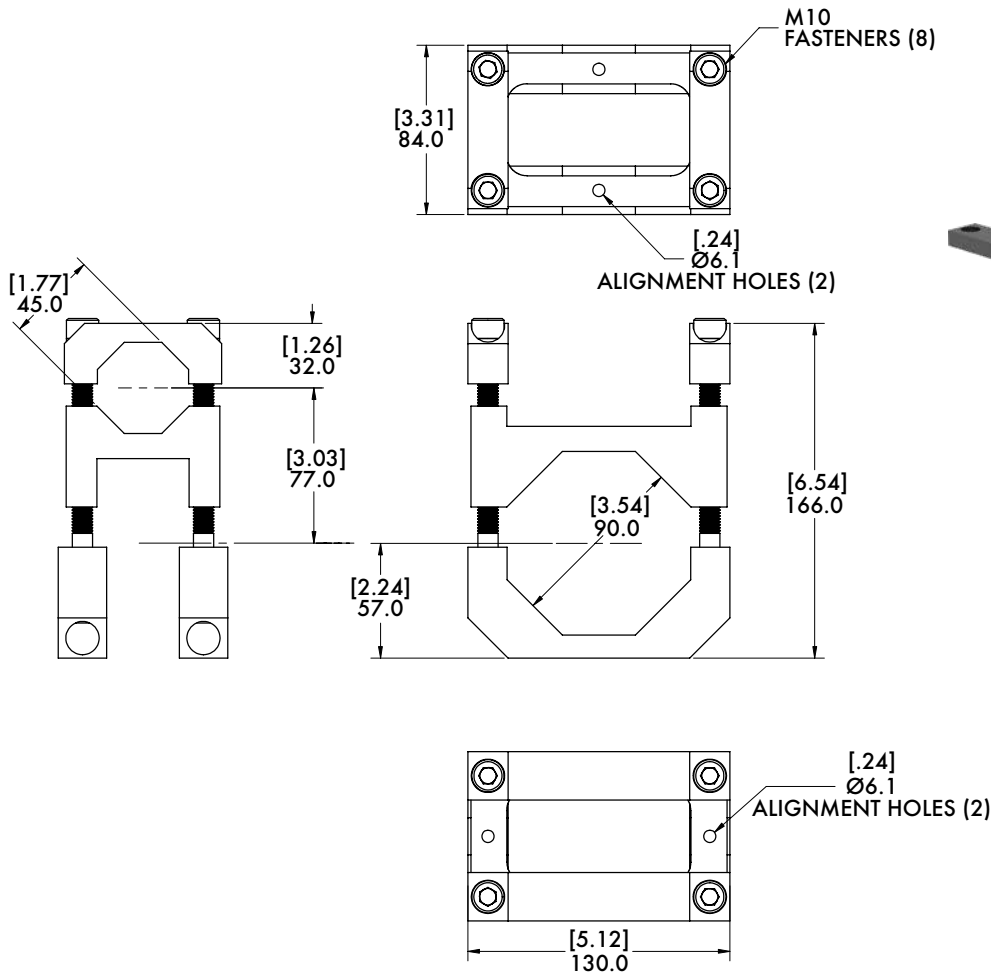


### Specifications:

**Max. Static Clamp Load:**  
 45mm: 475 Nm [350 ft-lb]  
 90mm: 746 Nm [550 ft-lb]  
**Material:** Aluminum

### Features:

- Connects 45 and 90mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.



Model Number	Weight
M-45B-90B-M	1.91 kg [4.21 lb]

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

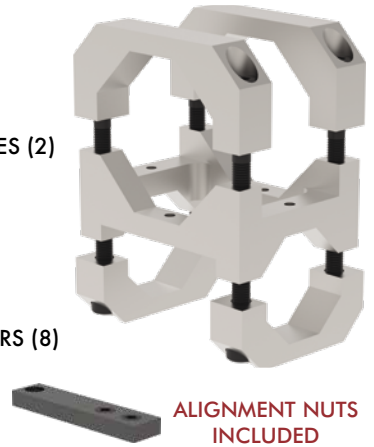
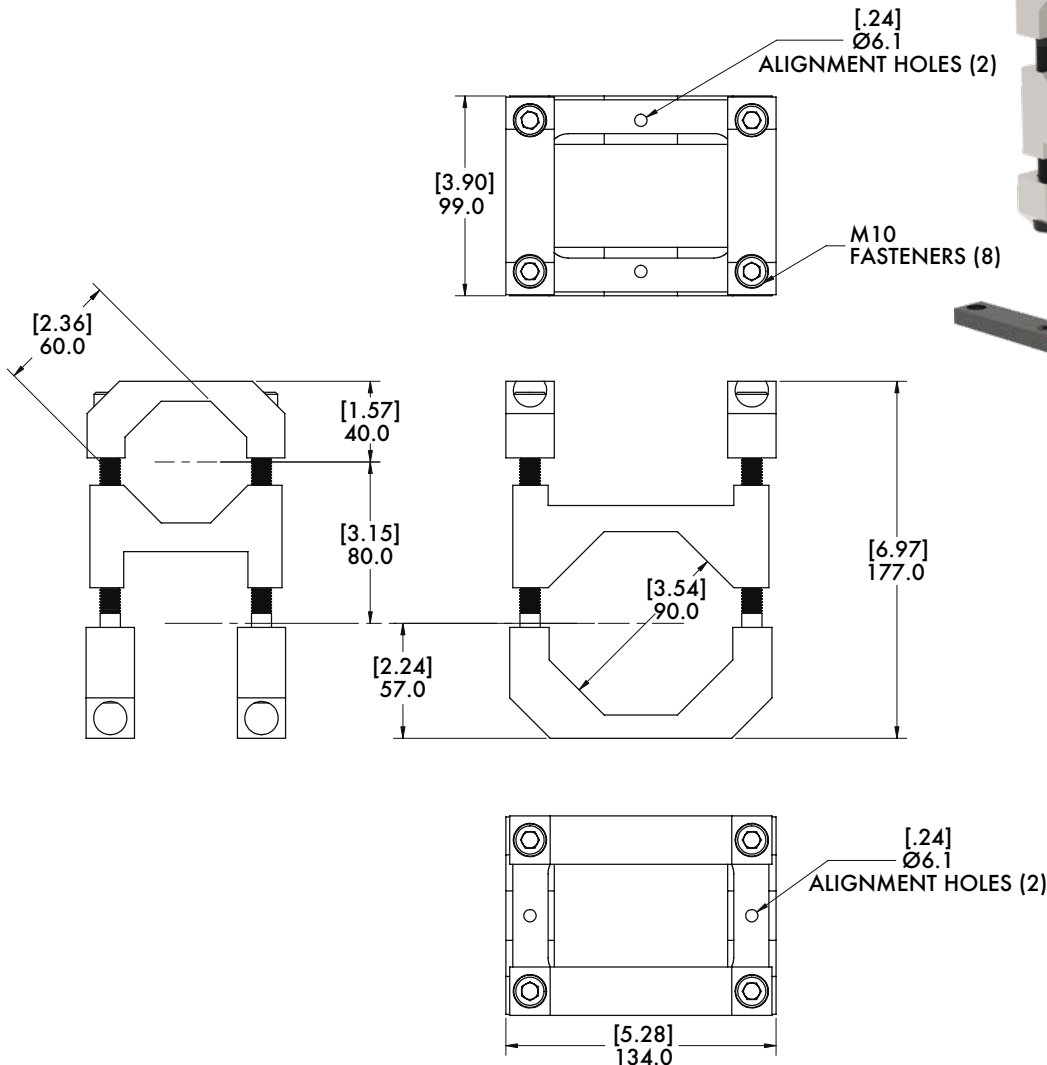
## 60B-90B 60mm to 90mm Transition Bracket Assembly

### Features:

- Connects 60mm and 90mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.

### Specifications:

**Maximum Clamp Load:**  
 60mm and 90mm:  
 746 Nm [550 ft-lb]  
**Material:** Aluminum



Model Number	Weight
M-60B-90B-M	2.25 kg [4.97 lb]



# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## 90B-90B 90mm to 90mm Transition Bracket Assembly



### Specifications:

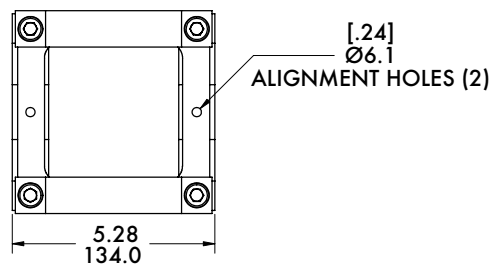
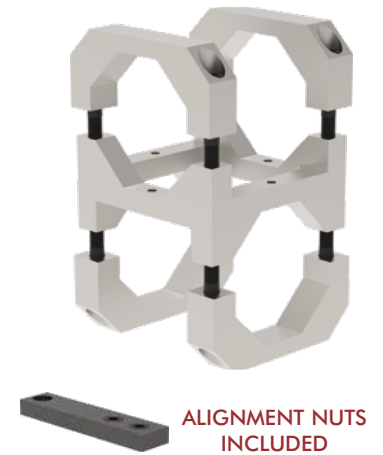
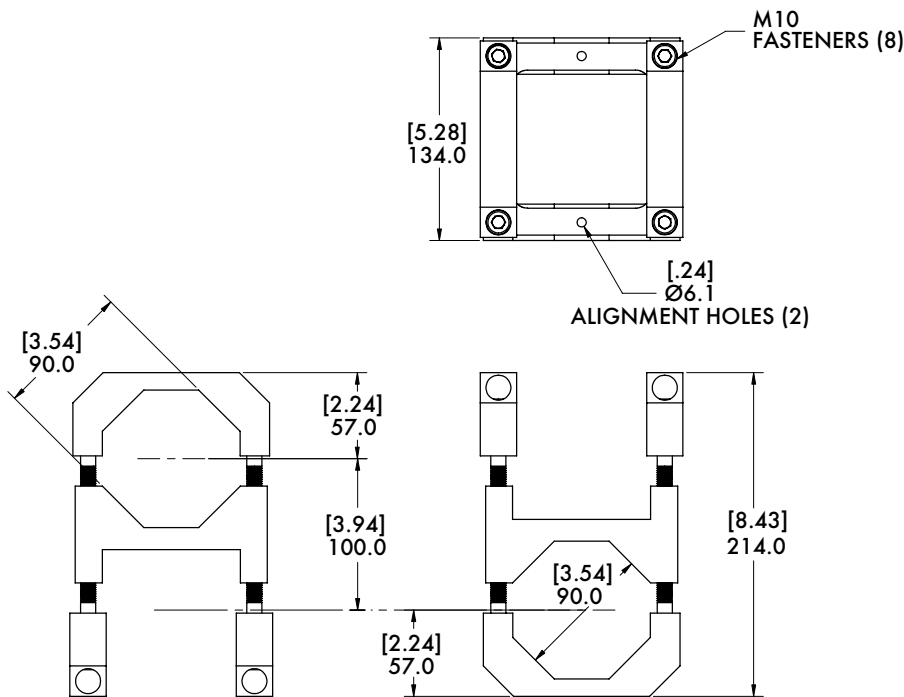
**Max. Static Clamp Load:**

746 Nm [550 ft-lb]

**Material:** Aluminum

### Features:

- Connects (2) 90mm extrusions perpendicular to each other.
- Lightweight, high-strength aluminum design.



Model Number

**M-90B-90B-M**

Weight

3.33 kg [7.34 lb]

# BODYBUILDER™ SQUARE CLAMPS

BodyBuilder™ Octagonal Tooling | Octagon to Round Transition Block Assembly



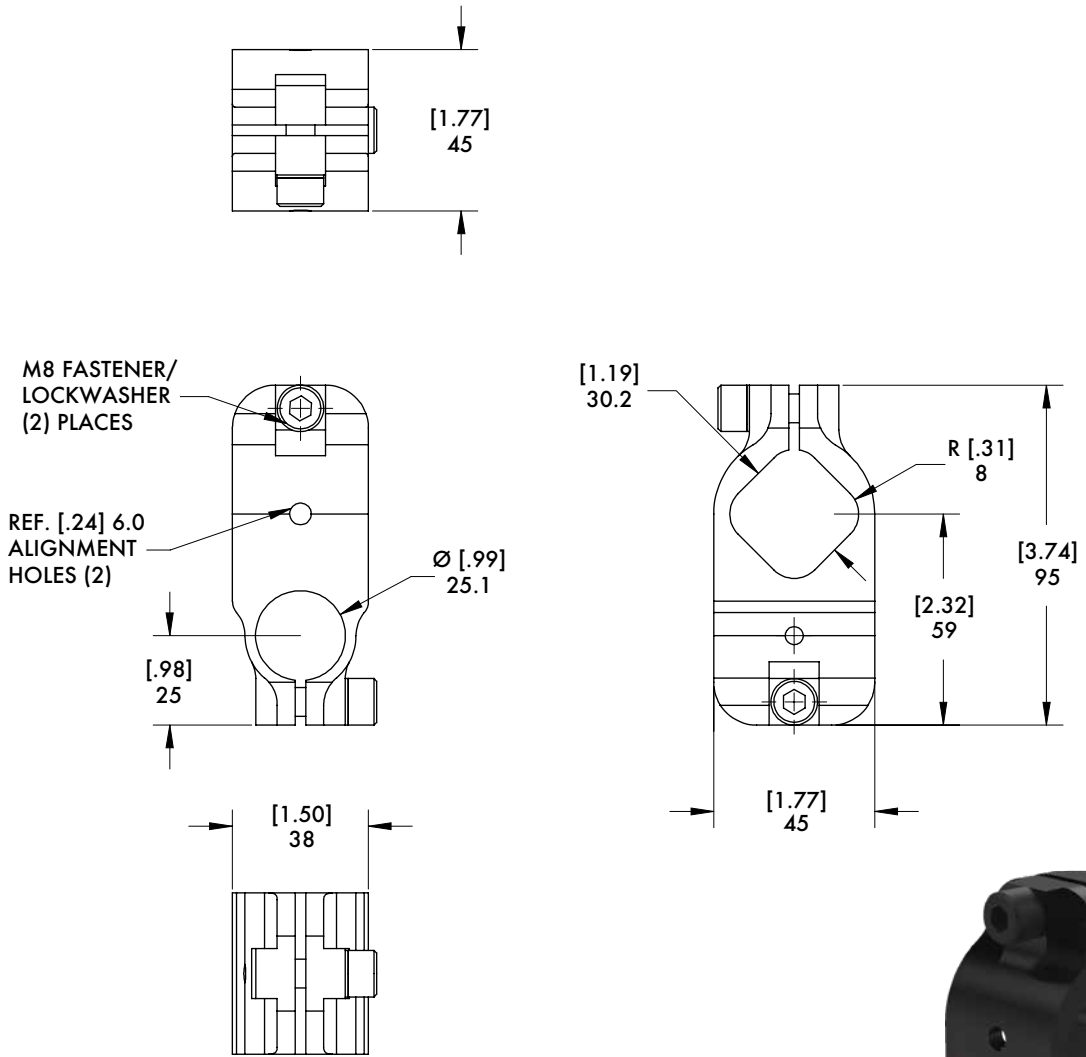
**30B-25M** 30mm Octagon to 25mm Round

**Specifications:**

Max. Static Clamp Load:

407 Nm [300 ft-lb]

Material: High Strength Aluminum



Model Number	Weight
M-30B-25M-M	203g [0.45lbs]

# BODYBUILDER™ SQUARE CLAMPS

BodyBuilder™ Octagonal Tooling | Octagon to Round Transition Block Assembly

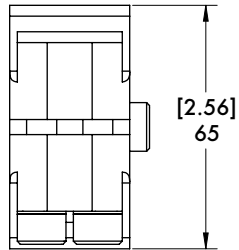


**45B-25M (-10E)** 45mm Octagon to 25mm or 1 in. Round

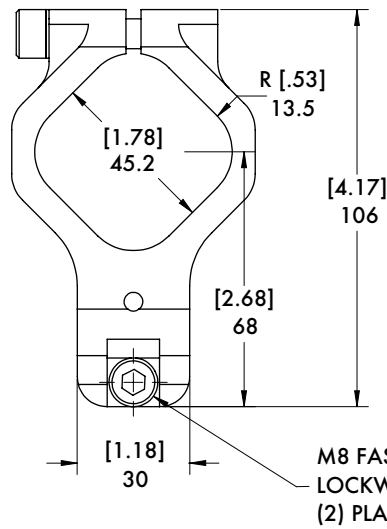
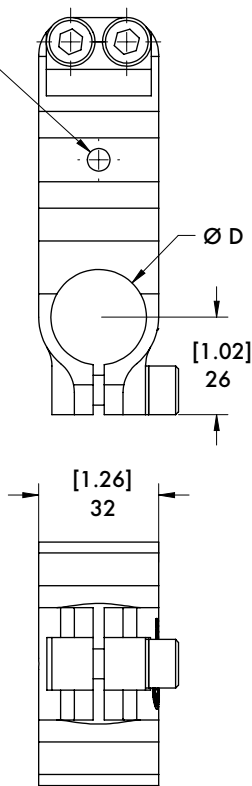
**Specifications:**

Max. Static Clamp Load:  
407 Nm [300 ft-lb]

Material: High Strength Aluminum



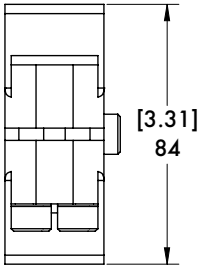
REF. [.24] 6.0  
ALIGNMENT  
HOLES (2)



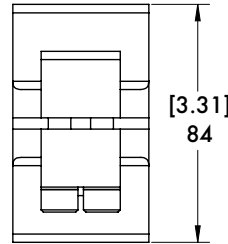
Model Number	Weight	ØD
<b>M-45B-25M-M</b>	239g [0.53lbs]	25mm
<b>M-45B-10E-M</b>	237g [0.52lbs]	1 in.

## 60B-25M 60mm Octagon to 25mm Round

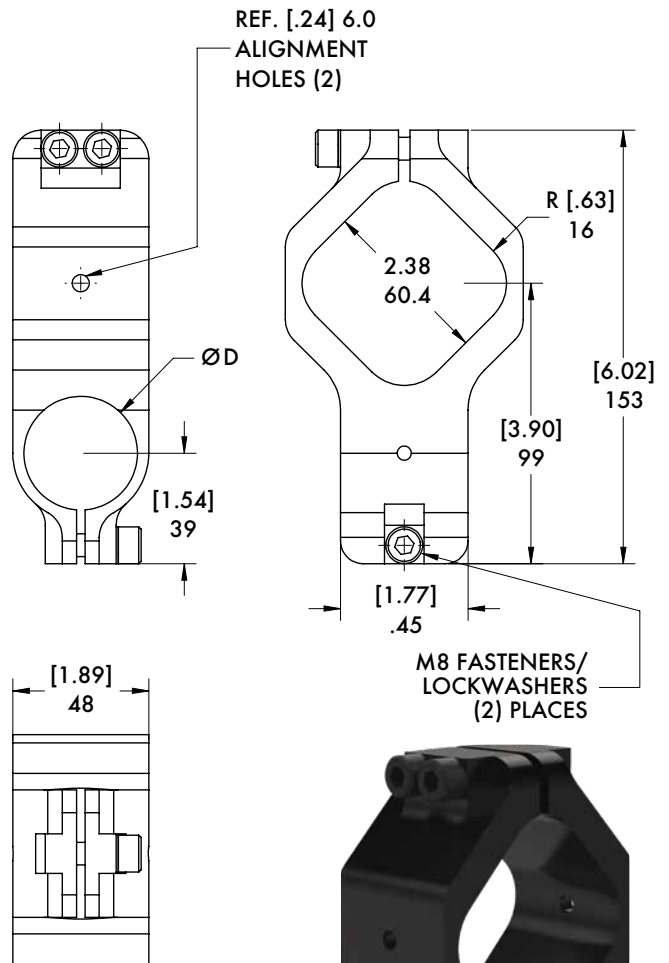
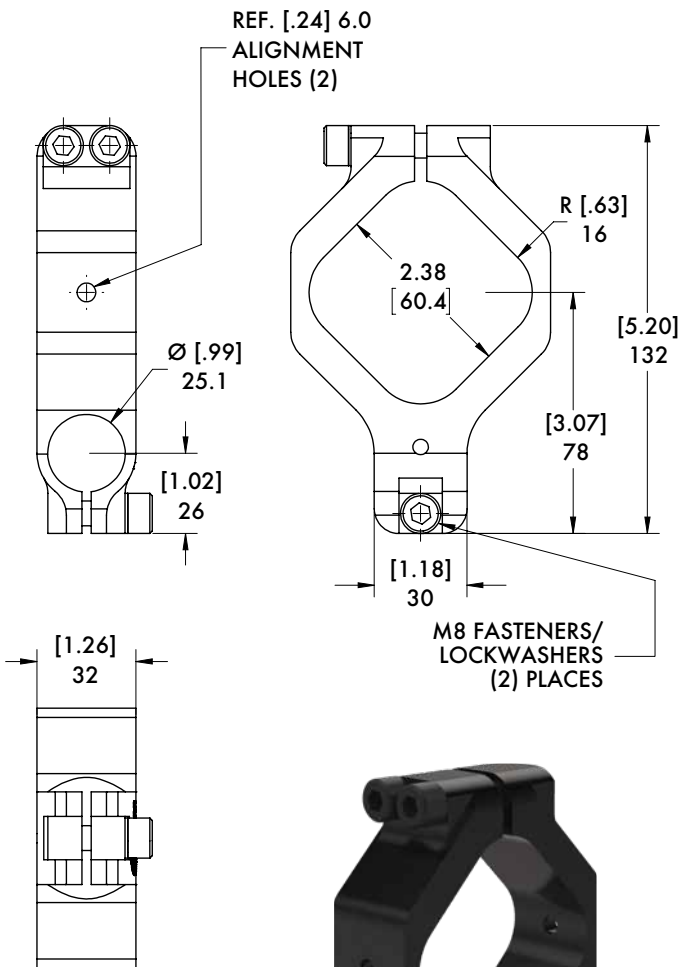
## 60B-40M (-15E) 60mm Octagon to 40mm or 1.5 in. Round



**Specifications:**  
 Max. Static Clamp Load:  
 407 Nm [300 ft-lb]  
 Material: High Strength Aluminum



**Specifications:**  
 Max. Static Clamp Load:  
 813 Nm [600 ft-lb]  
 Material: High Strength Aluminum



Model Number	Weight
M-60B-25M-M	356g [0.78lbs]

Model Number	Weight	ØD
M-60B-40M-M	520g [1.15lbs]	40mm
M-60B-15E-M	535g [1.18lbs]	1.5 in.

# BODYBUILDER™ TRANSITION BRACKETS AND BLOCKS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



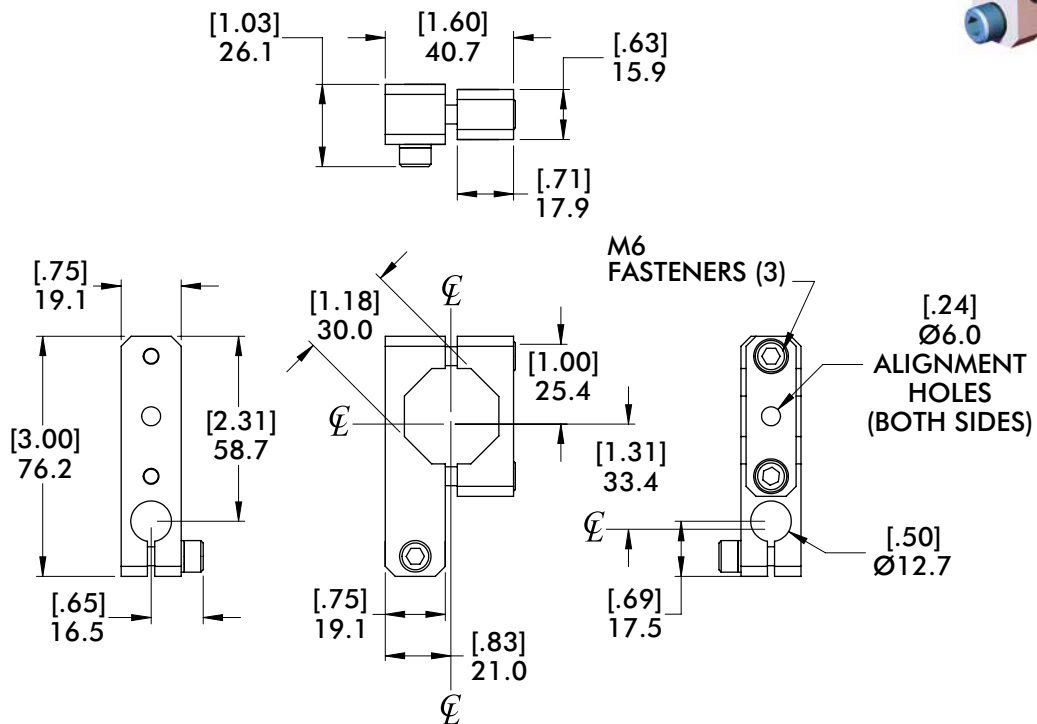
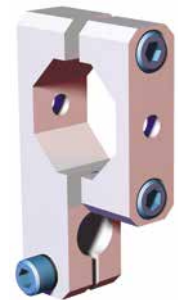
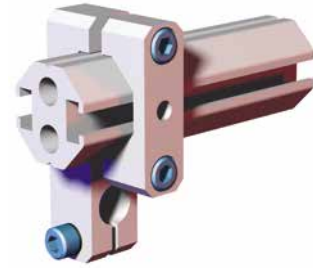
## CLM-30B-50 30mm Octagon to Ø50"(in) Round Transition Bracket Assembly

### Features:

- Connects BodyBuilder™ extrusion and round tubing perpendicular to each other.
- Lightweight, high-strength aluminum design.

### Specifications:

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



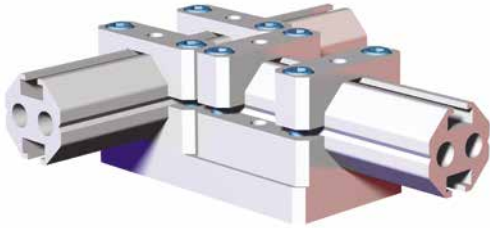
Model Number	Weight
CPI-CLM-30B-50-TR	.092 kg [.20 lb]



# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

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



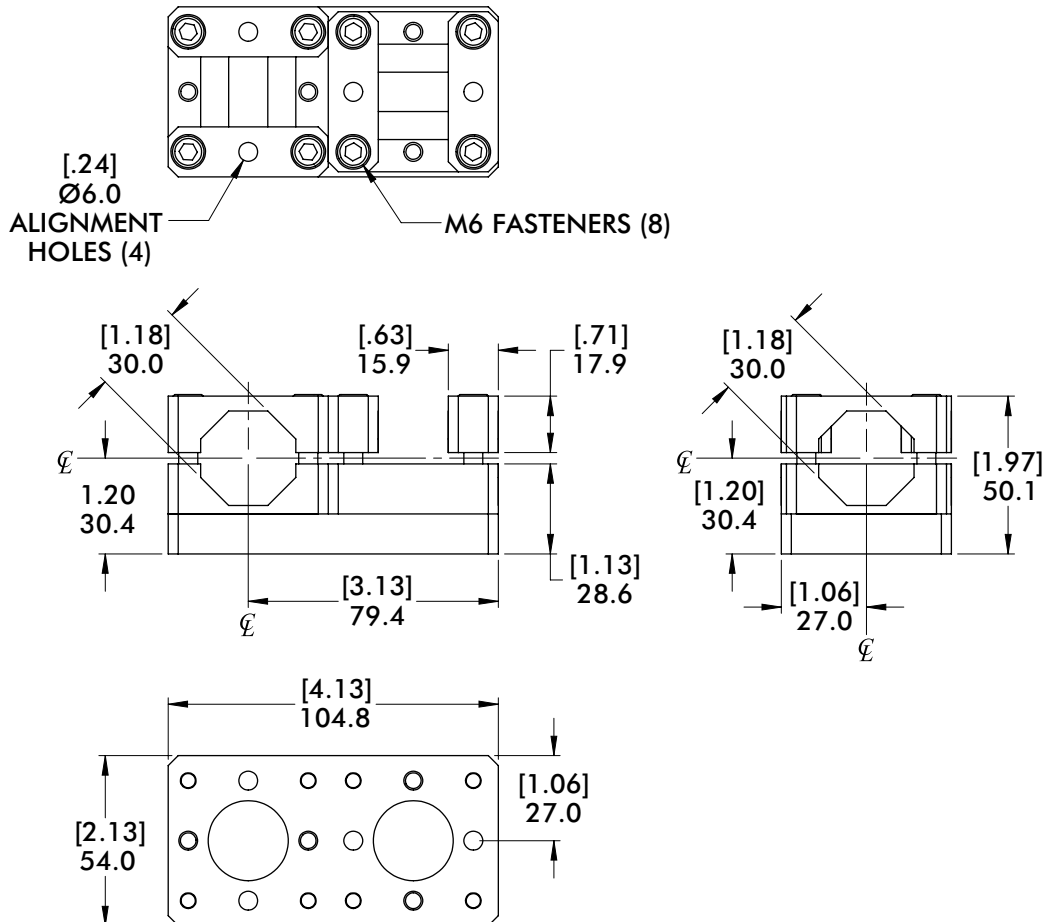
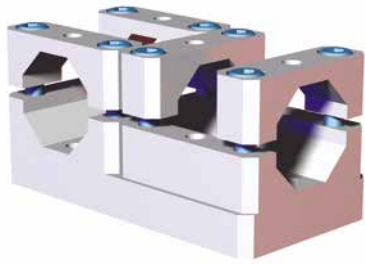
### Specifications:

Max. Static Clamp Load:  
102 Nm [75 ft-lb]

Material: Aluminum

### Features:

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



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

# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



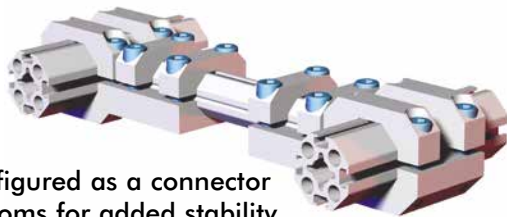
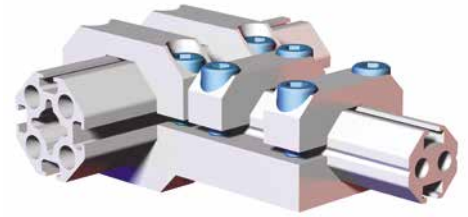
## TCA-30B-45B 30mm to 45mm Octagon T-Clamp Bracket Assembly

### Features:

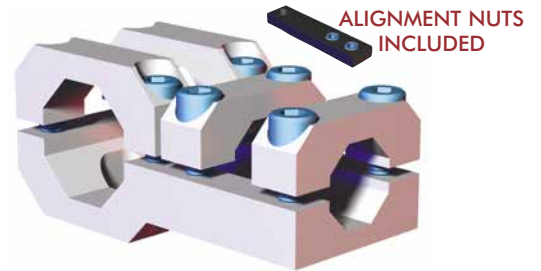
- Connects 30mm and 45mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

### Specifications:

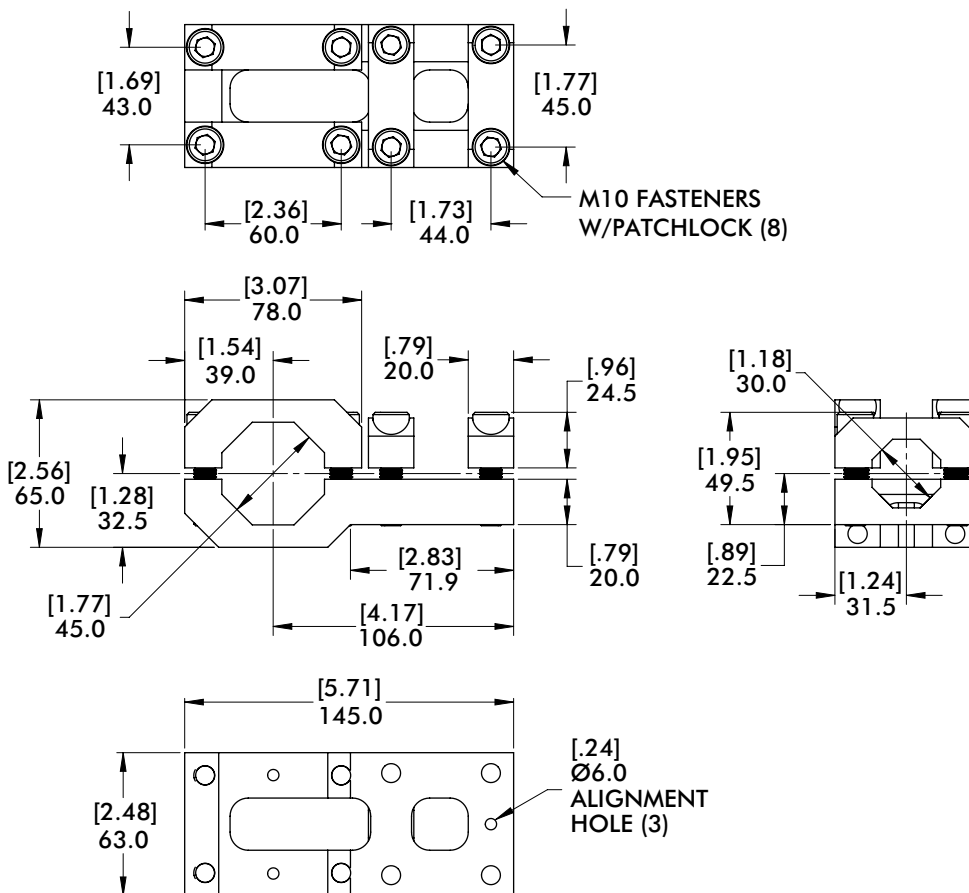
**Max. Static Clamp Load:**  
 45mm: 475 Nm [350 ft-lb]  
 30mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum



Can be configured as a connector between booms for added stability

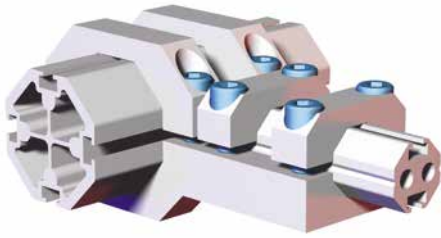


ALIGNMENT NUTS INCLUDED



Model Number	Weight
CPI-TCA-30B-45B	.80 kg [1.76 lb]

## TCA-30B-60B 30mm to 60mm Octagon T-Clamp Bracket Assembly

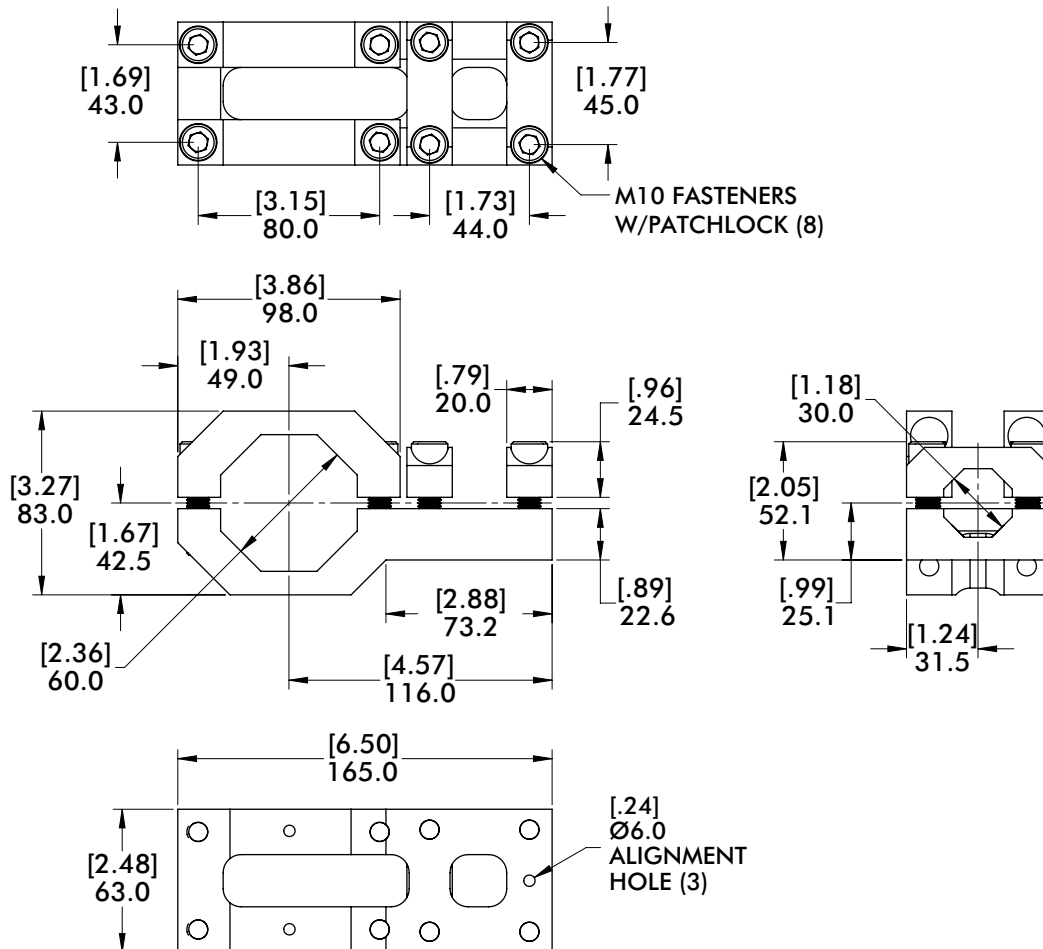
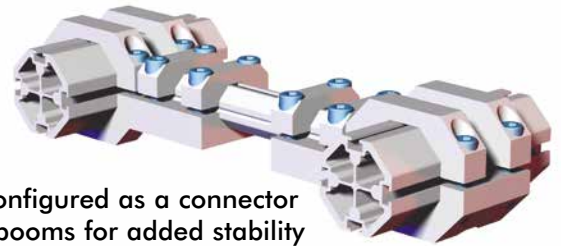
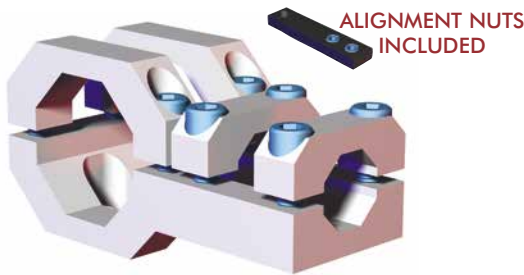


### Specifications:

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

### Features:

- Connects 30mm and 60mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.



Model Number	Weight
CPI-TCA-30B-60B	1.23 kg [2.71 lb]



# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



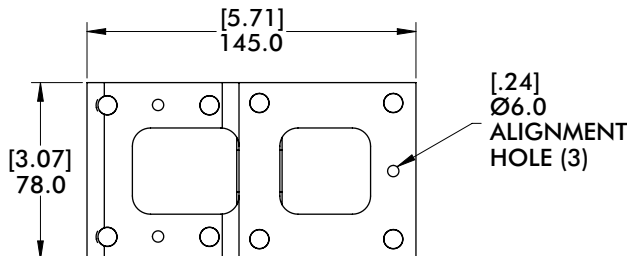
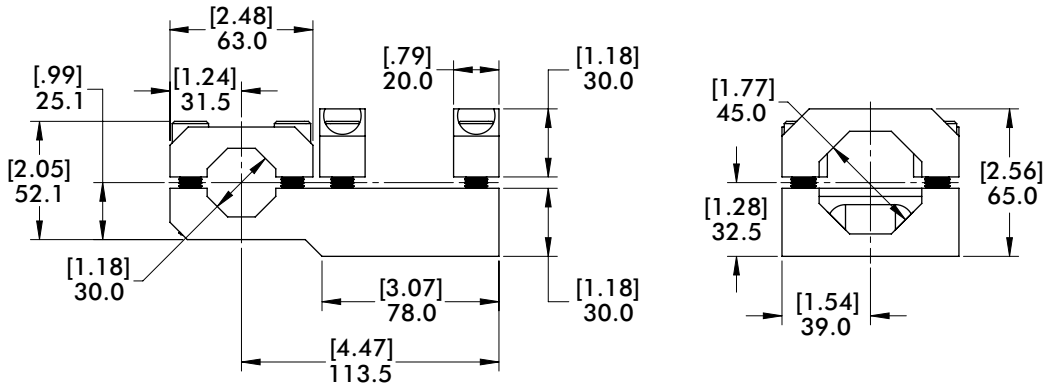
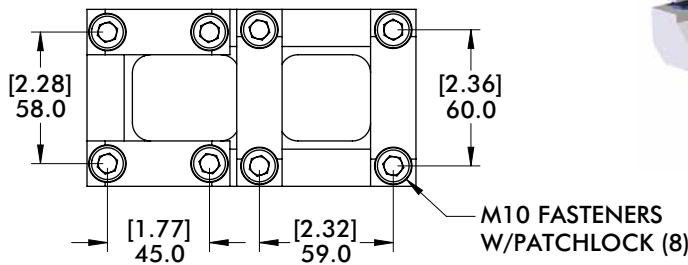
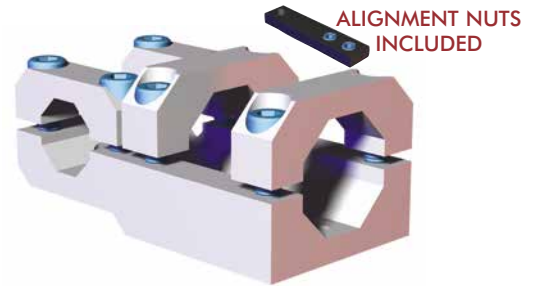
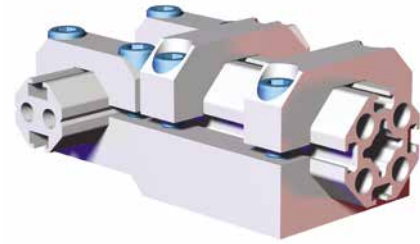
## TCA-45B-30B 45mm to 30mm Octagon T-Clamp Bracket Assembly

### Features:

- Connects 45mm and 30mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

### Specifications:

**Max. Static Clamp Load:**  
 45mm: 475 Nm [350 ft-lb]  
 30mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum



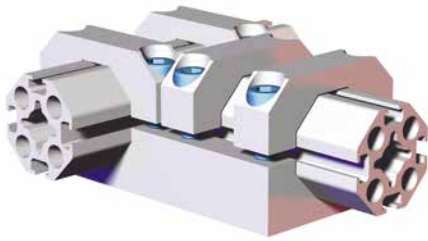
Model Number	Weight
CPI-TCA-45B-30B	.91 kg [2.02 lb]



# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## TCA-45B-45B 45mm to 45mm Octagon T-Clamp Bracket Assembly



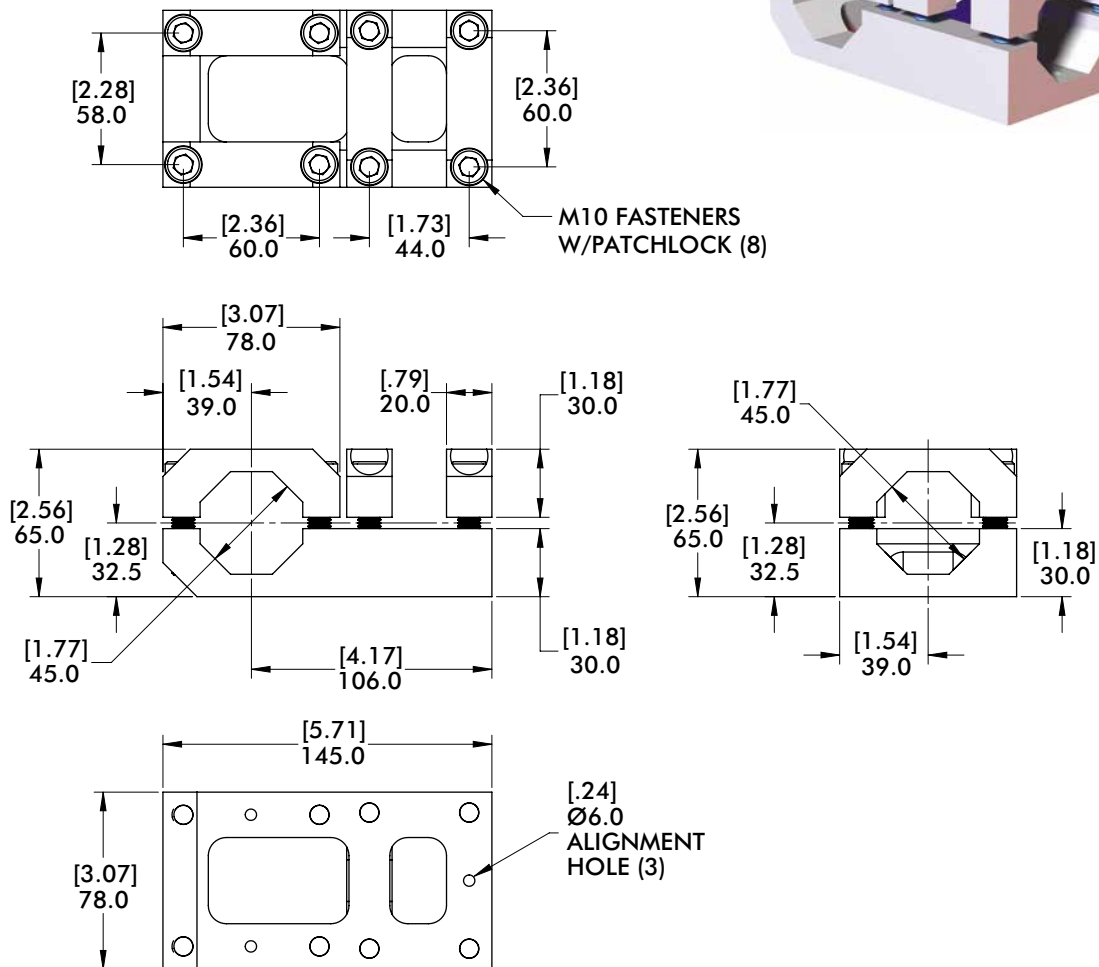
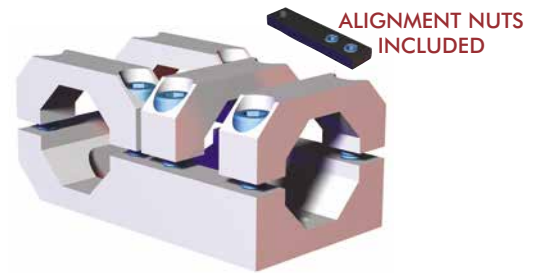
### Specifications:

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

**Material:** Aluminum

### Features:

- Connects (2) 45mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.



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

# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



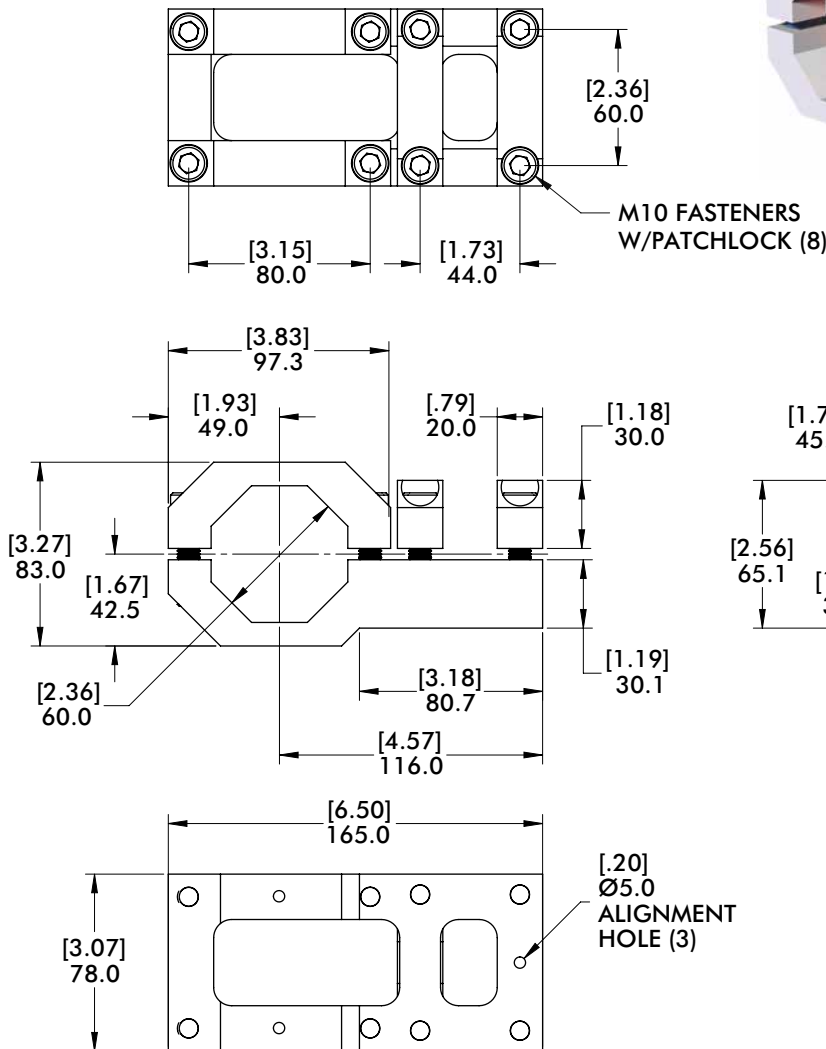
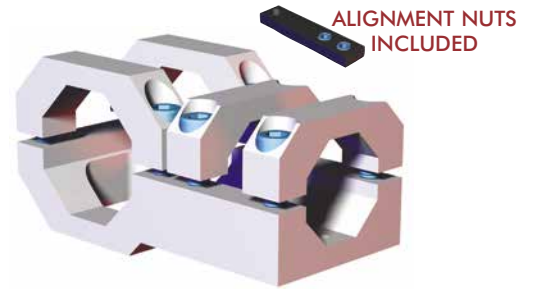
## TCA-45B-60B 45mm to 60mm Octagon T-Clamp Bracket Assembly

### Features:

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

### Specifications:

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



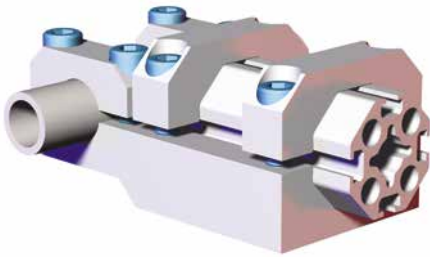
Model Number	Weight
CPI-TCA-45B-60B	1.21 kg [2.67lb]



# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## TCA-45B-25M 45mm Octagon to 25mm Round T-Clamp Bracket Assembly

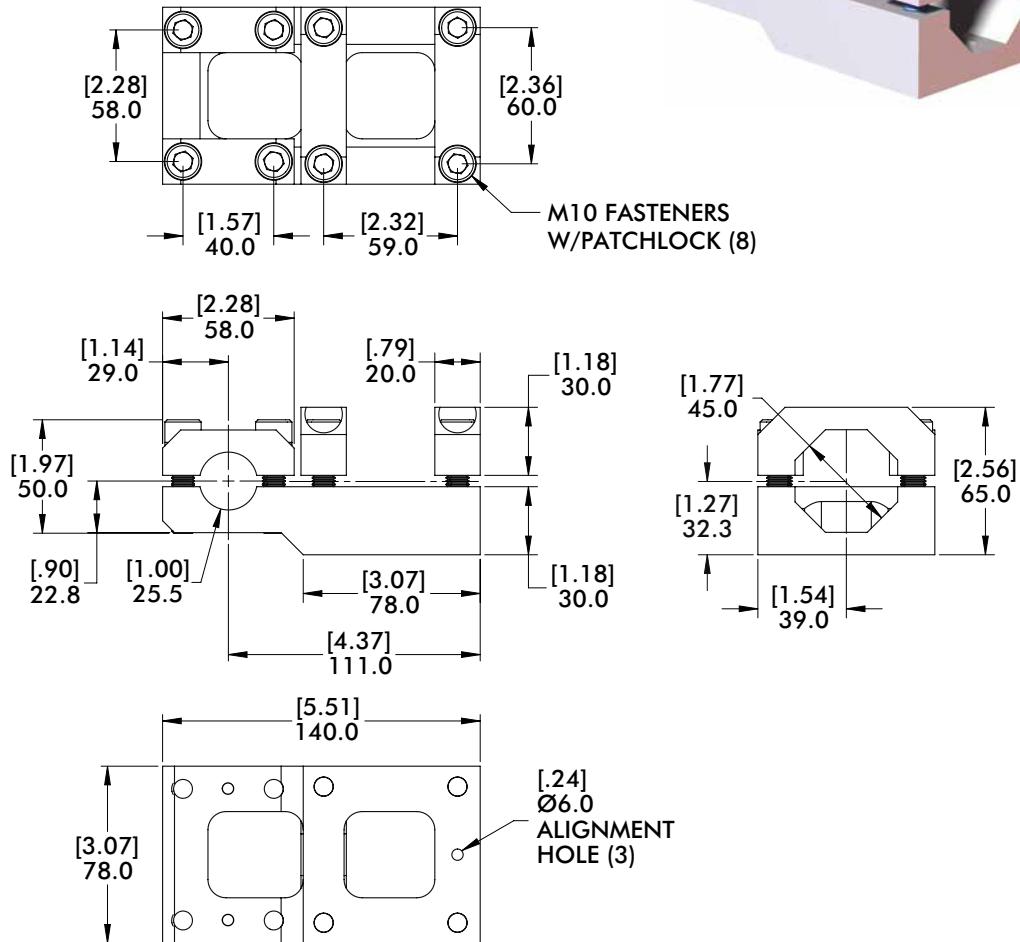
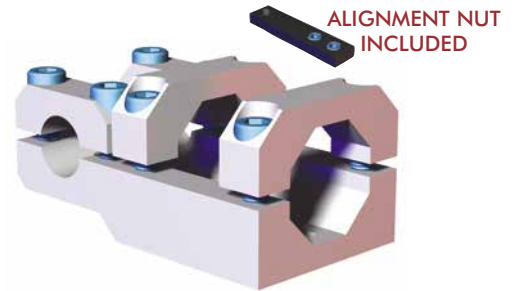


### Specifications:

**Max. Static Clamp Load:**  
 45mm: 475 Nm [350 ft-lb]  
 25mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum

### Features:

- Connects 45mm octagon and 25mm round perpendicular on the same plane.
- Lightweight, high-strength aluminum design.



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

# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



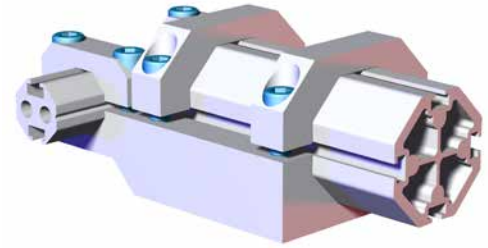
## TCA-60B-30B 60mm to 30mm octagon T-Clamp Bracket Assembly

### Features:

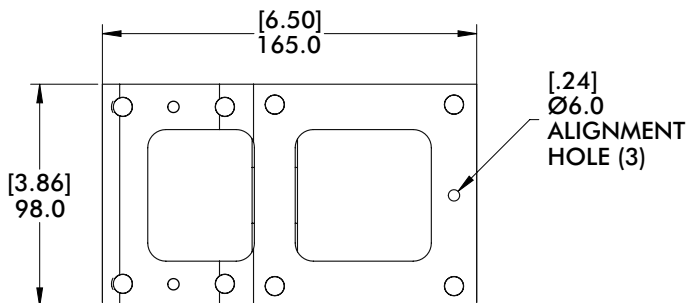
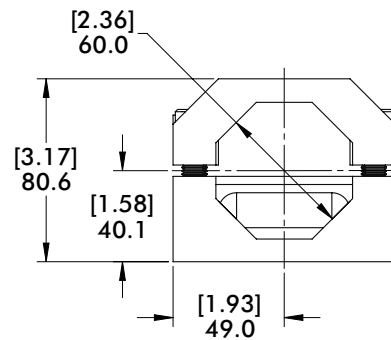
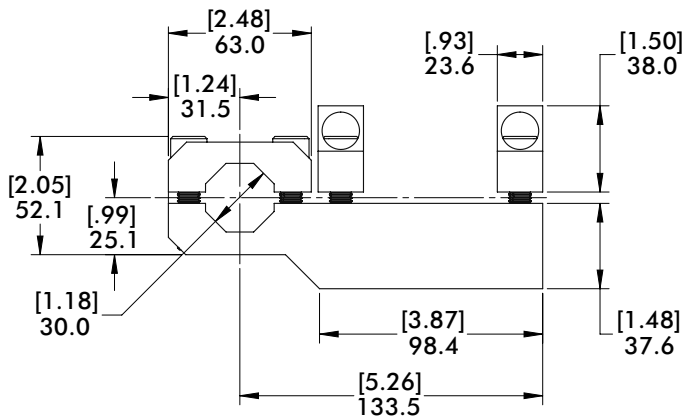
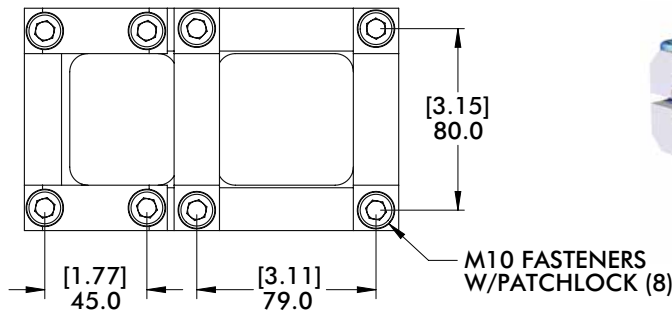
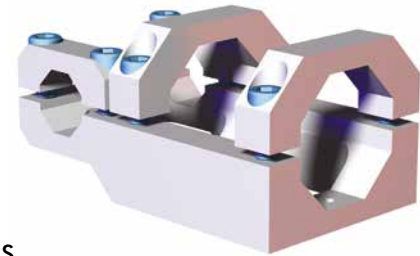
- Connects 60mm and 30mm octagon extrusion perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

### Specifications:

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



ALIGNMENT NUTS INCLUDED



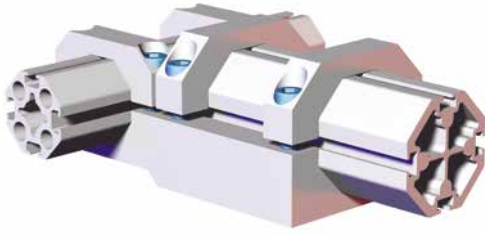
Model Number	Weight
CPI-TCA-60B-30B	1.32 kg [2.91 lb]



# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

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

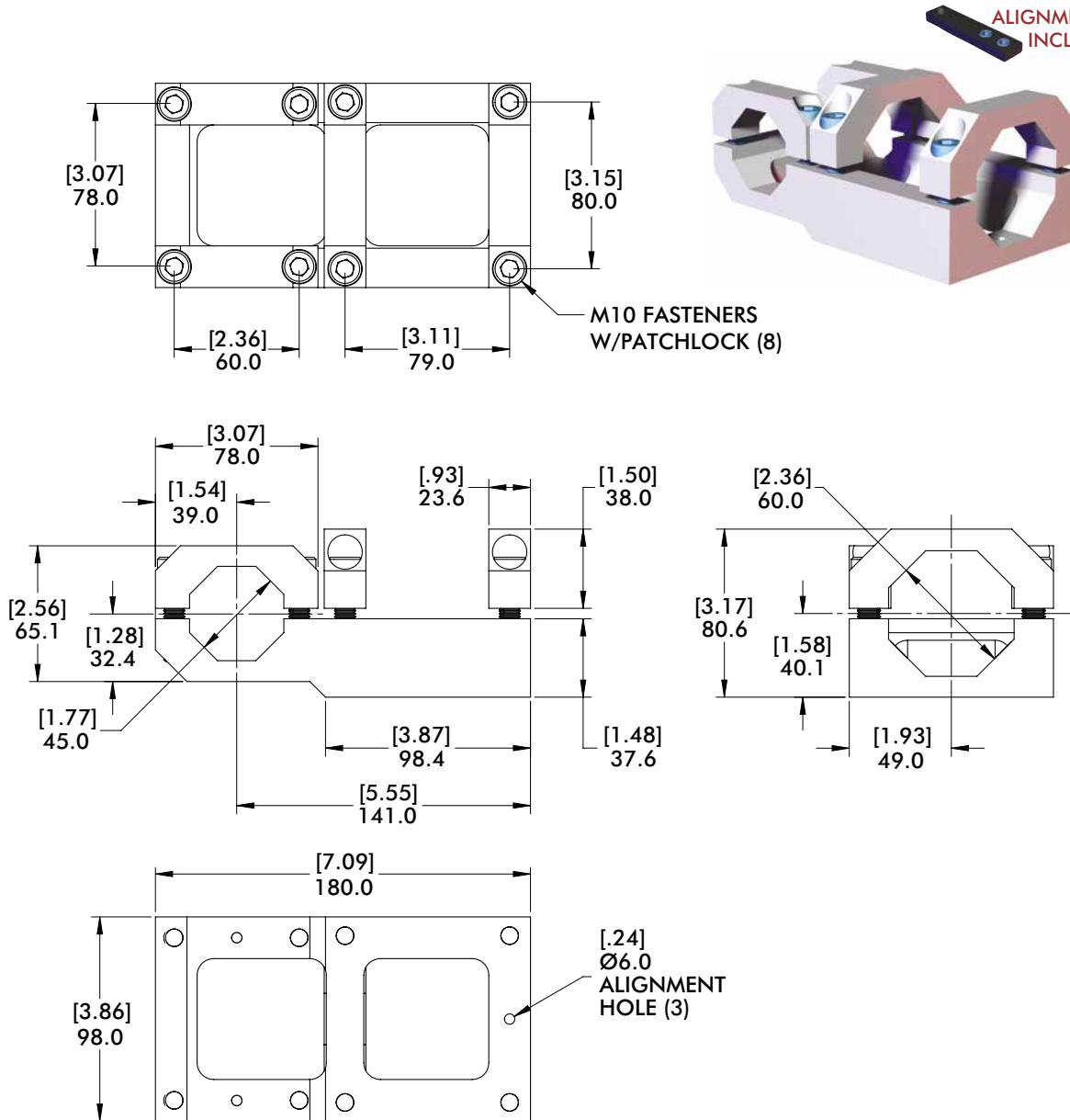


### Specifications:

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

### Features:

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



Model Number	Weight
CPI-TCA-60B-45B	1.45 kg [3.20 lb]

# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



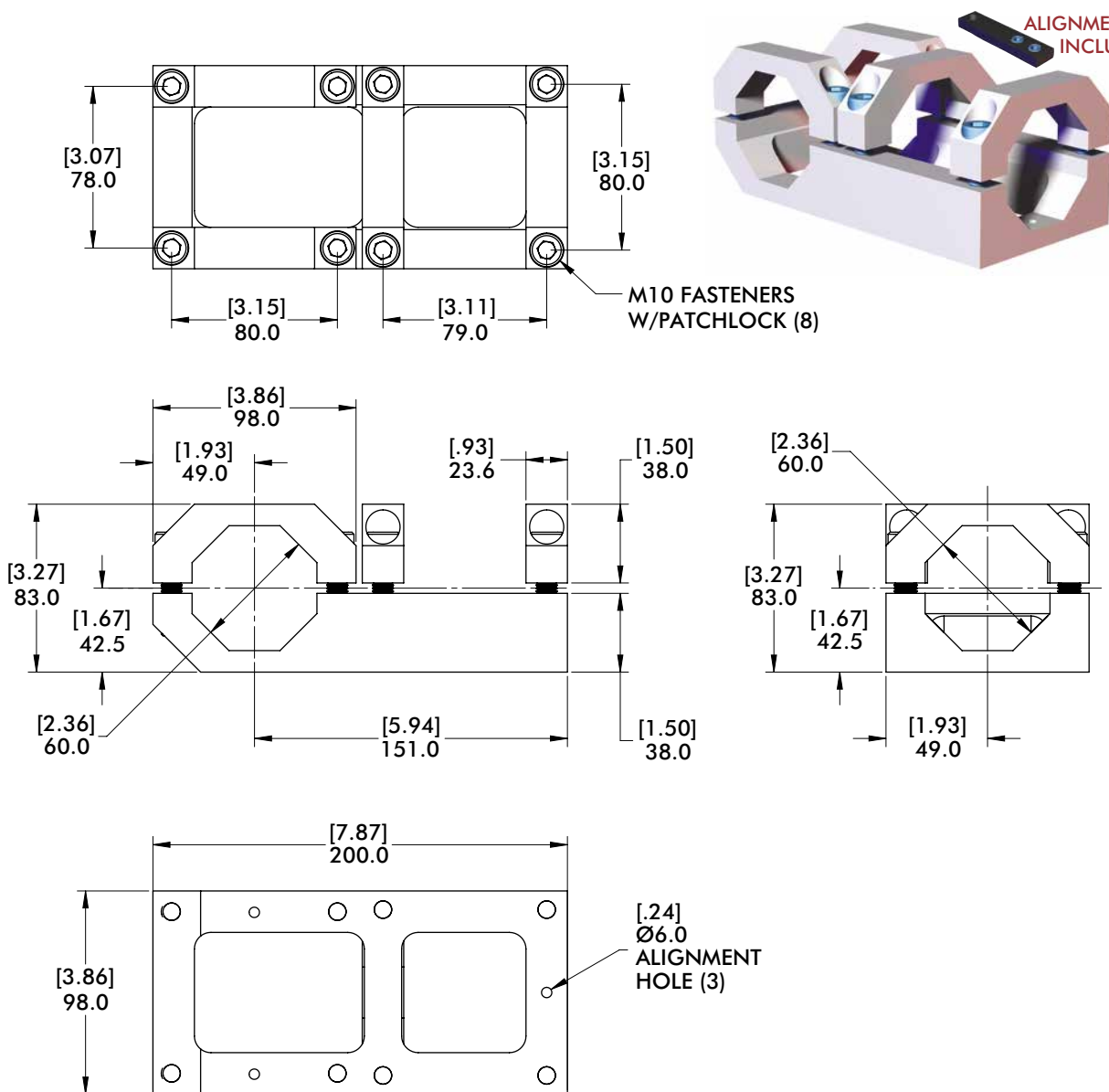
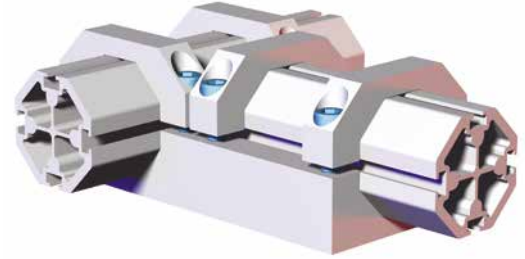
## TCA-60B-60B 60mm to 60mm octagon T-Clamp Bracket Assembly

### Features:

- Connects (2) 60mm octagon extrusions perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

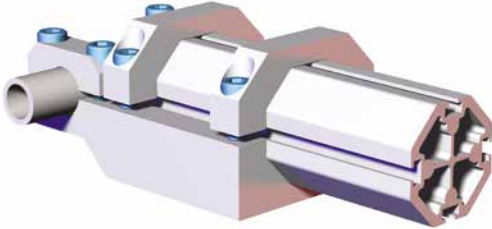
### Specifications:

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



Model Number	Weight
CPI-TCA-60B-60B	1.77 kg [3.90 lb]

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

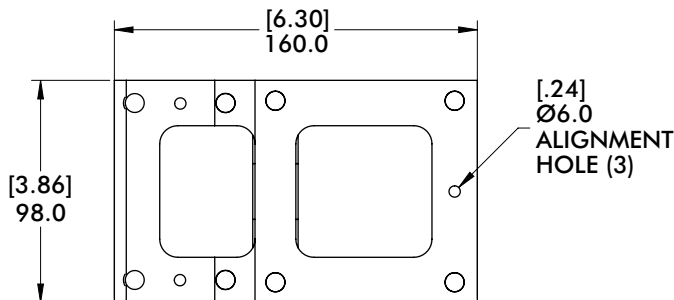
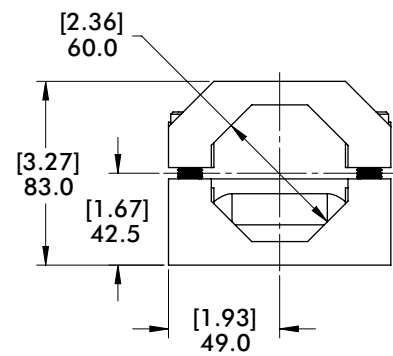
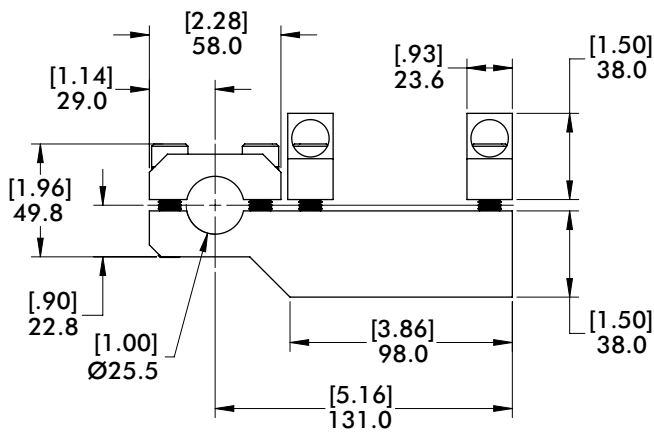
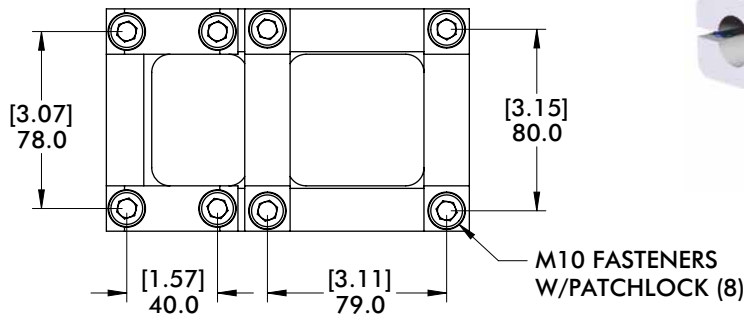
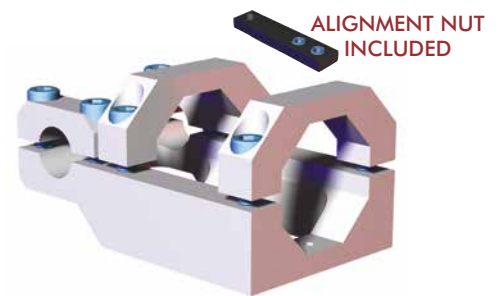


### Specifications:

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

### Features:

- Connects 60mm octagon and 25mm round perpendicular on the same plane.
- Lightweight, high-strength aluminum design.



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



# BODYBUILDER™ T-CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



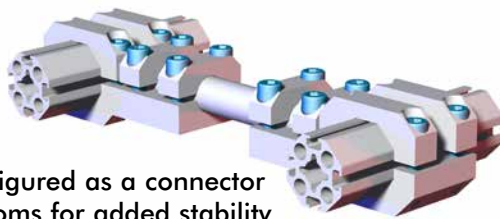
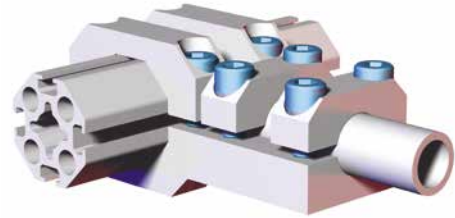
## TCA-25M-45B 25mm Round to 45mm Octagon T-Clamp Brackets Assembly

### Features:

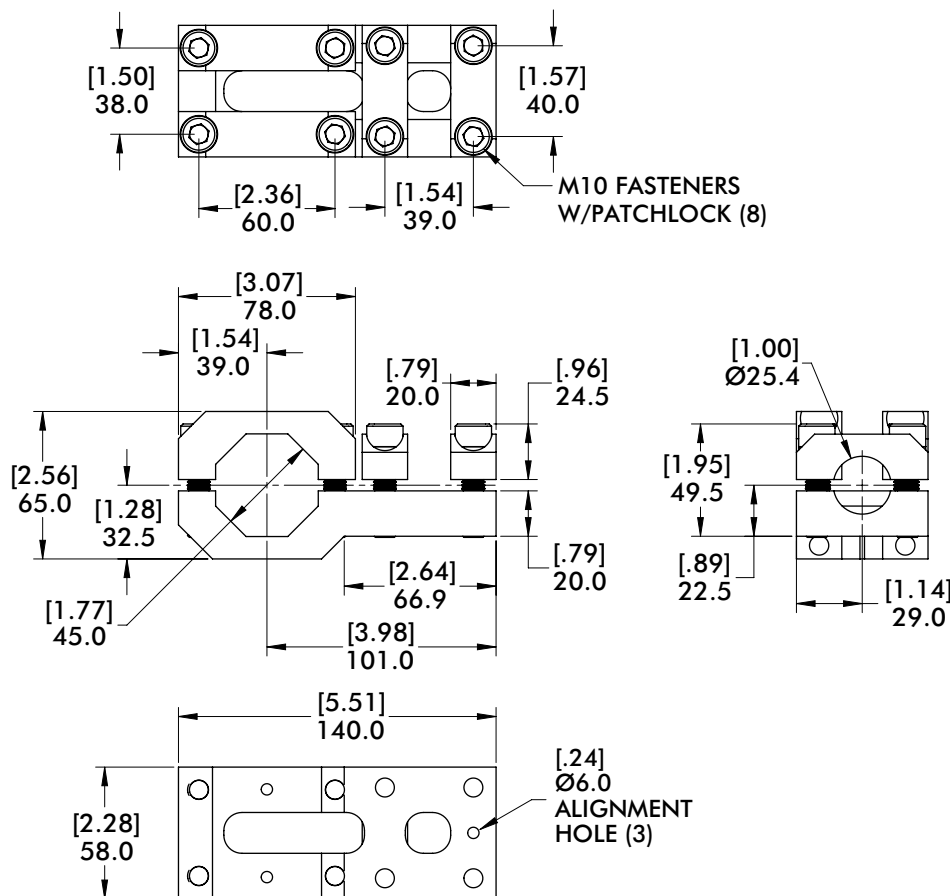
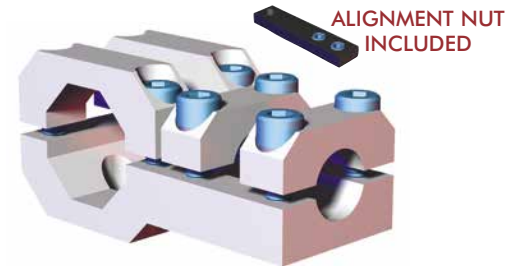
- Connects 25mm round and 45mm octagon perpendicular on the same plane.
- Lightweight, high-strength aluminum design.

### Specifications:

**Max. Static Clamp Load:**  
 45mm: 475 Nm [350 ft-lb]  
 25mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum

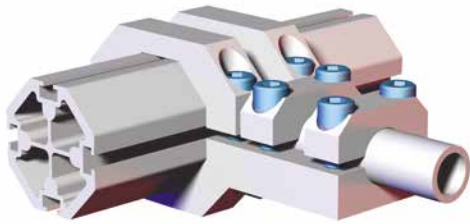


Can be configured as a connector between booms for added stability



Model Number	Weight
CPI-TCA-25M-45B	.57 kg [1.26 lb]

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

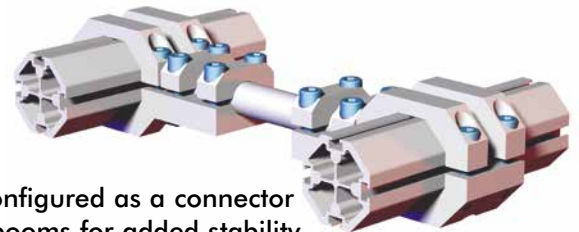
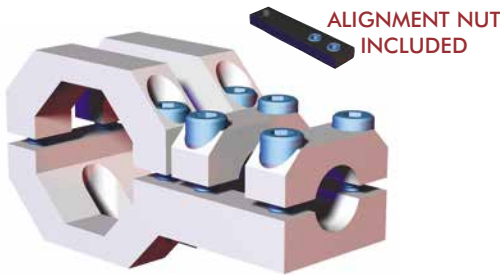


### Specifications:

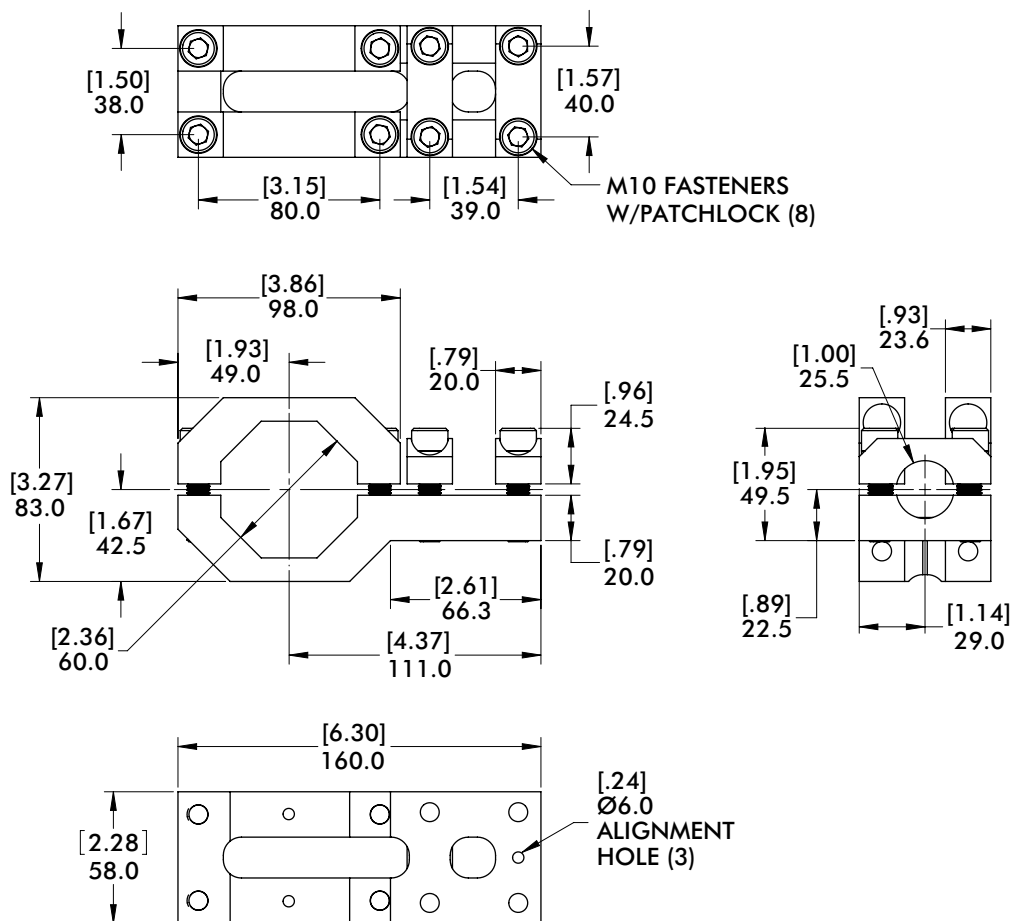
**Max. Static Clamp Load:**  
 60mm: 746 Nm [550 ft-lb]  
 25mm: 271 Nm [200 ft-lb]  
**Material:** Aluminum

### Features:

- Connects 25mm round and 60mm octagon perpendicular on the same plane.
- Lightweight, high-strength aluminum design.



Can be configured as a connector between booms for added stability



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

# BODYBUILDER™ ELBOWS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



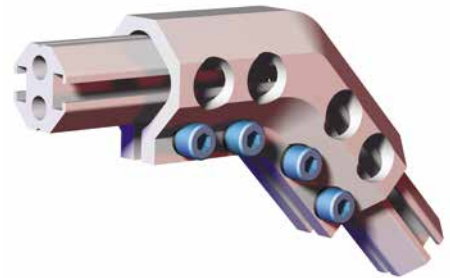
## 45° Angular Boom Clamp Brackets

### Features:

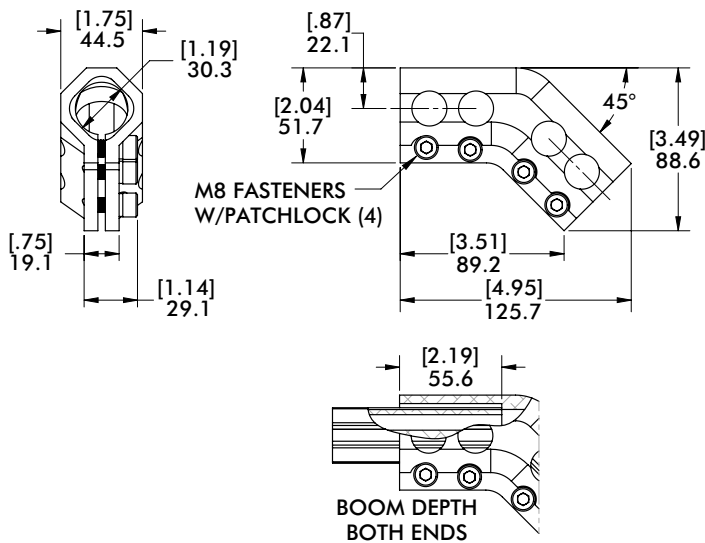
- Mounts (2) Bodybuilder extrusion booms inline at a 45° angle.

### Specifications:

**Material:** Aluminum

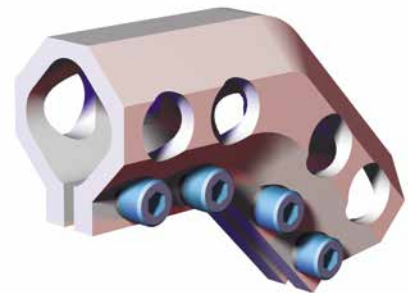


### DC-3030B-45 30mm to 30mm 45° External Boom Clamp Brackets



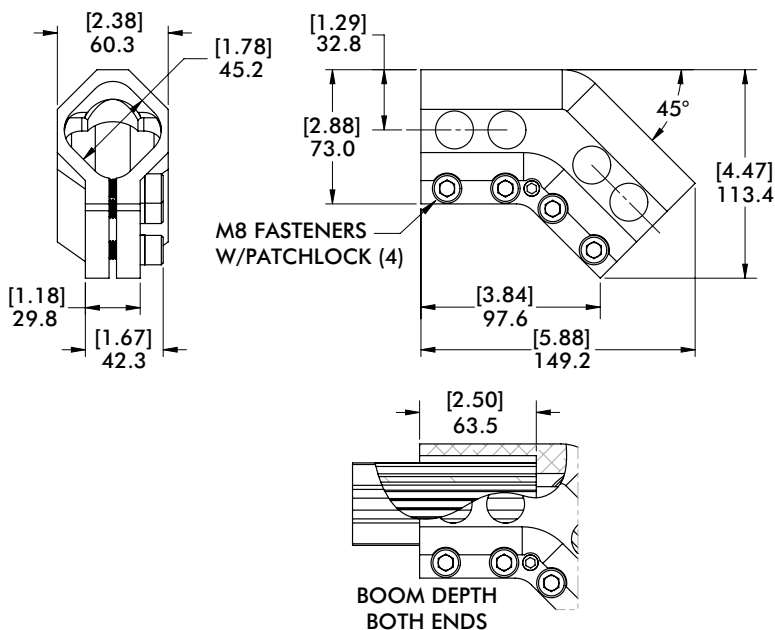
### Specifications:

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



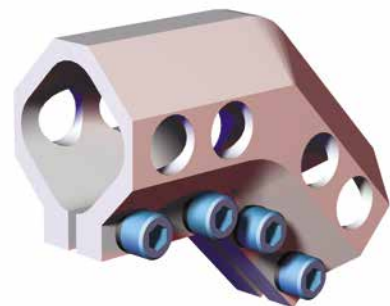
Model Number	Weight
CPI-DC-3030B-45	.30 kg [.66 lb]

### DC-4545B-45 45mm to 45mm 45° Angular Boom Clamp Brackets



### Specifications:

**Max. Static Clamp Load:**  
475 Nm [350 ft-lb]



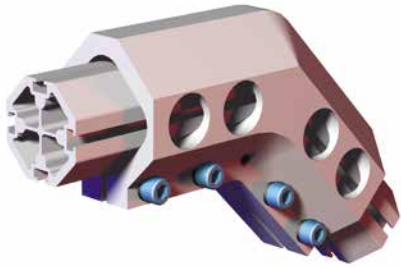
Model Number	Weight
CPI-DC-4545B-45	.64 kg [1.4 lb]



# BODYBUILDER™ ELBOWS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## DC-6060B-45 60mm to 60mm 45° Angular Boom Clamp Brackets



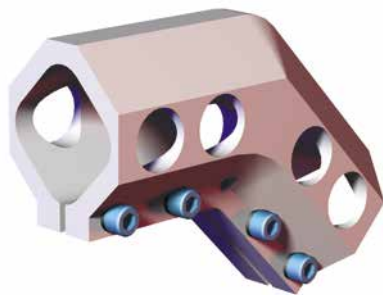
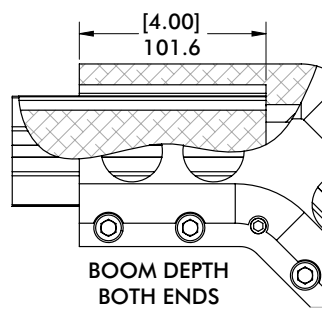
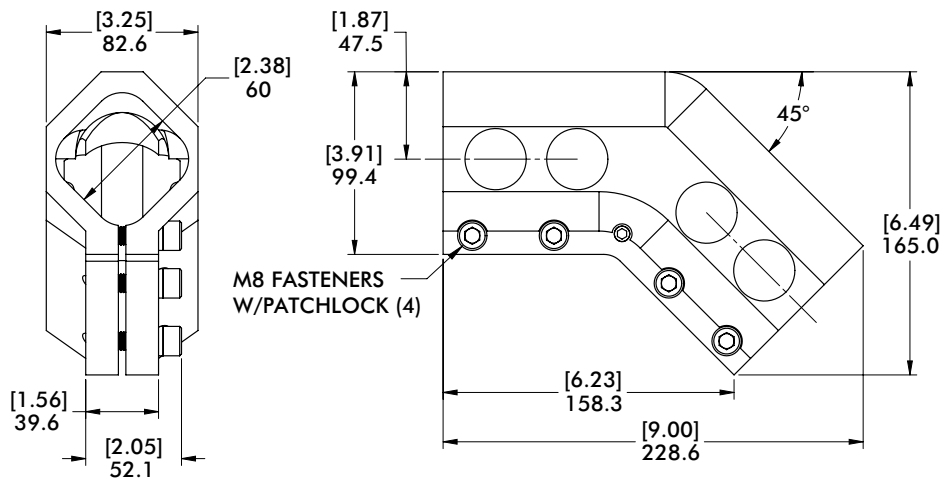
### Specifications:

**Max. Static Clamp Load:**  
746 Nm [550 ft-lb]

**Material:** Aluminum

### Features:

- Mounts (2) Bodybuilder extrusion booms inline at a 45° angle.



Model Number	Weight
CPI-DC-6060B-45	1.74 kg [3.8 lb]

# BODYBUILDER™ MID FLANGE CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



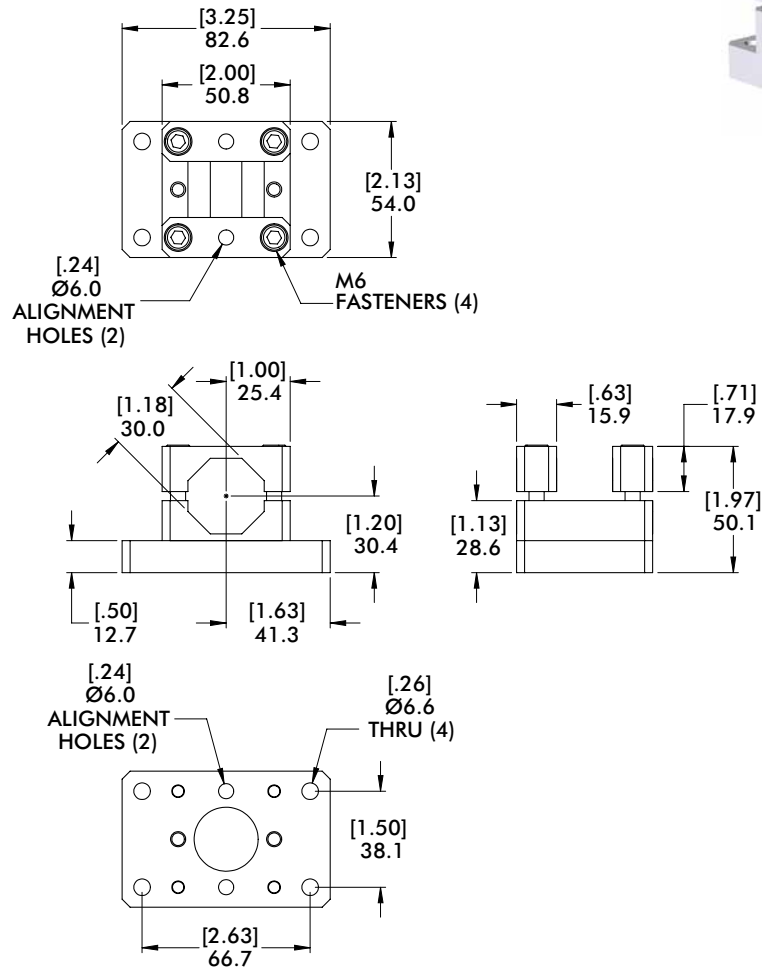
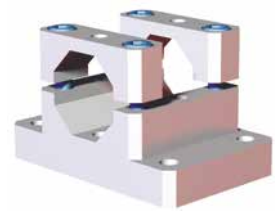
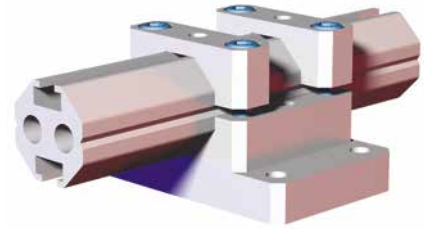
## CLM-30B-152F-90 30mm Mid Flange Clamp Mount

### Features:

- Mounts 30mm extrusion parallel to the mounting surface.
- Can be used as robot interface when quick-change connector is not required.

### Specifications:

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



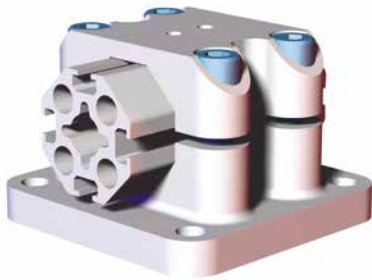
Model Number	Weight
CPI-CLM-30B-152F-90	0.28 kg [.61 lb]



# BODYBUILDER™ MID FLANGE CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## TBC-45 45mm Mid Flange Clamp Mount



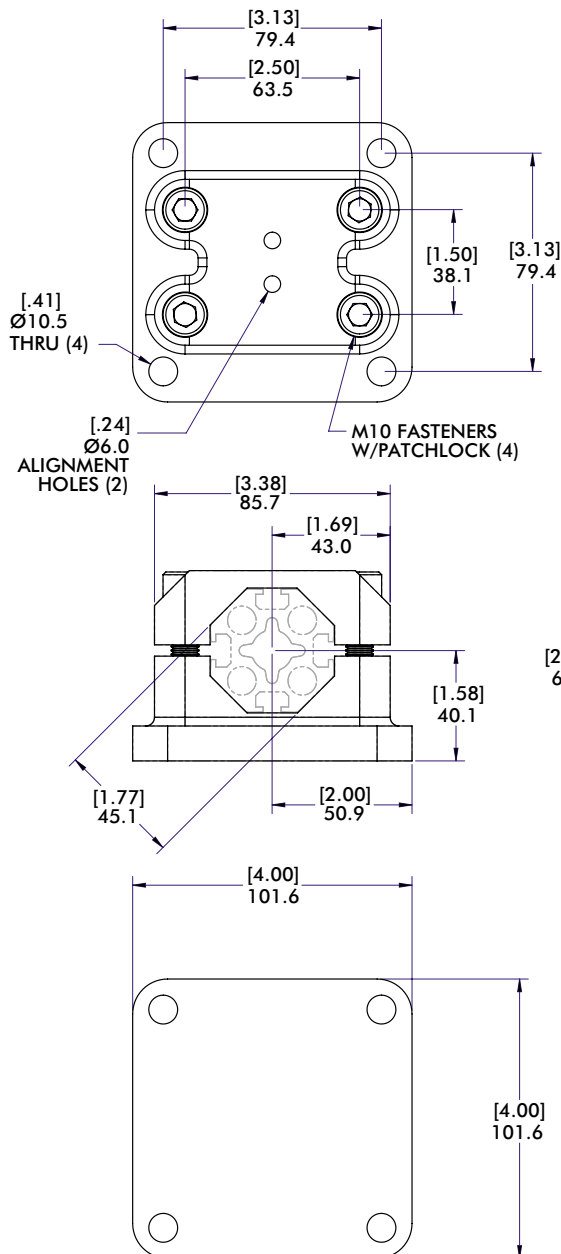
### Specifications:

**Max. Static Clamp Load:**  
475 Nm [350 ft-lb]

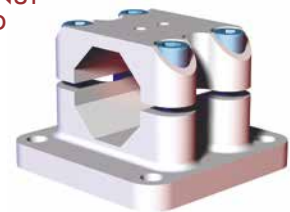
**Material:** Aluminum

### Features:

- Mounts 45mm extrusion parallel to the mounting surface.
- Can be used as robot interface when quick-change connector is not required.



ALIGNMENT NUT INCLUDED



Model Number	Weight
TBC-45-00	0.79 kg [1.74 lb]

# BODYBUILDER™ MID FLANGE CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



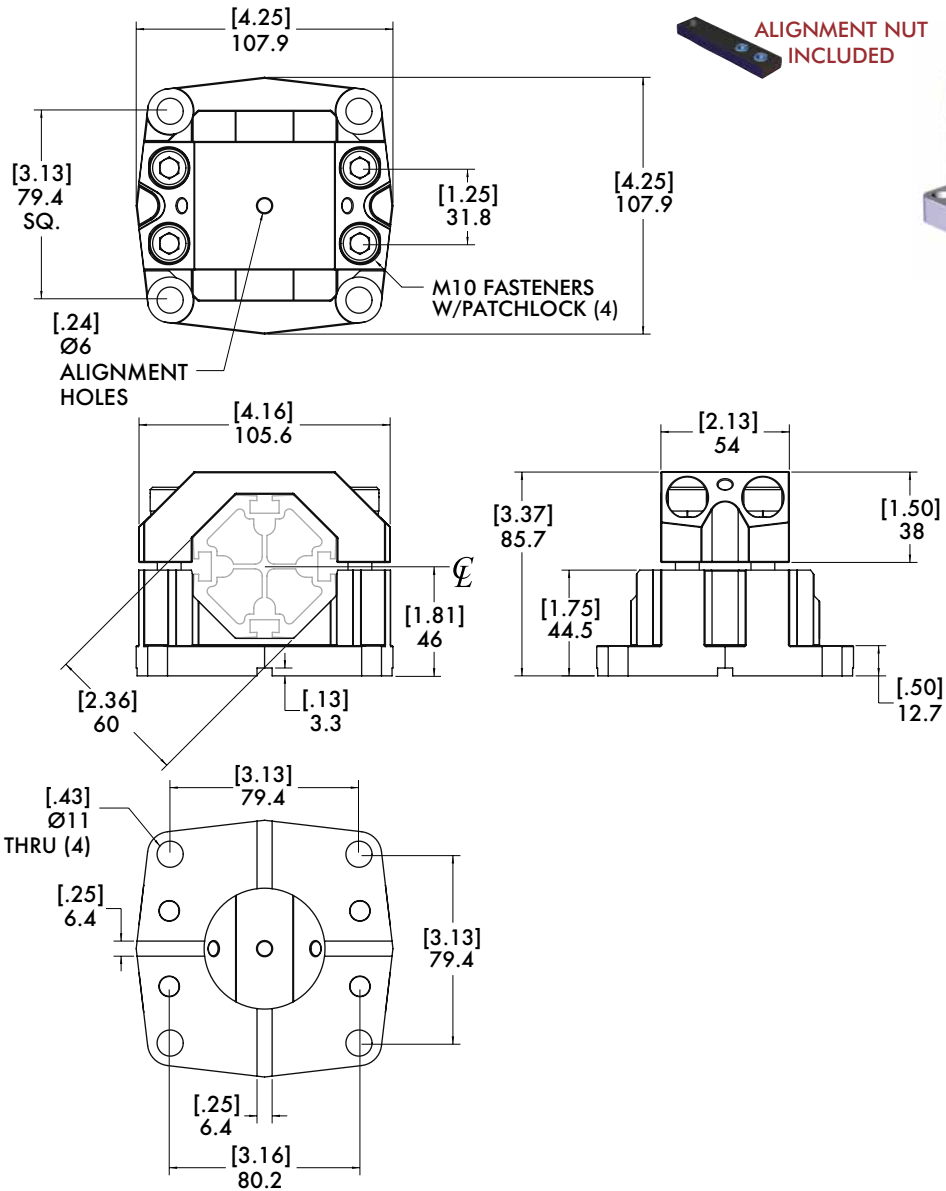
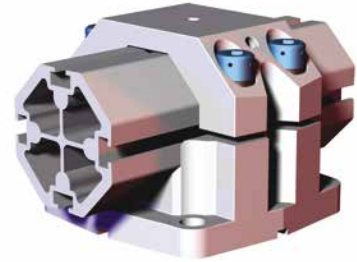
## TBC-60 60mm Mid Flange Clamp Mount

### Features:

- Mounts 60mm extrusion parallel to the mounting surface.
- Can be used to mount to robot with an interface plate.
- Cross-key design provides added strength for high-torque applications when used in conjunction with a slot and key mechanism.

### Specifications:

**Max. Static Clamp Load:**  
746 Nm [550 ft-lb]  
**Material:** Cast Aluminum



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

Model Number	Weight
TBC-60-00	0.92 kg [2.02 lb]



# BODYBUILDER™ END FLANGE CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## CLM-30B-20F 30mm End Flange Clamp Mount



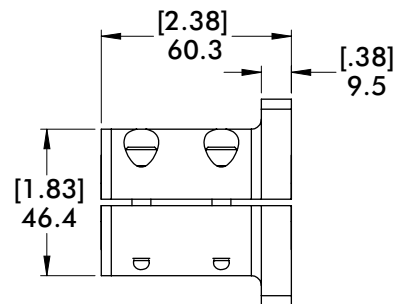
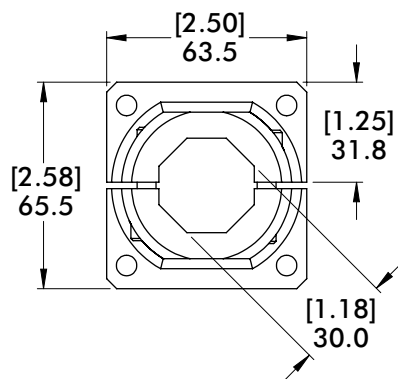
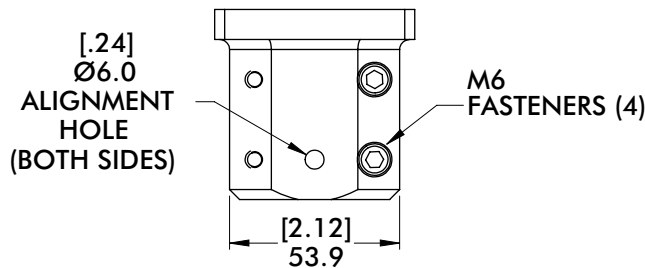
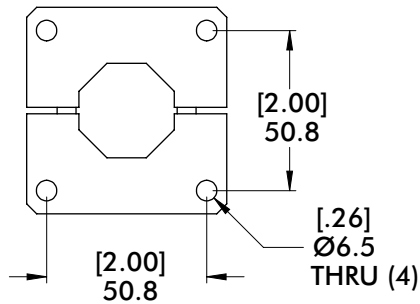
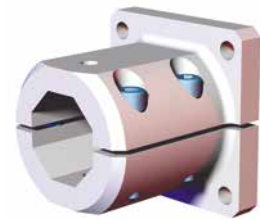
### Specifications:

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

**Material:** Aluminum

### Features:

- Mounts 30mm extrusion 90° to the mounting surface.
- Can be used as robot interface when quick-change connector is not required.



Model Number	Weight
CPI-CLM-30B-20F	.29 kg [.64 lb]



# BODYBUILDER™ END FLANGE CLAMPS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



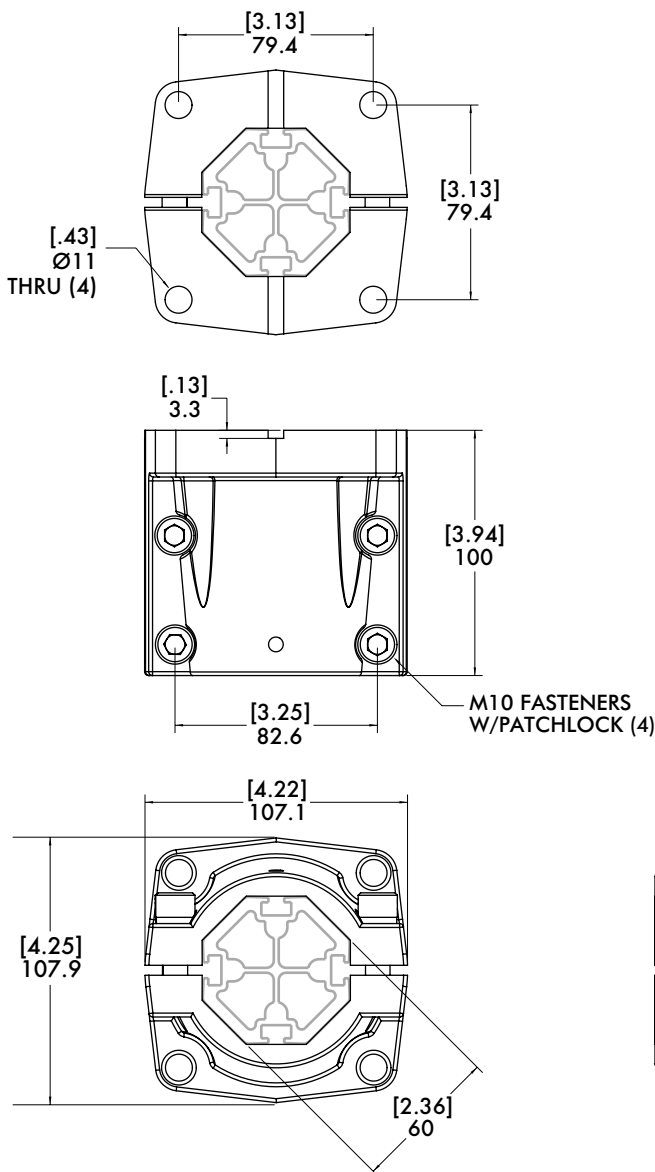
## BECC-60 60mm End Flange Clamp Mount

### Features:

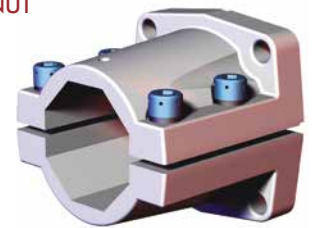
- Mounts 60mm extrusion 90° to the mounting surface.
- Can be used as robot interface when quick-change connector is not required.
- Cross-key design provides added strength for high-torque applications when used in conjunction with a slot and key mechanism.

### Specifications:

**Max. Static Clamp Load:**  
746 Nm [550 ft-lb]  
**Material:** Cast Aluminum



ALIGNMENT NUT INCLUDED



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

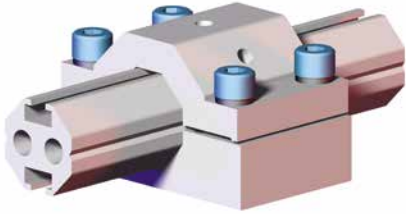
Model Number	Weight
BECC-60-00	1.21 kg [2.67 lb]



# BODYBUILDER™ ACCESSORY MOUNTS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## TPM-30 30mm Accessory Mounting Bracket



### Specifications:

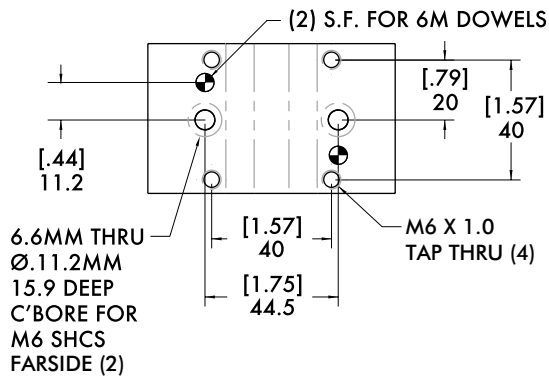
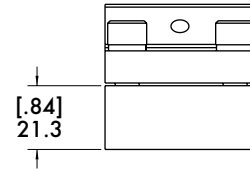
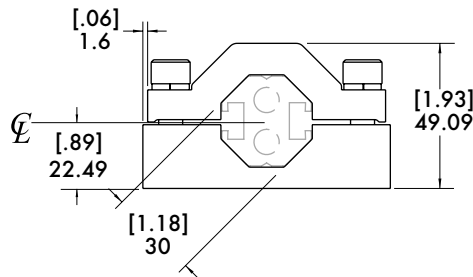
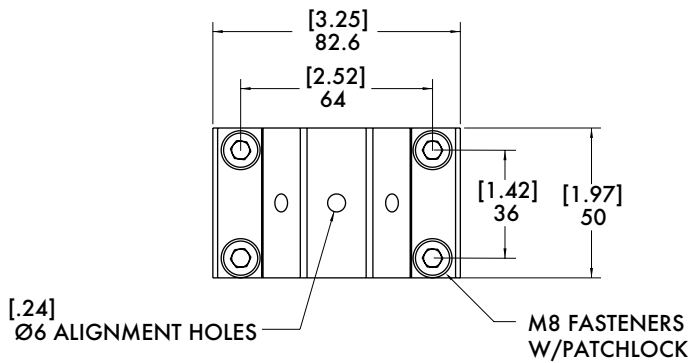
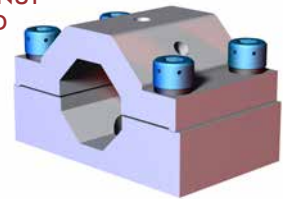
**Max. Static Clamp Load:**  
271 Nm [200 ft-lb]

**Material:** Aluminum

### Features:

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

ALIGNMENT NUT INCLUDED



Model Number

TPM-30

Weight

.36 kg [.80 lb]

# BODYBUILDER™ ACCESSORY MOUNTS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## TPM(S)-45 45mm Accessory Mounting Bracket

### Features:

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

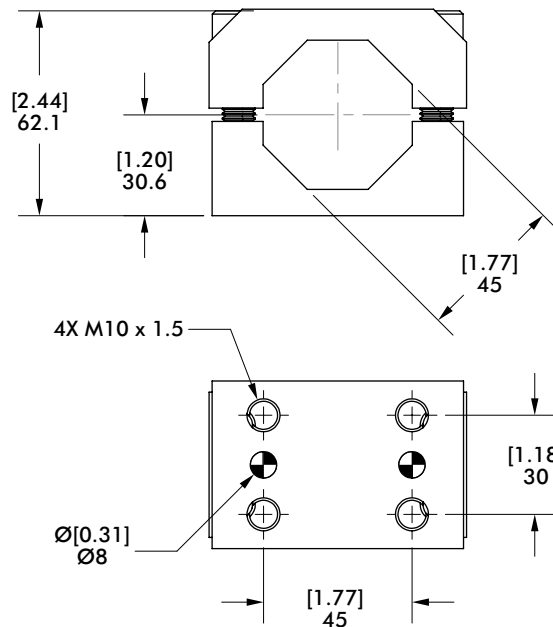
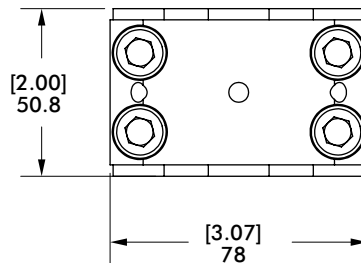
### Specifications:

**Max. Static Clamp Load:**  
475 Nm [350 ft-lb]

**Material:**  
TPMS-45: Steel  
TPM-45: Aluminum



ALIGNMENT NUT  
INCLUDED



Model Number	Weight
TPM-45 (Aluminum)	.48 kg [1.28 lb]
TPMS-45 (Steel)	1.10 kg [2.90 lb]

## TPMS-60 60mm Accessory Mounting Bracket.



### Specifications:

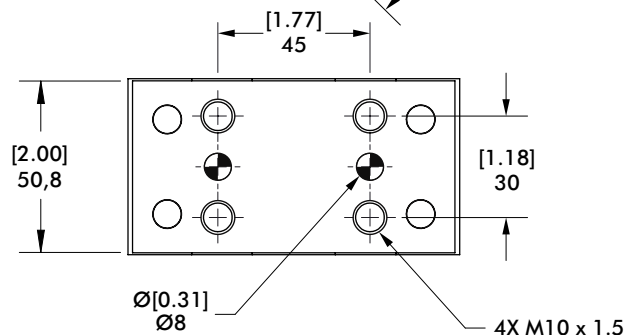
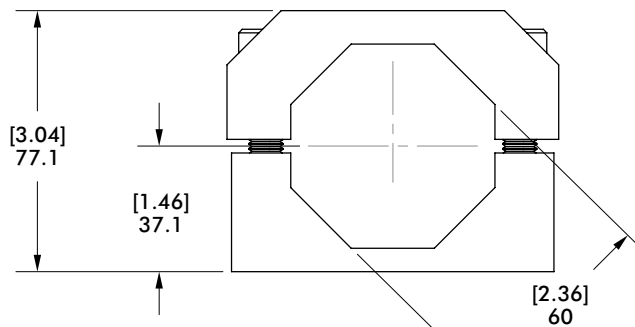
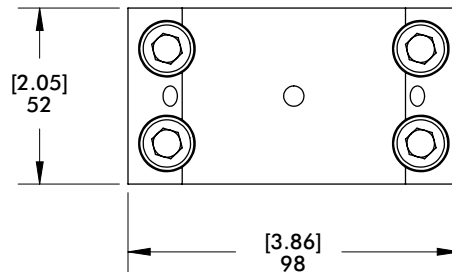
**Max. Static Clamp Load:**  
746 Nm [550 ft-lb]

**Material:** Steel

### Features:

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

ALIGNMENT NUT INCLUDED



Model Number	Weight
TPMS-60	1.3 kg [2.90 lb]

# BODYBUILDER™ ACCESSORY MOUNTS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## TPMS-90 90mm Accessory Mounting Bracket

### Features:

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

### Specifications:

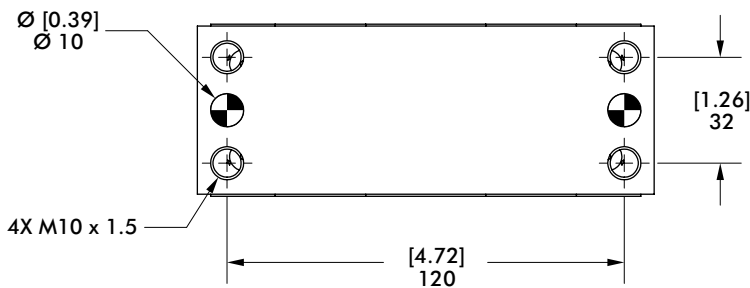
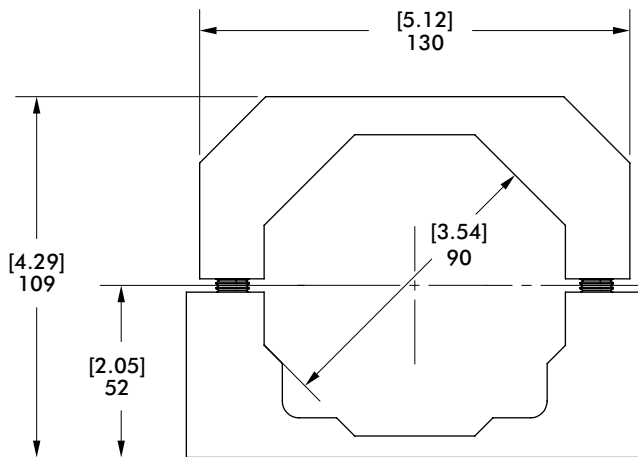
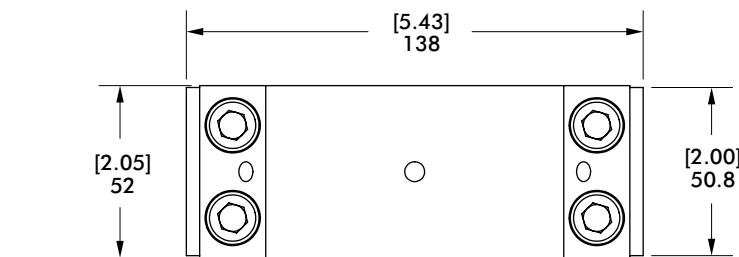
**Max. Static Clamp Load:**

746 Nm [550 ft-lb]

**Material:** Steel



ALIGNMENT NUT  
INCLUDED



Model Number

TPMS-90

Weight

1.93kg [4.25lb]



# BODYBUILDER™ GRIPPER MOUNTS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## GPC-150-30BBS 30mm Swivel 150 Series Parallel Gripper Mount



### Specifications:

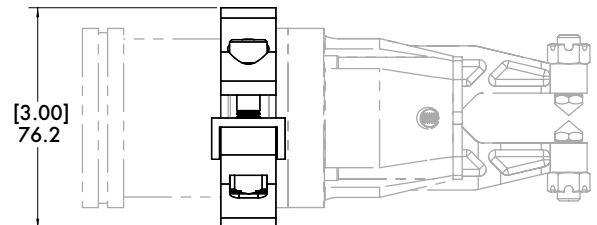
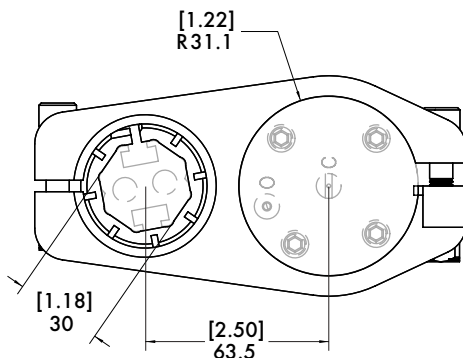
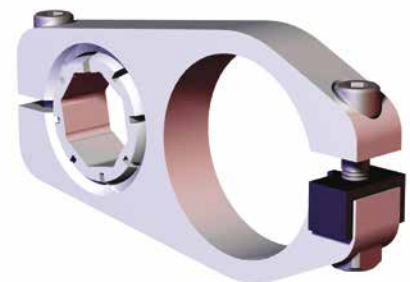
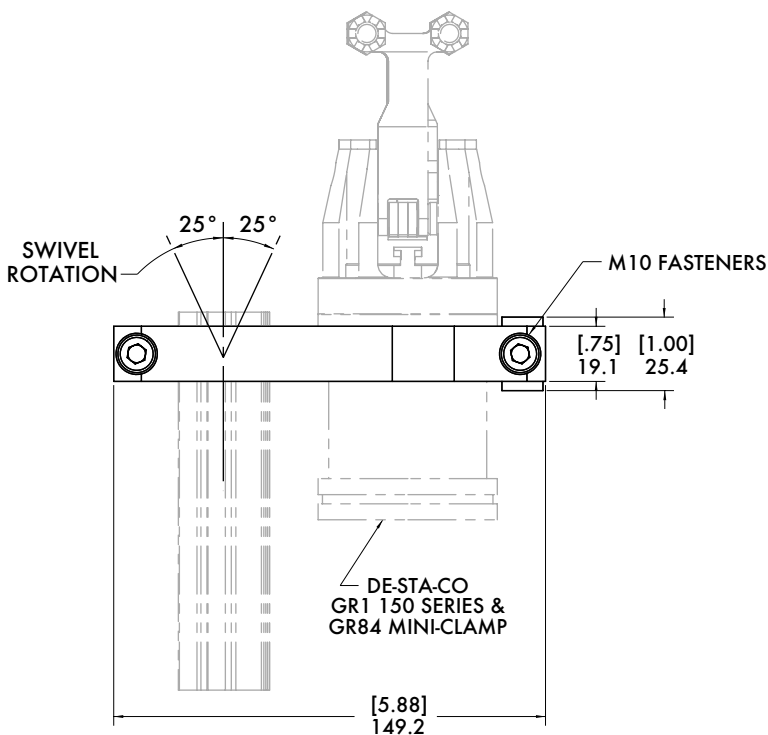
**Max. Static Clamp Load:**  
271 Nm [200 ft-lb]

### Material:

Body: Aluminum  
Swivel Ball: Steel

### Features:

- Removable grip mount lock allows gripper to be adjusted while continuing to holding it in place.
- Swivel ball allows for  $\pm 25^\circ$  adjustment of swivel rotation.



Model Number	Weight
CPI-GPC-150-30BBS-DC	.33 kg [.73 lb]

# BODYBUILDER™ GRIPPER MOUNTS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## RJM-150-30BBS 30mm End Gripper Mount for 150 Series Gripper

### Features:

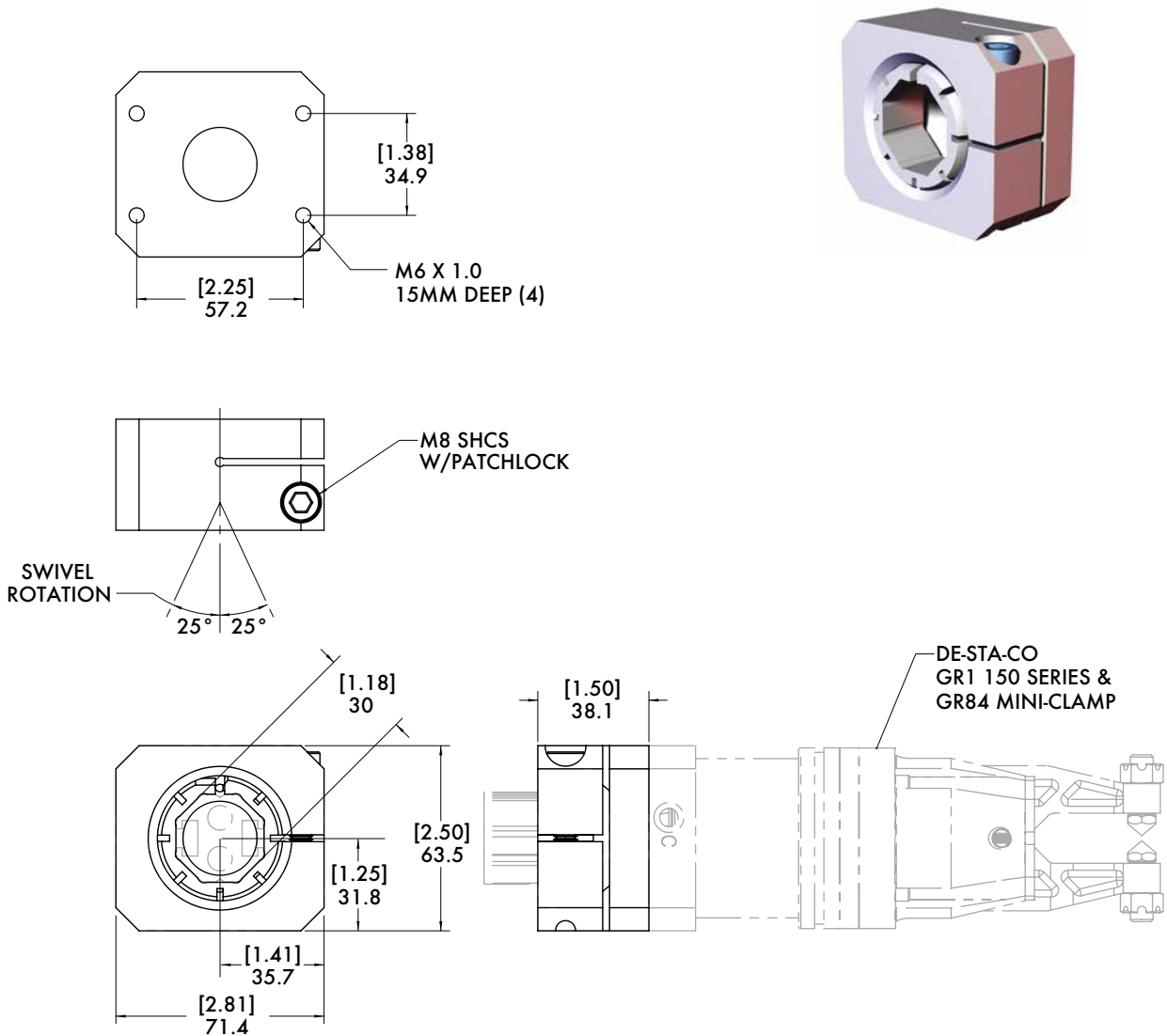
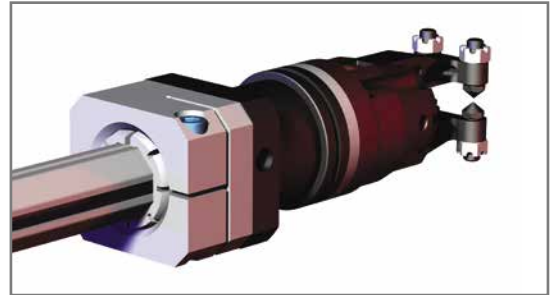
- Swivel ball allows for  $\pm 25^\circ$  adjustment of swivel rotation.

### Specifications:

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

### Material:

**Housing:**  
Machined Aluminum  
**Swivel:** Steel



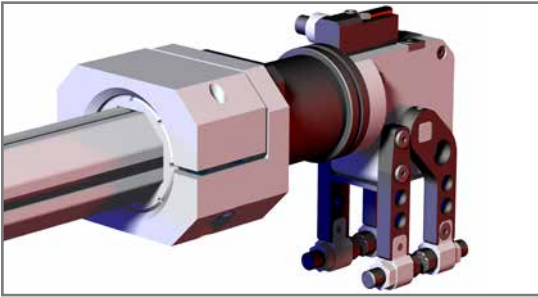
Model Number	Weight
CPI-RJM-150-30BBS	.33 kg [.74 lb]



# BODYBUILDER™ GRIPPER MOUNTS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## RJM-150-45BBS 45mm End Gripper Mount for 150 Series Gripper



**Specifications:**

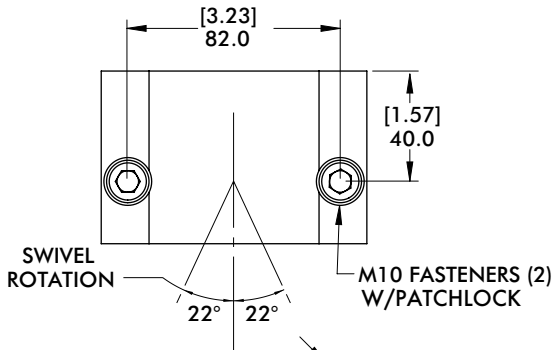
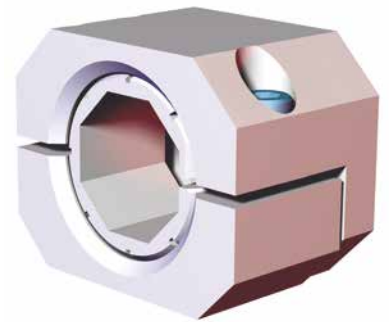
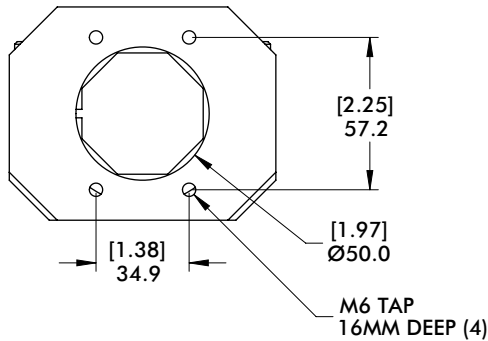
Max. Static Clamp Load:  
475 Nm [350 ft-lb]

**Material:**

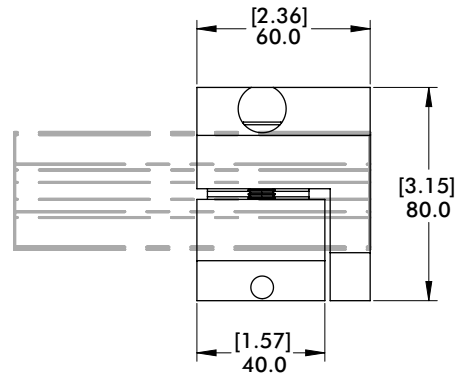
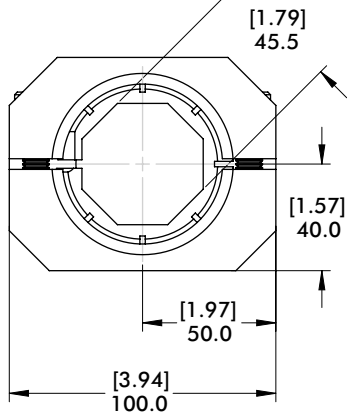
Housing:  
Machined Aluminum  
Swivel: Steel

**Features:**

- Swivel ball allows for  $\pm 22^\circ$  adjustment of swivel rotation.



TO USE AS A FIXED MOUNT  
INSERT BOOM COMPLETELY  
UNTIL IT COMES INTO  
CONTACT WITH GRIPPER  
FOR SWIVEL OPTION INSERT  
BOOM 40 MM [1.57 IN] OR  
UNTIL BOOM IS INSERTED  
ENOUGH TO ALLOW  
ROTATION WITHOUT  
OBSTRUCTION



Model Number	Weight
CPI-RJM-150-45BBS	1.23 kg [2.71 lb]



# BODYBUILDER™ SWIVEL ARMS



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## 30B50-MSA 30mm Swivel Arms for .50"(in) Apple Core Accessories

### Features:

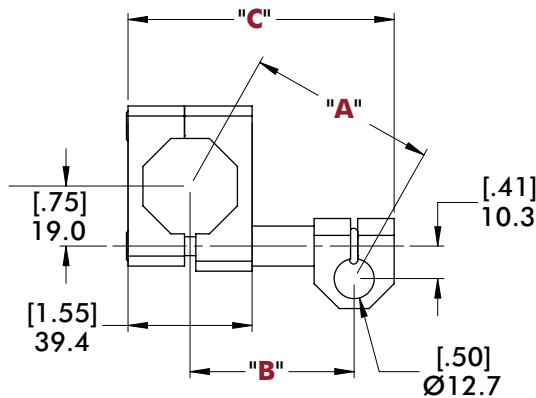
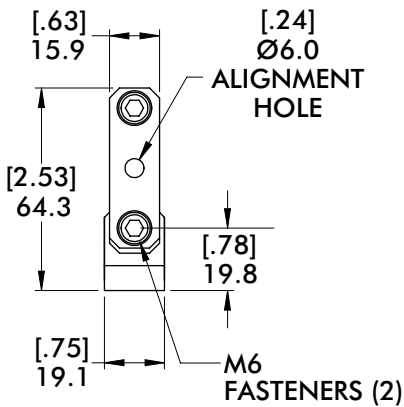
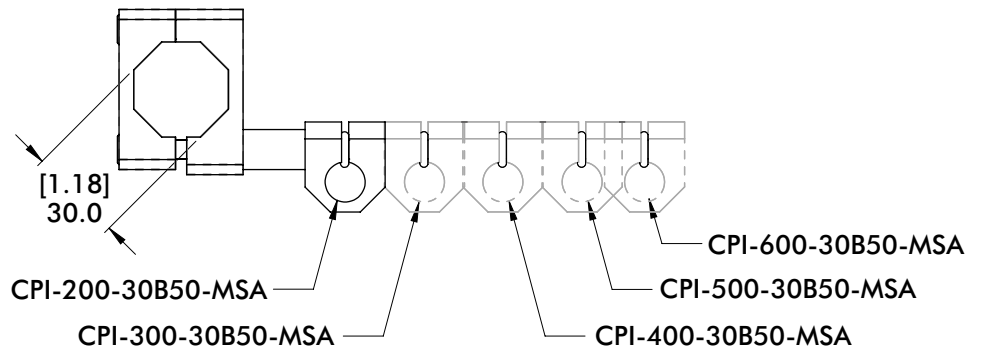
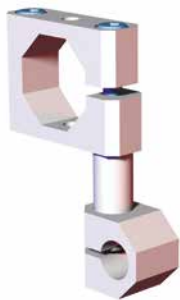
- Mounts to BodyBuilder™ 30mm extrusion boom.
- One bolt design for easy assembly and adjustment, allowing accessories to be repositioned easily.
- Provides 360° of adjustments in (3) axes.
- Used to mount venturi, bumpers, round locators, and proximity switches.

### Specifications:

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

### Material:

**Body:**  
Cast Aluminum  
**Insert:**  
Machined Aluminum



CPI- <u>L</u> -30B50-MSA SWIVEL ARM				
"L"	"A"	"B"	"C"	Weight
<b>200</b>	59.8 [2.35]	52.1 [2.05]	84.5 [3.33]	.10 kg [.22 lb]
<b>300</b>	82.6 [3.25]	77.2 [3.04]	109.6 [4.32]	.11 kg [.24 lb]
<b>400</b>	106.2 [4.18]	102.1 [4.02]	134.5 [5.30]	.12 kg [.26 lb]
<b>500</b>	130.6 [5.14]	127.3 [5.01]	159.7 [6.29]	.13 kg [.29 lb]
<b>600</b>	150.0 [5.90]	147.1 [5.79]	179.5 [7.07]	.14 kg [1.72 lb]



# BODYBUILDER™ SWIVEL ARMS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

**45B-CSA** 45mm Swivel Arms for Ø19mm [.75 in] Apple Core Accessories



**Specifications:**

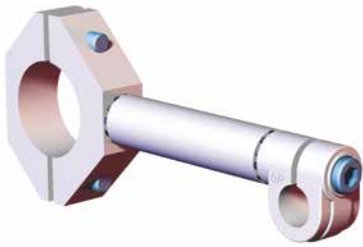
**Max. Static Clamp Load:**  
271 Nm [200 ft-lb]

**Material:**

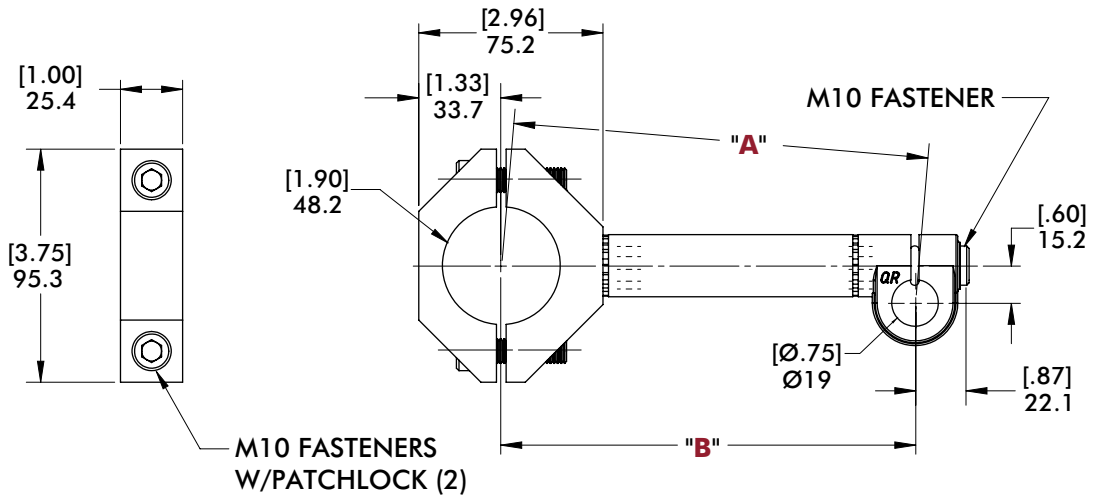
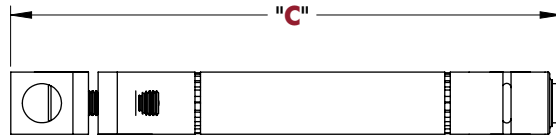
**Body:**  
Cast Aluminum  
**Insert:**  
Machined Aluminum

**Features:**

- Mounts to BodyBuilder™ 45mm extrusion boom.
- One bolt design for easy assembly and adjustment, allowing accessories to be repositioned easily.
- Provides 360° of adjustments in (3) axes.
- Used to mount venturi, bumpers, round locators, and proximity switches.



CPI-180-45B-CSA SHOWN



CPI-" L "-45B-CSA SWIVEL ARM				
" L "	"A"	"B"	"C"	Weight
<b>130</b>	119.8 [4.72]	118.8 [4.68]	140.9 [5.56]	.48 kg [1.06 lb]
<b>180</b>	169.8 [6.68]	169.1 [66.6]	224.9 [8.89]	.54 kg [1.20 lb]
<b>230</b>	219.7 [8.65]	219.1 [8.63]	275.0 [10.83]	.61 kg [1.34 lb]
<b>280</b>	269.6 [10.61]	269.2 [10.60]	325.0 [12.80]	.67 kg [1.47 lb]

# BODYBUILDER™ SWIVEL ARMS

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## SA-30 30mm Swivel Arms for Ø19mm [.75 in] Apple Core Accessories

### Features:

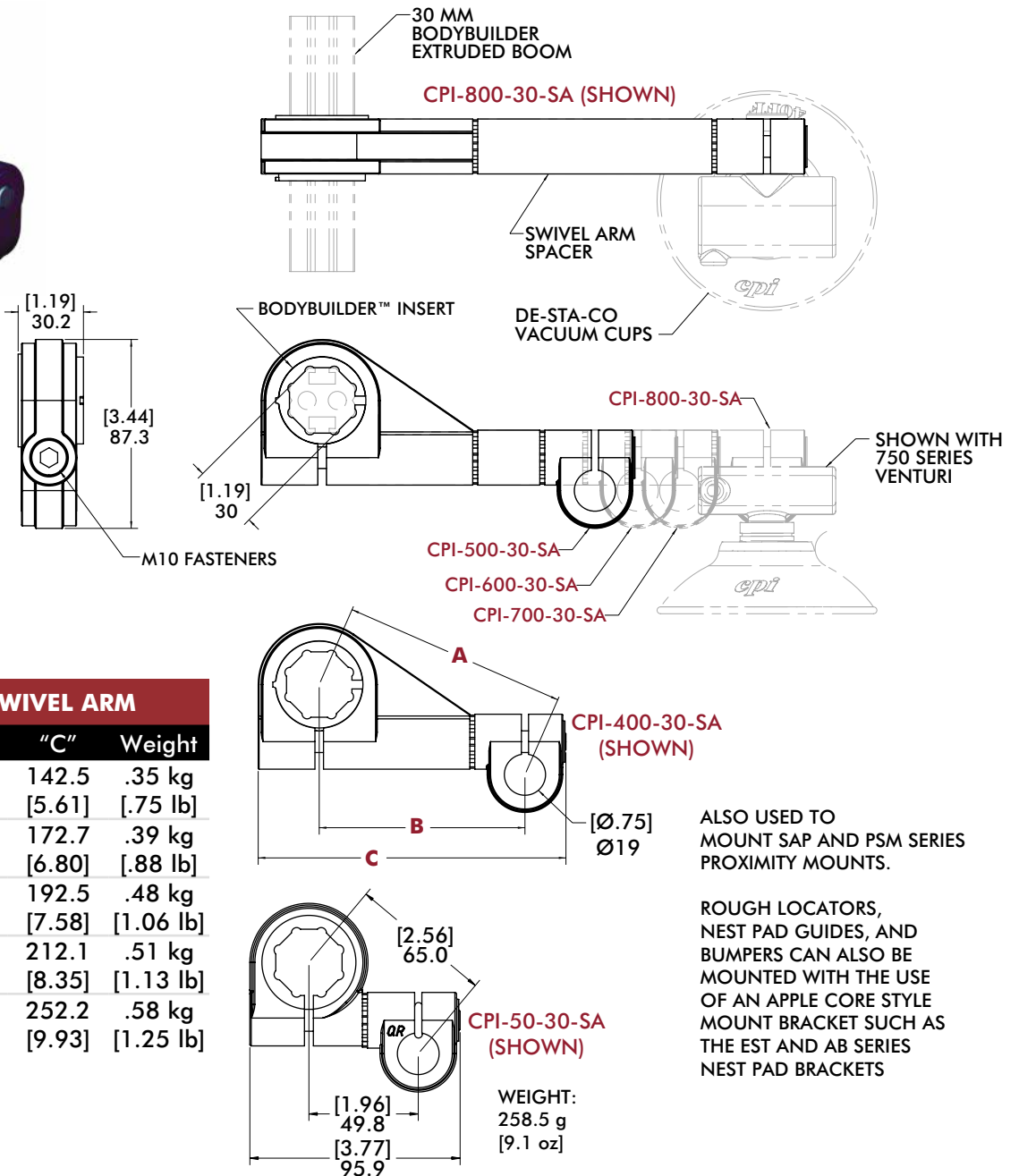
- Mounts to BodyBuilder™ 30mm extrusion boom.
- One bolt design for easy assembly and adjustment, allowing accessories to be repositioned easily.
- Provides 360° of adjustments in (3) axes.
- Used to mount venturi, bumpers, round locators, and proximity switches.

### Specifications:

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



CPI-400-30-SA SHOWN



ALSO USED TO MOUNT SAP AND PSM SERIES PROXIMITY MOUNTS.

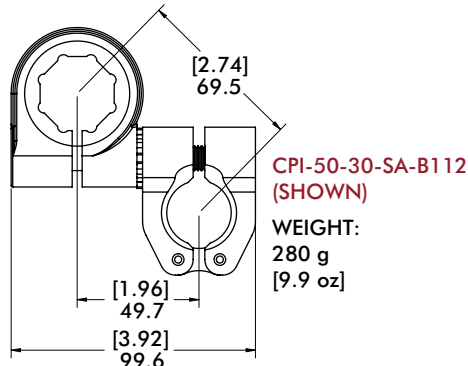
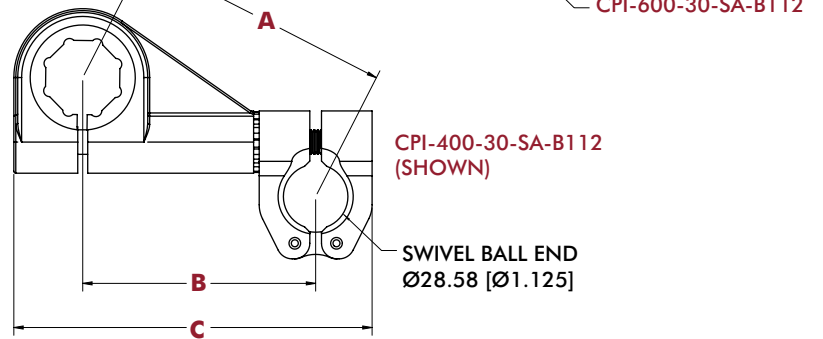
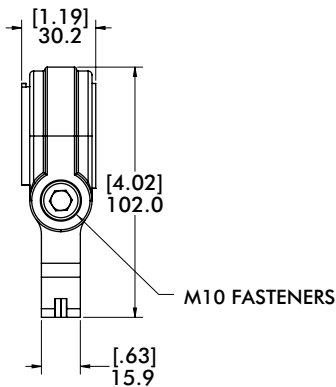
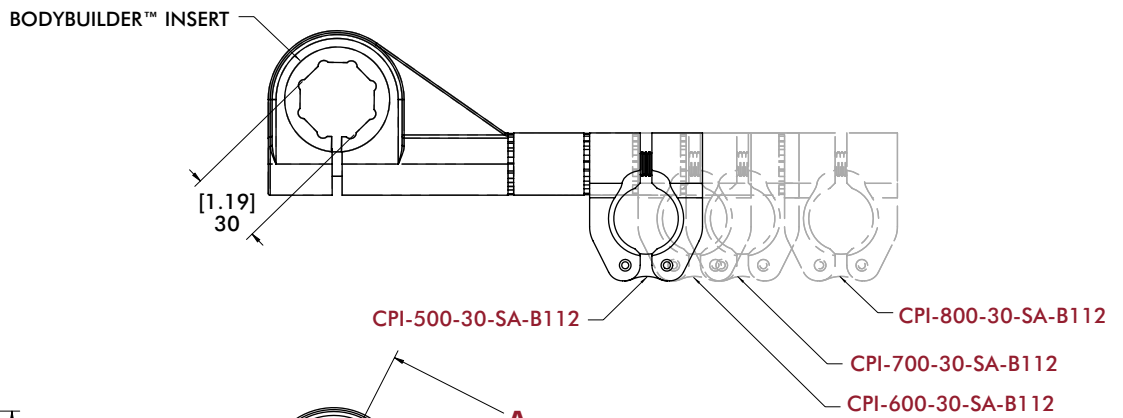
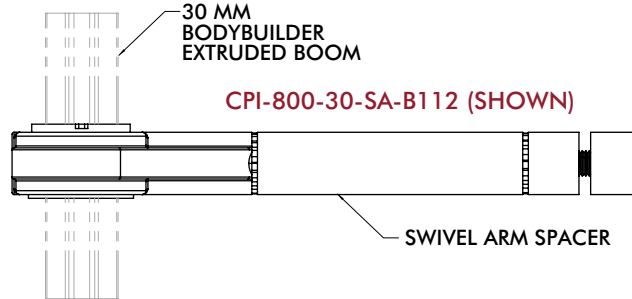
ROUGH LOCATORS, NEST PAD GUIDES, AND BUMPERS CAN ALSO BE MOUNTED WITH THE USE OF AN APPLE CORE STYLE MOUNT BRACKET SUCH AS THE EST AND AB SERIES NEST PAD BRACKETS

CPI-" L "-30-SA SWIVEL ARM				
" L "	"A"	"B"	"C"	Weight
400	103.8 [4.09]	95.1 [3.74]	142.5 [5.61]	.35 kg [.75 lb]
500	132.8 [5.26]	126.0 [4.96]	172.7 [6.80]	.39 kg [.88 lb]
600	151.7 [5.97]	146.0 [5.75]	192.5 [7.58]	.48 kg [1.06 lb]
700	170.6 [6.72]	165.4 [6.51]	212.1 [8.35]	.51 kg [1.13 lb]
800	209.7 [8.26]	205.5 [8.09]	252.2 [9.93]	.58 kg [1.25 lb]

## 30-SA-B112 30mm Swivel Arms for Swivel Ball Mount Accessories



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



CPI-50-30-SA-B112 (SHOWN)  
WEIGHT: 280 g [9.9 oz]

CPI-" L "-30-SA-B112 SWIVEL ARM				
" L "	" A "	" B "	" C "	Weight
400	106.7 [4.20]	95.0 [3.74]	146.1 [5.75]	.40 kg [.88 lb]
500	135.0 [5.32]	126.0 [4.96]	177.1 [6.97]	.46 kg [1.00 lb]
600	153.7 [6.05]	145.8 [5.74]	196.9 [7.75]	.49 kg [1.06 lb]
700	172.3 [6.78]	165.4 [6.51]	216.5 [8.52]	.53 kg [1.19 lb]
800	211.1 [8.31]	205.5 [8.09]	256.6 [10.10]	.60 kg [1.31 lb]

# BODYBUILDER™ SWIVEL ARM ACCESSORIES



BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

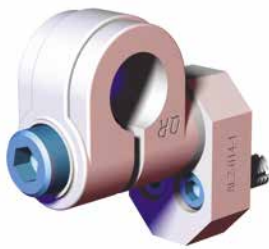
## BC19 30mm Bodybuilder to Ø19mm [.75 in] Apple Core Swivel End Mount

### Features:

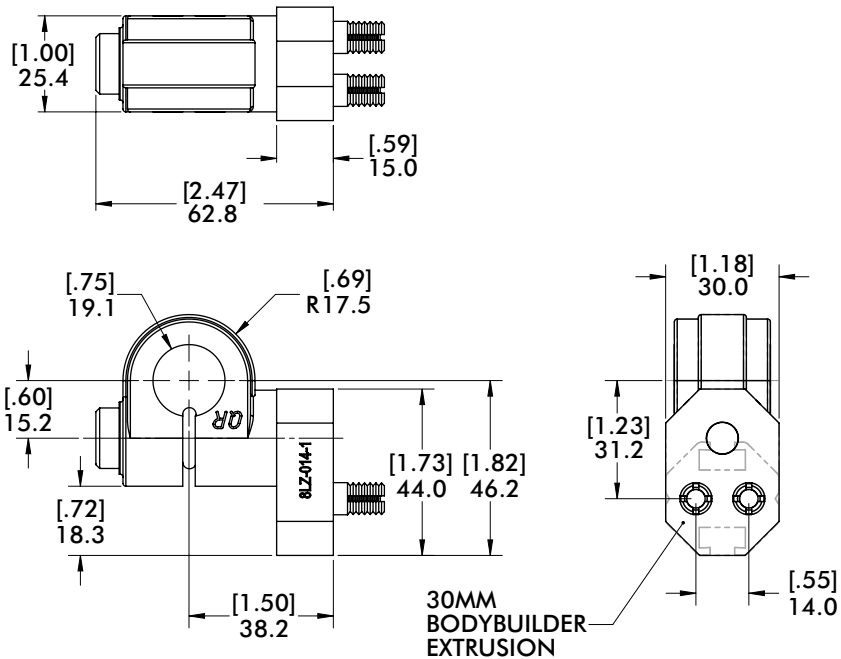
- Mounts to BodyBuilder™ 30mm extrusion boom.
- One bolt design for easy assembly and adjustment, allowing accessories to be repositioned easily.
- Provides 360° of adjustment along (2) axis.

### Specifications:

**Material:**  
Aluminum



INCLUDES (2) INSERTS TO BE PRESS-FITTED INTO THE END OF 30MM BODYBUILDER™ OCTAGONAL BOOM



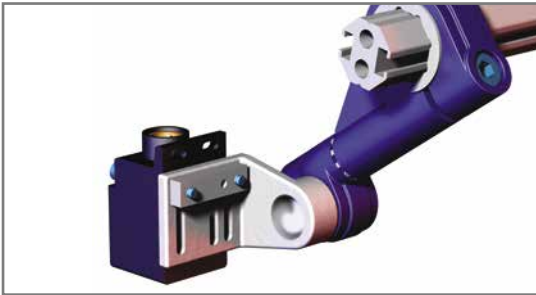
Model Number	Weight
CPI-BC-19	.13 kg [.28 lb]



# BODYBUILDER™ SWIVEL ARM ACCESSORIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## AB-750-SL Part Present Proximity Switch Mount



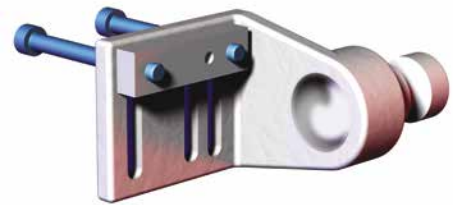
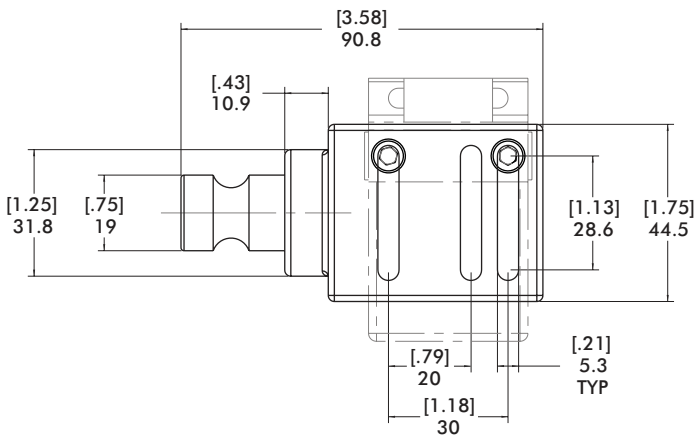
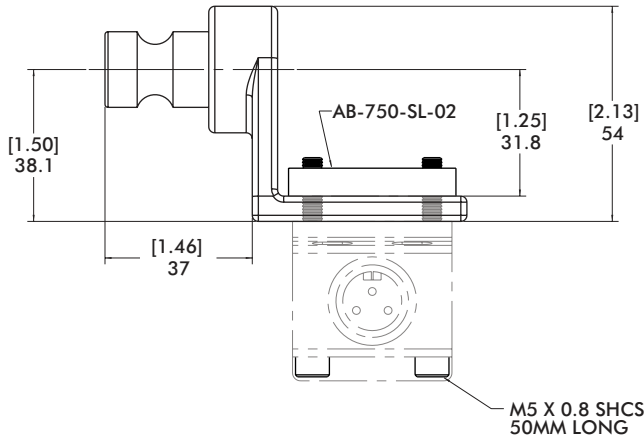
### Specifications:

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

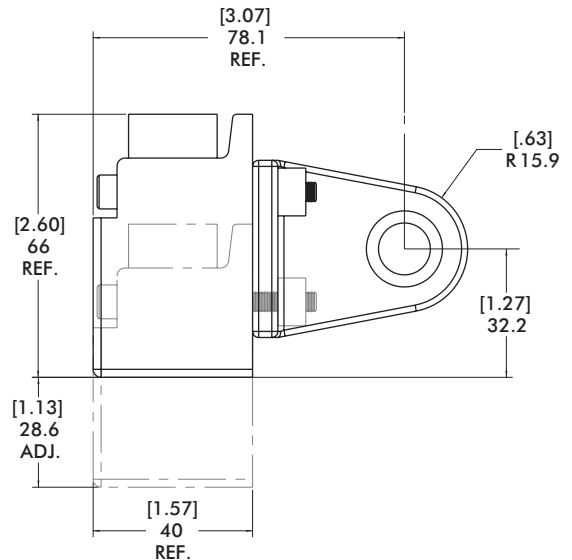
**Material:**  
Aluminum

### Features:

- Mounts a 40mm square proximity sensor to the BodyBuilder™ 30mm Swivel Arm (CPI-"L"-30-SA).
- Mount allows for 360 degrees of radial adjustment along one axis.
- Slots allows 28.6mm [1.13 in] of linear adjustment for fine tuning during final setup.



**FASTENERS AND NUT INCLUDED**



Model Number	Weight
CPI-AB-750-SL	.10 KG [.22 lb]

# BODYBUILDER™ SWIVEL ARM ACCESSORIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications



## NPG-15RL-400 Rough Locator

### Features:

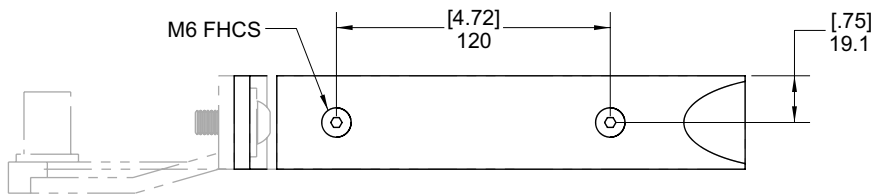
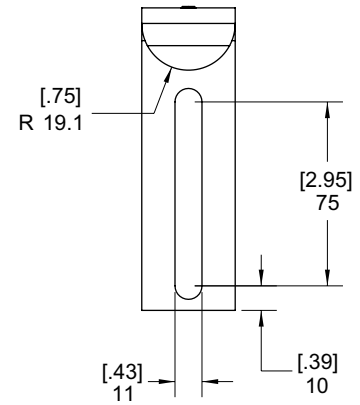
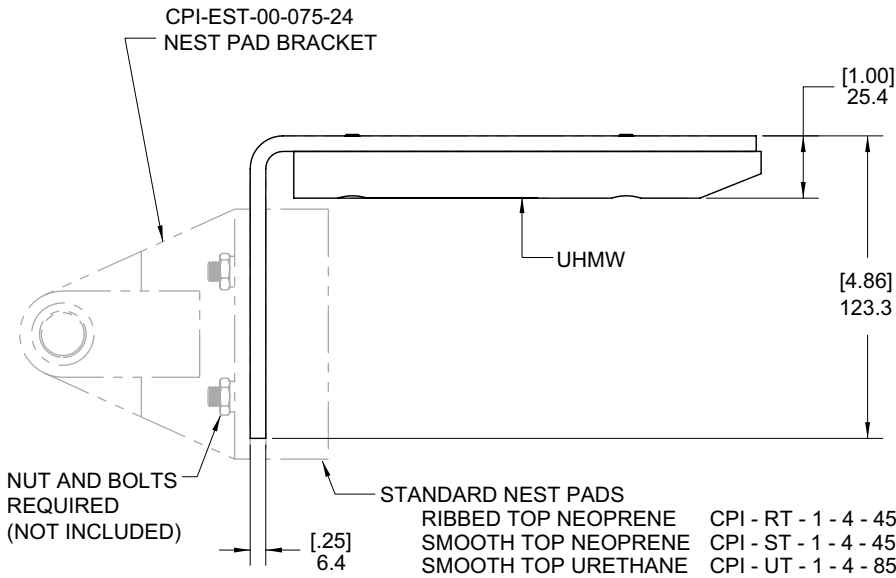
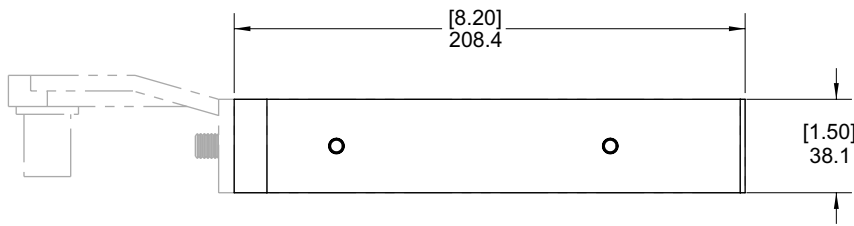
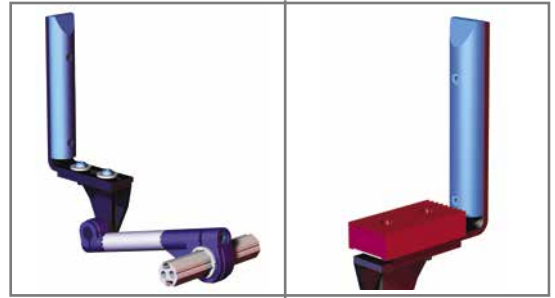
- Mounts to Nest Pad Brackets and indirectly to BodyBuilder™ 30mm Swivel Arm Mount.

### Specifications:

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

### Material:

Bracket: Steel  
Wear Surface: UHMW



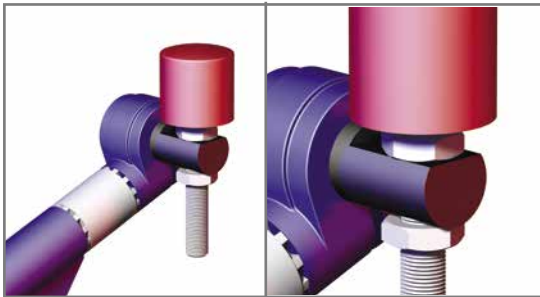
Model Number	Weight
CPI-NPG-15RL-400	0.86 kg [1.90 lb]



# BODYBUILDER™ SWIVEL ARM ACCESSORIES

BodyBuilder™ Octagonal Tooling | Dimensions | Technical Specifications

## SAP-BM10 Ø19mm [.75 in] Apple Core Nest Bumper Mount



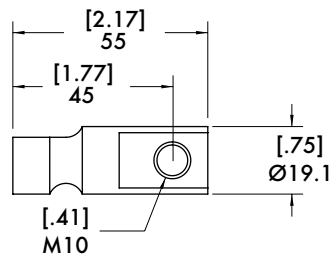
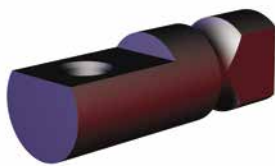
**Specifications:**

Max. Static Clamp Load:

271 Nm [200 ft-lb]

Material:

Steel



Model Number	Weight
<b>CPI-SAP-BM10</b>	.10 kg [.21 lb]

