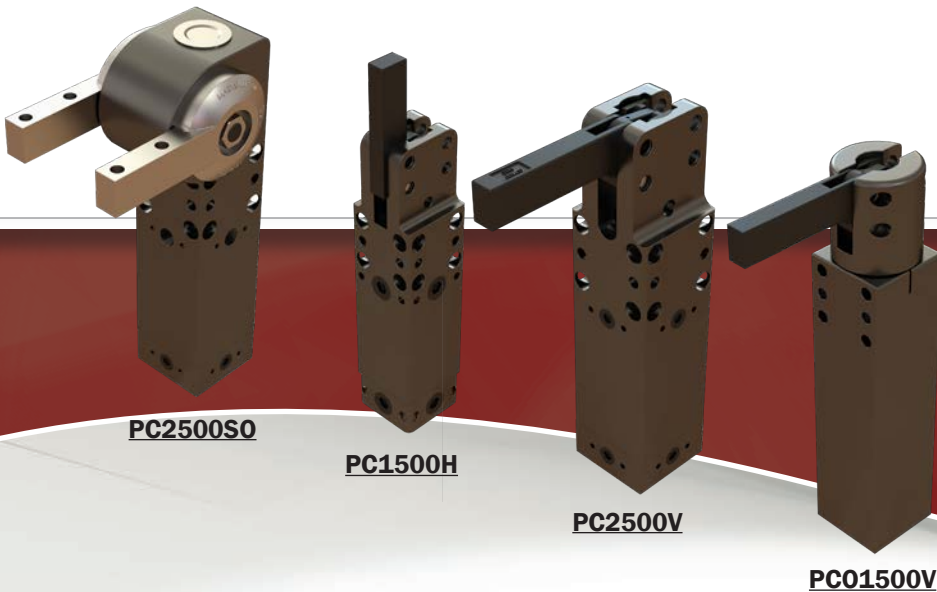


# Power Clamp Catalog

*Pneumatically Operated, Heavy Duty Power Clamps*



**PC2500S0**

**PC1500H**

**PC2500V**

**PC01500V**

**Various Arm Orientations and Openings Available**

**Simple Design Utilizing Toggle Linkage**

**Light Weight and Durable**

**For All BTM Clamps Visit**  
<https://btmcomp.com/work-holding>

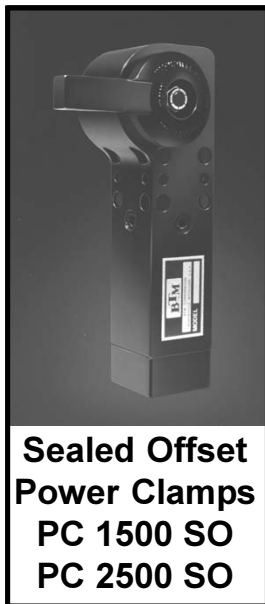
**BTM<sup>®</sup>**  
**COMPANY**

[btmcomp.com](https://btmcomp.com)

+1.810.364.4567

**TABLE OF CONTENTS**

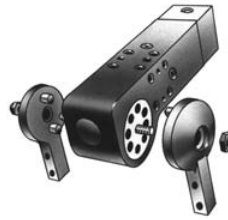
PC 1500 SO Clamp.....3  
PC 2500 SO Clamp.....3  
PC 1500 V Clamp .....4  
PC 1500 H Clamp .....7  
PC 2500 V Clamp .....8  
PC 2500 H Clamp .....9  
Omni-Head Clamp Description.....10  
PCO 1500 V Clamp.....11  
PCO 1500 H Clamp .....12  
Rotary-Linear Clamp Description .....13  
15-90 CWR / CCR.....14  
Accessories.....15



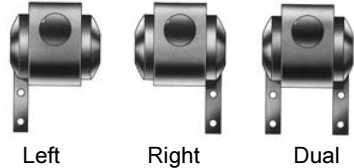
©2024 BTM Company, L.L.C. All related logos, logo names, products and services, names, icons and designs shown herein are trademarks owned by BTM Company, L.L.C. Affiliate and third-party copyrights and trademarks are the property of their respective owners.

**Sealed Offset  
Power Clamps**

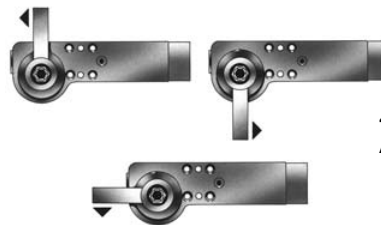
**PC 1500 SO • PC 2500 SO**



BTM Pin drive arms allow fast changeover without disassembly of the sealed internal mechanism.



Clamp arms can be mounted left, right or dual without modification.



45° Interchangeable Arm Positions

**FEATURES**

- One piece body ~ Integral cylinder with heavy wall.
- Sealed mechanism ~ Lubricated for life of clamp.
- Arm Driven by Toggle Linkage
- Hardcoated aircraft aluminum body.
- Pin arm drive for simplified arm change & positioning.
- Optional pre-fitted proximity switches.
- Light weight.

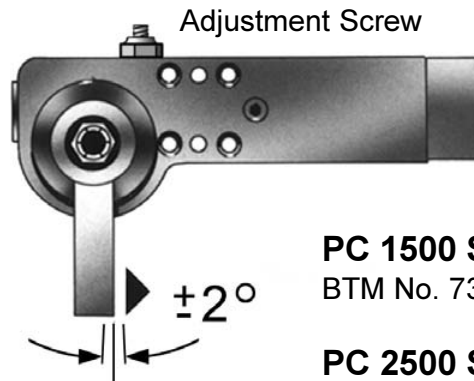
**PC 1500 SO**  
BTM No. 700100A

**PC 2500 SO**  
BTM No. 700200A

**AAP Option**

**Adjustable Arm Positioning**

- **This feature allows precise  $\pm 2^\circ$  adjustment of the arm's closed position.**
- **The set position will repeat accurately.**
- **The arm can be mounted in any one of eight positions on either right or left side.**

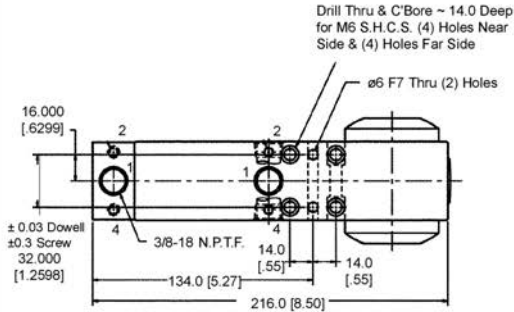
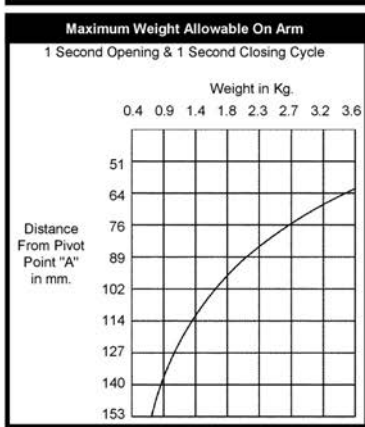


Repeatable Arm Position With Adjustment Of  $\pm 2^\circ$ .

**PC 1500 SO AAP**  
BTM No. 737900A

**PC 2500 SO AAP**  
BTM No. 738000A

**1500 SERIES SEALED OFFSET POWER TOGGLE CLAMP**  
**PC 1500 SO & PC 1500 SO AAP**

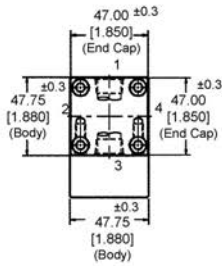


**SPECIFICATIONS**

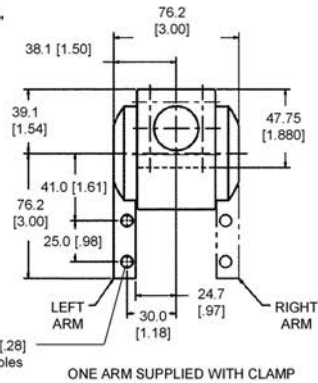
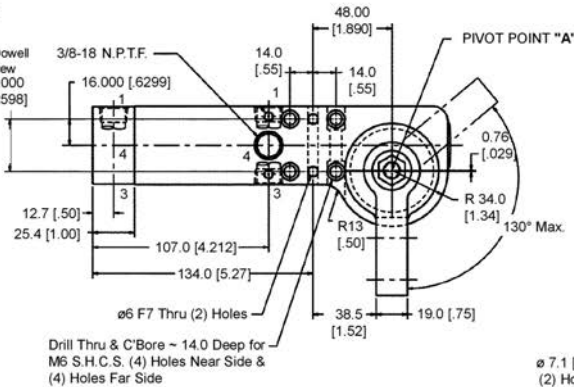
Bore ø: 38mm (1.5")  
Stroke: 43mm (1.69") MAX.  
Arm Opening: 130° MAX.  
Recommended operating pressure:  
5.5 - 7 bars (80 - 100 PSI)  
Use Flow controls to reduce impact  
Approx. Weight: 2Kg (4.5 lbs.)

Manufactured by  
BTM COMPANY  
Marysville, Michigan USA  
PATENTED

OPTIONAL OVER-CENTER  
LOCKING AVAILABLE

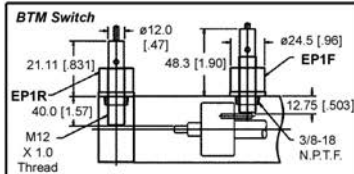


OPTIONAL PROXIMITY SWITCHES (See Pg. 15)

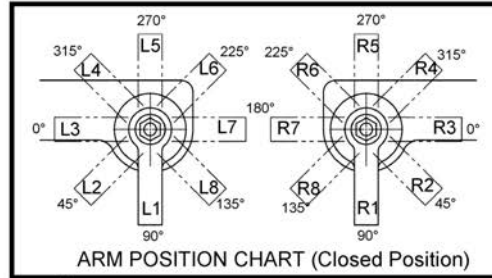


ONE ARM SUPPLIED WITH CLAMP

NOTE:  
•Ports Will Be In Position 1 Unless Otherwise Specified.  
•Rear Prox. Is 180° To Port Position.  
•Rotate End Cap 90° for Rear Port Positions 2 & 4, 180° for Position 3



BTM PROXIMITY SWITCH W/ ADAPTER  
BES1 = BTM NO 006266 (AC)  
BES2 = BTM NO 006453 (AC)



CLAMP FORCE (lbs) =  $\frac{4 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF CLAMPING CONTACT AREA ON ARM (INCHES)}}$

**HOW TO ORDER**

POWER CLAMP  
1500 SERIES: 1.5" BORE  
CLAMP STYLE: SEALED OFFSET  
ARM OPENING: 15, 30, 60, 90, 130  
ARM LOCATION: L= LEFT SIDE, R= RIGHT SIDE, D= DUAL  
LEFT ARM POSITION: L1, L2, L3, L4, L5, L6, L7, L8  
RIGHT ARM POSITION: R1, R2, R3, R4, R5, R6, R7, R8  
FRONT PORT POSITION: FP1, FP2, FP3, FP4  
REAR PORT POSITION: RP1, RP2, RP3, RP4  
FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F  
REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R  
SWITCH TYPE: AC OR DC

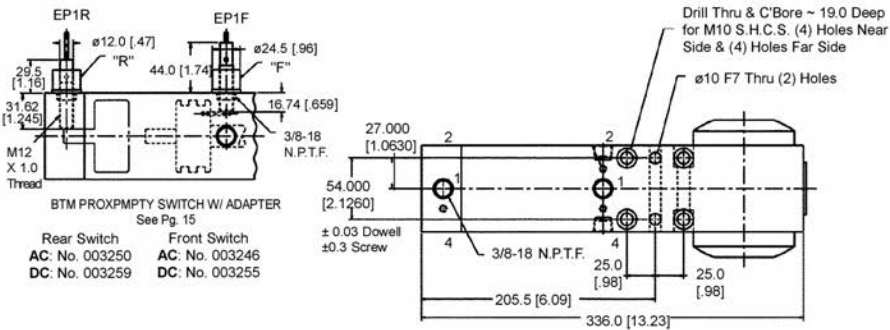
**BTM PC-1500-SO -130 -D -L1 -R7 -FP4 -RP1 -EP2F -EP3R -AC**  
BTM No. 700100A      OPTIONS

OPTIONAL OVER-CENTER  
LOCKING AVAILABLE

**PC 1500 SO**  
BTM No. 700100A

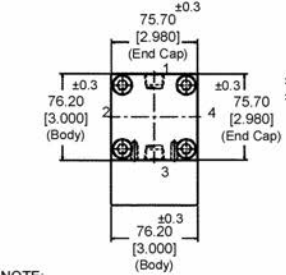
**PC 1500 SO AAP**  
BTM No. 737900A

**2500 SERIES SEALED OFFSET POWER TOGGLE CLAMP**  
**PC 2500 SO & PC 2500 SO AAP**

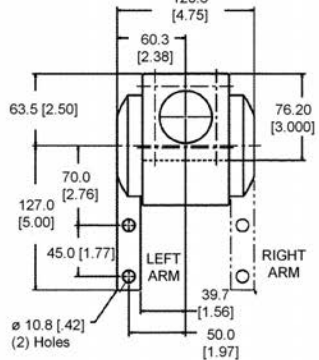
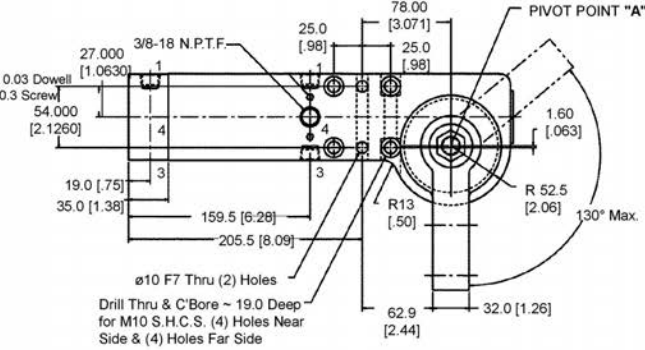


**SPECIFICATIONS**  
 Bore  $\phi$ : 63.5mm (2.5")  
 Stroke: 72mm (2.83") MAX.  
 Arm Opening: 130° MAX.  
 Recommended operating pressure: 5.5 - 7 bars (80 - 100 PSI)  
 Use Flow controls to reduce impact  
 Approx. Weight: 9Kg (20 lbs.)

Manufactured by  
 BTM COMPANY  
 Marysville, Michigan USA  
 PATENTED



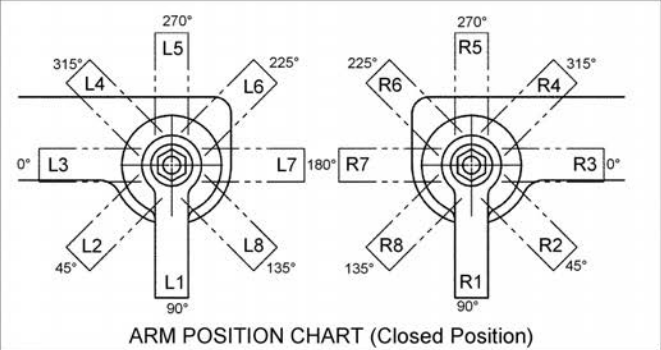
NOTE:  
 Ports Will Be In Position 1 Unless Otherwise Specified.  
 Rear Prox. Is 180° To Port Position.  
 Rotate End Cap  
 90° for Rear Port Positions 2 & 4  
 180° for Position 3



ONE ARM SUPPLIED WITH CLAMP

CLAMP FORCE (N) =  $\frac{24\ 650 \times \text{LINE PRESSURE (bars)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF CLAMPING CONTACT AREA ON ARM (mm)}}$

CLAMP FORCE (lbs) =  $\frac{15 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF CLAMPING CONTACT AREA ON ARM (INCHES)}}$



**HOW TO ORDER**

POWER CLAMP  
 2500 SERIES: 2.5" BORE  
 CLAMP STYLE: SEALED OFFSET  
 ARM OPENING: 15, 30, 60, 90, 130  
 ARM LOCATION: L= LEFT SIDE, R= RIGHT SIDE, D= DUAL  
 LEFT ARM POSITION: L1, L2, L3, L4, L5, L6, L7, L8  
 RIGHT ARM POSITION: R1, R2, R3, R4, R5, R6, R7, R8  
 FRONT PORT POSITION: FP1, FP2, FP3, FP4  
 REAR PORT POSITION: RP1, RP2, RP3, RP4  
 FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F  
 REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R  
 SWITCH TYPE: AC OR DC

**BTM PC-2500-SO -130 -D -L1 -R7 -FP4 -RP1 -EP2F -EP3R -AC**  
 BTM No. 700200A OPTIONS

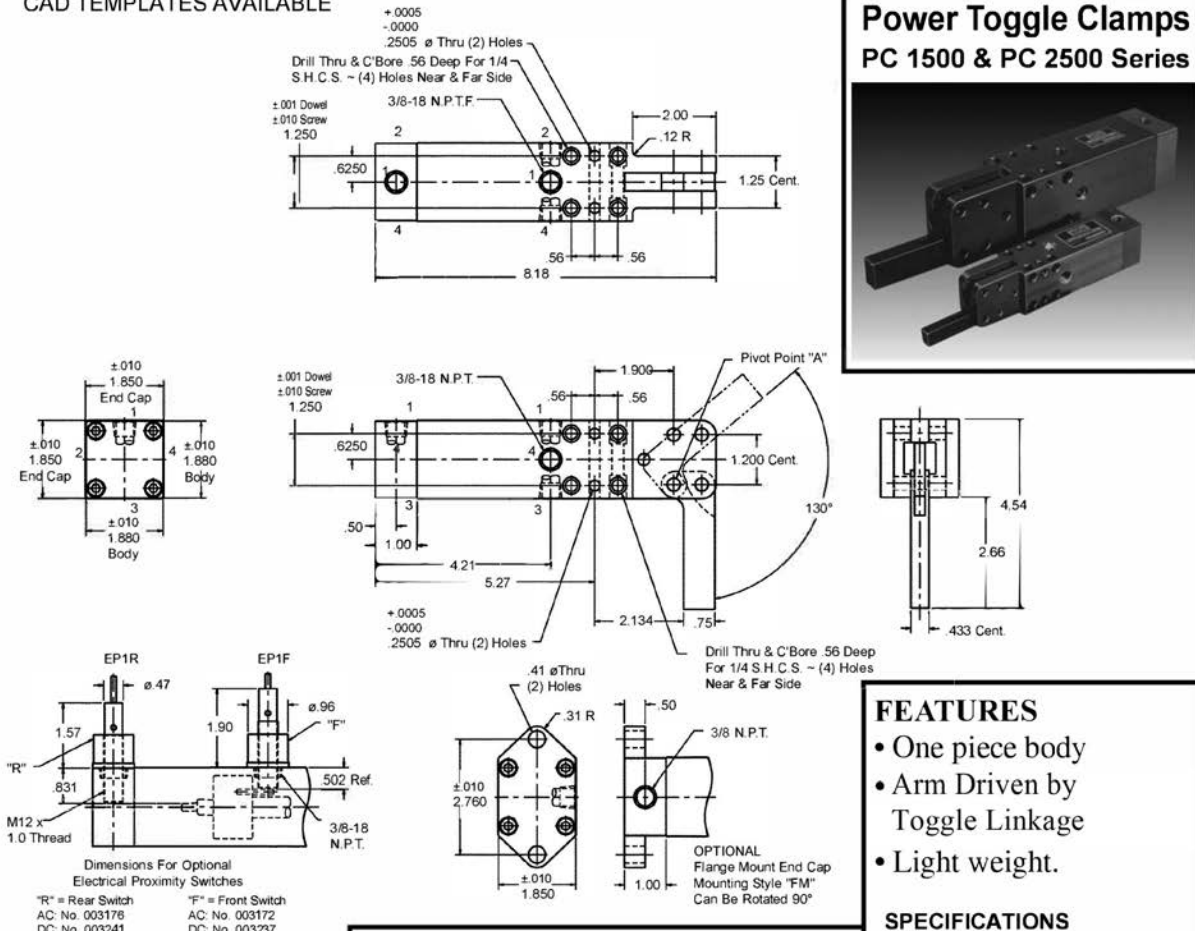
**PC 2500 SO**  
 BTM No. 700200A

**PC 2500 SO AAP**  
 BTM No. 738000A

OPTIONAL OVER-CENTER LOCKING AVAILABLE

**1500 SERIES POWER TOGGLE CLAMP**  
**PC 1500-V 130**

CAD TEMPLATES AVAILABLE



**FEATURES**

- One piece body
- Arm Driven by Toggle Linkage
- Light weight.

**SPECIFICATIONS**

Bore  $\phi$ : 1.5"  
Stroke: 1.699"  
Arm Opening: 130°  
Recommended operating pressure:  
80 - 100 PSI  
Use Flow controls to reduce impact  
Approx. Weight: 3 lbs.

Manufactured by  
BTM COMPANY  
Marysville, Michigan USA  
PATENTED

$$\text{CLAMP FORCE (lbs)} = \frac{4 \times \text{LINE PRESSURE (P.S.I.)} \times \text{LENGTH FROM POINT "A" TO CENTER LINE OF CLAMPING CONTACT AREA ON ARM (INCHES)}}{1}$$

**HOW TO ORDER**

POWER CLAMP  
1500 SERIES: 1.5" BORE  
ARM OPENING: VERTICAL 130°  
MOUNTING STYLE: FM FLANGE MOUNT  
FRONT PORT POSITION: FP1, FP2, FP3, FP4  
REAR PORT POSITION: RP1, RP2, RP3, RP4  
FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F  
REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R  
SWITCH TYPE: AC OR DC

**BTM PC-1500-V130 - FM -FP4 -RP1 -EP2F -EP3R -AC**

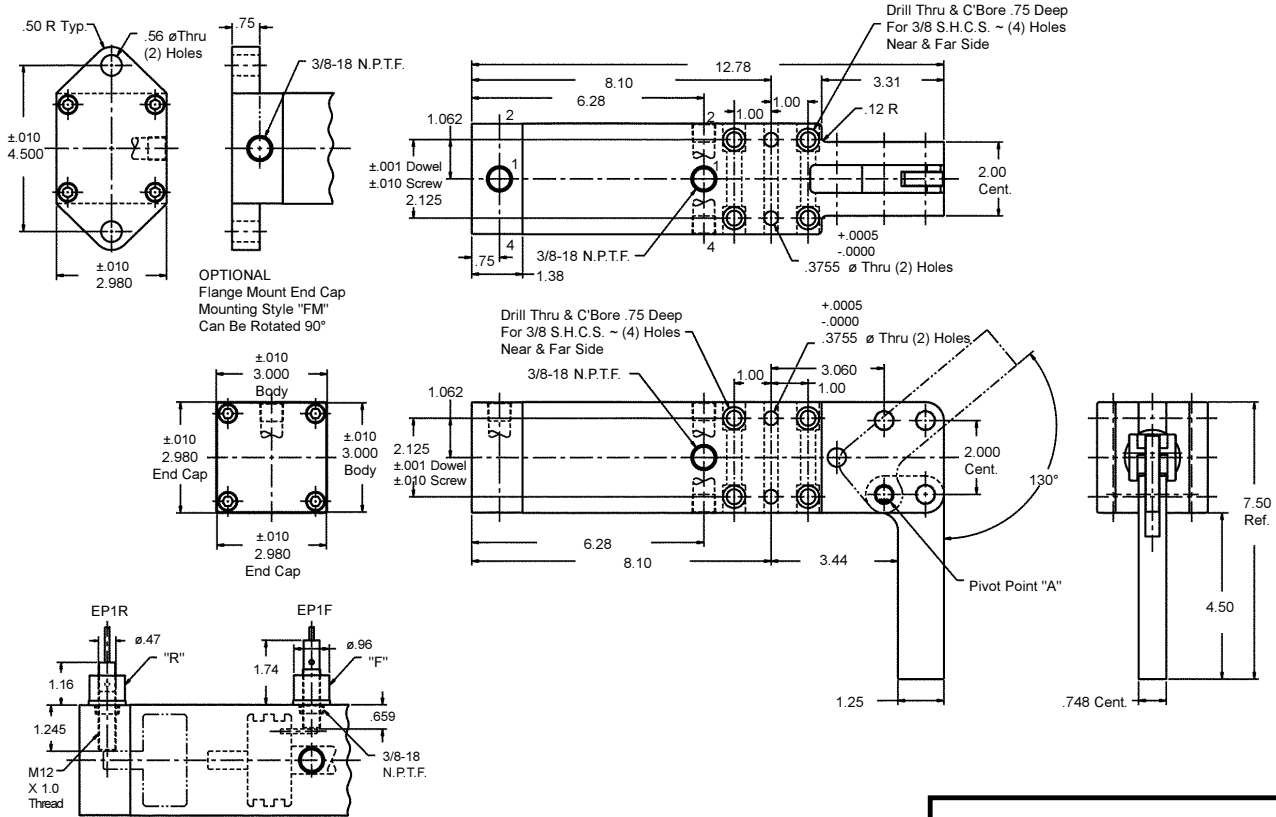
Body Mount No. 001635  
Flange Mount No. 012503

OPTIONS



## 2500 SERIES POWER TOGGLE CLAMP PC 2500-V 130

CAD TEMPLATES AVAILABLE



Dimensions For Optional Electrical Proximity Switches  
 "R" = Rear Switch      "F" = Front Switch  
 AC: No. 003250      AC: No. 003246  
 DC: No. 003259      DC: No. 003255  
**OPTIONAL PROXIMITY SWITCHES (SEE PG. 15)**

SPECIFICATIONS	
Bore ø:	2.5"
Stroke:	2.83"
Arm Opening:	130°
Recommended operating pressure:	80 - 100 PSI
Use Flow controls to reduce impact	
Approx. Weight:	11 lbs.
Manufactured by BTM COMPANY Marysville, Michigan USA PATENTED	

$$\text{CLAMP FORCE (lbs)} = \frac{15 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF CLAMPING CONTACT AREA ON ARM (INCHES)}}$$

HOW TO ORDER	
POWER CLAMP	
2500 SERIES: 2.5" BORE	
ARM OPENING: VERTICAL 130°	
MOUNTING STYLE: FM FLANGE MOUNT	
FRONT PORT POSITION: FP1, FP2, FP3, FP4	
REAR PORT POSITION: RP1, RP2, RP3, RP4	
FRONT PROX. POSITION: EP1F, EP2F, EP3F, EP4F	
REAR PROX. POSITION: EP1R, EP2R, EP3R, EP4R	
SWITCH TYPE: AC OR DC	
<b>BTM PC-2500-V130 - FM -FP4 -RP1 -EP2F -EP3R -AC</b>	
Body Mount No. 001411	OPTIONS
Flange Mount No. 012511	

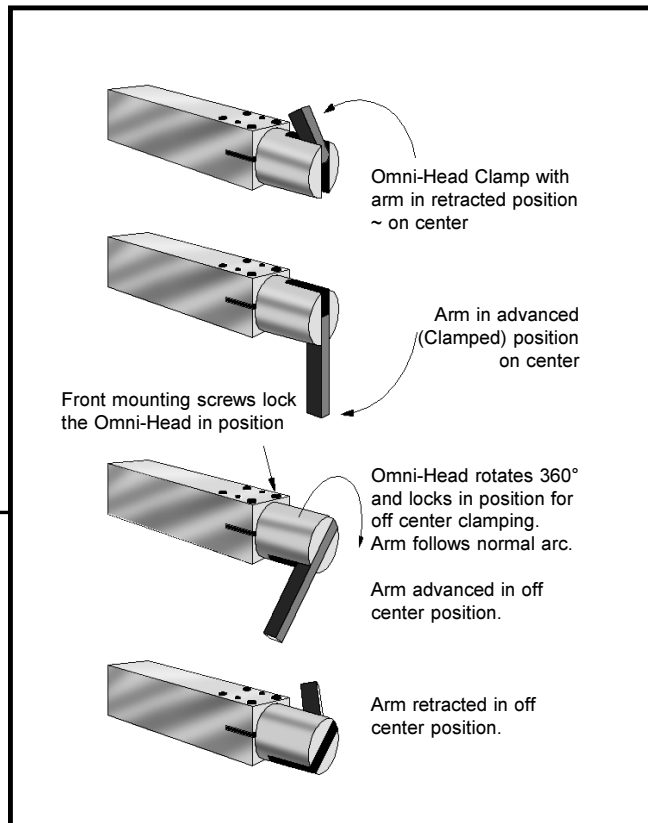




**OMNI-HEAD POWER TOGGLE CLAMPS  
PCO 1500 SERIES**



**Omni-Head  
Power Toggle Clamps  
PCO-1500 Series**



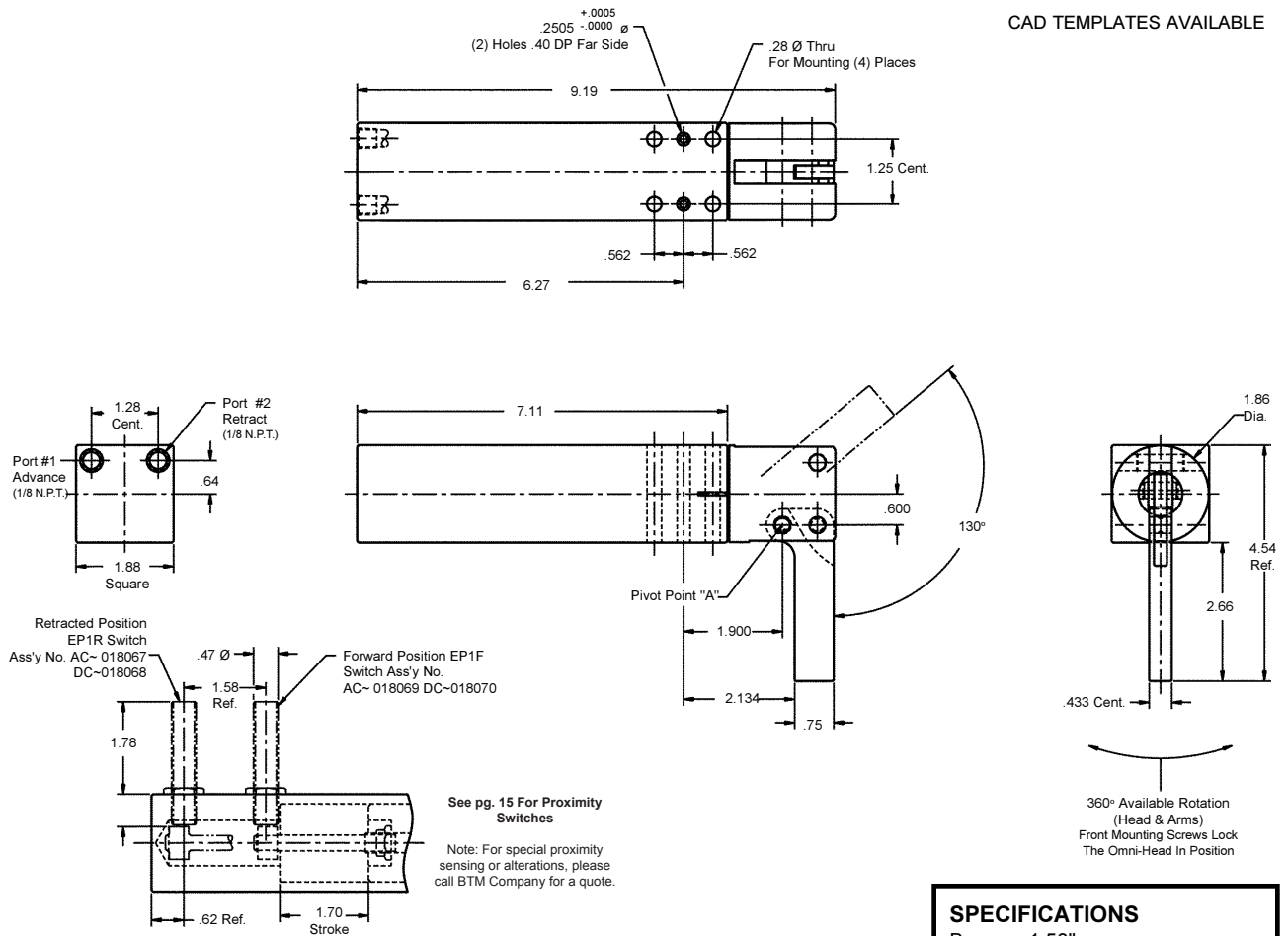
**FEATURES**

- Gripper head rotates 360° & locks in position for off center gripping.
- Hardcoated aircraft aluminum body.
- Optional pre-fitted proximity switches.
- Arm Driven by Toggle Linkage
- Light weight.

For PCO-100 Series Omni Clamps, see 100 Series Clamps & Grippers catalog.

## 1500 SERIES OMNI CLAMP PCO-1500-V 130

CAD TEMPLATES AVAILABLE



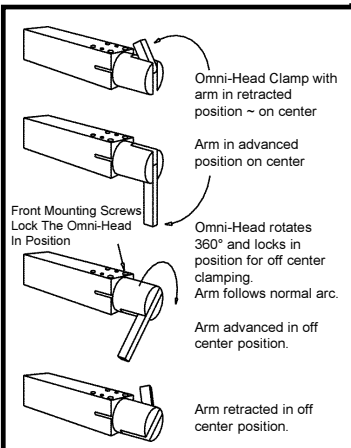
See pg. 15 For Proximity Switches

Note: For special proximity sensing or alterations, please call BTM Company for a quote.

### SPECIFICATIONS

Bore ø: 1.50"  
Stroke: 1.70"  
Arm Opening: 130°  
Recommended operating pressure: 80 - 100 PSI  
Use Flow controls to reduce impact  
Approx. Weight: 3 lbs.

Manufactured by  
BTM COMPANY  
Marysville, Michigan USA  
PATENTED



$$\text{CLAMP FORCE (lbs)} = \frac{4 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)}}$$

### HOW TO ORDER

POWER CLAMP OMNI (PCO)  
1500 SERIES: 1.50 BORE  
ARM OPENING: VERTICAL 130°  
FRONT ELECTRIC PROXIMITY POSITION: EP2F, EP4F  
SWITCH TYPE: DC ONLY  
REAR ELECTRICAL PROXIMITY POSITION: EP5R  
SWITCH TYPE: AC OR DC

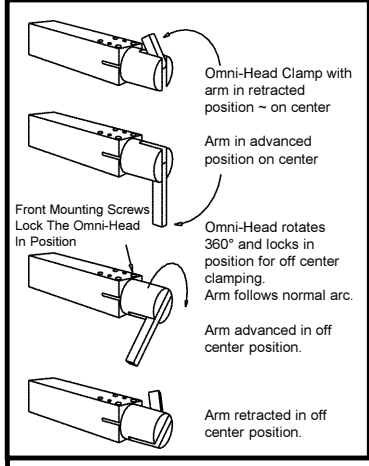
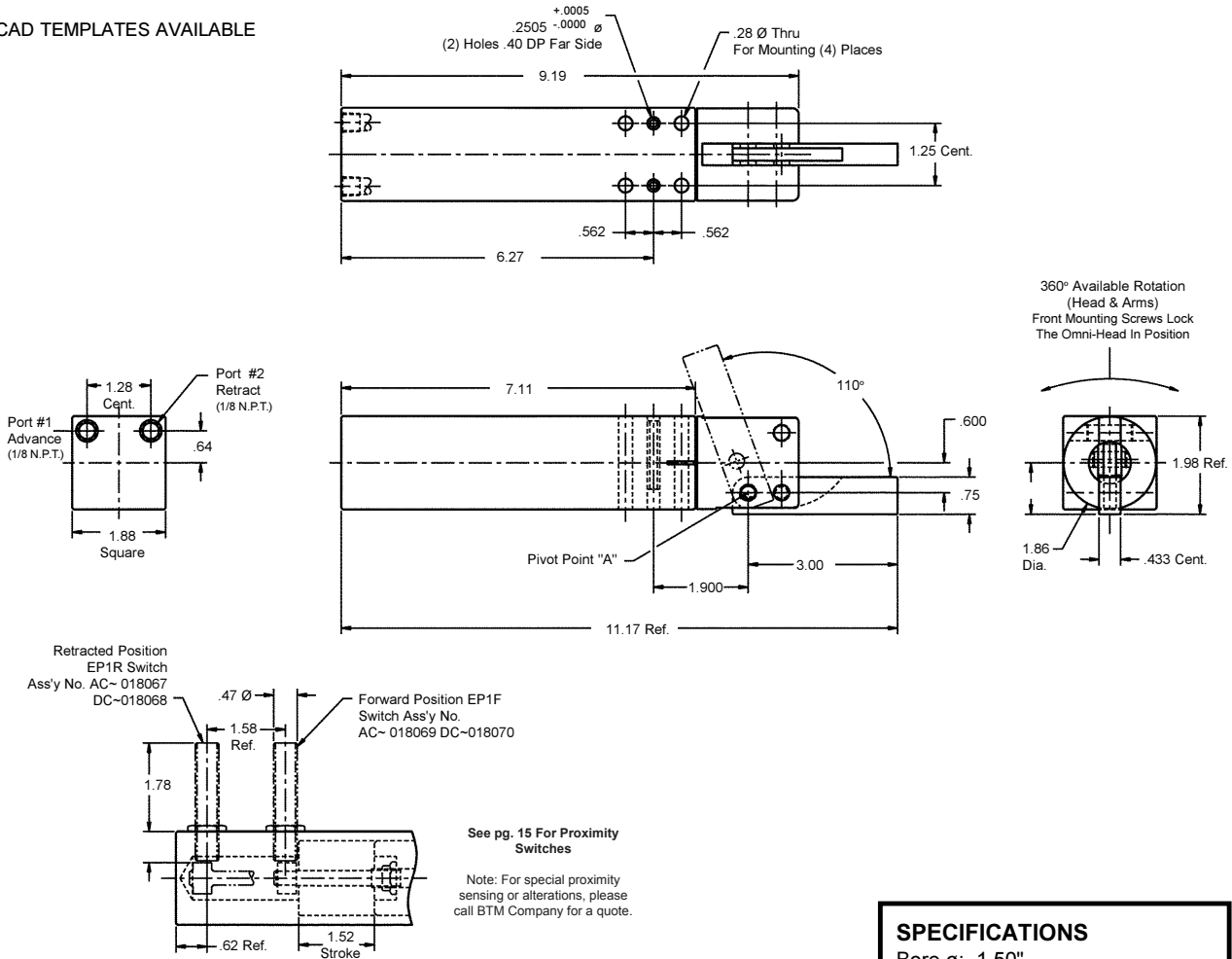
**BTM PCO-1500-V130 - EP2F-DC-EP5R-AC**

BTM No. 003404

OPTIONS

## 1500 SERIES OMNI CLAMP PCO-1500-H 110

CAD TEMPLATES AVAILABLE



$$\text{CLAMP FORCE (lbs)} = \frac{4 \times \text{LINE PRESSURE (P.S.I.)}}{\text{LENGTH FROM POINT "A" TO CENTER LINE OF GRIPPING CONTACT AREA ON GRIPPER ARM (INCHES)}}$$

### HOW TO ORDER

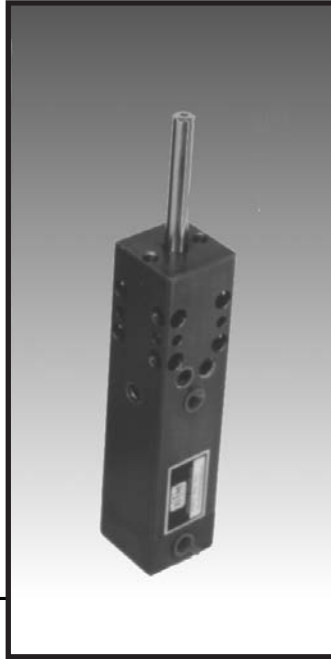
POWER CLAMP OMNI (PCO)  
 1500 SERIES: 1.50 BORE  
 ARM OPENING: HORIZONTAL 110°  
 FRONT ELECTRICAL PROXIMITY POSITION: EP2F, EP4F  
 SWITCH TYPE: DC ONLY  
 REAR ELECTRICAL PROXIMITY POSITION: EP5R  
 SWITCH TYPE: AC OR DC

**BTM PCO-1500-H110 - EP2F-DC-EP5R-AC**  
 BTM No. 017548      OPTIONS

**SPECIFICATIONS**

Bore ø: 1.50"  
 Stroke: 1.52"  
 Arm Opening: 110°  
 Recommended operating pressure: 80 - 100 PSI  
 Use Flow controls to reduce impact  
 Approx. Weight: 3 lbs.

Manufactured by  
 BTM COMPANY  
 Marysville, Michigan USA  
 PATENTED

**ROTARY - LINEAR POWER CLAMP  
RC 1500 SERIES**

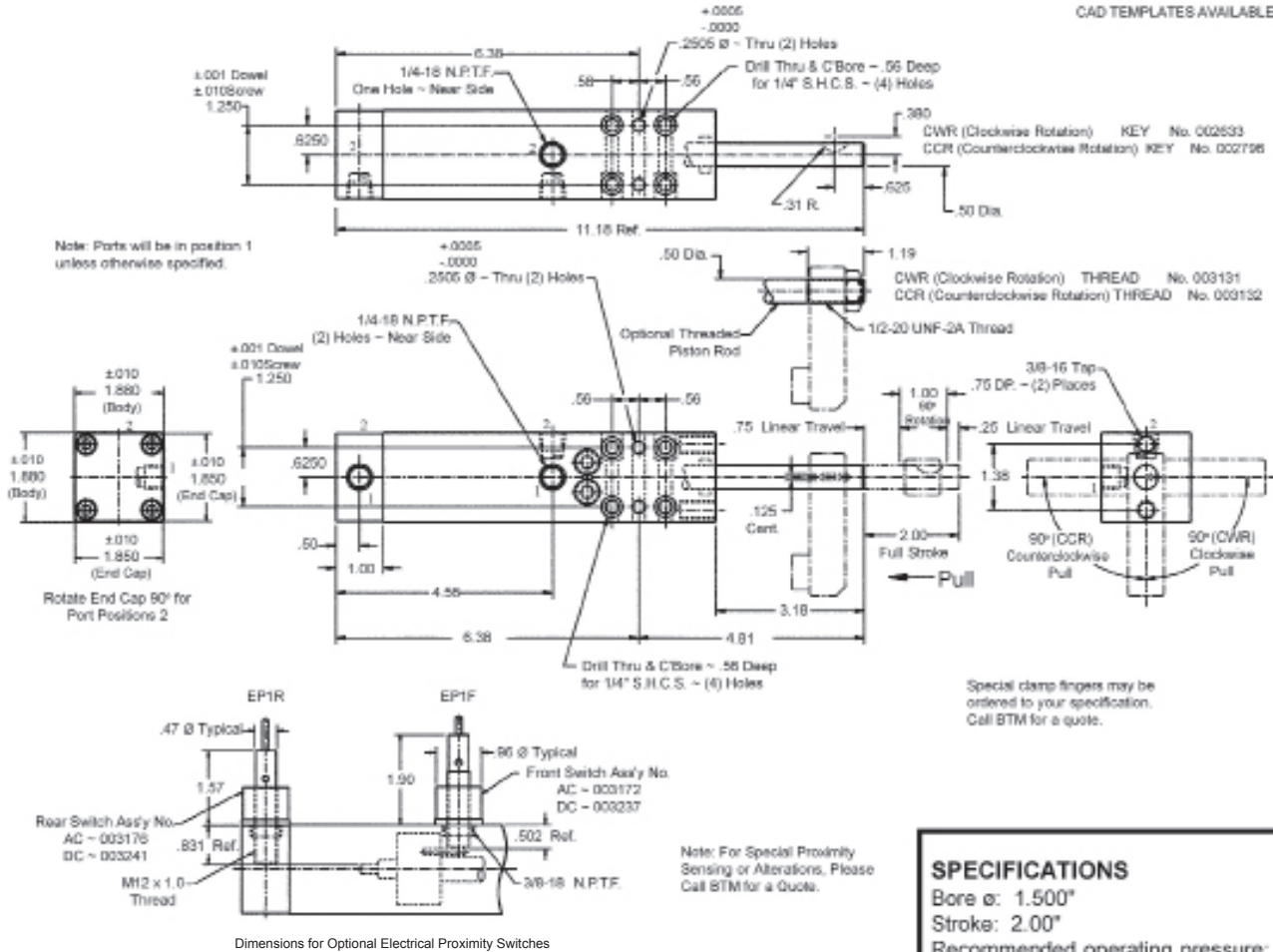
90° Rotation  
with linear  
travel at both  
ends of the  
stroke. May  
be used in  
push or pull  
direction.

**FEATURES**

- 90° Clockwise or counterclockwise rotation.
- Linear travel at both ends of stroke.
- Harmonic motion.
- Sealed mechanism.
- Hardcoated aircraft aluminum body.
- Optional pre-fitted proximity switches.
- Light weight.

## 1500 SERIES ROTARY LINEAR POWER CLAMP 15-90 CWR / 15-90 CCR

CAD TEMPLATES AVAILABLE



**SPECIFICATIONS**  
 Bore  $\phi$ : 1.500"  
 Stroke: 2.00"  
 Recommended operating pressure:  
 80 - 100 PSI  
 Use Flow controls to reduce impact  
 Approx. Weight: 3 lbs.

Manufactured by  
 BTM COMPANY  
 Marysville, Michigan USA  
**PATENTED**

**CLAMP FORCE (lbs) = 1.4 x Line Pressure (P.S.I.)**

**HOW TO ORDER**

**ROTARY CLAMP**  
**1500 SERIES**  
**ARM ROTATION 90°**  
**ROTATION (CWR KEY, CWR THREAD, CCR KEY, CCR THREAD)**  
**FRONT PORT : FP1, FP2**  
**REAR PORT : RP1, RP2**  
**FRONT ELEC. PROX. POSITION : EP1F, EP2F**  
**REAR ELEC. PROX. POSITION : EP1R, EP2R**  
**SWITCH TYPE : AC OR DC**

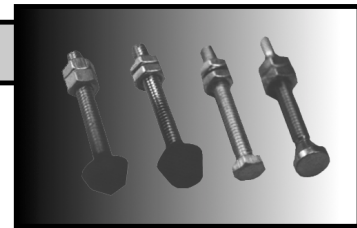
**BTM RC-1500-90-CWR KEY**      **FP2-RP2-EP2F-EP2R-AC**  
 BTM No. 002633      OPTIONS

## PROXIMITY SWITCHES



Proximity Switches for 1500 & 2500 Series Clamps										
SERIES	EP1R	EP2R	EP3R	EP4R	EP5R	EP1F	EP2F	EP3F	EP4F	SPECIFICATIONS
<b>50</b>	006266	006266	006266	006266	006266*	006266	006266	006266	006266	<b>AC ~ Normally Open</b> (12mm) Supply Voltage: 20-250 VAC Load Current Max.: 5-30mA Supplied w/ 3 meter - 2 wire cable. 
<b>63</b>	006266	006266	006266	006266	006266	006266	006266	006266	006266	
<b>1500</b>	003176	003176	003176	003176	003176	003176	003176	003176	003176	
<b>2500</b>	003250	003250	003250	003250	003250	003250	003250	003250	003250	
<b>1500 Omni</b>	018067	N/A	N/A	N/A	018067	018067	N/A	N/A	N/A	
<b>15-90</b>	003176	003176	003176	003176	003176	003176	003176	003176	003176	<b>DC ~ Normally Open</b> (12mm) Sourcing or Sinking Supply Voltage: 10-55 VDC Load Current Max.: 5-200mA Supplied w/ 3 meter - 2 wire cable. 
<b>25-90</b>	003250	003250	003250	003250	003250	003250	003250	003250	003250	
<b>PPL</b>	006266	006266	006266	006266	006266	006266	006266	006266	006266	
<b>50</b>	006463	006463	006463	006463	006463*	006463	006463	006463	006463	
<b>63</b>	006463	006463	006463	006463	006463	006463	006463	006463	006463	
<b>1500</b>	003241	003241	003241	003241	003241	003237	003237	003237	003237	
<b>2500</b>	003259	003259	003259	003259	003259	003255	003255	003255	003255	
<b>1500 Omni</b>	018068	NA	NA	NA	NA	018069	N/A	N/A	N/A	
<b>15-90</b>	003241	003241	003241	003241	003241	003237	003237	003237	003237	
<b>25-90</b>	003259	003259	003259	003259	003259	003255	003255	003255	003255	
<b>PPL</b>	006463	006463	006463	006463	006463	006363	006363	006363	006363	

1500 & 2500 Series Clamp Arm Spindles																																									
FLAT or CONE CUSHION SPINDLE ASSEMBLY		HEX HEAD SPINDLE ASSEMBLY		SWIVEL FOOT SPINDLE ASSEMBLY																																					
<b>1500 SERIES</b> Flat ~ 012607 / Cone ~ 012608 <table border="1"> <tr><th>A</th><th>B</th><th>C</th><th>D</th></tr> <tr><td>2.44"</td><td>.38"</td><td>.06"</td><td>1/4-20</td></tr> <tr><td>62.0mm</td><td>9.6mm</td><td>1.5mm</td><td></td></tr> </table>		A	B	C	D	2.44"	.38"	.06"	1/4-20	62.0mm	9.6mm	1.5mm		<b>1500 SERIES</b> 012612 <table border="1"> <tr><th>A</th><th>B</th><th>C</th><th>D</th></tr> <tr><td>2.12"</td><td>.50"</td><td>.16"</td><td>1/4-20</td></tr> <tr><td>53.8mm</td><td>12.7mm</td><td>4.1mm</td><td></td></tr> </table>		A	B	C	D	2.12"	.50"	.16"	1/4-20	53.8mm	12.7mm	4.1mm		<b>1500 SERIES</b> 012615 <table border="1"> <tr><th>A</th><th>B</th><th>C</th><th>D</th></tr> <tr><td>2.25"</td><td>.50"</td><td>.36"</td><td>1/4-20</td></tr> <tr><td>57.2mm</td><td>12.7mm</td><td>9.6mm</td><td></td></tr> </table>		A	B	C	D	2.25"	.50"	.36"	1/4-20	57.2mm	12.7mm	9.6mm	
A	B	C	D																																						
2.44"	.38"	.06"	1/4-20																																						
62.0mm	9.6mm	1.5mm																																							
A	B	C	D																																						
2.12"	.50"	.16"	1/4-20																																						
53.8mm	12.7mm	4.1mm																																							
A	B	C	D																																						
2.25"	.50"	.36"	1/4-20																																						
57.2mm	12.7mm	9.6mm																																							
<b>2500 SERIES</b> Flat ~ 012609 / Cone ~ 012610 <table border="1"> <tr><th>A</th><th>B</th><th>C</th><th>D</th></tr> <tr><td>3.50"</td><td>.56"</td><td>.06"</td><td>3/8-16</td></tr> <tr><td>88.9mm</td><td>14.2mm</td><td>1.5mm</td><td></td></tr> </table>		A	B	C	D	3.50"	.56"	.06"	3/8-16	88.9mm	14.2mm	1.5mm		<b>2500 SERIES</b> 012613 <table border="1"> <tr><th>A</th><th>B</th><th>C</th><th>D</th></tr> <tr><td>3.75"</td><td>.62"</td><td>.25"</td><td>3/8-16</td></tr> <tr><td>95.2mm</td><td>15.7mm</td><td>6.4mm</td><td></td></tr> </table>		A	B	C	D	3.75"	.62"	.25"	3/8-16	95.2mm	15.7mm	6.4mm		<b>2500 SERIES</b> 012616 <table border="1"> <tr><th>A</th><th>B</th><th>C</th><th>D</th></tr> <tr><td>3.50"</td><td>.62"</td><td>.50"</td><td>3/8-16</td></tr> <tr><td>88.9mm</td><td>15.7mm</td><td>12.7mm</td><td></td></tr> </table>		A	B	C	D	3.50"	.62"	.50"	3/8-16	88.9mm	15.7mm	12.7mm	
A	B	C	D																																						
3.50"	.56"	.06"	3/8-16																																						
88.9mm	14.2mm	1.5mm																																							
A	B	C	D																																						
3.75"	.62"	.25"	3/8-16																																						
95.2mm	15.7mm	6.4mm																																							
A	B	C	D																																						
3.50"	.62"	.50"	3/8-16																																						
88.9mm	15.7mm	12.7mm																																							

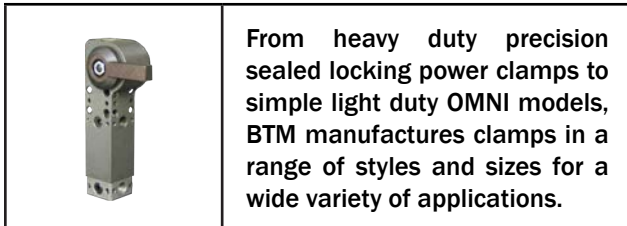


**FIELD MOUNTING DIMENSIONS for 1500 & 2500 SPINDLE ASS'YS.**

	A	B
<b>1500 SERIES</b>	.22" 5.6mm	.28" 7.1mm
<b>2500 SERIES</b>	.38" 9.6mm	.41" 10.4mm

## OTHER PRODUCTS FOR AUTOMATION

### Clamps



From heavy duty precision sealed locking power clamps to simple light duty OMNI models, BTM manufactures clamps in a range of styles and sizes for a wide variety of applications.

### Grippers



BTM manufactures a high quality line of grippers ranging from heavy duty models to light duty models in a variety of styles and sizes.

## OTHER QUALITY BTM PRODUCTS TO CONSIDER

### Pin Locator Clamps

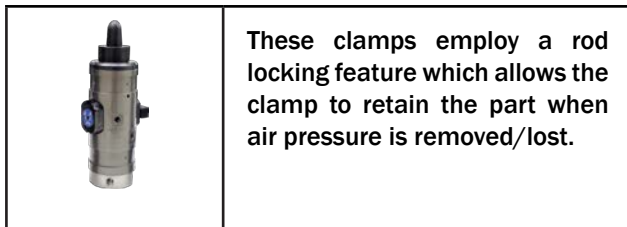


BTM Locator Clamps are ideal for locating & holding production material and are used in a variety of manufacturing areas including automotive & refrigeration.

Pin Sizes range from as small as 6mm (PLC-25 Light Duty Clamp) to as large as 40mm (PLC-63 & LPLC-38 locking clamp).

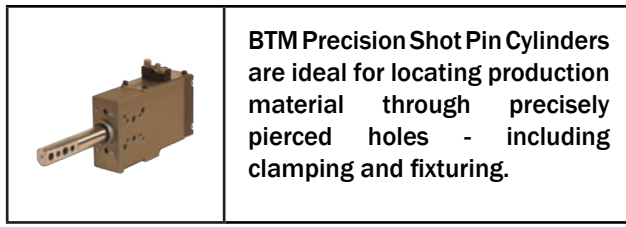
Single Finger Hook Models (without the locating pin) are also available in both locking and non-locking configurations.

### Rod-Locking Pin Locator Clamps



These clamps employ a rod locking feature which allows the clamp to retain the part when air pressure is removed/lost.

### Precision Shot Pin Cylinders



BTM Precision Shot Pin Cylinders are ideal for locating production material through precisely pierced holes - including clamping and fixturing.

For more information, or to view our other products, please visit:

# BTMCOMP.COM