

# Hand-Held Clinching Presses

*Manually Positioned Units for Clinching Sheet Metal Parts*

> PNEUMATIC



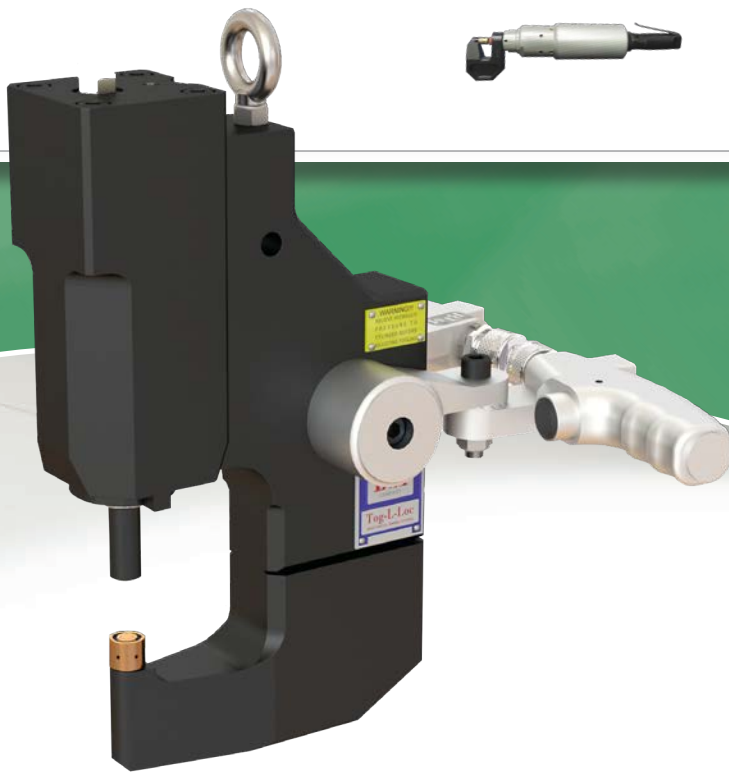
> BATTERY



> AIR/OIL



> HYDRAULIC



Part of our Clinching Production Equipment Line of Products

[www.btmcomp.com/clinching-equipment](http://www.btmcomp.com/clinching-equipment)

**BTM**<sup>®</sup>  
COMPANY

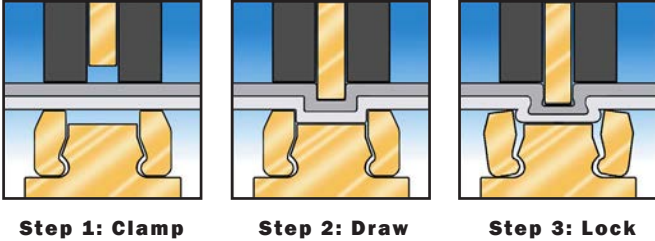
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+1.810.364.4567

## WHAT IS CLINCHING

BTM Tog-L-Loc® and related clinching tools economically join sheet metal without the expense of welding or purchased fasteners by simply joining the part's own material! Assembly cost is significantly reduced by drawing and forming the part material into an interlock. Join galvanized, pre-painted, or even dissimilar metal combinations using an environmentally friendly process that does not produce sparks, fumes or harmful heat!

### HOW A TYPICAL BTM CLINCH JOINT IS MADE:



#### Step 1: Clamps

The stripper clamps the materials to be joined.

#### Step 2: Draws

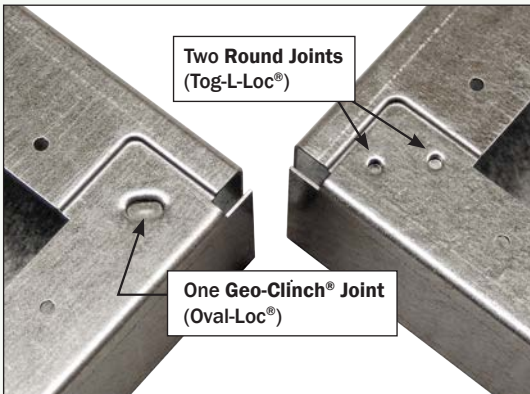
The punch draws the material into the die.

#### Step 3: Locks

As the material flows into the die, the sides of the die expand, allowing the material to flow into an interlock.

|                                   | ROUND JOINTS  |   | Geo-Clinch® JOINTS   |   |
|-----------------------------------|---|---|--|---|
|                                   | <br><b>Tog-L-Loc®</b> | <br><b>V-Loc™</b> | <br><b>Oval-Loc®</b> | <br><b>Lance-N-Loc®</b> |
| Ideal for joining:                | Mild Steel  | Aluminum  | Mild Steel   | Harder Metals   |
| Leak-Proof                        | Yes   | Yes   | Yes  | No  |
| Single Joint Rotation Resistance? | No  | No  | Yes  | Yes   |

Tog-L-Loc® and V-Loc™ clinch joints are the most widely used. These round clinch joints have very good strength across a broad spectrum of material combinations, are aesthetically pleasing and at low cost. V-Loc™ performs especially well when joining combinations of aluminum. BTM's round clinch joints are an economical solution to fastening sheet metal parts. However, round joints, while most popular, have the ability to rotate when used singularly, so BTM also offers Geo-Clinch® joints.



### Geo-Clinch® JOINTS

BTM Geo-Clinch® joints resist rotation, and also have the added benefit of increasing the rigidity of a sheet metal assembly.

Geo-Clinch® joints set the combined geometry of two separate parts in an assembly as required by GD&T. This makes Geo-Clinch® joints ideal for use in Geo-Set applications.


BTM reserves the right to make changes to its literature without any prior notice. Visit [btmcomp.com](http://btmcomp.com) for latest version.

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## HAND-HELD UNITS

BTM Hand-Held Clinching Presses provide an inexpensive way to begin reducing the cost of assembling your product and can serve as an affordable stepping stone to higher production from a more automated machine. Our broad range of standard Hand-Held units are designed to fit a wide range of part designs and production requirements or we can easily modify an existing press to meet your unique part design.

**Contact our Sales department at +1.810.364.4567 or email us at sales@btmcomp.com**

| PNEUMATIC   |  |
|---|--|
| <b>UniClinch Press</b>  |  |
|  | See<br><b>PAGE<br/>6-7</b><br>For More Information |
| Clinch Joint Type   | Round  |
| Tool Sizes  | 3.0, 3.8, 4.6*                                     |
| Max. Combined Material Thickness  | 2mm [.08"]   |
| Opening   | 6mm [.25"]   |
| Throat Depth  | Varies per Anvil                                   |
| Trigger Type  | Single   |
| Operating Pressure  | 6 BAR [87 PSI]                                     |
| Press Force   | 34kN [3.8 Ton]                                     |
| Cycle Time  | 1.5 second   |
| Unit Weight   | Roughly 4kg [8.9 lb]                               |

\* 4.6 Tooling- Some Limitations Apply. Contact BTM.

| BATTERY POWERED PRESSES   |  |  |  |
|---|--|--|--|
| <b>Compact Battery Clinch Press</b>   |  | <b>Battery Clinch Press</b>  |  |
|  | See<br><b>PAGE<br/>8-9</b><br>For More Information |  | See<br><b>PAGE<br/>10-11</b><br>For More Information |
| Clinch Joint Type   | Round  | Clinch Joint Type  | Round  |
| Tool Sizes  | 3.0, 3.8, 4.6                                      | Tool Sizes   | 3.0, 3.8, 4.6, 5.5                                   |
| Max. Combined Material Thickness  | 3mm [.12"]   | Max. Combined Material Thickness   | 3mm [.12"]   |
| Opening   | 6mm [.25"]   | Opening  | 16mm [.63"]  |
| Throat Depth  | Varies per C-Frame                                 | Throat Depth   | Varies per C-Frame                                   |
| Trigger Type  | Single   | Trigger Type   | Single   |
| Battery Type  | 18V/1.5Ah Lithium-Ion                              | Battery Type   | 18V/3 Ah Lithium-Ion                                 |
| Charging Time   | Approximately 30 Minutes                           | Charging Time  | Approximately 45 Minutes                             |
| Press Force   | 45kN [5 Ton]                                       | Press Force  | 60kN [6.5 Ton]                                       |
| Cycle Time  | Contact BTM  | Cycle Time   | Contact BTM  |
| Unit Weight   | Varies with C-Frame                                | Unit Weight  | Varies with C-Frame                                  |

## AIR/OIL BOOSTER POWERED PRESSES

### Duroloc7



See  
**PAGE  
12-13**  
For More Information

|                                  |                    |
|----------------------------------|--------------------|
| Clinch Joint Type                | Round              |
| Tool Sizes                       | 3.8, 4.6           |
| Max. Combined Material Thickness | 2mm [.08"]         |
| Opening                          | 6mm [.25"]         |
| Throat Depth                     | 38mm [1.50"]       |
| Trigger Type                     | Single             |
| Max. Operating Pressure          | 345 BAR [5000 PSI] |
| Press Force                      | 32kN [3.6 Ton]     |
| Cycle Time                       | 1 second           |
| Unit Weight                      | 5.6 kg [12.4 lbs]  |

### Air/Oil Booster



See  
**PAGE  
14**  
For More Information

|                       |                                       |
|-----------------------|---------------------------------------|
| Booster Ratio         | 61:1                                  |
| Weight (without hose) | 8.2kg [18 lbs]                        |
| Maximum Output        | 337 BAR [4880 PSI] @ 5.5 BAR [80 PSI] |

## HYDRAULIC POWERED PRESSES

### 7007 Press



See  
**PAGE  
15-16**  
For More Information

|                                     |  |
|-------------------------------------|--|
| Clinch Joint Type                   | Round, Geo-Clinch®                                 |
| Round Tool Sizes                    | 3.0, 3.8, 4.6                                      |
| Geo-Clinch® Tool Sizes*             | TLO-3x6; LL-3.0, LL-3.8                            |
| Max. Combined Material Thickness    | 4mm [.16"]   |
| Opening                             | M Anvil - 33mm [1.30"]<br>N Anvil - 29.3mm [1.15"] |
| Stroke                              | M Anvil - 35mm [1.38"]<br>N Anvil - 32mm [1.26"]   |
| Throat Depth                        | 50mm [1.97"]                                       |
| Trigger Type                        | Dual   |
| Operating Pressure                  | 175 BAR [2500 PSI]                                 |
| Press Force                         | 35kN [3.9 Ton]                                     |
| Cycle Time                          | 2 sec.   |
| Unit Weight (Round Clinch Assembly) | 11.3 kg [25 lbs]                                   |

\*Geo-Clinch® Units By Special Order. Contact BTM

### Heavy Duty 7007 Press



See  
**PAGE  
17-18**  
For More Information

|                                     |                                 |
|-------------------------------------|---------------------------------|
| Clinch Joint Type                   | Round                           |
| Tool Size                           | 5.5                             |
| Geo-Clinch® Tool Sizes*             | TLO-4x8; LL-4.6                 |
| Max. Combined Material Thickness    | 5.5mm [.22"]                    |
| Opening                             | 33.8mm [1.33"]                  |
| Stroke                              | 35mm [1.38"]                    |
| Throat Depth                        | 75mm [2.95"]                    |
| Trigger Type                        | Dual                            |
| Operating Pressure                  | 175 BAR [2500 PSI]              |
| Press Force                         | 54kN [6.1 Ton]                  |
| Cycle Time                          | 2 sec.                          |
| Unit Weight (Round Clinch Assembly) | 22 kg [49 lbs] - 24 kg [53 lbs] |

\*Geo-Clinch® Units By Special Order. Contact BTM

## HYDRAULIC PUMP

### HydroPak1.2



See  
**PAGE  
19**  
For More Information

|                   |  |
|-------------------|--|
| Flow Rate         | 9.5 LPM @ 45 BAR<br>[2.5 GPM @ 650 PSI]<br>2.3 LPM @ 172 BAR<br>[0.6 GPM @ 2500 PSI] |
| Motor Size        | 1.5 HP   |
| Electrical Supply | 120 volt 60 HZ single<br>phase 16 amp  |
| Power Consumption | 1920 watts   |
| Maximum Pressure  | 207 BAR [3000 PSI]   |
| Working Pressure  | 45/172 BAR [650/2500 PSI]  |

## OPTIONAL EQUIPMENT

### Rotation Mounts



Duroloc7



7007 Press

See  
**PAGE 20**  
For More Information

### Spring Balancers



See  
**PAGE 21**  
For More Information

## UNICLINCH

The UniClinch press has an integrated air hydraulic cylinder which requires only an 87PSI (6 BAR) airline to operate.

The unit contains few moving parts and offers a high level of reliability.

It is also quick cycling, lightweight, well balanced and runs quietly making it an ideal solution for economically clinching your products in low to medium volume production runs.



|                                     |                |
|-------------------------------------|----------------|
| Opening                             | 6mm [.25"]     |
| Trigger Type                        | Single         |
| Operating Pressure                  | 6 BAR [87 PSI] |
| Press Force                         | 34kN [3.8 Ton] |
| Cycle Time                          | 1.5 sec.       |
| Maximum Combined Material Thickness | 2mm [.08"]     |

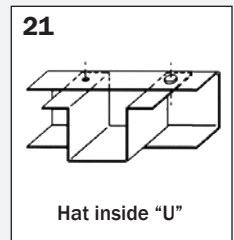
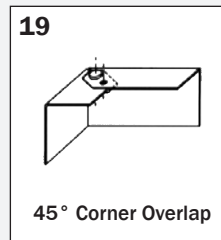
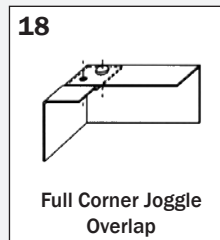
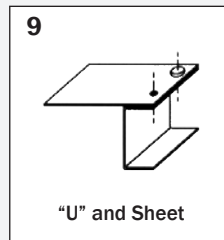
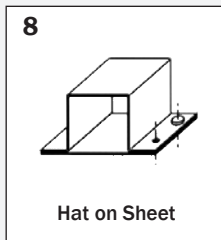
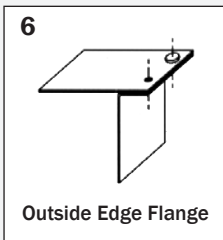
|                   |       |     |      |
|-------------------|-------|-----|------|
| Clinch Joint Type | Round |     |      |
| Tool Size(s)      | 3.0   | 3.8 | 4.6* |

\* 4.6 Tooling- Some Limitations Apply. Contact BTM.

### THE UNICLINCH IS BEST WHEN:

- **Smaller clinch joints are adequate.**
- **Joining overlaps or flanges.**
- **The part does not require a large opening.**

### TYPICAL APPLICATIONS FOR A UNICLINCH:



### HOW TO ORDER



It is recommended that you contact a BTM sales engineer prior to purchasing a hand-held unit to determine the optimal tooling configuration for your application.

Call +1.810.364.4567, or email [sales@btmcomp.com](mailto:sales@btmcomp.com) to request a quote!

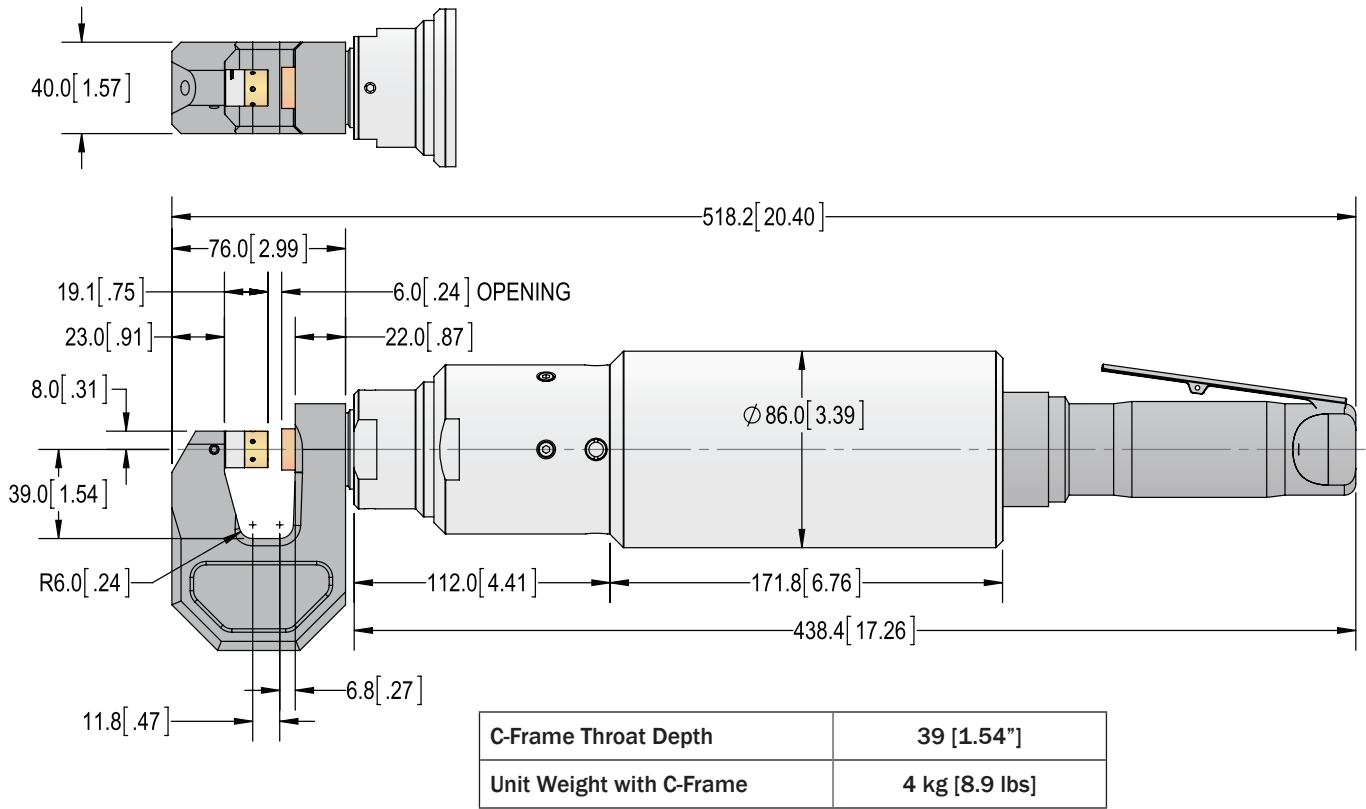
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|--------------------------------|
| <b>UniClinch with C-Frame*</b> |
| <b>PD295000A</b>               |
| OR                             |
| <b>PD296000A</b>               |
| OR                             |
| <b>PD296000B</b>               |

|                            |
|----------------------------|
| <b>Spring Balancer</b>     |
| <b>3-5 kg [6.6-11 lbs]</b> |
| <b>052936</b>              |

\*Tooling Not Included

## UNICLINCH & C-FRAME

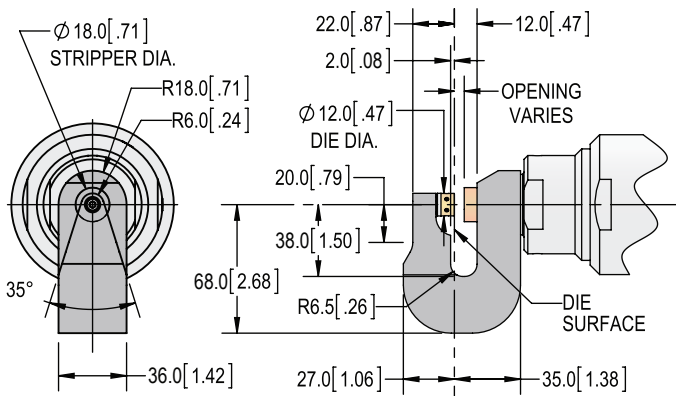
BTM NUMBER PD295000A



## UNICLINCH & C-FRAME

BTM NUMBER PD296000A

(3.0 TOG-L-LOC® ONLY)

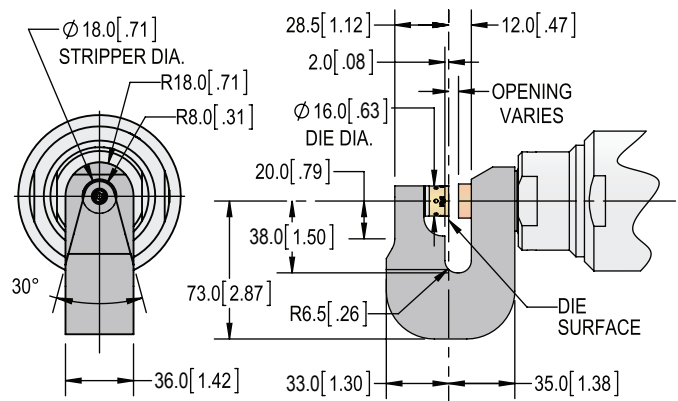


|                          |                   |
|--------------------------|-------------------|
| C-Frame Throat Depth     | 38.0 [1.50"]      |
| Unit Weight with C-Frame | 3.67 kg [8.1 lbs] |

## UNICLINCH & C-FRAME

BTM NUMBER PD296000B

(3.8 & 4.6 TOG-L-LOC®)



|                          |                   |
|--------------------------|-------------------|
| C-Frame Throat Depth     | 38.0 [1.50"]      |
| Unit Weight with C-Frame | 3.86 kg [8.5 lbs] |

## COMPACT BATTERY CLINCH PRESS (ULBG452)

The lightweight and easy-to-position Compact Battery Clinch Press is ideal for low volume sheet metal repair work and/or when utility electricity is not available.

The “C” frame can be rotated relative the trigger for easy selection of an ergonomic operating position.

The stroke is activated by one push button and the return is initiated automatically once a joint has been completed. The advance stroke can be interrupted at any time.

The units are powered by efficient lithium-ion rechargeable batteries but an optional AC power supply cable for all common voltage systems is available.

Up to 30,000 clinches can be made between service intervals. Contact BTM for more information.

### A BATTERY OPERATED UNIT IS BEST WHEN:

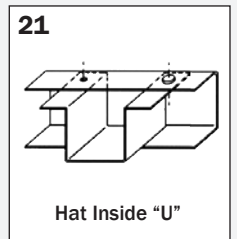
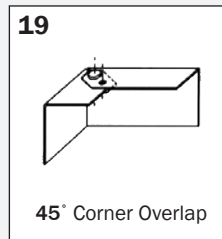
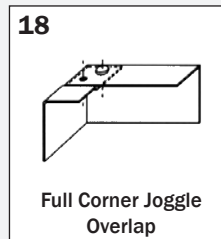
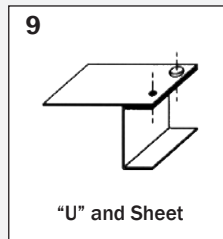
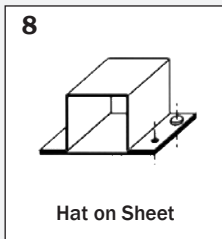
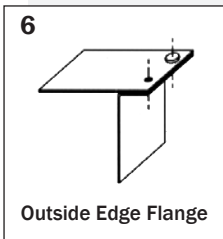
- *An edge of a part is being joined.*
- *No access to a power source is available.*
- *A light-weight and ergonomic tool is desired.*
- *A high degree of mobility is required.*



|                                  |                          |
|----------------------------------|--------------------------|
| Opening                          | 6mm [.25"]               |
| Throat Depth                     | Varies with C-Frame      |
| Trigger Type                     | Single                   |
| Battery Type                     | 18V/1.5Ah Lithium-Ion    |
| Charging Time                    | Approximately 30 Minutes |
| Press Force                      | 45kN [5 Ton]             |
| Cycle Time                       | Contact BTM              |
| Unit Weight                      | Varies with C-Frame      |
| Max. Combined Material Thickness | 3mm [.12"]               |

|                   |       |     |     |
|-------------------|-------|-----|-----|
| Clinch Joint Type | Round |     |     |
| Tool Size(s)      | 3.0   | 3.8 | 4.6 |

### TYPICAL APPLICATIONS FOR A BATTERY CLINCH PRESS:



**HOW TO ORDER** It is recommended that you **contact a BTM sales engineer** prior to purchasing a hand-held unit to determine the optimal tooling configuration for your application.

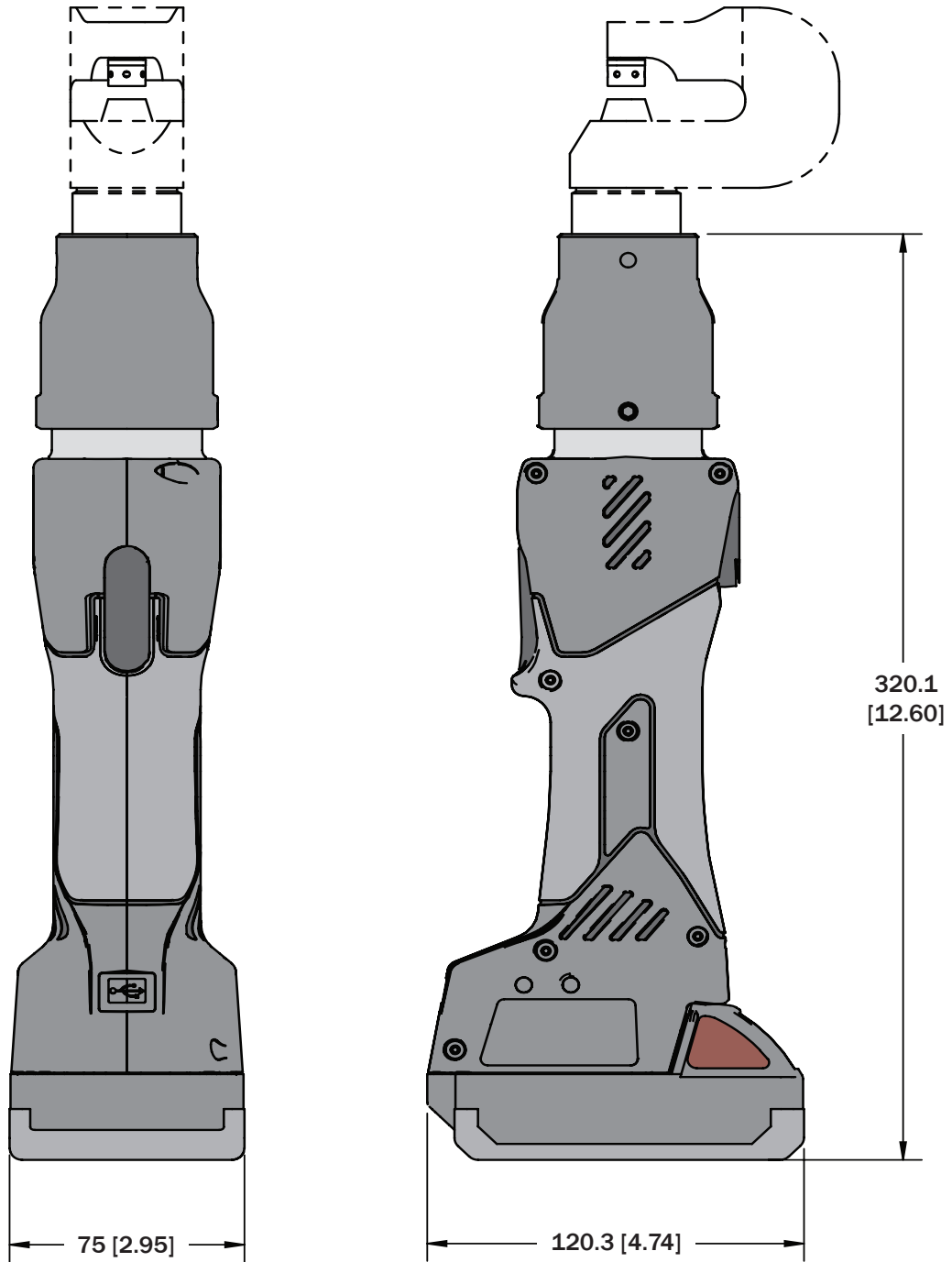
**Contact BTM: +1.810.364.4567 | sales@btmcomp.com**

#### Compact Battery Unit:

- One Rechargeable Battery
  - One Battery Charger
- Tooling Not Included*



**COMPACT BATTERY CLINCH PRESS  
(ULBG452)**



## BATTERY CLINCH PRESS (ULBG602)

This Battery Clinch Press is powerful enough to make 5.5 size Tog-L-Loc® joints in most common sheet metal thicknesses.

The unit operates by a single push button, is lightweight, ergonomic and has a robust design suited for the construction site. This Battery Clinch Unit is ideal for low volume sheet metal repair work and/or when utility electricity is not available.

The “C” frame can be rotated relative the trigger for easy selection of an ergonomic operating position.

The units are powered by efficient lithium-ion rechargeable batteries but an optional AC power supply cable for all common voltage systems is available.

Up to 30,000 clinches can be made between service intervals. Contact BTM for more information.

### A BATTERY OPERATED PRESS IS BEST WHEN:

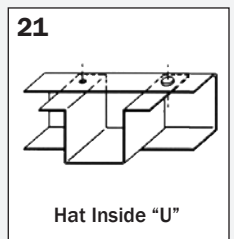
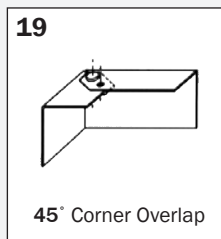
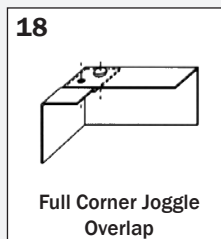
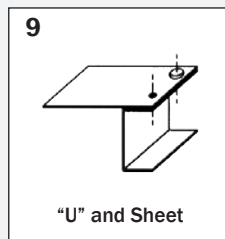
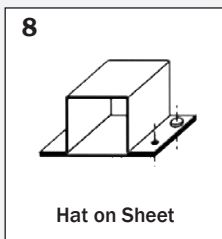
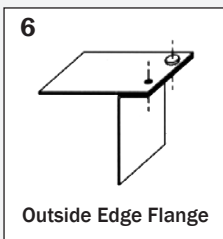
- *An edge of a part is being joined.*
- *No access to a power source is available.*
- *A light-weight and ergonomic tool is desired.*
- *A high degree of mobility is required.*



|                                  |                          |
|----------------------------------|--------------------------|
| Opening                          | 16mm [.63"]              |
| Throat Depth                     | Varies per C-Frame       |
| Trigger Type                     | Single                   |
| Battery Type                     | 18V/3 Ah Lithium-Ion     |
| Charging Time                    | Approximately 45 Minutes |
| Press Force                      | 60kN [6.5 Ton]           |
| Cycle Time                       | Contact BTM              |
| Unit Weight                      | Varies with C-Frame      |
| Max. Combined Material Thickness | 3mm [.12"]               |

|                   |       |     |     |     |
|-------------------|-------|-----|-----|-----|
| Clinch Joint Type | Round |     |     |     |
| Tool Size(s)      | 3.0   | 3.8 | 4.6 | 5.5 |

### TYPICAL APPLICATIONS FOR A BATTERY CLINCH PRESS:



### HOW TO ORDER



It is recommended that you **contact a BTM sales engineer** prior to purchasing a hand-held unit to determine the optimal tooling configuration for your application.

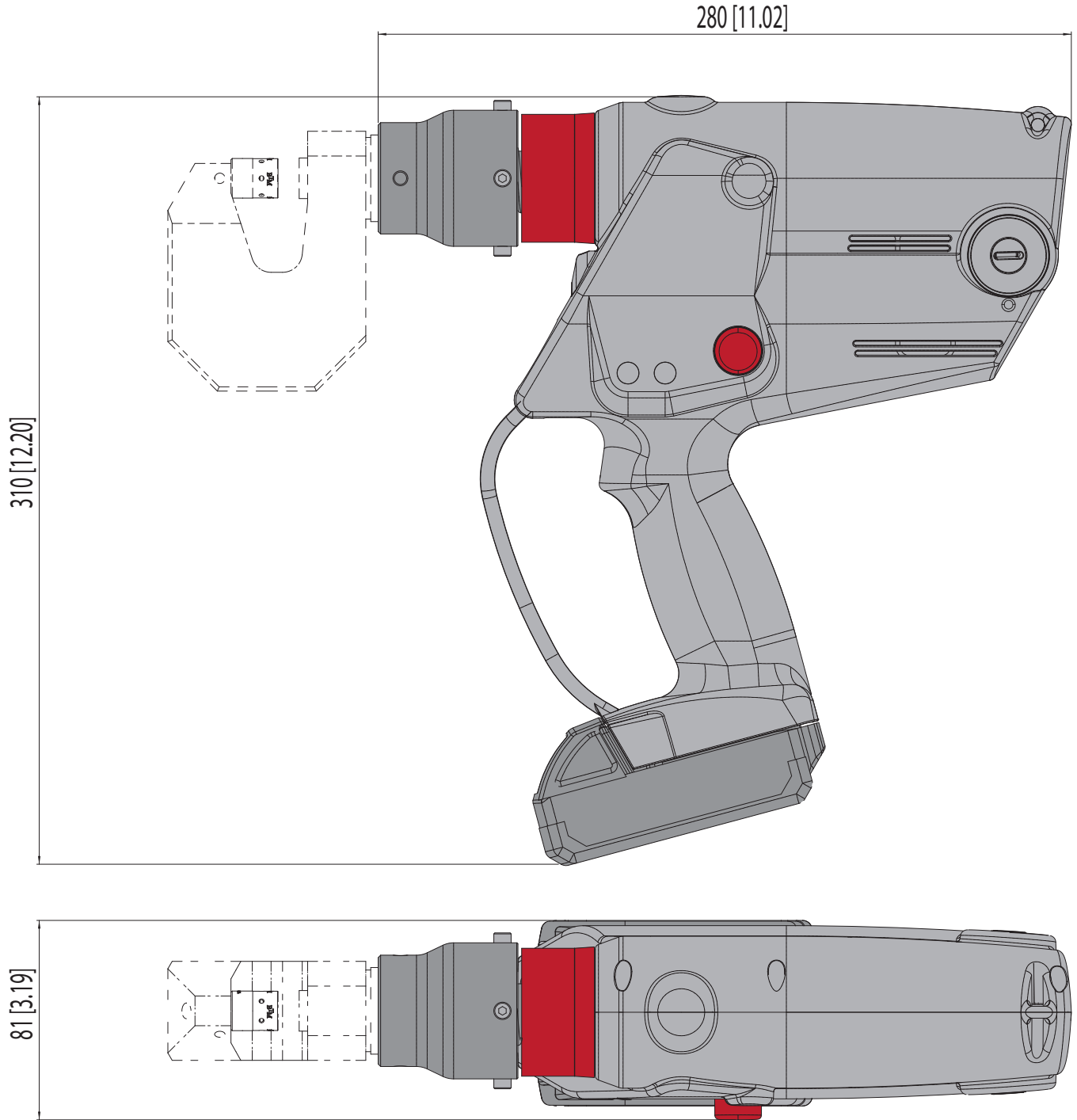
**Contact BTM: +1.810.364.4567 | sales@btmcomp.com**

#### Battery Clinch Press Includes:

- One Rechargeable Battery
- One Battery Charger

*Tooling Not Included*

**BATTERY CLINCH PRESS  
(ULBG602)**



## DUROLOC7 PRESS

The Duroloc7 clinching press features easy to adjust shut height and interchangeable anvils. Shut height cartridges easily swap to accommodate required material thickness ranges. Interchangeable anvils accommodate a wider range of part cross sections. Duroloc7 units are sold separately or as a complete system including a hose and air/oil booster. Hangers and balancers are also available for assisting operator productivity.

### A DUROLOC7 IS BEST WHEN:

- *More tooling options are required.*
- *The part being joined has a small lip, or flange.*



(Unit Shown with Optional 360° Hanger.)

**15cc Booster**  
Use with Duroloc7 Units

(See page 15)

|                                     |                    |
|-------------------------------------|--------------------|
| Opening                             | 6mm [.25"]         |
| Throat Depth                        | 38mm [1.50"]       |
| Trigger Type                        | Single             |
| Maximum Operating Pressure          | 345 BAR [5000 PSI] |
| Press Force                         | 32kN [3.6 Ton]     |
| Cycle Time                          | 1 second           |
| Unit Weight                         | 5.6 kg [12.4 lbs]  |
| Maximum Combined Material Thickness | 2mm [.08"]         |

|                   |       |     |
|-------------------|-------|-----|
| Clinch Joint Type | Round |     |
| Tool Size(s)      | 3.8   | 4.6 |

### TYPICAL APPLICATIONS FOR A DUROLOC7:

|                  |                          |                                   |                        |                              |                       |                                      |                              |  |                          |
|------------------|--------------------------|-----------------------------------|------------------------|------------------------------|-----------------------|--------------------------------------|------------------------------|--|--------------------------|
| 1<br><br>Overlap | 2<br><br>Angle and Sheet | 3<br><br>Angle and Sheet Sandwich | 4<br><br>"T" and Sheet | 6<br><br>Outside Edge Flange | 8<br><br>Hat on Sheet | 18<br><br>Full Corner Joggle Overlap | 19<br><br>45° Corner Overlap | 20<br><br>Corner Joggle Overlap w/ Ret. Flange | 21<br><br>Hat Inside "U" |
|------------------|--------------------------|-----------------------------------|------------------------|------------------------------|-----------------------|--------------------------------------|------------------------------|--|--------------------------|

### HOW TO ORDER

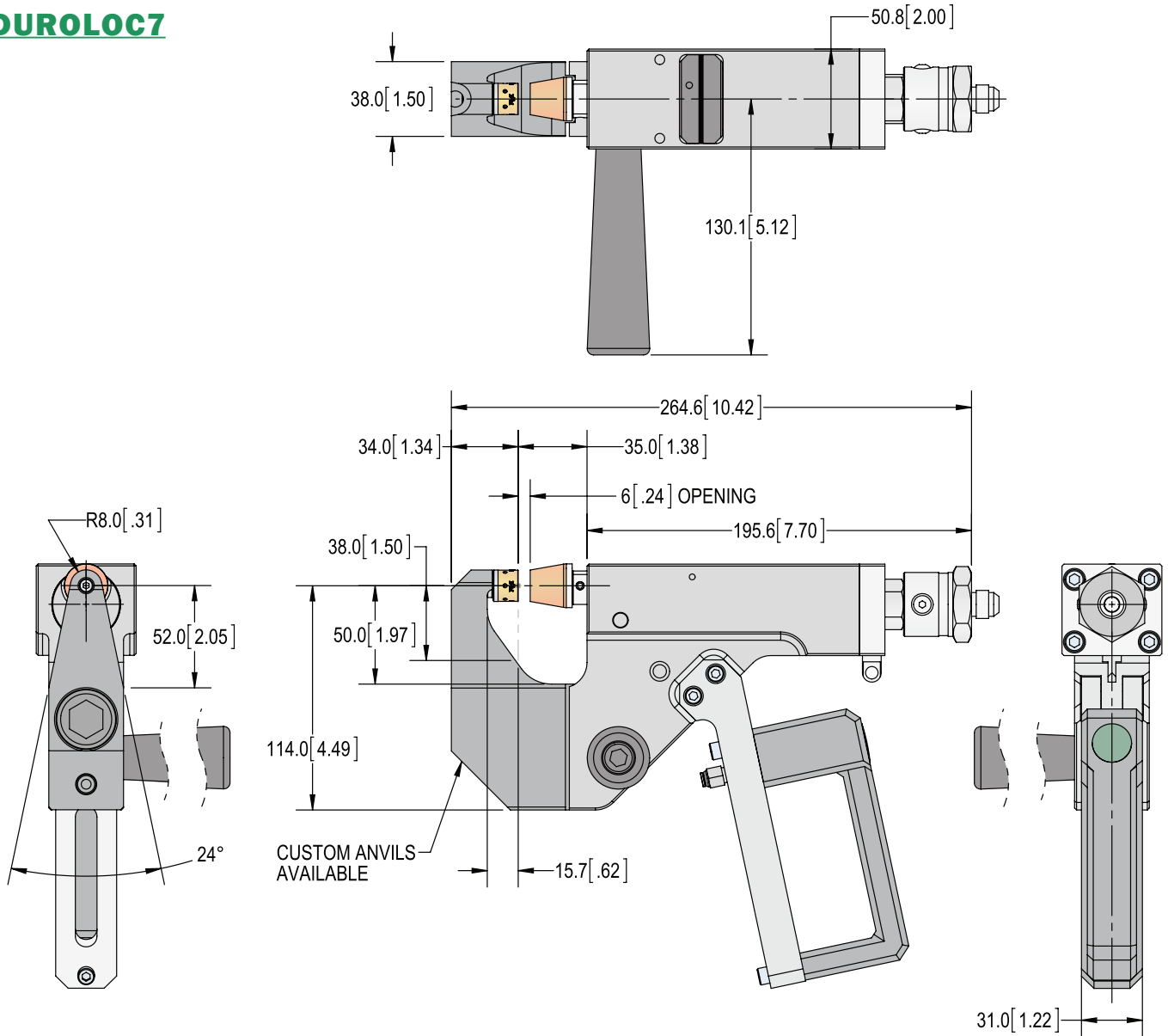


It is recommended that you **contact a BTM sales engineer** prior to purchasing a hand-held unit to determine the optimal tooling configuration for your application.

Call +1.810.364.4567, or email [sales@btmcomp.com](mailto:sales@btmcomp.com) to request a quote!

|  |    |   |   |   |   |  |
|--|----|---|---|---|---|--|
| <b>Complete System</b><br><br><b>PD296200A</b><br><br><b>Includes:</b> <ul style="list-style-type: none"> <li>• A Duroloc7 (PD281500A)</li> <li>• 15cc Booster (PD238100A)</li> <li>• 3 Meter Hose Assembly (711100C)</li> </ul> <i>Tooling &amp; Spring Balancer Not Included</i> | OR | <b>Individual Unit</b><br><br><b>PD281500A</b><br><i>Tooling Not Included</i> | <b>Hose Assembly</b><br><br><b>3 Meter [10 Foot] Hose</b><br><b>711100C</b> | <b>Booster</b><br><br><b>15cc Booster</b><br><i>(See page 14)</i><br><b>PD238100A</b> | <b>Optional Rotation Hanger</b><br><br><b>360° Hanger</b><br><i>(See page 20)</i><br><b>PD281500J</b> | <b>Spring Balancer</b><br><br><b>6-10 kg [13.3-22 lbs]</b><br><i>(Unit or Unit + 360° Hanger)</i><br><b>051898</b> |
|  |    |   |   |   | OR  | OR   |
|  |    |   |   |   | <b>180° Hanger</b><br><i>(See page 20)</i><br><b>PD281500R</b>  | <b>9-14 kg [20-30 lbs]</b><br><i>(Unit + 180° Hanger)</i><br><b>024049</b>   |

**DUROLOC7**

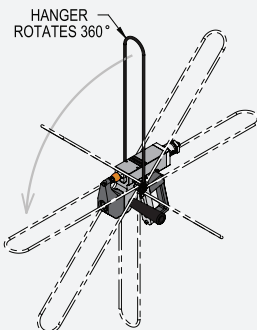


**OPTIONAL ROTATION HANGERS**

(See page 20)

**360° HANGER**

This hanger allows a Duroloc7 to rotate a full 360° on a single axis.

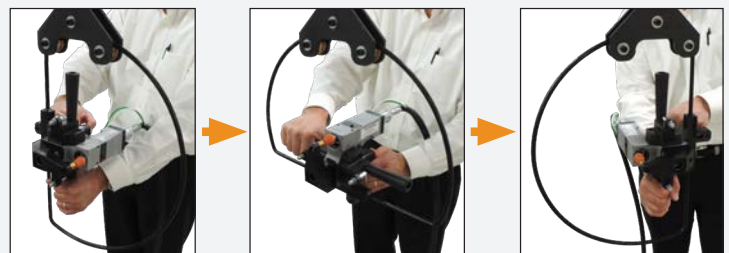


|                                 |                              |
|---------------------------------|------------------------------|
| <b>Weight</b><br>(without Unit) | <b>0.37 kg</b><br>[0.82 lbs] |
|---------------------------------|------------------------------|

**180° HANGER**

This hanger allows a Duroloc7 to rotate 180° on a single axis.

|                                 |                         |
|---------------------------------|-------------------------|
| <b>Weight</b><br>(without Unit) | <b>3.4 kg [7.5 lbs]</b> |
|---------------------------------|-------------------------|



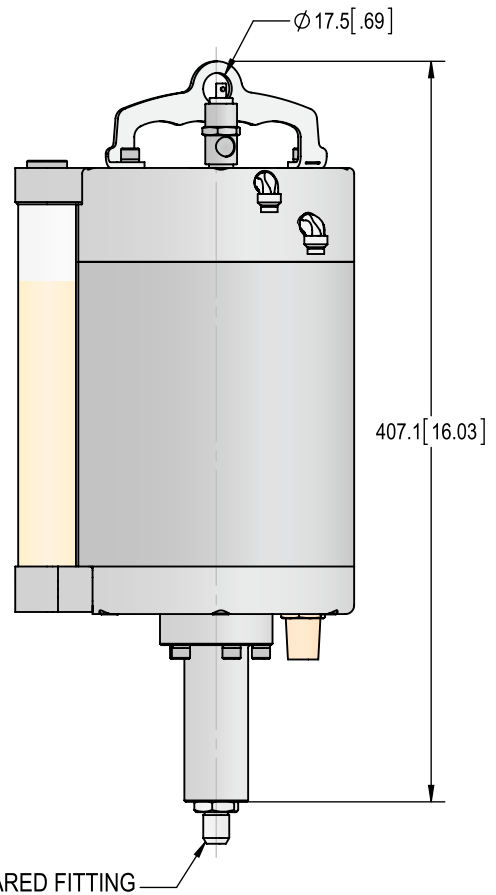
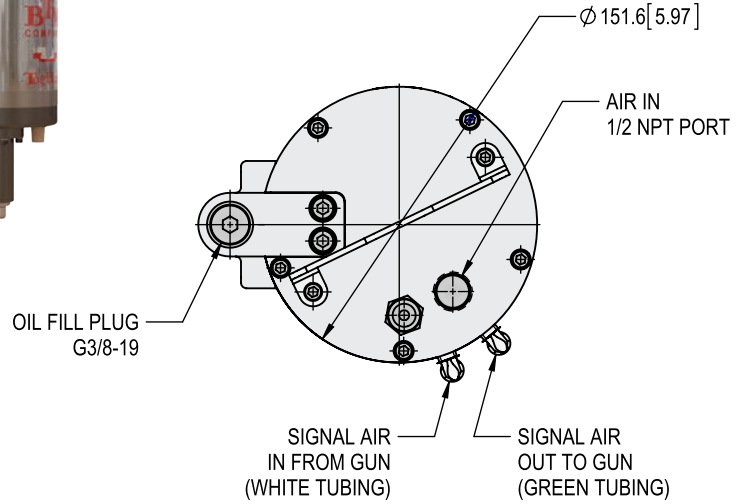
## 15CC AIR/OIL BOOSTER

A self-contained power package requires only one pneumatic supply line.

|                       |  |
|-----------------------|--|
| Booster Ratio         | 61:1                                     |
| Weight (without hose) | 8.2kg [18 lbs]                           |
| Maximum Output        | 337 BAR [4880 PSI] @<br>5.5 BAR [80 PSI] |



| Air Pressure In |     | ➔ | Hydraulic Pressure Out |      |
|-----------------|-----|---|------------------------|------|
| BAR             | PSI |   | BAR                    | PSI  |
| 2.8             | 40  |   | 168                    | 2440 |
| 3.4             | 50  |   | 210                    | 3050 |
| 4.1             | 60  |   | 252                    | 3660 |
| 4.8             | 70  |   | 294                    | 4270 |
| 5.5             | 80  |   | 337                    | 4880 |



### PRESS COMPATIBILITY



**Duroloc7**  
(See page 12)

### HOW TO ORDER

Call +1.810.364.4567,  
or email [sales@btmcomp.com](mailto:sales@btmcomp.com) to request a quote!

**BTM NUMBER**

**PD238100A**

*Hose Assembly Not Included.*

## 7007 PRESS

These hydraulic hand operated presses are most commonly used for prototyping & small to medium production runs.

A standard 7007 is available in one of two different anvil styles. The style of anvil required depends on the design of part being joined.

These units feature a dual handled design with two operation triggers. Both triggers must be pressed in order to open, close, and cycle the unit.

### THE 7007 IS BEST WHEN:

- **More force than booster units provide is required.**
- **A compact unit for easier positioning is needed.**

|                                     |  |
|-------------------------------------|--|
| Opening                             | M Anvil - 33mm [1.30"]<br>N Anvil - 29.3mm [1.15"] |
| Stroke                              | M Anvil - 35mm [1.38"]<br>N Anvil - 32mm [1.26"]   |
| Peck Stroke                         | 6mm [.25"]   |
| Throat Depth                        | 50mm [1.97"]                                       |
| Trigger Type                        | Dual   |
| Operating Pressure                  | 175 BAR [2500 PSI]                                 |
| Press Force                         | 35kN [3.9 Ton]                                     |
| Cycle Time                          | 2 seconds  |
| Unit Weight                         | 11.3kg [25lbs]                                     |
| Maximum Combined Material Thickness | 4mm [.16"]   |



**HydroPak1.2 Hydraulic Pump**  
Use with 7007 Units

(See page 19)

|                         |         |        |        |
|-------------------------|---------|--------|--------|
| Clinch Joint Type       |         |        |        |
| Round Tool Sizes        | 3.0     | 3.8    | 4.6    |
| Geo-Clinch® Tool Sizes* | TLO-3x6 | LL-3.0 | LL-3.8 |

\*Geo-Clinch® Units By Special Order. Contact BTM

### TYPICAL APPLICATIONS FOR A 7007:

|  |   |                                     |   |                                 |                               |  |
|--|---|-------------------------------------|---|---------------------------------|-------------------------------|--|
| <b>1</b><br><br>Overlap                        | <b>2</b><br><br>Angle and Sheet             | <b>4</b><br><br>"T" and Sheet       | <b>6</b><br><br>Outside Edge Flange                   | <b>8</b><br><br>Hat on Sheet    | <b>9</b><br><br>"U" and Sheet | <b>12</b><br><br>Square Tube and Sheet |
| <b>17</b><br><br>Two Piece Full Corner Overlap | <b>18</b><br><br>Full Corner Joggle Overlap | <b>19</b><br><br>45° Corner Overlap | <b>20</b><br><br>Corner Joggle Overlap w/ Ret. Flange | <b>21</b><br><br>Hat Inside "U" |                               |  |

### HOW TO ORDER



It is recommended that you **contact a BTM sales engineer** prior to purchasing a hand-held unit to determine the optimal tooling configuration for your application.

Call +1.810.364.4567, or email sales@btmcomp.com to request a quote!

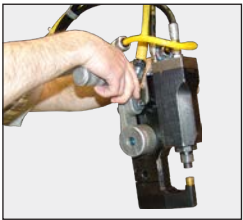
|   |   |  |  |  |
|---|---|--|--|--|
| <b>Individual Unit</b>                            | <b>Hydraulic Pump</b>                                   | <b>Hose Assembly</b>                           | <b>Optional Gimbal Mount</b>   | <b>Spring Balancer</b>   |
| <b>SEE PAGE 16</b><br><i>Tooling Not Included</i> | <b>HydroPak1.2</b><br>(See page 19)<br><b>PD366000A</b> | <b>6.1 Meter [20 Foot]</b><br><b>PD377600A</b> | <b>Allows 360° Rotation On 3 Axis</b><br>(See page 20)<br><b>700600G</b> | <b>9-14 kg [20-30 lb]</b><br>(For 7007 Only)<br>(See page 21)<br><b>024049</b> |
|   |   |  |  | <b>OR</b>  |
|   |   |  |  | <b>13-17 kg [29-37 lb]</b><br>(For 7007 + Gimbal Mount)<br><b>024050</b>       |

**7007 UNIT**

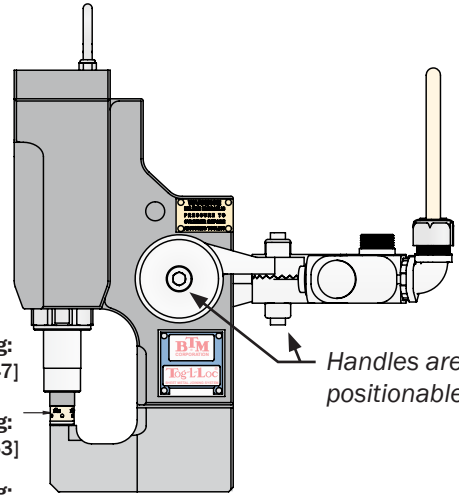
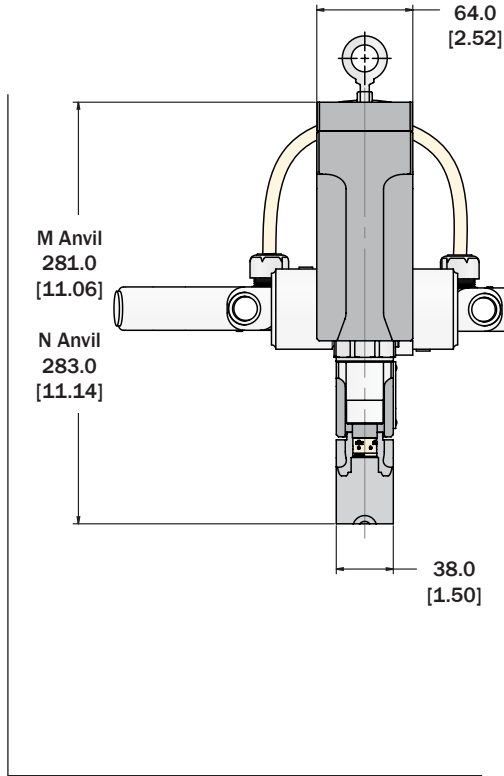
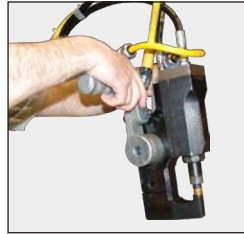
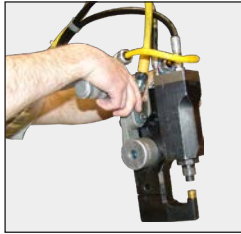
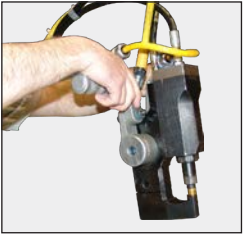
**USING THE PRESS**



Both triggers must be depressed to close the unit and operate the peck cycle.



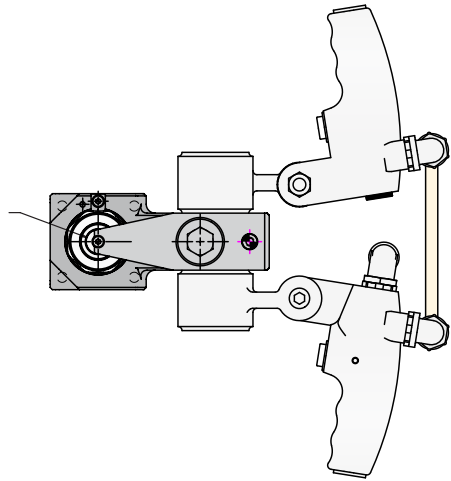
The peck cycle feature allows joints to be created faster.



(Unit Shown with Anvil "M")

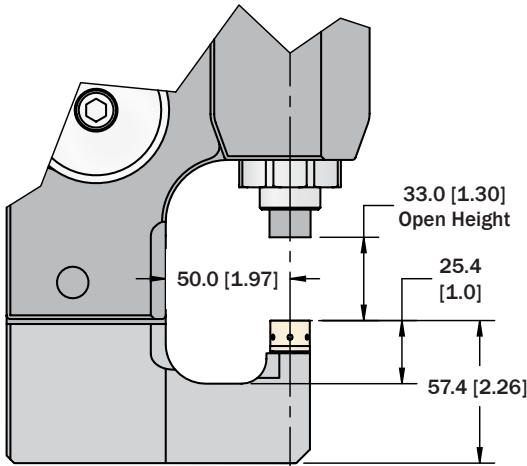
3.0 Tooling:  
R6.0 [0.24]

3.8 & 4.6  
Tooling:  
R8.0 [0.31]



**7007 ANVILS**

**ANVIL "M"**

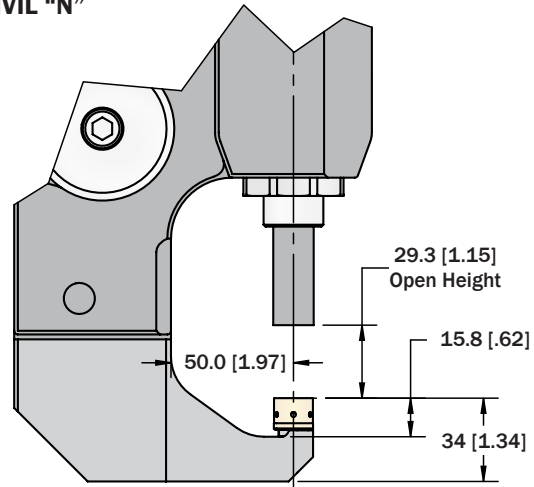


**BTM NUMBER**

7007 STYLE "M" TL-4.6

**PD368700A**

**ANVIL "N"**



**BTM NUMBER**

7007 STYLE "N" TL-4.6

**PD368800A**



## HEAVY DUTY 7007 PRESS

These hydraulic hand operated presses are most commonly used for prototyping & small to medium production runs.

A standard Heavy Duty 7007 Press is available in one of two different anvil styles. The style of anvil required depends on the design of part being joined.

This unit is designed to operate with 5.5 size tooling.

### THE HEAVY DUTY 7007 IS BEST WHEN:

- 5.5 size round tooling is required.
- More force is needed than the 7007 provides.

|                                     |                    |
|-------------------------------------|--------------------|
| Opening                             | 33.8mm [1.33"]     |
| Stroke                              | 35.0mm [1.38"]     |
| Peck Stroke                         | 6mm [.25"]         |
| Throat Depth                        | 75mm [2.95"]       |
| Trigger Type                        | Dual               |
| Operating Pressure                  | 175 BAR [2500 PSI] |
| Press Force                         | 54kN [6.1 Ton]     |
| Cycle Time                          | 2 sec.             |
| Unit Weight                         | 22-24kg [49-53lbs] |
| Maximum Combined Material Thickness | 5.5mm [0.22"]      |



**HydroPak1.2 Hydraulic Pump**  
Use with all 7007 Units



(See page 17)

|                         |         |        |
|-------------------------|---------|--------|
| Clinch Joint Type       |         |        |
| Round Tool Sizes        | 5.5     |        |
| Geo-Clinch® Tool Sizes* | TLO-4x8 | LL-4.6 |

\*Geo-Clinch® Units By Special Order. Contact BTM

### TYPICAL APPLICATIONS FOR A 7007 UNIT:

|  |   |                                     |   |                                 |                               |  |
|--|---|-------------------------------------|---|---------------------------------|-------------------------------|--|
| <b>1</b><br><br>Overlap                        | <b>2</b><br><br>Angle and Sheet             | <b>4</b><br><br>"T" and Sheet       | <b>6</b><br><br>Outside Edge Flange                   | <b>8</b><br><br>Hat on Sheet    | <b>9</b><br><br>"U" and Sheet | <b>12</b><br><br>Square Tube and Sheet |
| <b>17</b><br><br>Two Piece Full Corner Overlap | <b>18</b><br><br>Full Corner Joggle Overlap | <b>19</b><br><br>45° Corner Overlap | <b>20</b><br><br>Corner Joggle Overlap w/ Ret. Flange | <b>21</b><br><br>Hat Inside "U" |                               |  |

## HOW TO ORDER



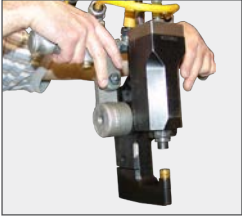
It is recommended that you **contact a BTM sales engineer** prior to purchasing a hand-held unit to determine the optimal tooling configuration for your application.

Call +1.810.364.4567, or email sales@btmcomp.com to request a quote!

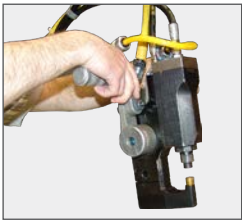
|   |  |  |  |  |
|---|--|--|--|--|
| <b>Individual Unit</b><br><br><b>SEE PAGE 18</b><br><br><i>Tooling Not Included</i> | <b>Hydraulic Pump</b><br><br><b>HydroPak1.2</b><br>(See page 19)<br><b>PD366000A</b> | <b>Hose Assembly</b><br><br><b>6.1 Meter [20 Foot]</b><br><b>PD377600A</b> | <b>Optional Gimbal Mount</b><br><br>Allows 360° Rotation<br>On 3 Axis<br>(See page 20)<br><b>792100G</b> | <b>Spring Balancer</b><br><br><b>20-30 kg [44-66 lb]</b><br>(For Heavy Duty 7007 Only)<br>(See page 21)<br><b>025900</b><br><br><b>OR</b><br><br><b>30-45 kg [66-99 lb]</b><br>(For Heavy Duty 7007 + Gimbal)<br><b>034426</b> |
|---|--|--|--|--|

**HEAVY DUTY 7007 UNIT**

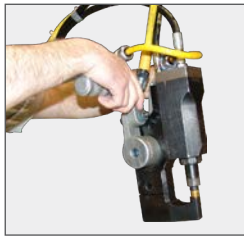
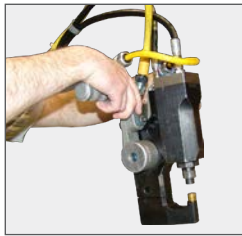
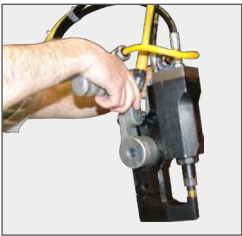
**USING THE PRESS**



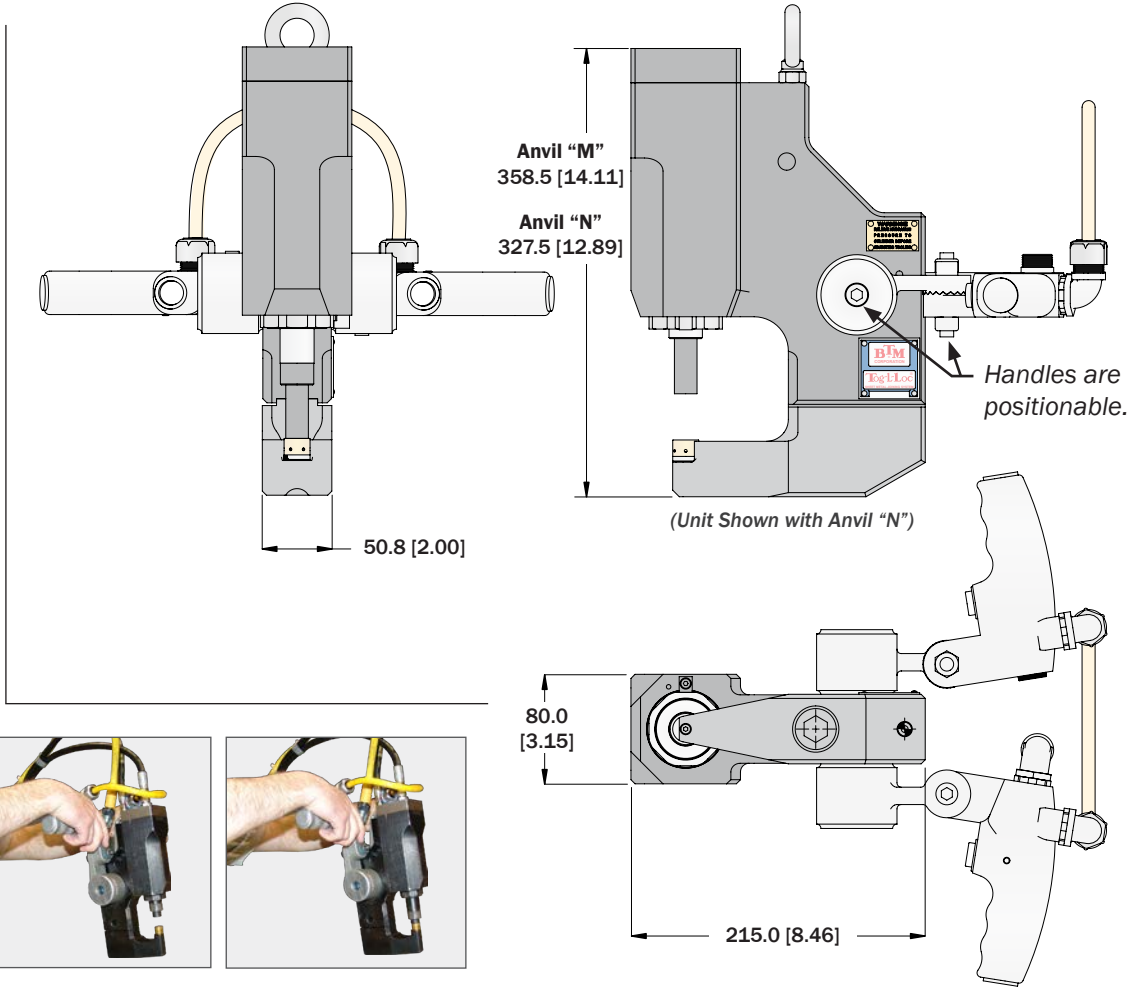
Both triggers must be depressed to close the unit and operate the peck cycle.



The peck cycle feature allows joints to be created faster.

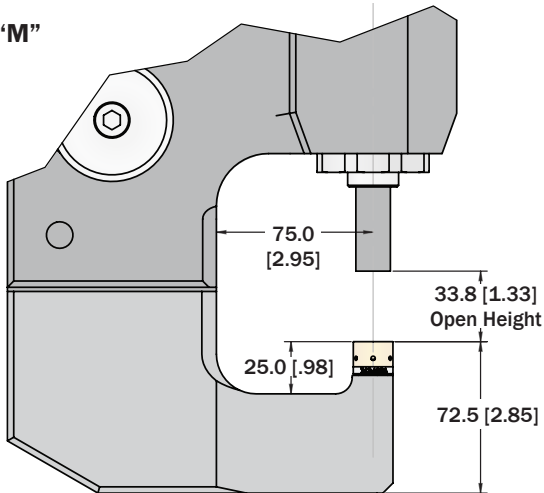


(Standard 7007 Unit Shown)



**HEAVY DUTY 7007 ANVILS**

**ANVIL "M"**

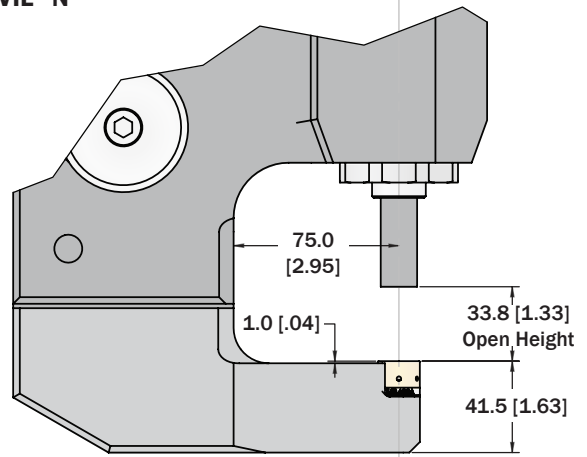


**BTM NUMBER**

Heavy Duty 7007 with Anvil "M"

**PD383400A**

**ANVIL "N"**



**BTM NUMBER**

Heavy Duty 7007 with Anvil "N"

**PD383500A**

## HYDROPAK1.2 HYDRAULIC PUMP

The BTM HydroPak 1.2 Power supply unit provides both reliable hydraulic pressure and safe and effective two hand, anti-tie down logic control of the clinch unit's trigger switches by utilizing a touch screen PLC.

The unit is equipped with a 1hp motor, 5 GPM 2 stage pump, 15 gallon oil tank and oil cooler for operation at higher ambient temperatures. The unit will automatically shut off after a period on non-use.



|                    |  |
|--------------------|--|
| Flow Rate          | 9.5 LPM @ 45 BAR [2.5 GPM @ 650 PSI]<br>2.3 LPM @ 172 BAR [0.6 GPM @ 2500 PSI] |
| Motor Size         | 1.5 HP   |
| Electrical Supply  | 120 volt 60 HZ single phase 16 amp   |
| Power Consumption  | 1920 watts   |
| Maximum Pressure   | 207 BAR [3000 PSI]   |
| Working Pressure   | 45/172 BAR [650/2500 PSI]  |
| Tank Capacity      | 38 Liters [10 Gallons]   |
| Weight Without Oil | 128 kg [282 lbs]   |

### HOW TO ORDER

Call +1.810.364.4567, or email [sales@btmcomp.com](mailto:sales@btmcomp.com) to request a quote!

#### HYDROPAK1.2 BTM NUMBER

**PD366000A**

*HydroPak1.2 7007 Hose Assemblies Are Sold Separately.*

### HYDROPAK1.2 HYDRAULIC HOSE ASSEMBLY

| HYDROPAK1.2 HYDRAULIC HOSE ASSEMBLIES   | BTM NUMBER       |
|---|------------------|
| 6.1 Meter [20 Foot] Assembly<br><i>(Includes four fittings, one 20ft electrical cord, and two 20 ft. hydraulic hoses)</i> | <b>PD377600A</b> |

### UNIT COMPATIBILITY



**7007**  
(See page 15)



**Heavy Duty 7007**  
(See page 17)

## OPTIONAL EQUIPMENT

### DUROLOC7 180° ROTATION HANGER

This hanger allows a Duroloc7 to rotate 180° on a single axis.

Call +1.810.364.4567,  
or email [sales@btmcomp.com](mailto:sales@btmcomp.com) to request a quote!

| Unit Compatibility        | Weight<br>(without Unit) | BTM<br>NUMBER    |
|---------------------------|--------------------------|------------------|
| Duroloc7<br>(See page 12) | 3.4 kg<br>[7.5 lbs]      | <b>PD281500R</b> |

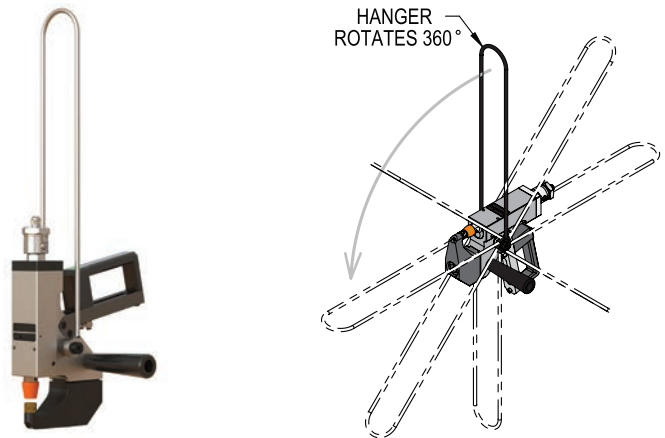


### DUROLOC7 360° HANGER

This hanger allows a Duroloc7 Unit to rotate a full 360° on a single axis.

Call +1.810.364.4567,  
or email [sales@btmcomp.com](mailto:sales@btmcomp.com) to request a quote!

| Unit Compatibility        | Weight<br>(without Unit) | BTM<br>NUMBER    |
|---------------------------|--------------------------|------------------|
| Duroloc7<br>(See page 12) | 0.37 kg<br>[0.82 lbs]    | <b>PD281500J</b> |



### 7007 UNIT 360° GIMBAL MOUNT

This Gimbal Mount allows a 7007 to rotate a full 360° on three axes.

Call +1.810.364.4567,  
or email [sales@btmcomp.com](mailto:sales@btmcomp.com) to request a quote!

| Unit Compatibility   | Weight<br>(without Unit) | BTM<br>NUMBER  |
|--|--------------------------|----------------|
| 7007 Units<br>[PD368700A or PD368800A]<br>(See page 15)            | 3.3 kg<br>[7.2 lbs]      | <b>700600G</b> |
| Heavy Duty 7007 Units<br>[PD383400A or PD383500A]<br>(See page 17) | 5.3 kg<br>[11.8 lbs]     | <b>792100G</b> |



## SPRING BALANCERS

A spring-actuated balancer with an external adjustment to quickly and easily set the correct tension. Each balancer includes a mounting hook that rotates 360°.

Call +1.810.364.4567, or email [sales@btmcomp.com](mailto:sales@btmcomp.com) to request a quote!



*Picture shows one type of spring balancer. Actual balancer may vary depending on weight range.*

| Weight Range               | BTM NUMBER |
|----------------------------|------------|
| 2.6-3.8 kg [5.73-8.38 lbs] | 052945     |
| 3-5 kg [6.6-11 lbs]        | 052936     |
| 4-7 kg [10-15 lbs]         | 052937     |
| 6-10 kg [13.3-22 lbs]      | 051898     |
| 9-14 kg [20-30 lbs]        | 024049     |
| 13-17 kg [29-37 lbs]       | 024050     |
| 20-30 kg [44-66 lbs]       | 025900     |
| 30-45 kg [66-99 lbs]       | 034426     |

# BTM<sup>®</sup> COMPANY

## BTM Offers a Range of Production Equipment for Applying our Clinch Tooling.

### Hand-Held Presses



BTM Hand-Held Presses are an economical approach to fastening sheet metal assemblies. Pneumatic, Hydraulic, and Self-Contained Units in a variety of styles are available. The units can be set up to join a range of thicknesses.

### Die Sets



Clinch tooling can be inexpensively designed into single or compound motion die set packages.

### Floor & Bench Presses



BTM offers a full line of Single Point Clinching Presses that easily adapt to join a variety of parts and a range of metal thicknesses.

### Special Fixtures



Manually loaded and unloaded dedicated tooling can be built for a single part or a family of parts.

### Specialized Units



BTM provides Pneumatic, Hydraulic, Air/Oil, and Electrically Driven units with single or dual motions for both stationary and robotic applications.

### Special Systems



Achieve faster cycle times with automatic part transfer and by combining processes.

For more information, or to see our full line of products, please visit:

# BTMCOMP.COM