

HAND-HELD CLINCHING UNITS

Manually positioned units for clinching sheet metal parts.

> PNEUMATIC



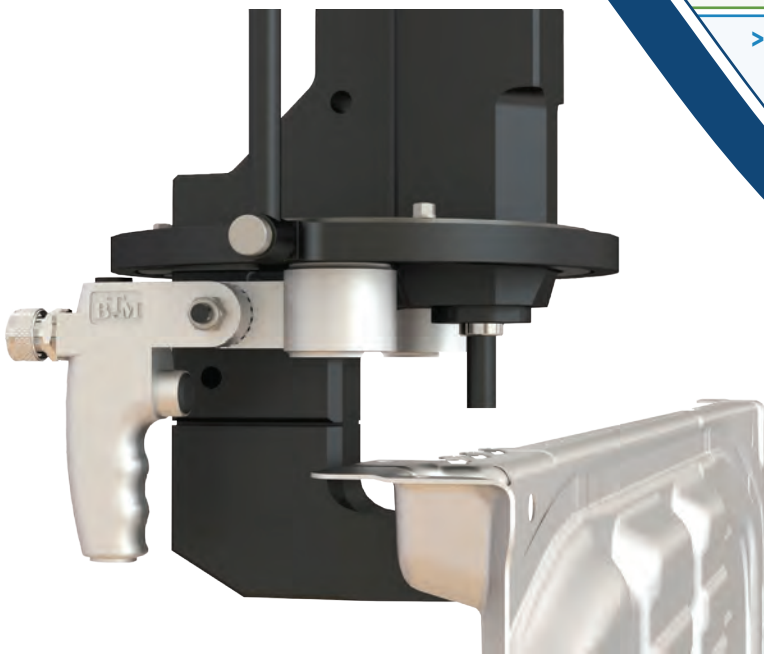
> AIR/OIL



> HYDRAULIC



> BATTERY



Part of our Clinching Production Equipment Line of Products

www.btmcomp.com/clinching-equipment

BTM[®]
COMPANY

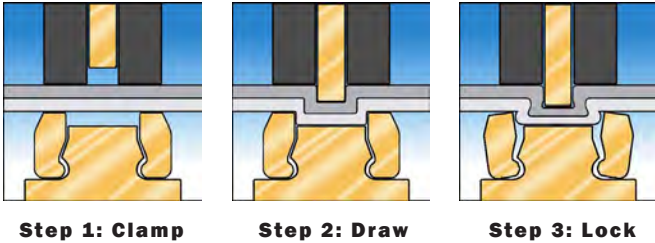
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+1.810.364.4567

BTM[®] 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

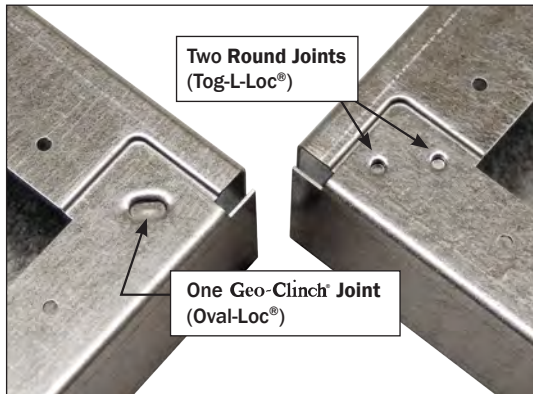
The punch draws the material into the die.

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	
	 Tog-L-Loc[®]	 V-Loc[™]	 Oval-Loc[®]	 Lance-N-Loc[®]
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's 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. Go to btmcomp.com for latest version.


BTM[®] HAND-HELD UNITS

BTM hand-held clinching units 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 and adaptable hand-held units are designed to fit a wide range of part designs and production requirements or we can easily modify an existing unit to meet your unique part design.



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

UNIT SELECTION

PNEUMATIC UNITS	
UniCinch Unit	
 <div style="display: inline-block; background-color: #e67e22; color: white; padding: 10px; text-align: center;"> See PAGE 6-7 For More Information </div>	
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]

AIR/OIL BOOSTER POWERED UNITS	
Lit-L-Loc Units	
 <div style="display: inline-block; background-color: #27ae60; color: white; padding: 10px; text-align: center;"> See PAGE 10-9 For More Information </div>	
Clinch Joint Type	Log-L-Loc[®] or Lance-N-Loc[®]
Tool Sizes	3.0, 4.6
Max. Combined Material Thickness	2mm [.08"]
Opening	6mm [.25"]
Throat Depth Range	6.2mm [.24"] - 76.2mm [3.00"]
Trigger Type	Single
Max. Operating Pressure	345 BAR [5000 PSI]
Press Force	Varies with Unit
Cycle Time	1 second
Unit Weight	Varies with Unit

* 4.6 Tooling- Some Limitations Apply. Contact BTM.

AIR/OIL BOOSTER POWERED UNITS	
Duroloc7 Unit	
 <div style="display: inline-block; background-color: #27ae60; color: white; padding: 10px; text-align: center;"> See PAGE 10-11 For More Information </div>	
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	
 <div style="display: inline-block; background-color: #27ae60; color: white; padding: 10px; text-align: center;"> See PAGE 12 For More Information </div>	
Booster Ratio	61:1
Weight (without hose)	8.2kg [18 lbs]
Maximum Output	337 BAR [4880 PSI] @ 5.5 BAR [80 PSI]

HYDRAULIC POWERED UNITS

7007 Unit



See
**PAGE
13-14**
For More Information

Clinch Joint Type	Round
Tool Sizes	3.0, 3.8, 4.6
Max. Combined Material Thickness	4mm [.16"]
Opening	M Anvil - 33mm [1.30"] N Anvil - 29.3mm [1.15"]
Stroke	M Anvil - 35mm [1.38"] N Anvil - 32mm [1.26"]
Throat Depth	50mm [1.97"]
Trigger Type	Dual
Operating Pressure	175 BAR [2500 PSI]
Press Force	26.7kN [3 Ton]
Cycle Time	2 sec.
Unit Weight	11.3 kg [25 lbs]

Heavy Duty 7007 Unit



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

Clinch Joint Type	Round
Tool Sizes	5.5
Max. Combined Material Thickness	4mm [.16"]
Opening	33.8 mm [1.33"]
Stroke	32mm [1.26"]
Throat Depth	75mm [2.95"]
Trigger Type	Dual
Operating Pressure	175 BAR [2500 PSI]
Press Force	40kN [4.5 Ton]
Cycle Time	2 sec.
Unit Weight	22 kg [49 lbs] - 24 kg [53 lbs]

HYDRAULIC PUMP

HydroPak1.2



See
**PAGE
17**
For More Information

Flow Rate	9.5 LPM @ 45 BAR [2.5 GPM @ 650 PSI] 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]

BATTERY POWERED UNITS

Compact Battery Clinch Unit



See
PAGE 18-19
For More Information

Clinch Joint Type	Round
Tool Sizes	3.0, 3.8, 4.6
Max. Combined Material Thickness	3mm [.12"]
Opening	6mm [.25"]
Throat Depth	Varies per 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

Battery Clinch Unit



See
PAGE 20-21
For More Information

Clinch Joint Type	Round
Tool Sizes	3.0, 3.8, 4.6, 5.5
Max. Combined Material Thickness	3mm [.12"]
Opening	6mm [.25"]
Throat Depth	Varies per C-Frame
Trigger Type	Single
Battery Type	18V/3 Ah Lithium-Ion
Charging Time	Approximately 45 Minutes
Press Force	20 - 60kN [2.3 - 6.5 Ton]
Cycle Time	Contact BTM
Unit Weight	Varies with C-Frame

OPTIONS & ACCESSORIES

Rotation Mounts



Duroloc7



7007 Units

See
PAGE 22
For More Information

Spring Balancers



See
PAGE 23
For More Information

UNICLINCH UNITS

The UniClinch unit 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 that can be joined with this unit	2mm [.08"]

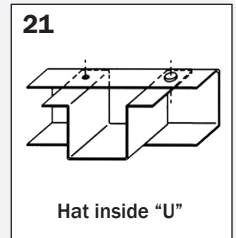
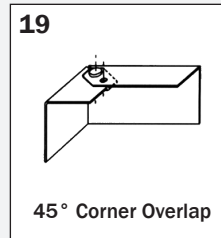
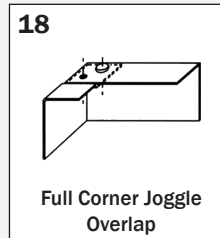
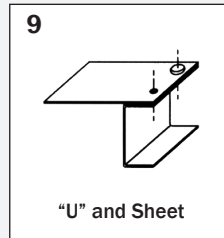
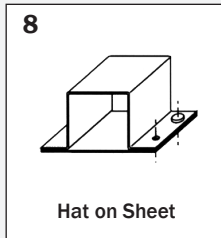
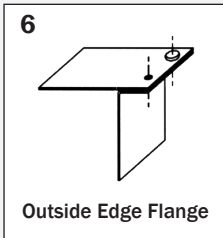
Clinch Joint Type	Round		
Tool Size(s)	3.0	3.8	4.6*

* 4.6 Tooling- Some Limitations Apply. Contact BTM.

THE UNICLINCH UNIT 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 UNIT:



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!

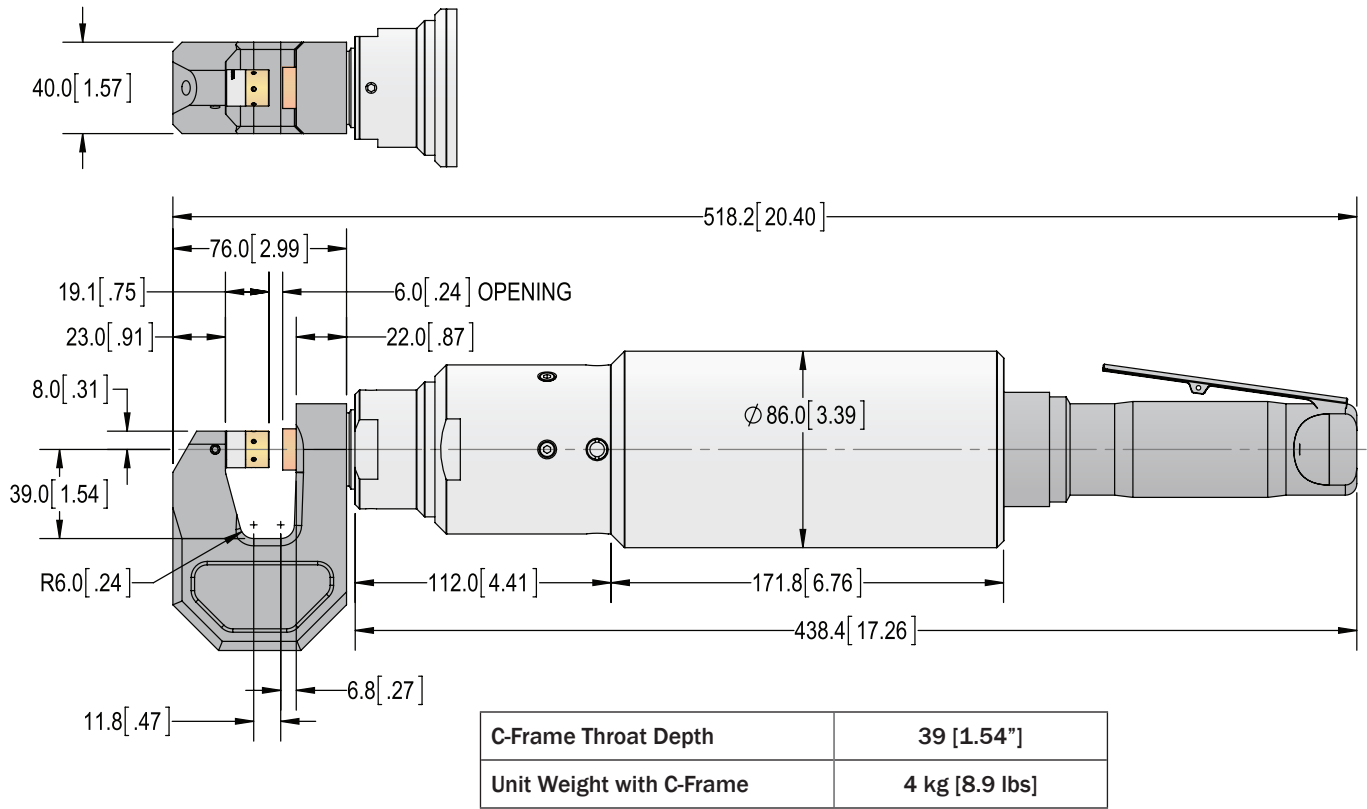
UniClinch Unit with C-Frame*
PD295000A
OR
PD296000A
OR
PD296000B

Spring Balancer
3-5 kg [6.6-11 lbs]
052936

*Tooling Not Included

UNICLINCH UNIT & C-FRAME

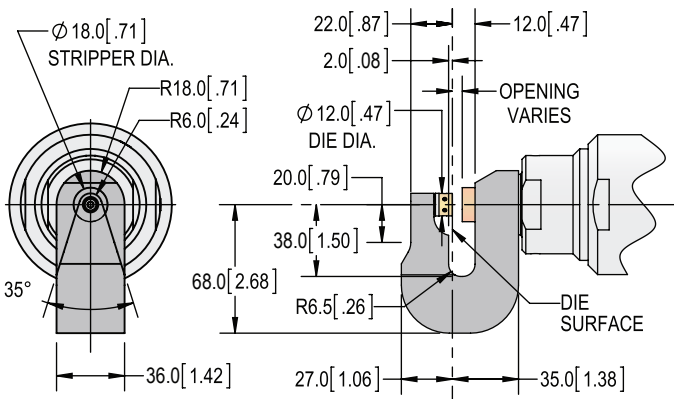
BTM NUMBER PD295000A



UNICLINCH UNIT & C-FRAME

BTM NUMBER PD296000A

(3.0 TOG-L-LOC ONLY)

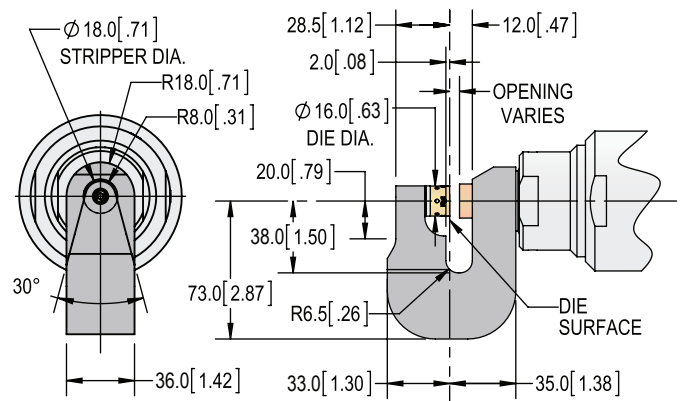


C-Frame Throat Depth	38.0 [1.50"]
Unit Weight with C-Frame	3.67 kg [8.1 lbs]

UNICLINCH UNIT & C-FRAME

BTM NUMBER PD296000B

(3.8 & 4.6 TOG-L-LOC)



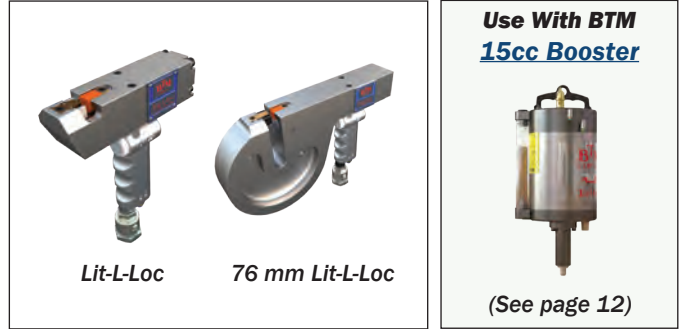
C-Frame Throat Depth	38.0 [1.50"]
Unit Weight with C-Frame	3.86 kg [8.5 lbs]

LIT-L-LOC UNITS

BTM Lit-L-Loc units are an economical approach to fastening sheet metal assemblies with edge or upstanding flanges.

The punch and die can be reversed in these units, allowing the Tog-L-Loc® or Lance-N-Loc® “button” to form on either side of assembled parts.

These units may be purchased separately or as a complete kit which includes a booster and two meter hose assembly.



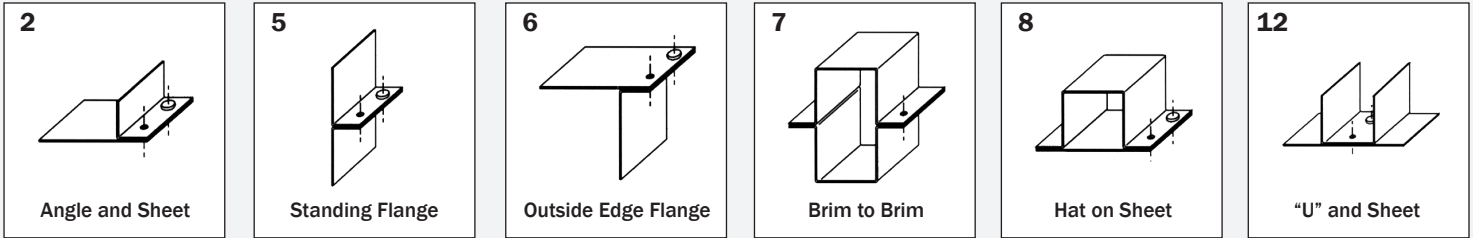
Opening	6mm [.25"]
Trigger Type	Single
Maximum Operating Pressure	345 BAR [5000 PSI]
Cycle Time	1 second
Maximum Combined Material Thickness that can be joined with these units	2mm [.08"]

Clinch Joint Type	Tog-L-Loc® or Lance-N-Loc®	
Tool Size(s)	3.0	4.6
Max. Anvil Depth	.035	.040

LIT-L-LOC UNITS ARE BEST WHEN:

- *Joining edge flanges and standing flanges.*
- *A compact unit will provide easier access to the joint location.*
- *Joining thicker material with larger clinch joints is required.*

TYPICAL APPLICATIONS FOR A LIT-L-LOC UNIT:



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!

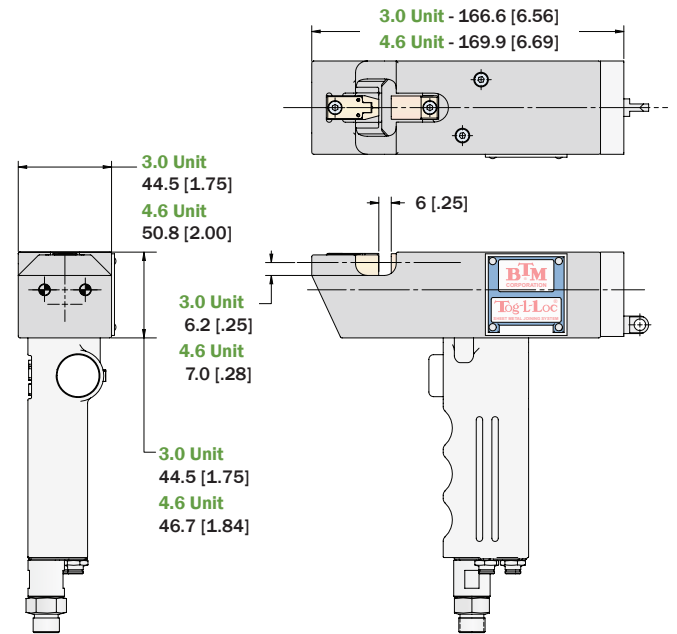
Complete System SEE PAGE 9 Includes: <ul style="list-style-type: none"> • A Lit-L-Loc unit • 15cc booster (PD238100A) • 3 meter hose assembly (711100C) <i>Tooling & Spring Balancer Not Included</i>	OR	Individual Unit SEE PAGE 9 <i>Tooling Not Included</i>	Hose Assembly 3 Meter [10 Foot] Hose 711100C	Booster 15cc Booster (See page 12) PD238100A	Spring Balancer Varies Per Unit (See page 9)
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STANDARD LIT-L-LOC UNITS

	3.0 Tooling Unit	4.6 Tooling Unit
Throat Depth	6.2mm [.24"]	7.0mm [.28"]
Press Force	17.5kN [2 Ton]	32kN [3.7 Ton]
Unit Weight	2.6 kg [5.7 lbs]	3.0 kg [6.7 lbs]

BTM NUMBERS	3.0 Tooling Unit	4.6 Tooling Unit
Complete Kit*	014334	PD227100A
Unit Only*	014097	PD224500A
Spring Balancer 2.6-3.8 kg [5.73-8.38 lbs]	052945	

*Tooling Not Included

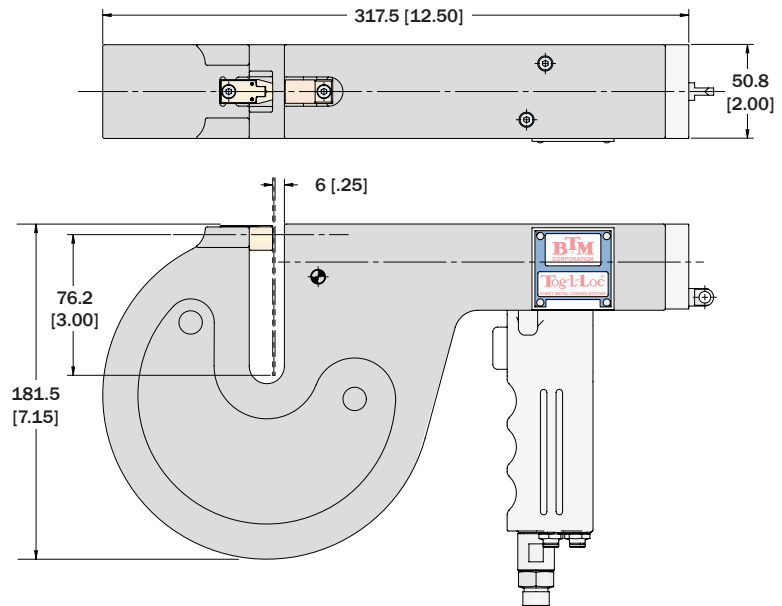


DEEPER THROAT LIT-L-LOC UNIT

Throat Depth	76.2mm [3.00"]
Press Force	32kN [3.7 Ton]
Unit Weight	10.6 kg [23.4 lbs]

BTM NUMBER	
Complete Kit*	PD227300A
Unit Only*	PD224700A
Spring Balancer 9-14 kg [20-30 lbs]	024049

*Tooling Not Included



DUROLOC7 UNIT

The Duroloc7 clinching unit 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 than the Lit-L-Loc unit. 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 UNIT IS BEST WHEN:

- More tooling options are required vs. a Lit-L-Loc Unit.
- The part being joined has a small lip, or flange.



(Unit Shown with optional 360° Hanger.)

Use With BTM
15cc Booster



(See page 12)

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 that can be joined with this unit	2mm [.08"]	
Clinch Joint Type	Round	
Tool Size(s)	3.8	4.6

TYPICAL APPLICATIONS FOR A DUROLOC7 UNIT:

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

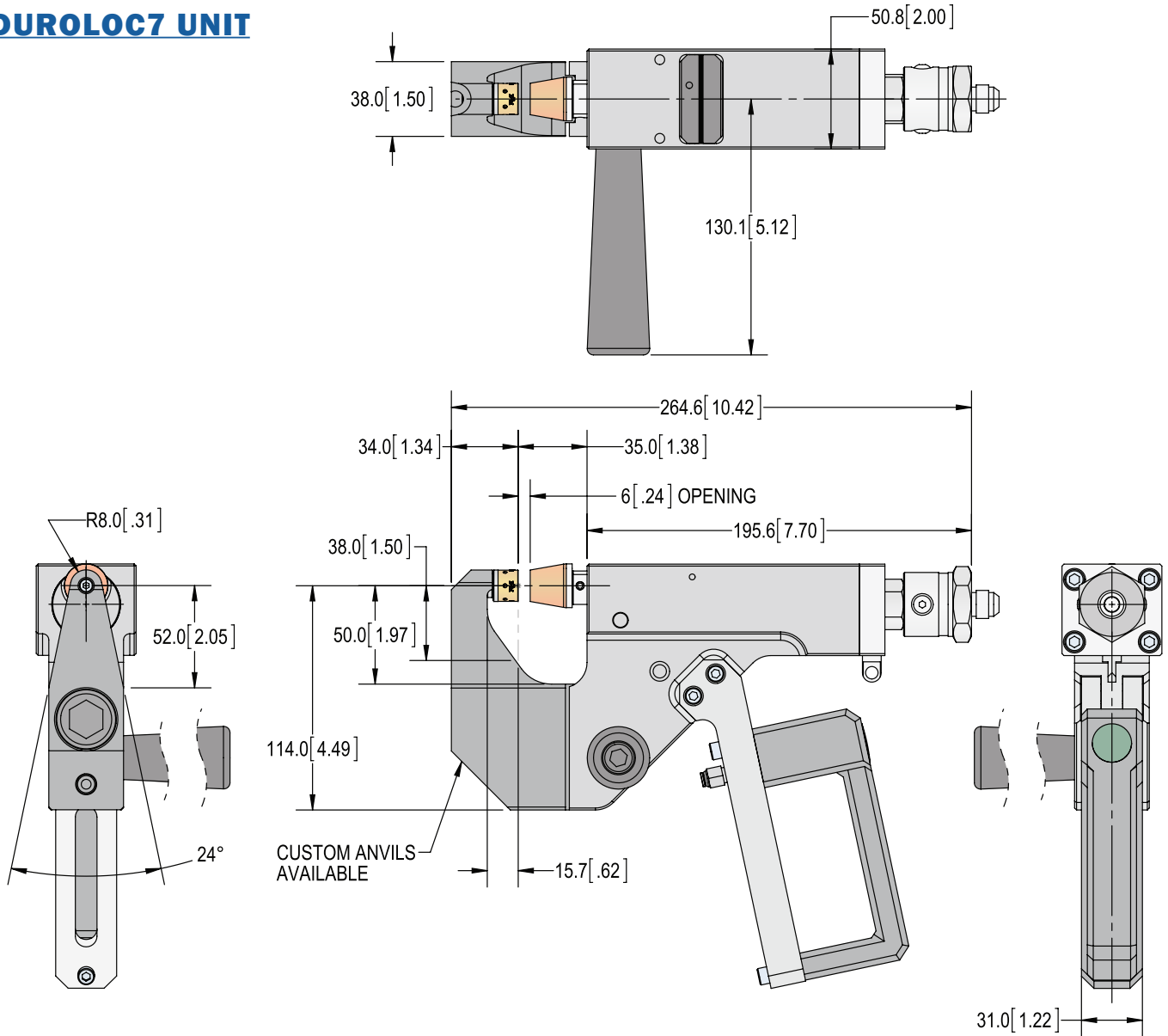


It is recommended that you contact a BTM sales engineer prior to purchasing a hand-held unit to determine the optimal tooling configuration for your application.

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

Complete System	Individual Unit	Hose Assembly	Booster	Optional Rotation Hanger	Spring Balancer
PD296200A	PD281500A	3 Meter [10 Foot] Hose 711100C	15cc Booster (See page 12) PD238100A	360° Hanger (See page 22) PD281500J	6-10 kg [13.3-22 lbs] (Unit or Unit + 360° Hanger) 051898
Includes: <ul style="list-style-type: none"> • A Duroloc7 unit (PD281500A) • 15cc booster (PD238100A) • 3 meter hose assembly (711100C) <i>Tooling & Spring Balancer Not Included</i>	OR			OR	OR
				180° Hanger (See page 22) PD281500R	9-14 kg [20-30 lbs] (Unit + 180° Hanger) 024049

DUROLOC7 UNIT



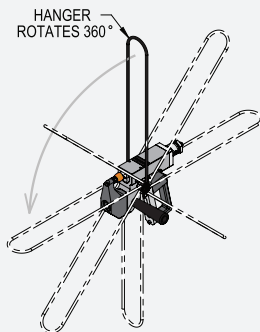
OPTIONAL ROTATION HANGERS

(See page 22)

360° HANGER

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

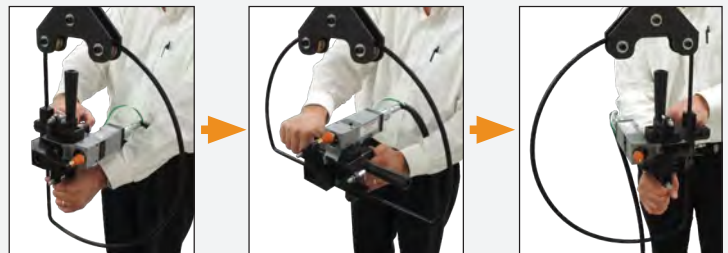
Weight (without Unit)	0.37 kg [0.82 lbs]
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180° HANGER

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

Weight (without Unit)	3.4 kg [7.5 lbs]
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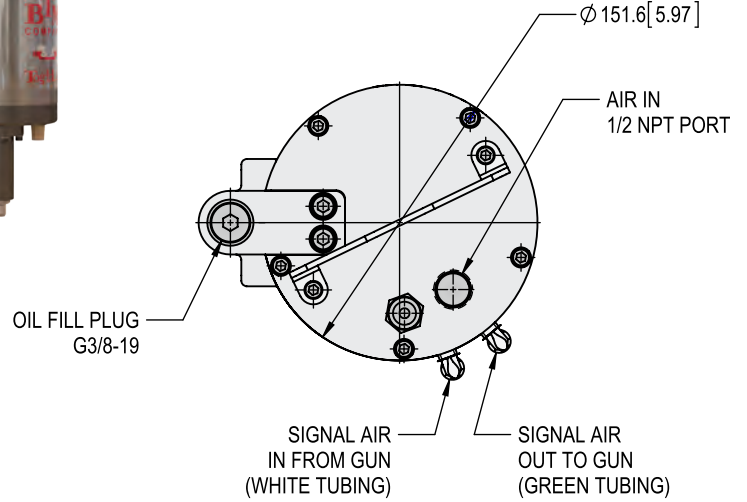


15CC AIR/OIL BOOSTER

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

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



UNIT COMPATIBILITY



Lit-L-Loc Units
(See page 8)



Duroloc7
(See page 10)

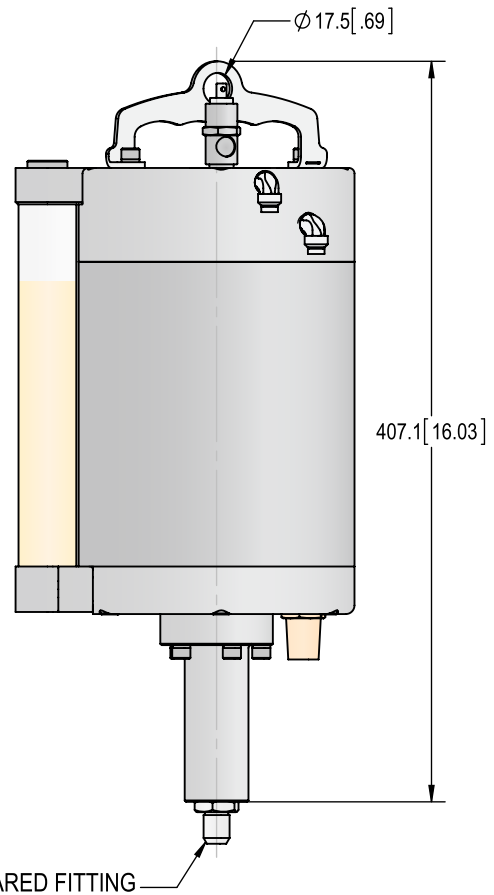
HOW TO ORDER

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

BTM NUMBER

PD238100A

Hose Assembly Not Included.



7007 UNIT

These hydraulic hand operated units are most commonly used for prototyping & small to medium production runs. A standard 7007 Unit 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 UNIT IS BEST WHEN:

- You need more force than booster units provide.
- You want a compact unit for easier positioning.

Opening	M Anvil - 33mm [1.30"] N Anvil - 29.3mm [1.15"]
Stroke	M Anvil - 35mm [1.38"] 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	26.7kN [3 Ton]
Cycle Time	2 seconds
Unit Weight	11.3kg [25lbs]
Maximum Combined Material Thickness that can be joined with this unit	4mm [.16"]
Clinch Joint Type	Round
Tool Size(s)	3.0 3.8 4.6



Use with **HydroPak1.2 Hydraulic Pump**



(See page 17)

TYPICAL APPLICATIONS FOR A 7007 UNIT:

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

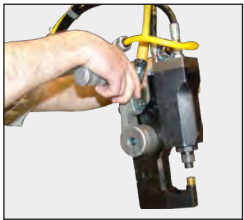
Individual Unit	Hydraulic Pump	Hose Assembly	Optional Gimbal Mount	Spring Balancer
SEE PAGE 14 <i>Tooling Not Included</i>	HydroPak1.2 (See page 17) PD366000A	6.1 Meter [20 Foot] PD377600A	Allows 360° rotation on 3 axis (See page 22) 700600G	9-14 kg [20-30 lb] (For 7007 Unit Only) (See page 23) 024049
				OR
				13-17 kg [29-37 lb] (For 7007 Unit + Gimbal Mount) 024050

7007 UNIT

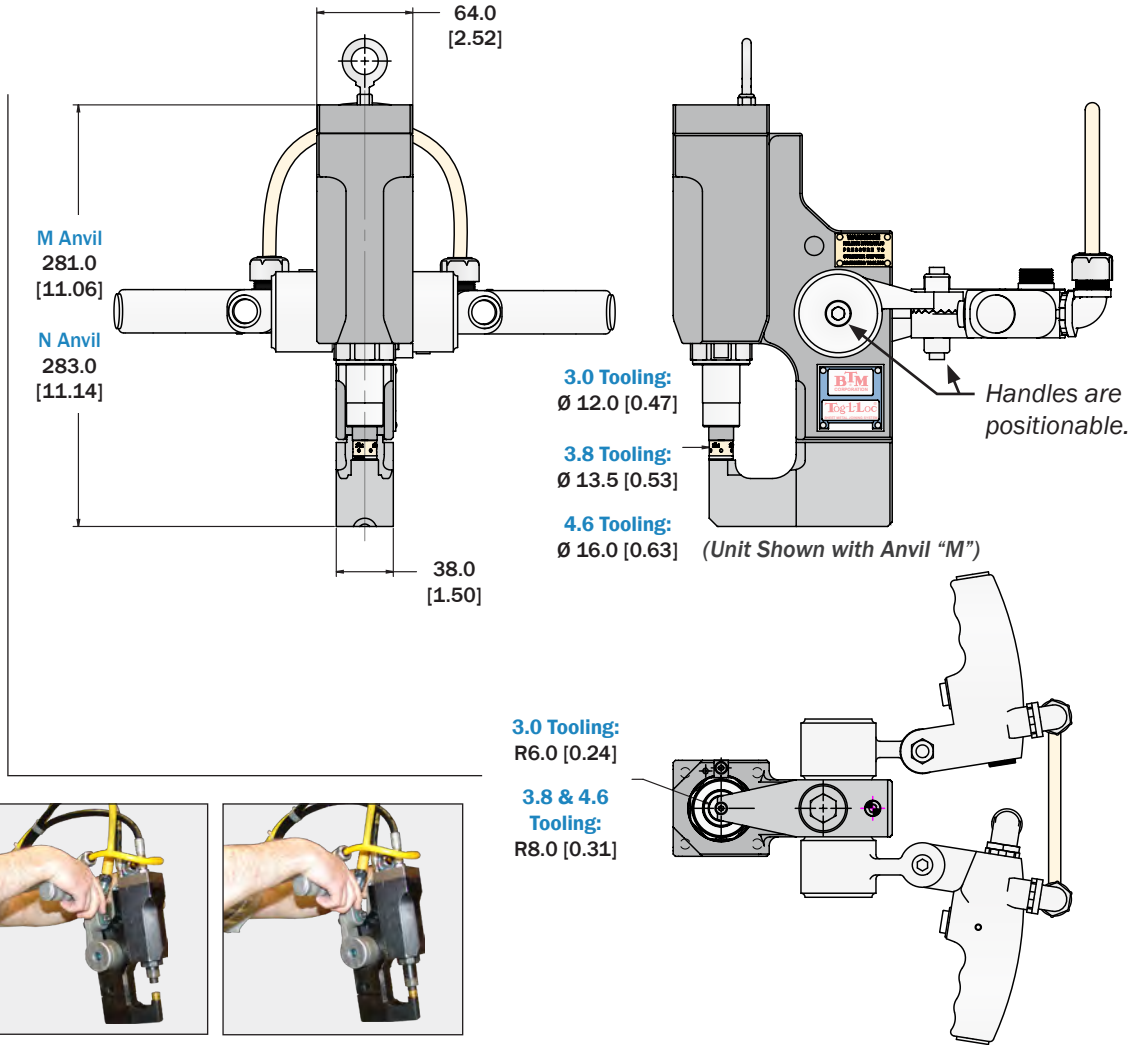
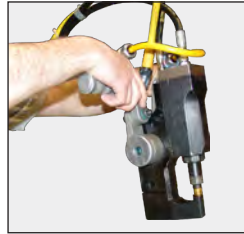
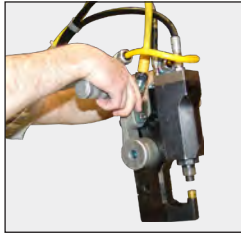
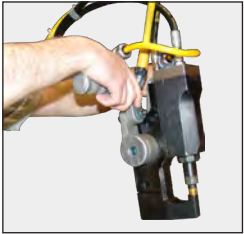
USING THE UNIT



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

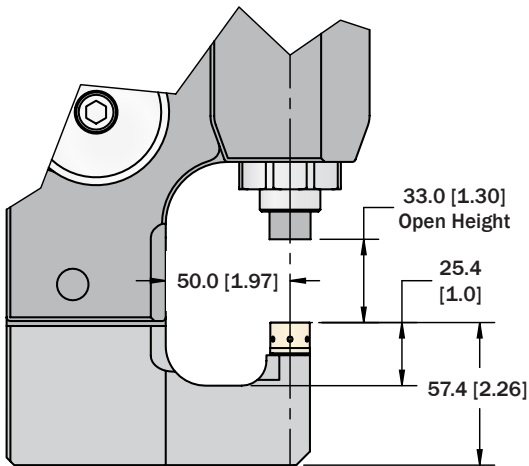


The peck cycle feature allows joints to be created faster.



7007 UNIT ANVILS

ANVIL "M"

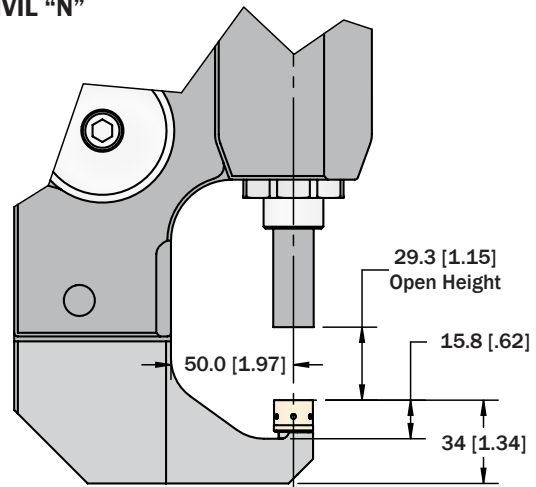


BTM NUMBER

7007 STYLE "M" TL-4.6

PD368700A

ANVIL "N"



BTM NUMBER

7007 STYLE "N" TL-4.6

PD368800A

HEAVY DUTY 7007 UNIT

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

A standard Heavy Duty 7007 Unit 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.

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	40kN [4.5 Ton]
Cycle Time	2 sec.
Unit Weight	22-24kg [49-53lbs]
Maximum Combined Material Thickness that can be joined with this unit	5.5mm [0.22"]



Use with **HydroPak1.2 Hydraulic Pump**



(See page 17)

THE HEAVY DUTY 7007 UNIT IS BEST WHEN:

- 5.5 size round tooling is required.

Clinch Joint Type	Round
Tool Size(s)	5.5

TYPICAL APPLICATIONS FOR A 7006 UNIT:

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

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!

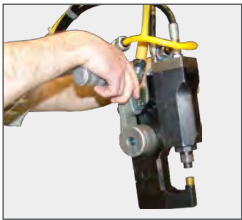
Individual Unit SEE PAGE 16 <i>Tooling Not Included</i>	Hydraulic Pump HydroPak1.2 (See page 17) PD366000A	Hose Assembly 6.1 Meter [20 Foot] PD377600A	Optional Gimbal Mount Allows 360° rotation on 3 axis (See page 22) 792100G	Spring Balancer 20-30 kg [44-66 lb] (For Heavy Duty 7007 Unit Only) (See page 23) 025900 OR 30-45 kg [66-99 lb] (For Heavy Duty 7007 Unit + Gimbal) 034426
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HEAVY DUTY 7007 UNIT

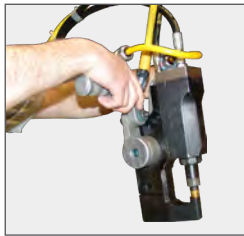
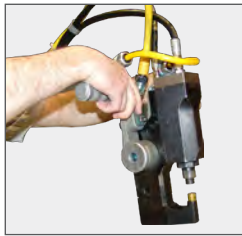
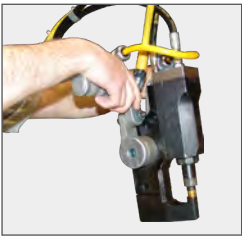
USING THE UNIT



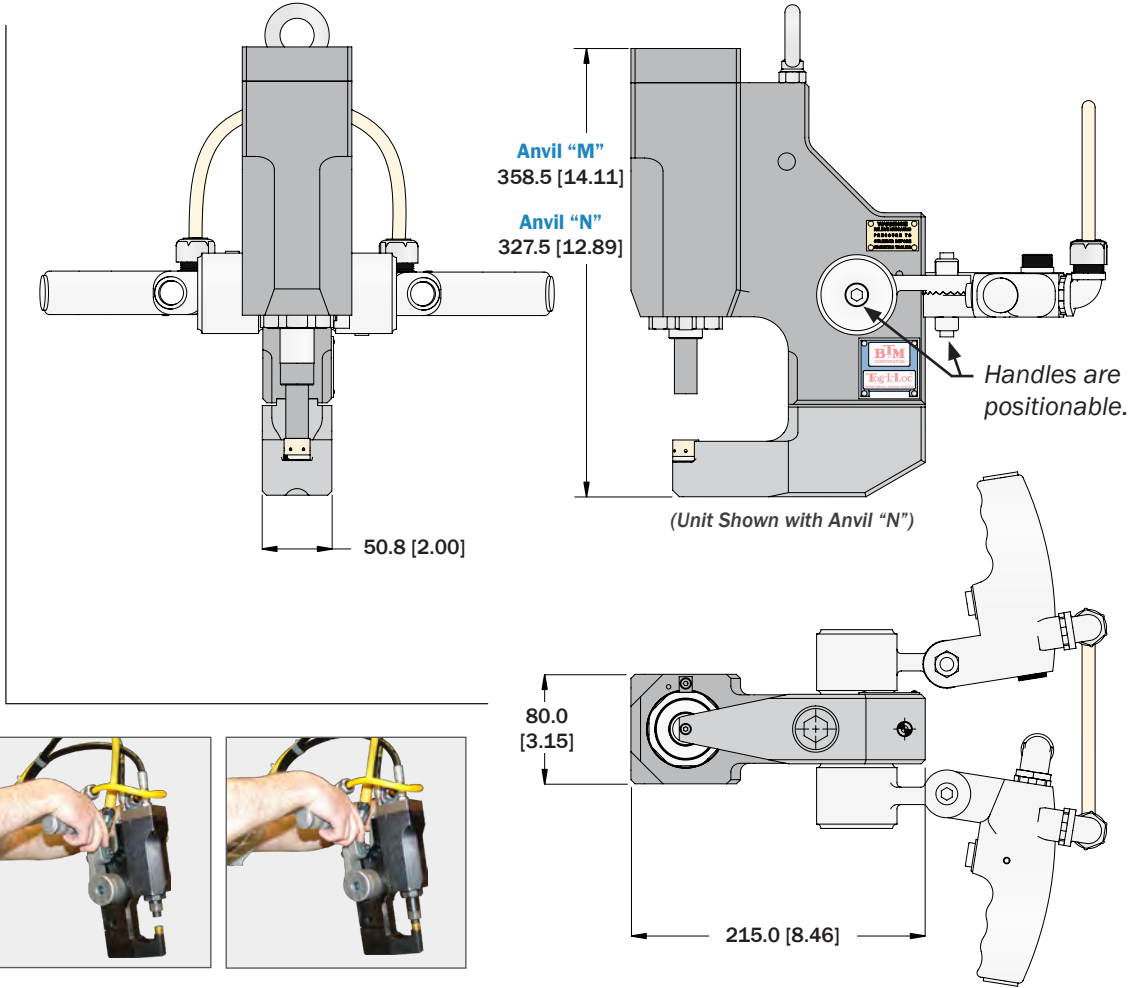
Both triggers must be depressed to close the unit and operate the peck cycle.



The peck cycle feature allows joints to be created faster.

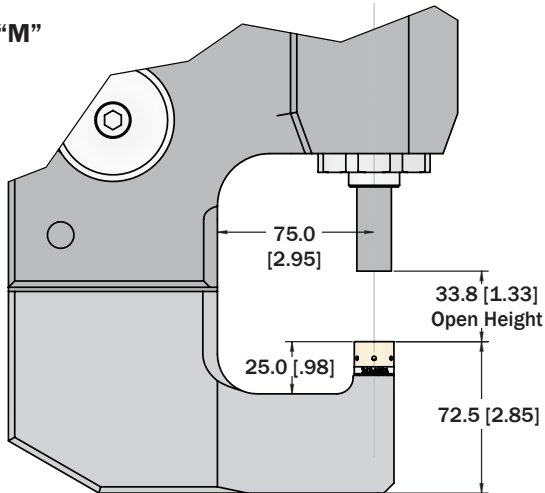


(Standard 7007 Unit Shown)



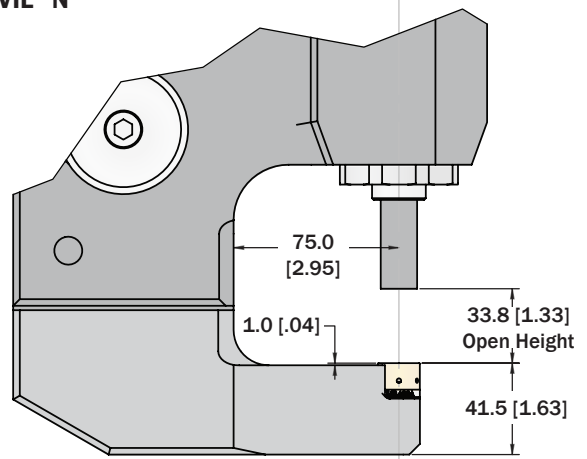
HEAVY DUTY 7007 UNIT ANVILS

ANVIL "M"



BTM NUMBER	
Heavy Duty 7007 Unit with Anvil "M"	PD383400A

ANVIL "N"



BTM NUMBER	
Heavy Duty 7007 Unit 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] 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 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 <i>(Includes four fittings, one 20ft electrical cord, and two 20 ft. hydraulic hoses)</i>	PD377600A

UNIT COMPATIBILITY



7007

(See page 13)



Heavy Duty 7007

(See page 15)

COMPACT BATTERY CLINCH UNIT (ULBG452)

The lightweight and easy-to-position Compact 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 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.



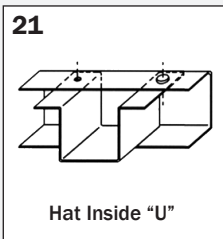
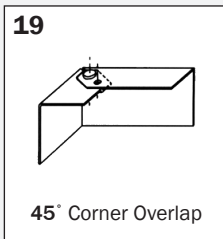
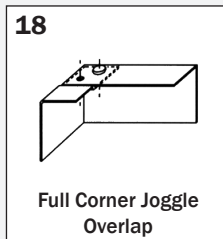
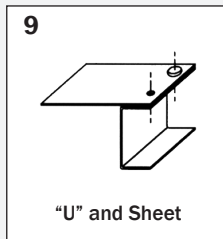
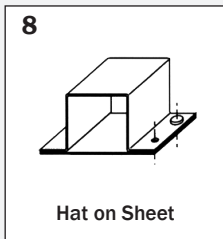
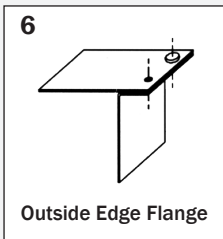
Opening	6mm [.25"]
Throat Depth	Varies with C-Frame
Trigger Type	Single
Battery Type	18V/1.5Ah Lithium-Ion
Charging Time	Approximately 30 Minutes
Press Force	45kN [5 Ton]
Cycle Time	Contact BTM
Unit Weight	Varies with C-Frame
Max. Combined Material Thickness that can be joined with this unit	3mm [.12"]

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

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.

TYPICAL APPLICATIONS FOR A BATTERY CLINCH UNIT:



HOW TO ORDER



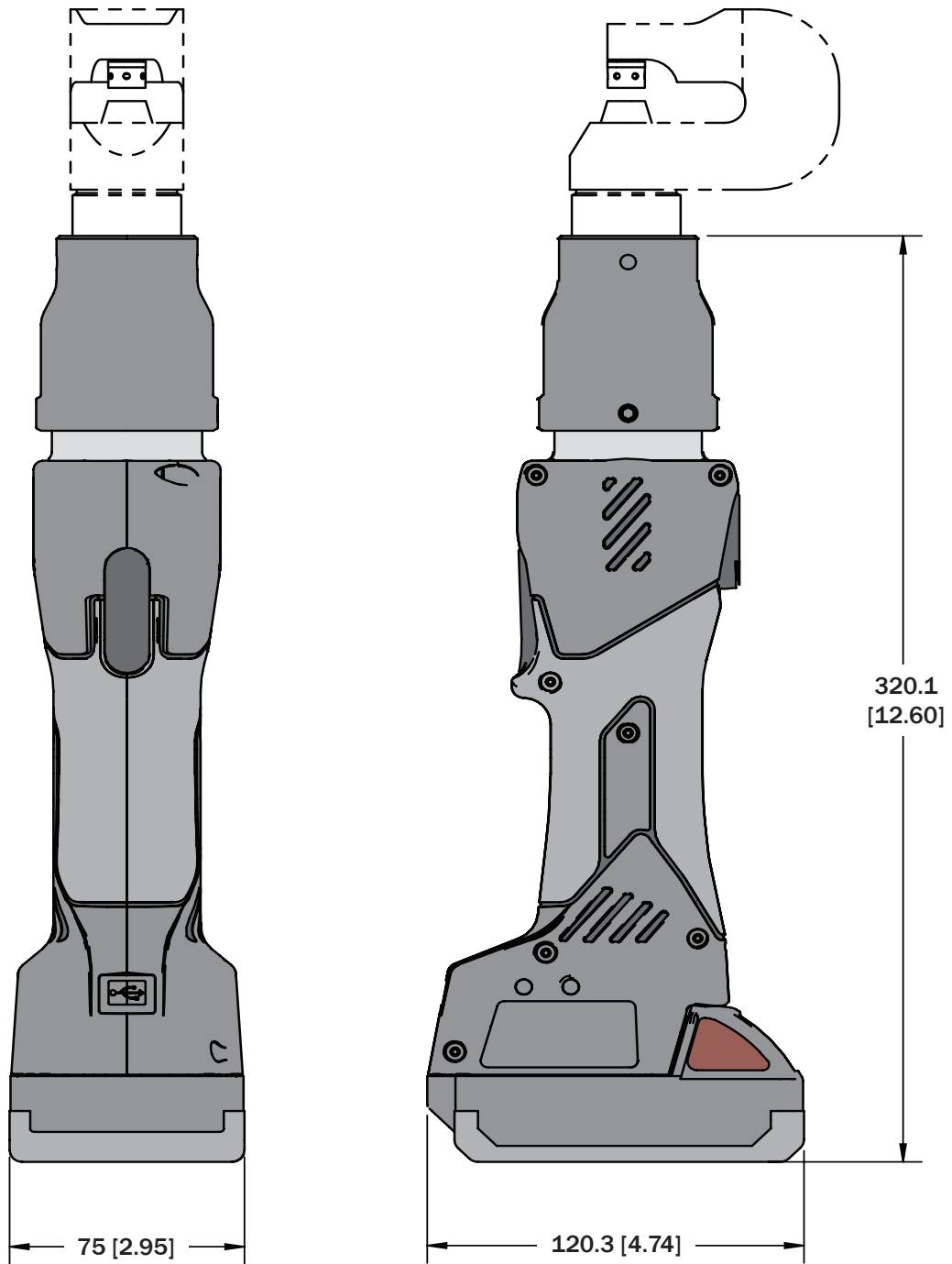
It is recommended that you contact a BTM sales engineer prior to purchasing a hand-held unit to determine the optimal tooling configuration for your application.

Contact BTM: +1.810.364.4567 | sales@btmcomp.com

Each Order Includes:

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

**COMPACT BATTERY CLINCH UNIT
(ULBG452)**



BATTERY CLINCH UNIT (ULBG602)

This Battery Clinch Unit 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.



Head rotates 360°

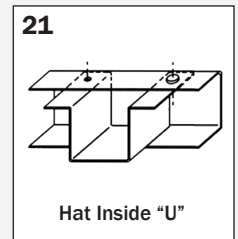
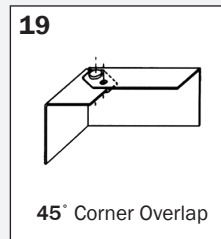
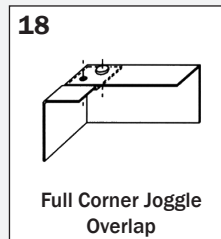
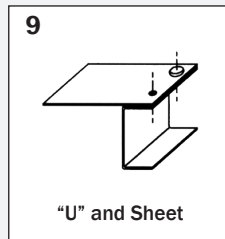
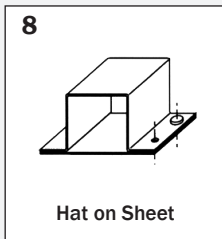
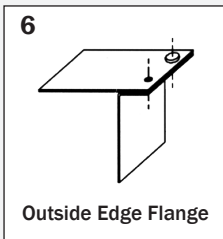
Opening	6mm [.25"]
Throat Depth	Varies per C-Frame
Trigger Type	Single
Battery Type	18V/3 Ah Lithium-Ion
Charging Time	Approximately 45 Minutes
Press Force	20 - 60kN [2.3 - 6.5 Ton]
Cycle Time	Contact BTM
Unit Weight	Varies with C-Frame
Max. Combined Material Thickness that can be joined with this unit	3mm [.12"]

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

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.*

TYPICAL APPLICATIONS FOR A BATTERY CLINCH UNIT:



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.

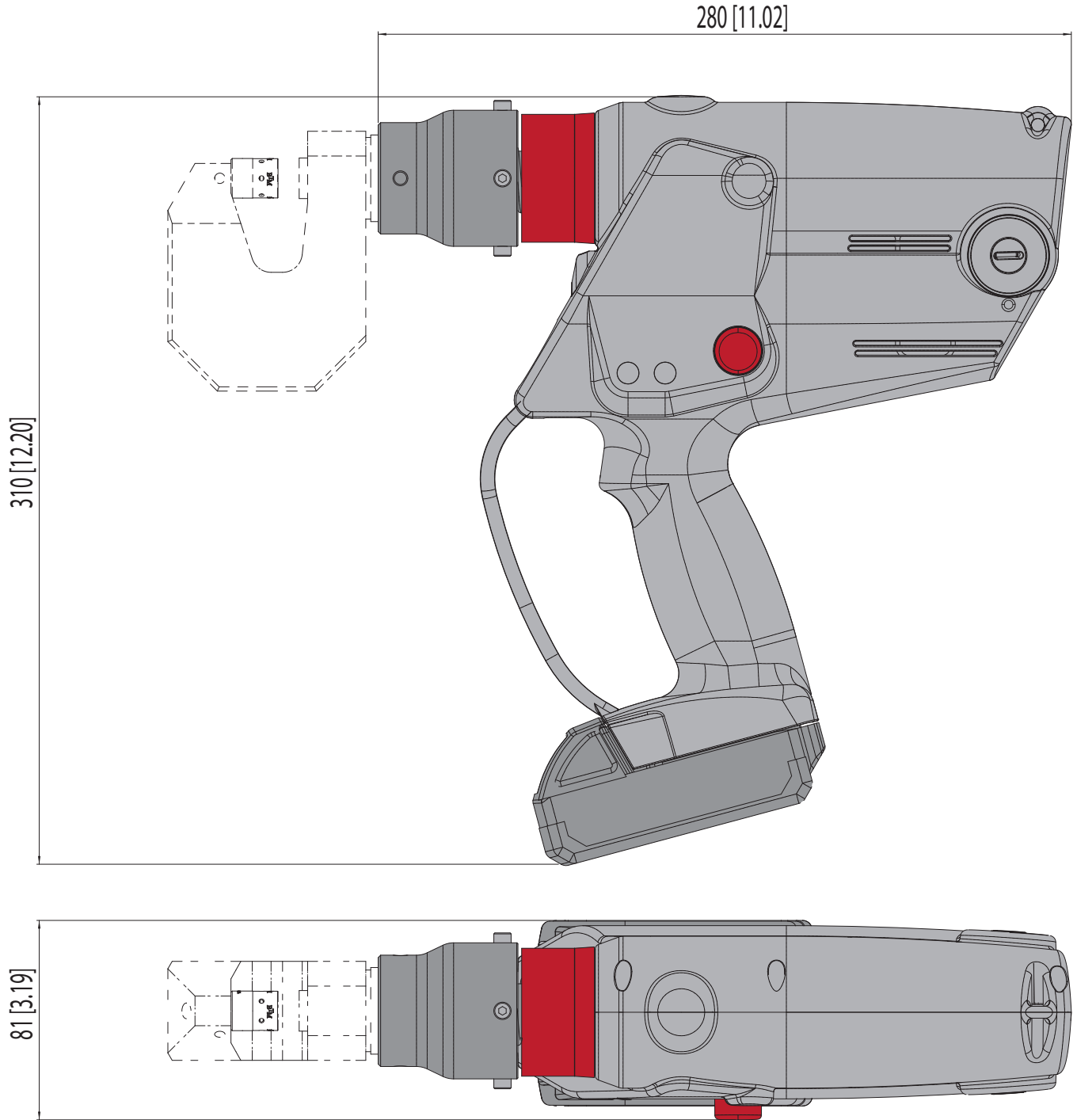
Contact BTM: +1.810.364.4567 | sales@btmcomp.com

Each Order Includes:

- One Rechargeable Battery
- One Battery Charger

Tooling Not Included

**BATTERY CLINCH UNIT
(ULBG602)**



OPTIONAL EQUIPMENT

DUROLOC7 180° ROTATION HANGER

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

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

Unit Compatibility	Weight (without Unit)	BTM NUMBER
Duroloc7 Unit (See page 10)	3.4 kg [7.5 lbs]	PD281500R

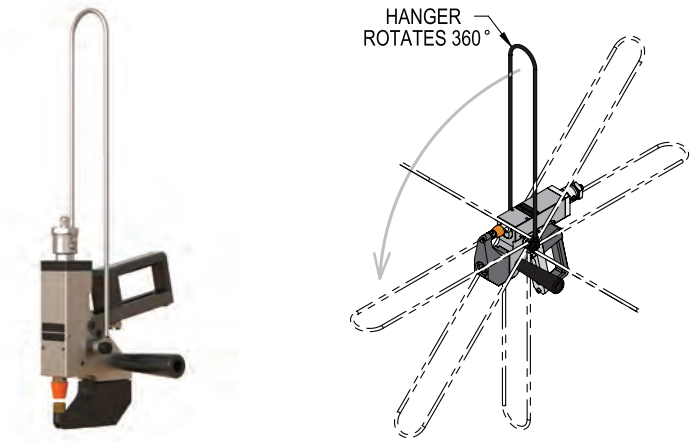


DUROLOC7 360° HANGER

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 to request a quote!

Unit Compatibility	Weight (without Unit)	BTM NUMBER
Duroloc7 Unit (See page 10)	0.37 kg [0.82 lbs]	PD281500J



7007 UNIT 360° GIMBAL MOUNT

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

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

Unit Compatibility	Weight (without Unit)	BTM NUMBER
7007 Units [PD368700A or PD368800A] (See page 13)	3.3 kg [7.2 lbs]	700600G
Heavy Duty 7007 Units [PD383400A or PD383500A] (See page 15)	5.3 kg [11.8 lbs]	792100G



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

Hand-Held Units



BTM hand-held units 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.

Universal Presses



Pneumatic Universal Presses easily adapt to join a variety of parts, a range of thicknesses and may be optimized for specific metal thickness.

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