

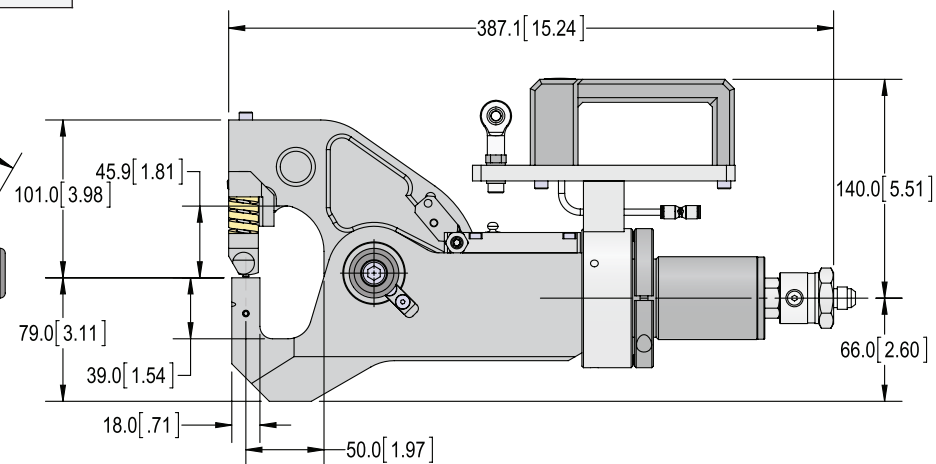
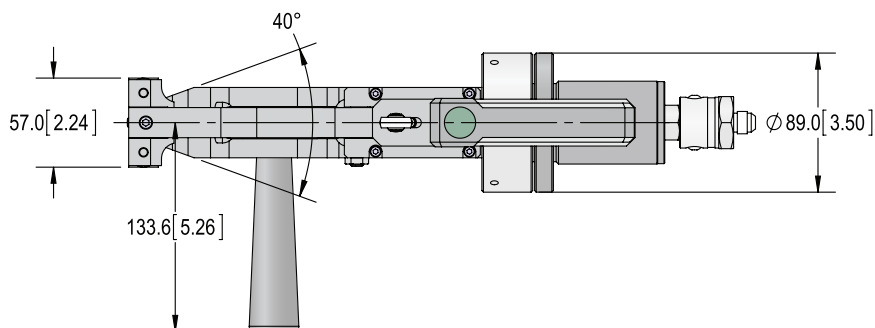
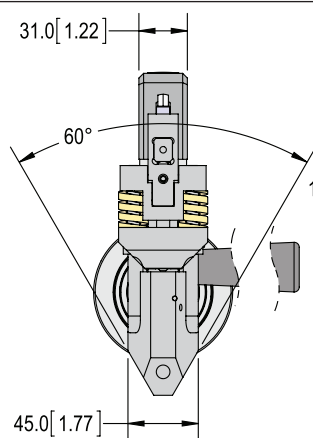
CROCODILE UNIT



"Jaw" is manually opened and closed.

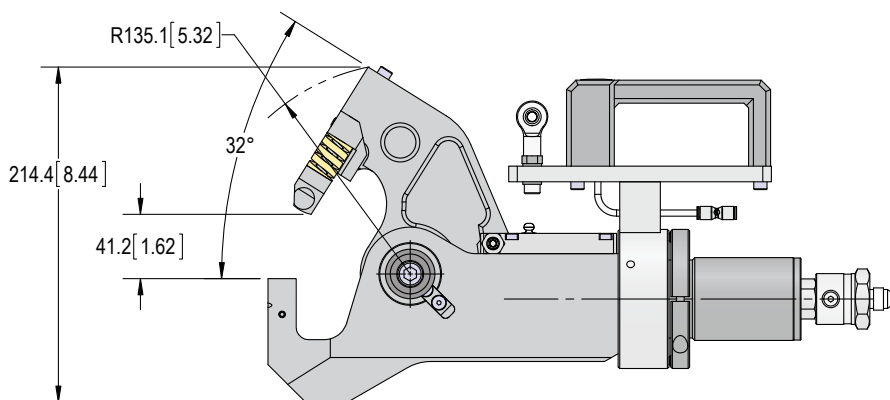
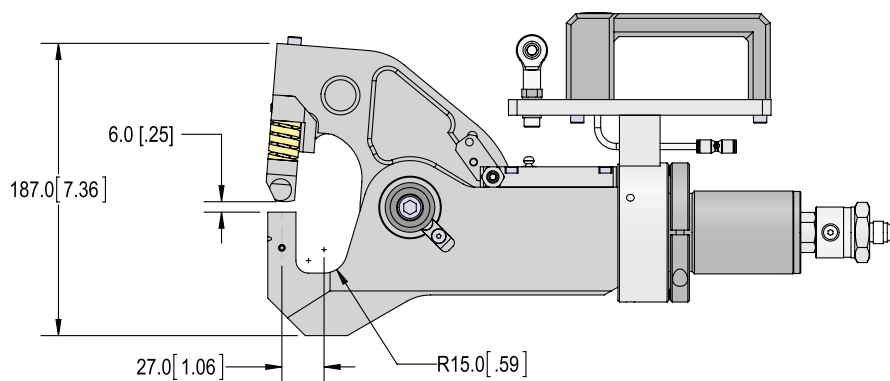
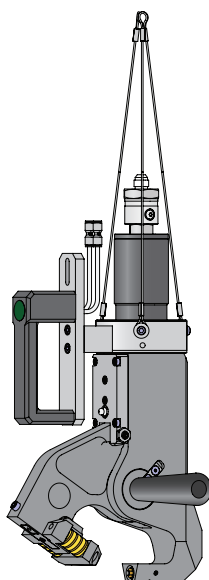


"Head" can be manually rotated 360°



OPTIONAL VERTICAL HANGER

Offering an operator easy positioning for vertical clinch joining.



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 Intensified Volume	15.4cc [.94 cu. in]
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 10)



Duroloc7
(See page 12)



Bayonet Units
(See page 14)

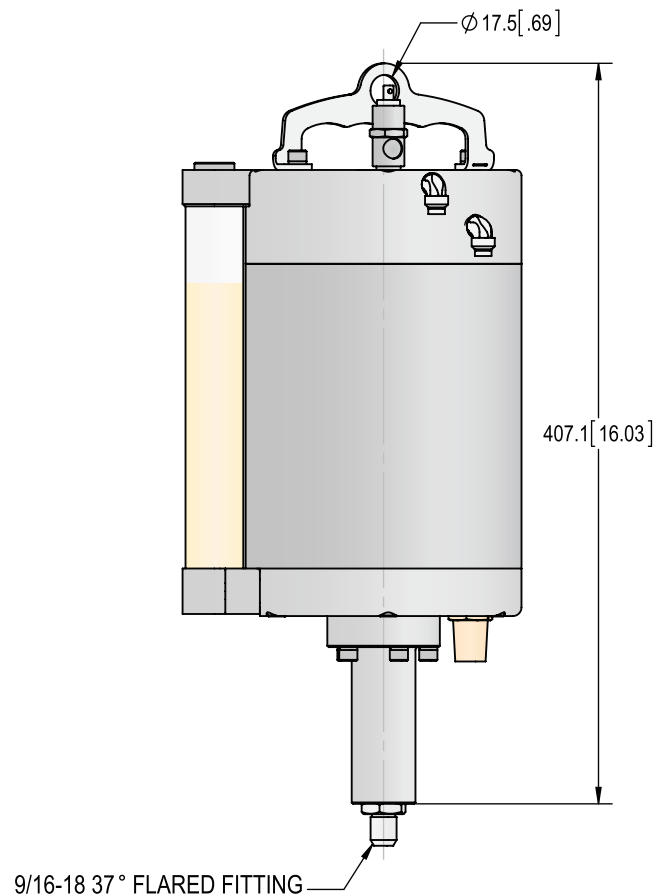
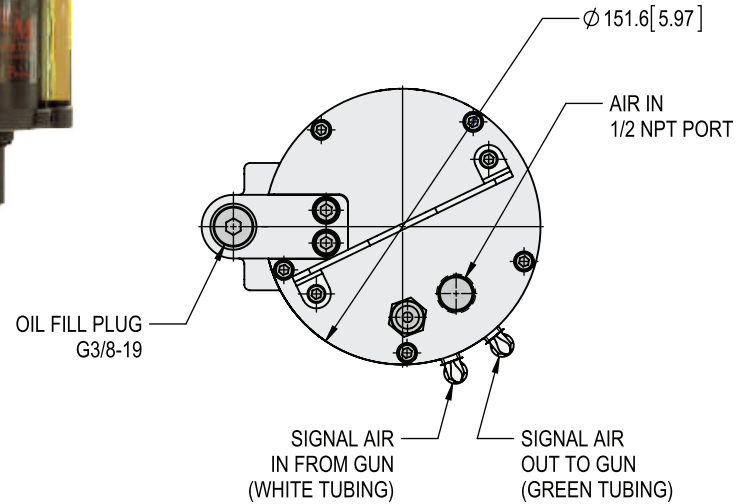
HOW TO ORDER

Call +1-810-364-4567,
or email sales@btmcorp.com to request a quote!

BTM NUMBER

PD238100A

NOTE: HOSE ASSEMBLY NOT INCLUDED.

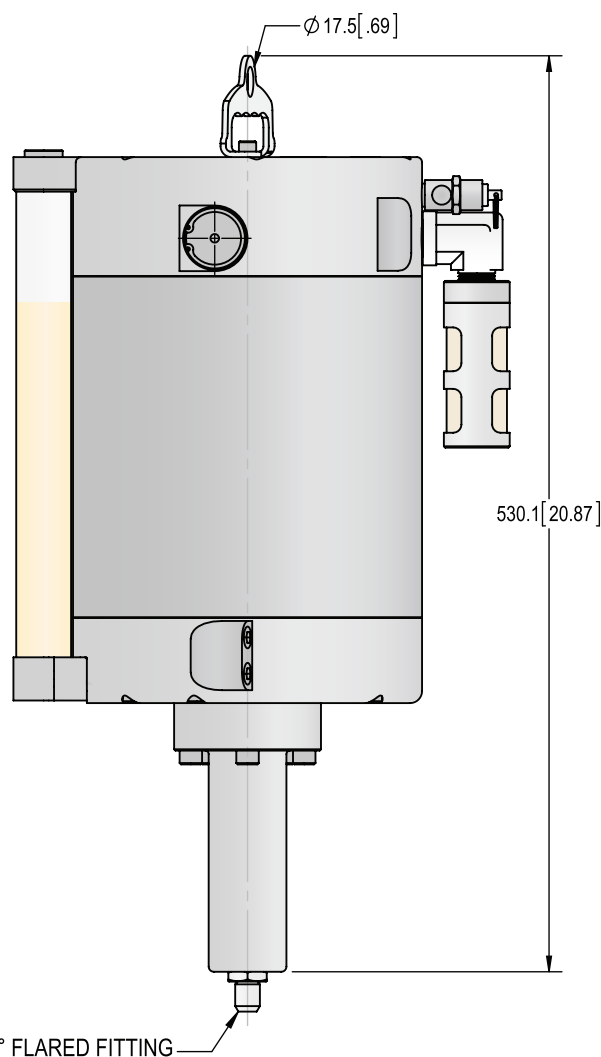
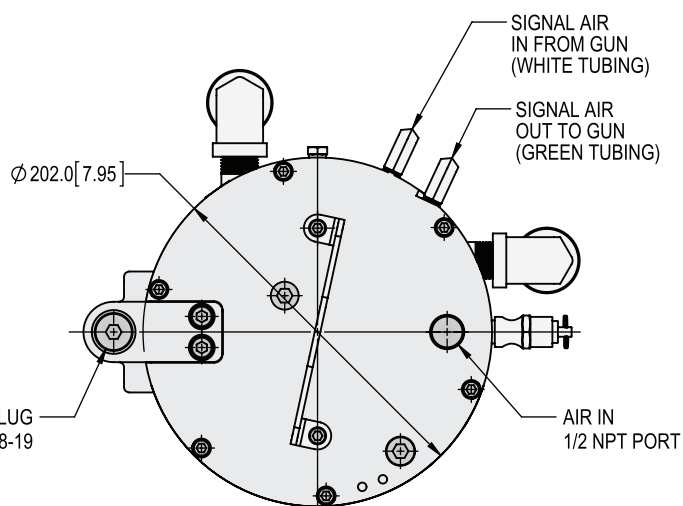


49CC AIR/OIL BOOSTER

Features more volume than our 15cc Booster.
 This booster can power our Crocodile unit.

Booster Ratio	64:1
Weight (without hose)	17.8kg [39 lbs]
Maximum Intensified Volume	49cc [3.0 cu. in.]
Maximum Output	353 BAR [5120 PSI] @ 5.5 BAR [80 PSI]

Air Pressure In		Hydraulic Pressure Out	
BAR	PSI	BAR	PSI
4.1	60	264.8	3840
4.8	70	308.9	4480
5.2	75	330.9	4800
5.5	80	353.0	5120



UNIT COMPATIBILITY



Crocodile Unit
 (See page 18)



Lit-L-Loc Units
 (See page 10)



Duroloc7
 (See page 12)



Bayonet Units
 (See page 14)

HOW TO ORDER

Call +1-810-364-4567,
 or email sales@btmcorp.com to request a quote!

BTM NUMBER

PD237600A

NOTE: HOSE ASSEMBLY NOT INCLUDED.

7006 UNIT

These hydraulic hand operated units are most commonly used for prototyping & small to medium production runs. A standard 7006 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.

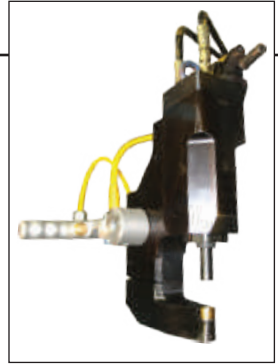


www.btmcomp.com/7006-units.html

THE 7006 UNIT IS BEST WHEN:

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

Opening	32mm [1.26"]
Stroke	35mm [1.38"]
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"]



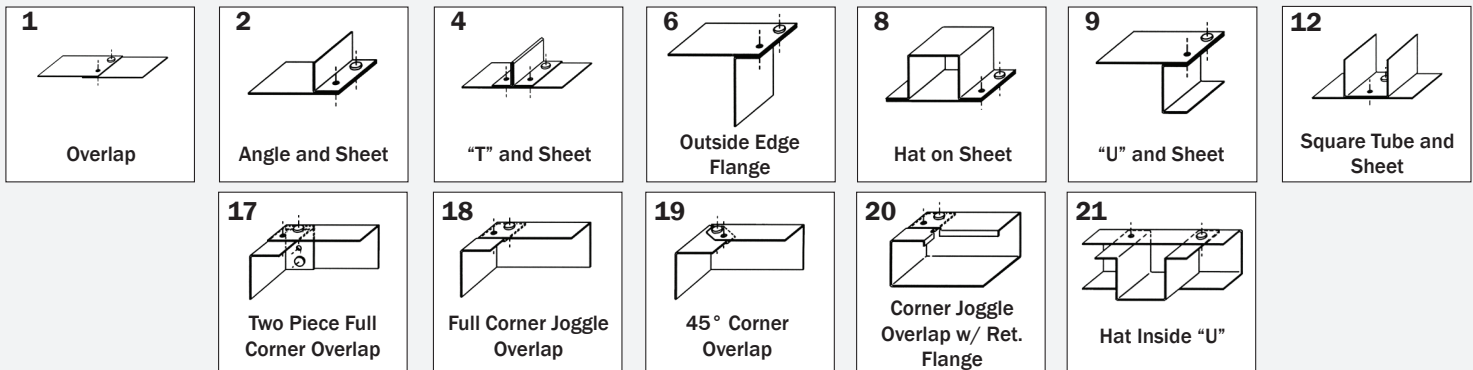
Use with [HydroPak1 Hydraulic Pump](#)



(See page 28)

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

TYPICAL APPLICATIONS FOR A 7006 UNIT:



HOW TO ORDER



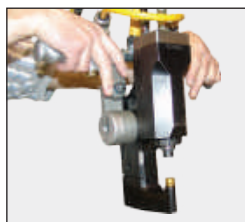
It is recommended that you [contact a BTM sales engineer](#) prior to purchasing a handheld unit to determine the optimal tooling configuration for your application.

Call +1-810-364-4567, or email sales@btmcorp.com to request a quote!

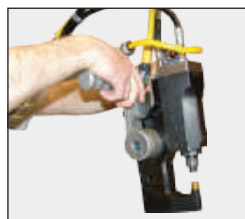
Individual Unit	Hydraulic Pump	Hose Assembly	Optional Gimbal Mount	Spring Balancer
SEE PAGE 23	HydroPak1 (See page 28) 3001800A	3.7 Meter [12 Foot] 015444A	Allows 360° rotation on 3 axis (See page 34) 700600G	9-14 kg [20-30 lb] (For 7006 Unit Only) 024049
		OR		OR
		6.1 Meter [20 Foot] 030542A		13-17 kg [29-37 lb] (For 7006 Unit + Gimbal Mount) 024050
		OR		
		7.3 Meter [24 Foot] 030543A		

7006 UNIT

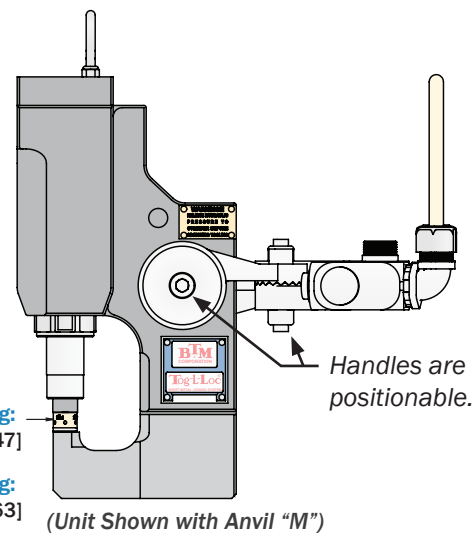
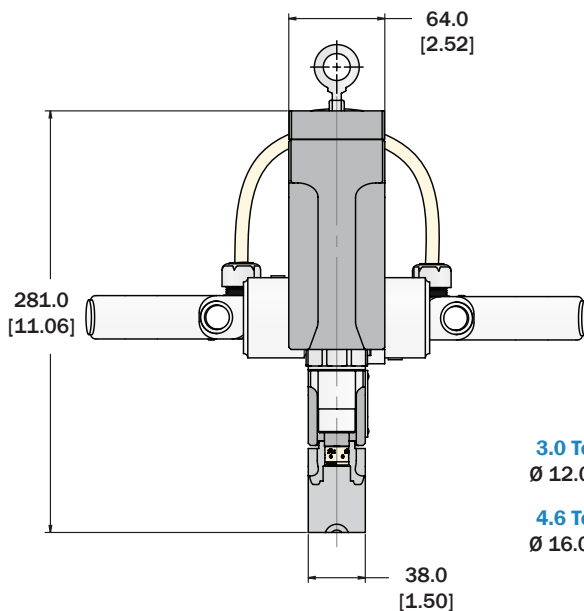
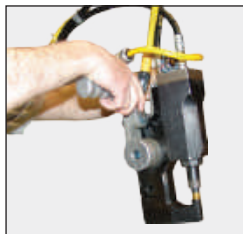
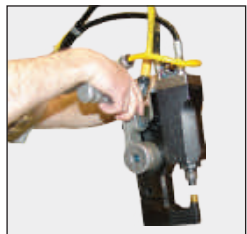
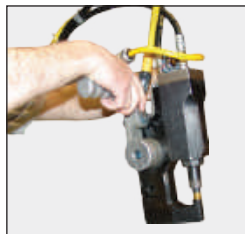
USING THE UNIT



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

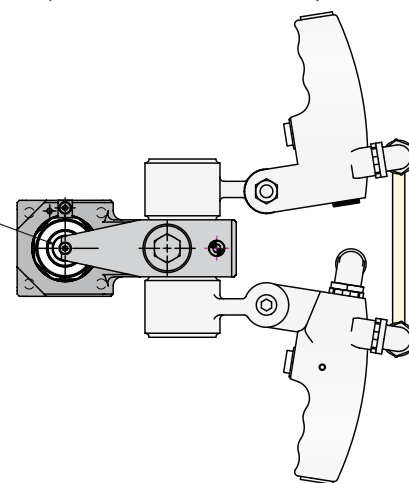


The peck cycle feature allows joints to be created faster.



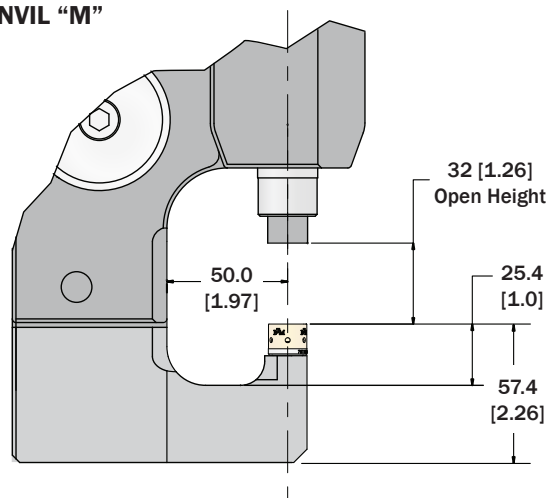
3.0 Tooling:
6.0 [0.24]

4.6 Tooling:
8.0 [0.31]



7006 UNIT ANVILS

ANVIL "M"

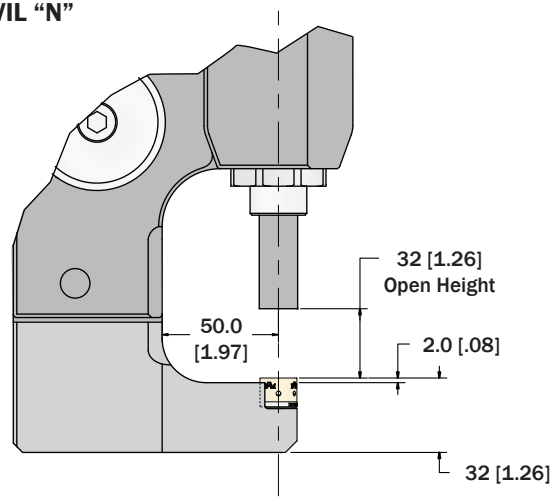


BTM NUMBER

7006 STYLE "M" TL-4.6

PD333500A

ANVIL "N"



BTM NUMBER

7006 STYLE "N" TL-4.6

PD333600A

HEAVY DUTY 7006 UNIT

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

A standard Heavy Duty 7006 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.



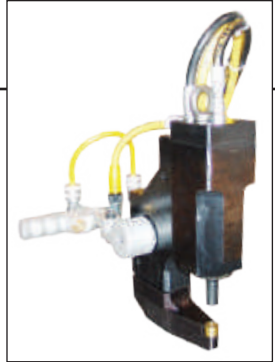
www.btmcomp.com/7006-units.html

THE HEAVY DUTY 7006 UNIT IS BEST WHEN:

- 5.5 size round tooling is required.

Opening	32mm [1.26"]
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	4mm [.16"]

Clinch Joint Type*	Round
Tool Size(s)	5.5

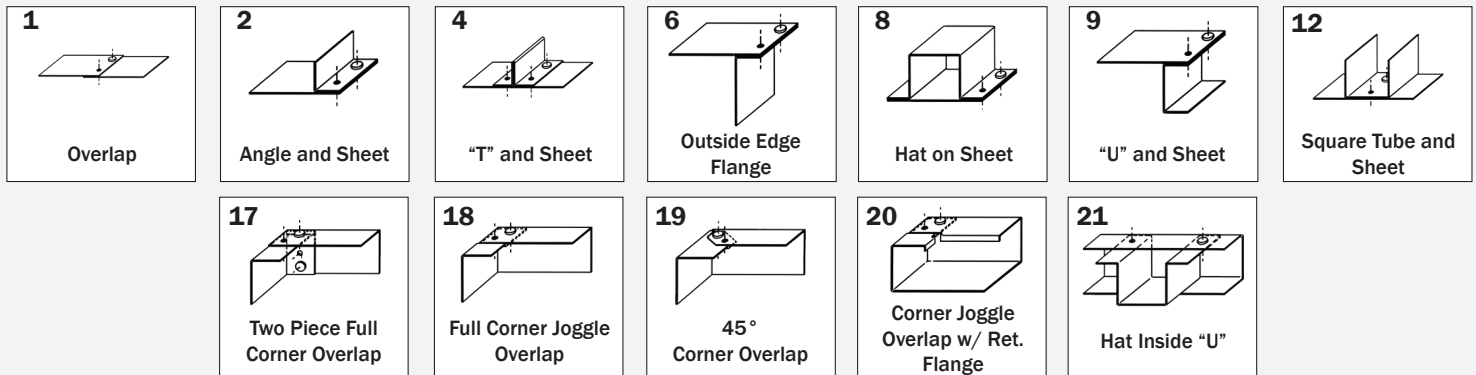


Use with **HydroPak1** Hydraulic Pump



(See page 28)

TYPICAL APPLICATIONS FOR A 7006 UNIT:



HOW TO ORDER



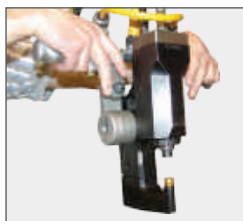
It is recommended that you [contact a BTM sales engineer](#) prior to purchasing a handheld unit to determine the optimal tooling configuration for your application.

Call +1-810-364-4567, or email sales@btmcomp.com to request a quote!

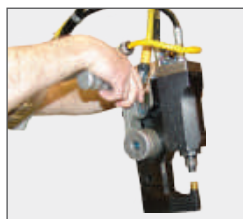
Individual Unit	Hydraulic Pump	Hose Assembly	Optional Gimbal Mount	Spring Balancer
SEE PAGE 25	HydroPak1 (See page 28) 3001800A	3.7 Meter [12 Foot] 015444A	Allows 360° rotation on 3 axis (See page 34) 792100G	20-30 kg [44-66 lb] (For Heavy Duty 7006 Unit Only) 025900
		OR		OR
		6.1 Meter [20 Foot] 030542A		30-45 kg [66-99 lb] (For Heavy Duty 7006 Unit + Gimbal) 034426
		OR		
		7.3 Meter [24 Foot] 030543A		

HEAVY DUTY 7006 UNIT

USING THE UNIT



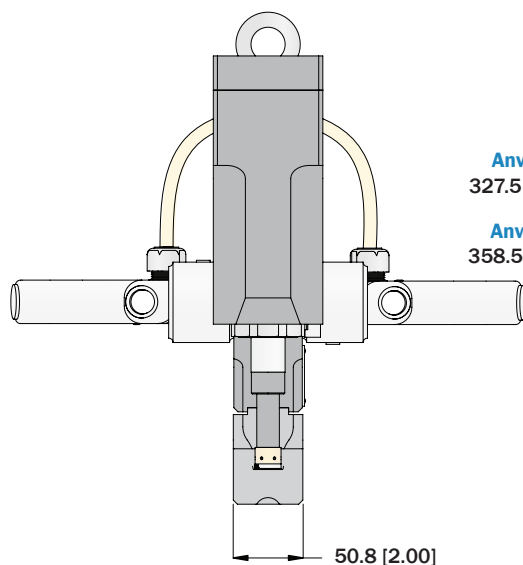
Both triggers must be depressed to close the unit and operate the peck cycle.



The peck cycle feature allows joints to be created faster.

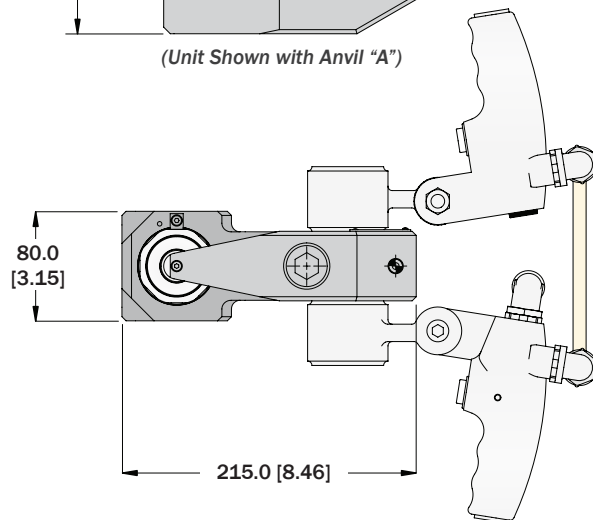
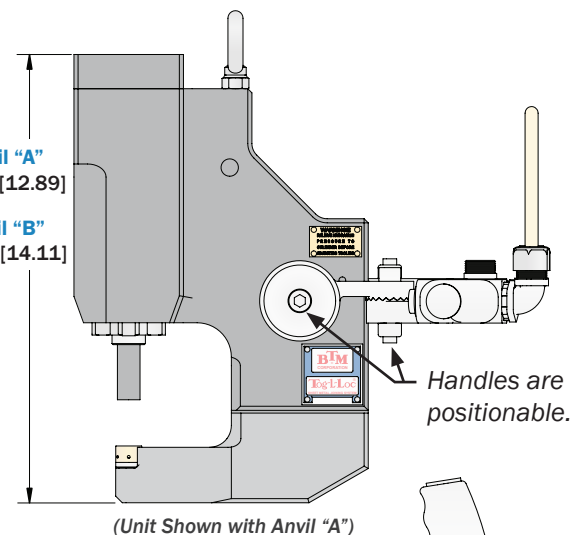


(Standard 7006 Unit Shown)



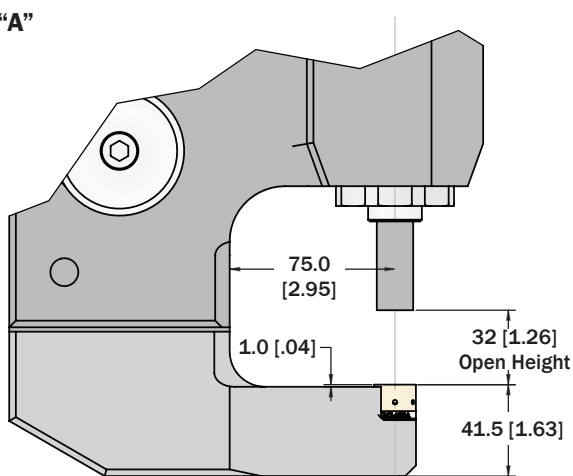
Anvil "A"
327.5 [12.89]

Anvil "B"
358.5 [14.11]



HEAVY DUTY 7006 UNIT ANVILS

ANVIL "A"

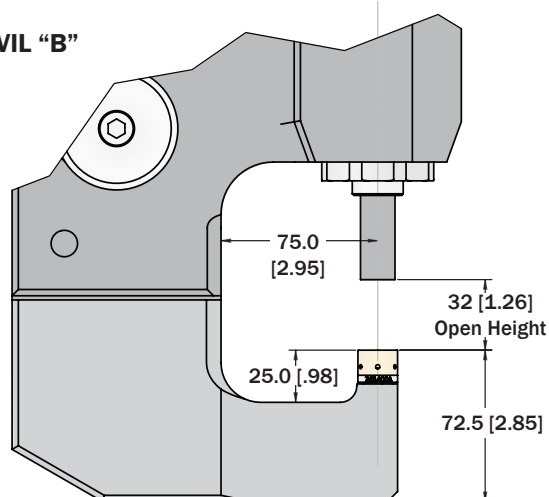


BTM NUMBER

Heavy Duty 7006 Unit with Anvil "A"

792100A

ANVIL "B"



BTM NUMBER

Heavy Duty 7006 Unit with Anvil "B"

792100B

FULLY ADAPTABLE UNIT

The Fully Adaptable Unit is all about flexibility due to its customizable features.

Joint size, accessibility to the part, throat depth, opening, force requirement, and ergonomics can all be designed to your requirements to make the perfect combination for maximum productivity.



www.btmcomp.com/fully-adaptable-units.html

A FULLY ADAPTABLE UNIT IS BEST WHEN:

- You want a high degree of flexibility and force.
- Your part has complex joining locations.



May use [HydroPak2 Hydraulic Pump](#)
(Depending on the Unit's Configuration)



(See page 29)

Maximum Combined Material Thickness that can be joined with this unit

4mm [.16"]

Clinch Joint Type

Round or **Geo-Clinch®**

Tool Size(s)

3.0

3.8

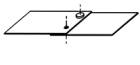
4.6

5.5

6.4

TYPICAL APPLICATIONS FOR A FULLY ADAPTABLE UNIT:

1



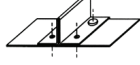
Overlap

2



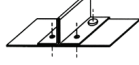
Angle and Sheet

3



Angle and Sheet Sandwich

4



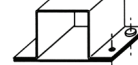
"T" and Sheet

6



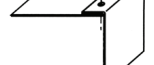
Outside Edge Flange

8



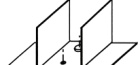
Hat on Sheet

11



Inside Edge Flange

12



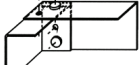
"U" and Sheet

13



Bottom to Bottom "U's"

17



Two Piece Full Corner Overlap

18



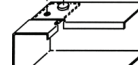
Full Corner Joggle Overlap

19



45° Corner Overlap

20



Corner Joggle Overlap w/ Ret. Flange

21



Hat Inside "U"

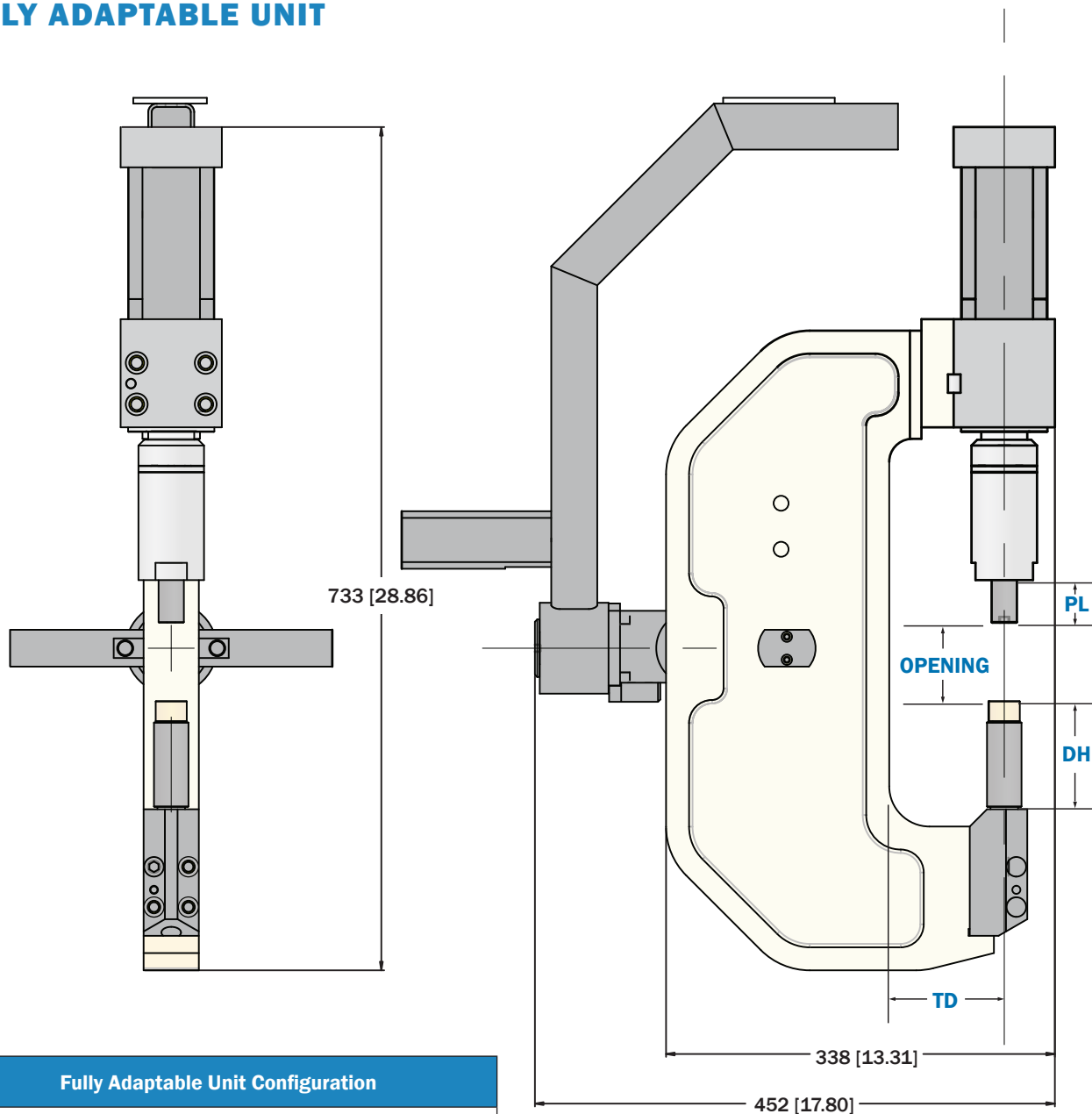
HOW TO ORDER



It is recommended that you [contact a BTM sales engineer](#) prior to purchasing a handheld unit to determine the optimal tooling configuration for your application.

Contact BTM - Tel: 810-364-4567 / email: sales@btmcorp.com

FULLY ADAPTABLE UNIT



Fully Adaptable Unit Configuration

Throat Depth (TD) = _____

Die Length (DL) = _____

Punch Length (PL) = _____

Opening = _____

Tool Size = _____

(3.0, 3.8, 4.6, 5.5, or 6.4)

*Note: Unit may require a custom Hydraulic Pump.
Contact BTM for more Information.*

Call BTM at **+1-810-364-4567**.

OR Fax a copy of this page to **+1-810-364-6178**.

You may also visit us online at:

www.btmcomp.com/fully-adaptable-units.html

or send us an email at sales@btmcorp.com

HYDROPAK1 HYDRAULIC PUMP

The BTM HydroPak 1 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	9.51/min @ 45 BAR [2.5 GPM @ 650 PSI] 1.91/min @ 172 BAR [0.5 GPM @ 2500 PSI]
Motor Size	1 HP
Electrical Supply	115 volt 60 HZ single phase 20 amp.
Power Consumption	2300 watts
Maximum Pressure	207 BAR [3000 PSI]
Working Pressure	45/172 BAR [650/2500 PSI]
Tank Capacity	56.8 Liters [15 Gallons]
Weight Without Oil	136 kg [300 lbs]



HOW TO ORDER

Call +1-810-364-4567, or email sales@btmcorp.com to request a quote!

HYDROPAK1 BTM NUMBER

3001800A

HydroPak1 7006 Hose Assemblies Are Sold Separately.

HYDROPAK1 HYDRAULIC HOSE ASSEMBLIES

HYDROPAK1 HYDRAULIC HOSE ASSEMBLIES	BTM NUMBER
3.7 Meter [12 Foot] Assembly (Includes Four fittings, One 12ft electrical cord, and Two 12 ft. hydraulic hoses)	015444A
6.1 Meter [20 Foot] Assembly (Includes Four fittings, One 20ft electrical cord, and Two 20 ft. hydraulic hoses)	030542A
7.3 Meter [24 Foot] Assembly (Includes Four fittings, One 24ft electrical cord, and Two 24 ft. hydraulic hoses)	030543A

UNIT COMPATIBILITY



7006

(See page 22)



Heavy Duty 7006

(See page 24)

HYDROPAK2 HYDRAULIC PUMP

The BTM HydroPak 2 Power supply unit is a larger version of the HydroPak 1 being equipped with a 5hp motor, 8 GPM 2 stage pump, 25 gallon oil tank and oil cooler for operation at higher ambient temperatures.

A touch screen PLC provides safe and effective 2 hand, anti-tie down logic control of the clinch unit's trigger switches. The unit will automatically shut off after a period on non-use.

Flow Rate	30.31/min @ 45 BAR [8 GPM @ 650 PSI] 8.31/min @ 172 BAR [2.2 GPM @ 2500 PSI]
Motor Size	5 HP
Electrical Supply	480 VAC 60 HZ single phase 20 amp.
Power Consumption	3800 watts
Maximum Pressure	207 BAR [3000 PSI]
Working Pressure	45/172 BAR [650/2500 PSI]
Tank Capacity	94.6 Liters [25 Gallons]
Weight Without Oil	224 kg [492 lbs]



UNIT COMPATIBILITY



Fully Adaptable Unit

(Depending on its Configuration)
(See page 26)

HOW TO ORDER

Call +1-810-364-4567, or email sales@btmcorp.com to request a quote!

HYDROPAK2 BTM NUMBER

3001900A

Hose Assemblies Are Sold Separately. [Contact BTM.](#)

COMPACT BATTERY CLINCH UNIT (ULBG451)

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 20,000 clinches can be made between service intervals. **Contact BTM for more information.**



www.btmcomp.com/battery-clinch-units.html

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.

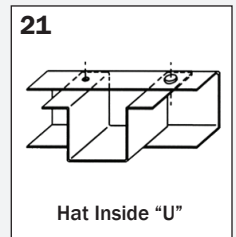
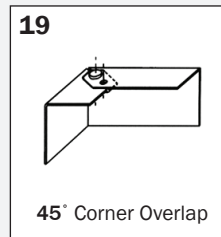
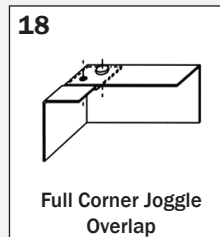
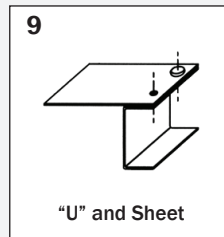
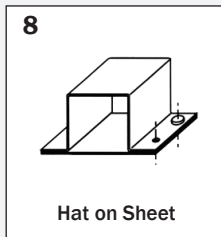
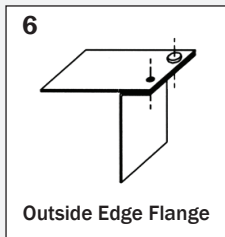
Head rotates 360°



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

TYPICAL APPLICATIONS FOR A BATTERY CLINCH UNIT:



HOW TO ORDER

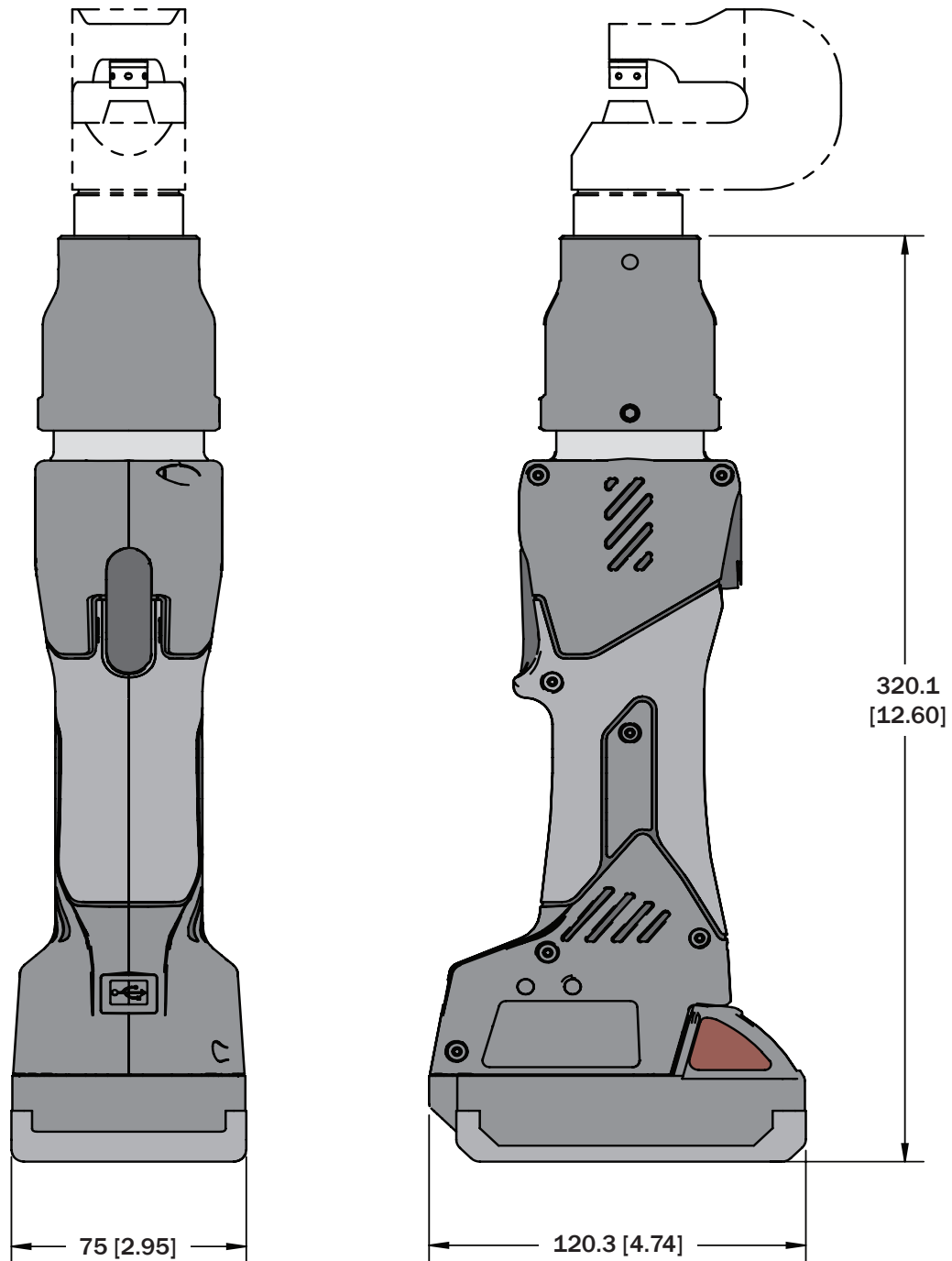


It is recommended that you [contact a BTM sales engineer](#) prior to purchasing a handheld unit to determine the optimal tooling configuration for your application.

Contact BTM - Tel: 810-364-4567 / email: sales@btmcorp.com

Each Order Includes:

- Two sets of Clinch Tooling
- One Rechargeable Battery
- One Battery Charger

**COMPACT BATTERY CLINCH UNIT
(ULBG451)**

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 20,000 clinches can be made between service intervals. **Contact BTM for more information.**



www.btmcomp.com/battery-clinch-units.html

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.*

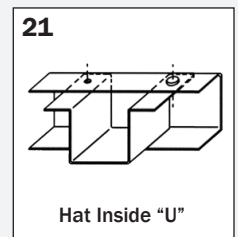
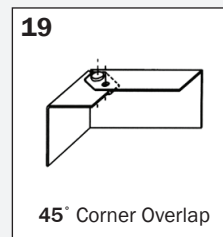
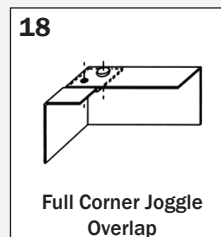
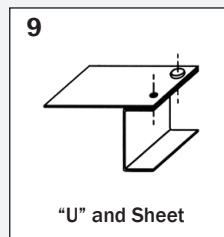
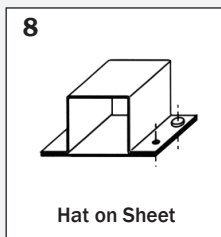
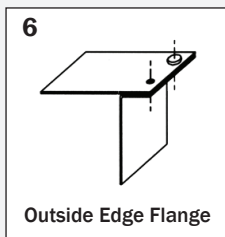


Head rotates 360°

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

TYPICAL APPLICATIONS FOR A BATTERY CLINCH UNIT:



HOW TO ORDER

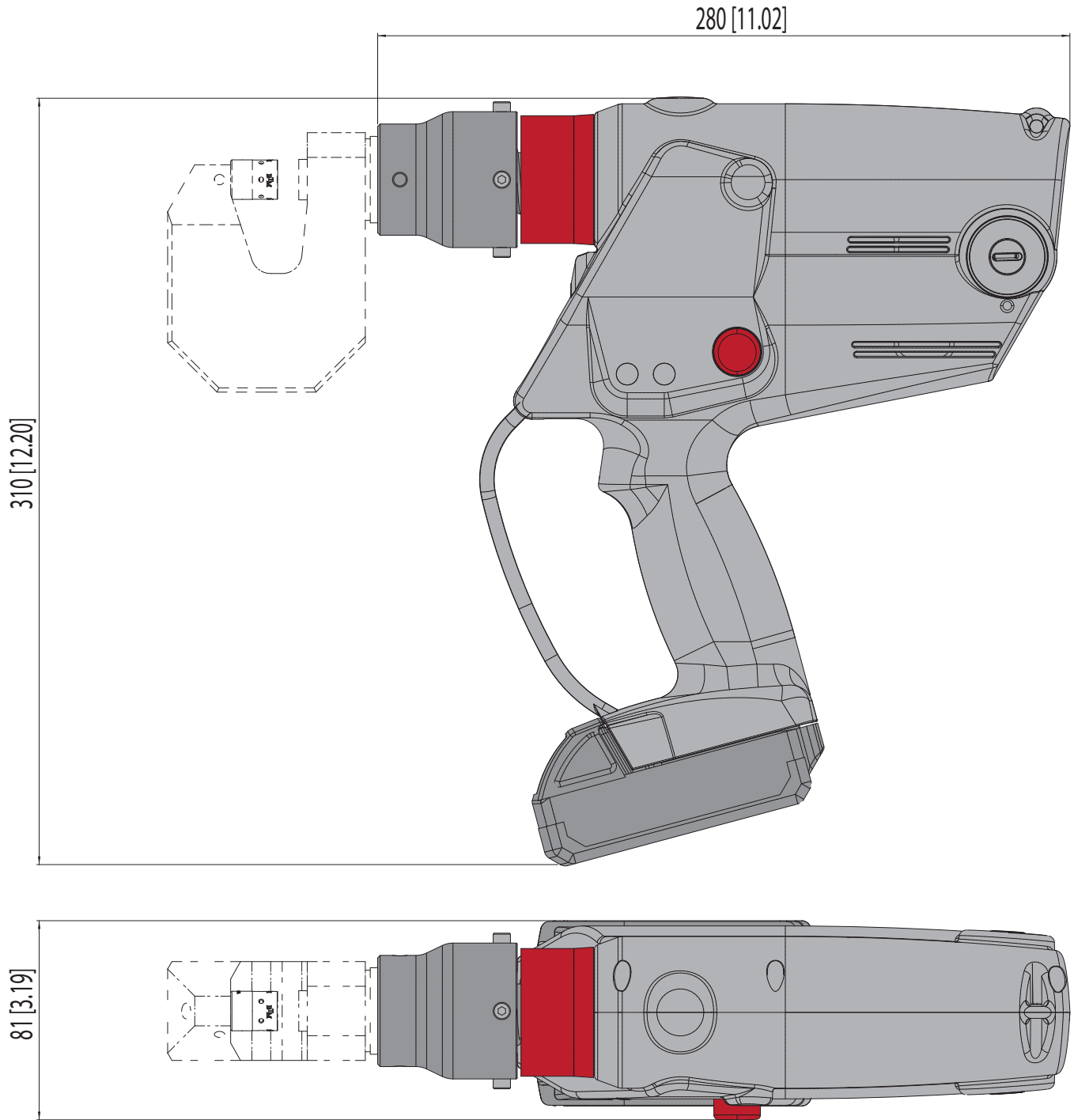


It is recommended that you [contact a BTM sales engineer](#) prior to purchasing a handheld unit to determine the optimal tooling configuration for your application.

Contact BTM - Tel: 810-364-4567 / email: sales@btmcorp.com

Each Order Includes:

- Two sets of Clinch Tooling
- One Rechargeable Battery
- One Battery Charger

**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@btmcorp.com to request a quote!

Unit Compatibility	Weight (without Unit)	BTM NUMBER
Duroloc7 Unit (See page 12)	3.4 kg [7.5 lbs]	PD281500R

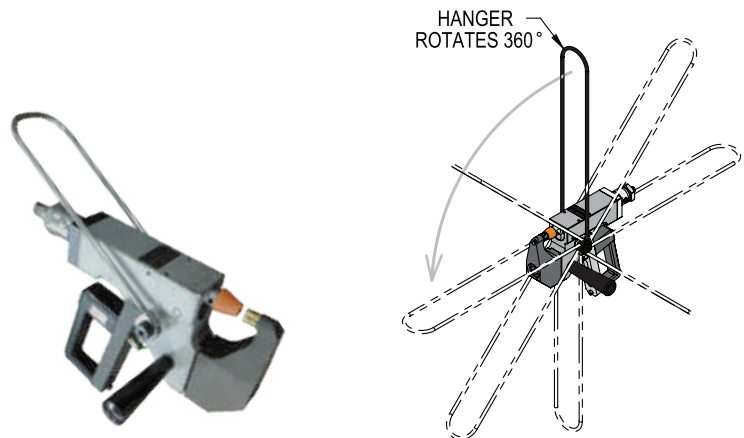


DUROLOC7 360° HANGER

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

Call +1-810-364-4567,
or email sales@btmcorp.com to request a quote!

Unit Compatibility	Weight (without Unit)	BTM NUMBER
Duroloc7 Unit (See page 12)	0.37 kg [0.82 lbs]	PD281500J

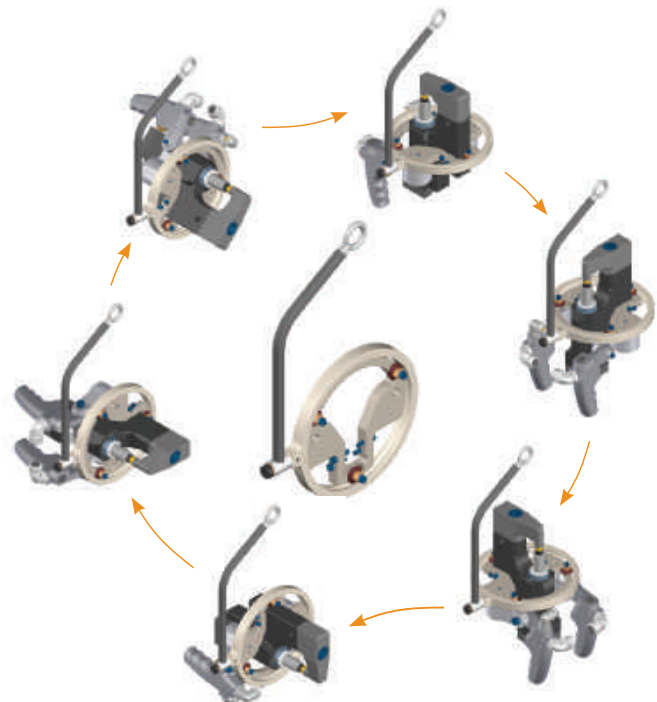


7006 UNIT 360° GIMBAL MOUNT

This Gimbal Mount allows a 7006 Unit to rotate a full 360° on three axis.

Call +1-810-364-4567,
or email sales@btmcorp.com to request a quote!

Unit Compatibility	Weight (without Unit)	BTM NUMBER
7006 Units [PD333500A or PD333600A] (See page 22)	3.3 kg [7.2 lbs]	700600G
Heavy Duty 7006 Units [792100A or 792100B] (See page 24)	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@btmcorp.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's handheld 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



Universal presses easily adapt to join a variety of parts.

Special Fixtures



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

Specialized Units



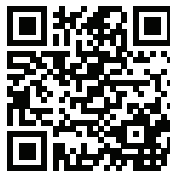
BTM provides pneumatic, hydraulic, air/oil, and electrically driven units with single or dual motions for both stationary and robotic applications.

Special Systems



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

Find more information online:



www.btmcomp.com/clinching-equipment.html



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

WWW.BTMCOMP.COM