

# Manual Clinching Presses

Air-Over-Oil Powered Manually Assisted Adjustable Stroke Press



Floor & Bench Presses for Any Sheet Metal Fabrication Shop

Force Output of 44kN [5 Ton]

Runs on 5.5 BAR [80 PSI]

**B-T-M**®

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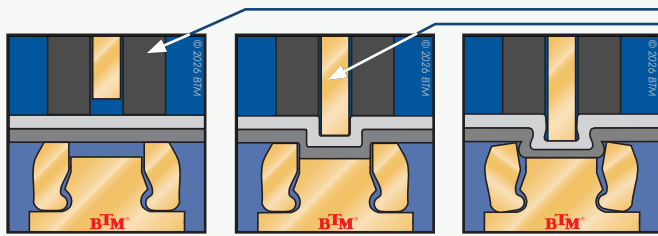
BTM Manual Clinching Presses (MCP) offer an affordable solution for clinching, piercing and short stroke pressing needs. The manual drive presses provide the operator with full control to precisely locate the clinch. Designed specifically for sheet metal fabricators, this is an economic alternative to more traditional and expensive bench, floor and tooling presses.

**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!

By combining Tog-L-Loc® clinching with this hand-assisted press, BTM delivers a high-value package which is well-suited for small to mid-size sheet metal fabricators and manufacturing plants.

**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.

Step 1: Clamps      Step 2: Draws      Step 3: Locks

**TO LEARN MORE ABOUT BTM CLINCHING TECHNOLOGY, CONTACT YOUR LOCAL SALES SUPPORT TEAM UNDER GLOBAL OPERATIONS ON THE LAST PAGE OF THIS CATALOG.**



**SAFETY NOTE**

*It is the customer and/or user’s responsibility to provide proper safety controls and/or guarding when a pinch point is present.*

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BTM clinching capabilities and our expertise in assembly technology can help you improve operator efficiency in high demand metal joining applications. The MCP air-over-oil presses are cost-effective solutions for high volume fabrication. HVAC joining applications include ductwork, air distribution boxes, louvers, air vents & metal filter frames. Sheet metal fabrication uses include metal structures, metal boxes, strut & bracket attachment. Other joining and forming solutions include unautomated manufacturing of appliances, drawer slides, garage doors, metal roofing components and channel lettering.

**Only Requires One Single Air Line Supply of 5.5 BAR [80 PSI]**

**Hydro/Pneumatic Cylinder Provides 44kN [5 Ton] Force**

**Precision Linear Slide**

**Tooling End of Stroke Adjustment**

**460 mm [18 in] Throat Depth  
102 mm [4 in] Stroke  
6.0 mm [.24in] Working Gap**

**Reversible Tooling Shown with BTM Tog-L-Loc® Clinch Tools**  
(Tooling Sold Separately)

**Quick Change Tooling System**

**Dual Foot Pedal**  
Allows User to Make Multiple "Peck Cycle" Clinches with the First Pedal and Fully Retract Tooling with the Second Pedal

**Highly Visible External Oil Tank**

**SEQUENCE OF OPERATIONS**

1. Rotate crank handle counter-clockwise towards operator, advancing the unit into work position.
2. The tooling gap will be approx. 6-7 mm. The unit will not initiate power stroke until this position is reached.
3. Depress right side foot pedal to advance power cycle and make clinch.
4. Releasing pedal returns the upper tool to work position.
5. Repeat as needed.
6. Pressing left side pedal returns ram to fully retracted position.

**460 MM [18"] THROAT  
PD3556**

**A GREAT SHOP PRESS FOR  
CLINCHING | PIERCING | SHORT STROKE PRESSING**

# 330 MM [13 IN] THROAT

PD4240



SPECIFICATIONS	
Maximum Combined Material Thickness	3.5 mm [.13 in] Mild Steel
Throat Depth	330 mm [13 in]
Maximum Stroke	102 mm [4 in]
Working Gap	6.0 mm [.24 in]
Compressive Force	44 kN [5 Ton]
Cycle Time	1 second
Weight	157 kg [346 lb]
Standard Input Pressure	5.5 BAR [80 PSI]
Tool Size	3.0 to 4.6

## FEATURES:

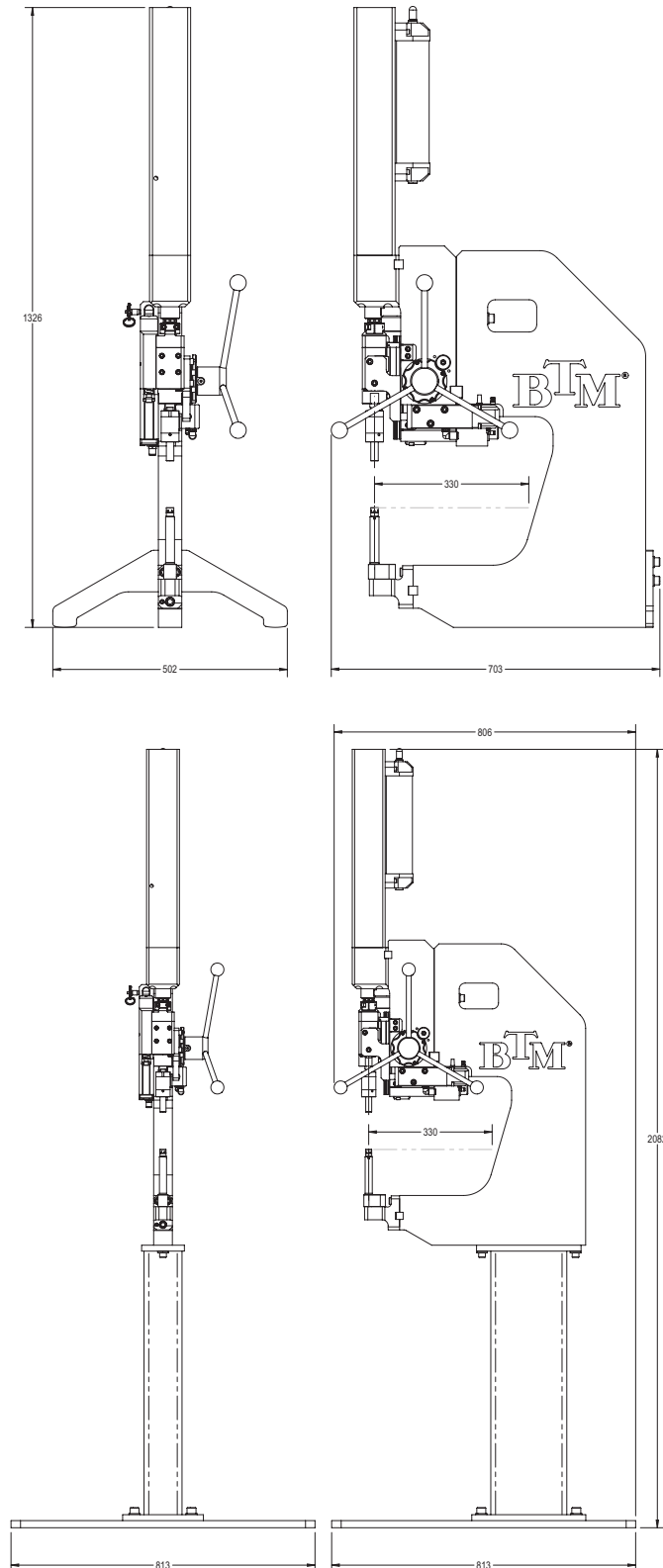
- Foot Pedal Control Package for Operator Part Handling
- Hand Lever Allows Operator to Quickly Position Tooling
- Adjustable Return Stroke for Faster Cycle Time
- Quick Change Tooling for Multiple Applications
- Reversible Tooling
- Precision Linear Slide for Improved Clinch Joint Integrity
- Non-Rotating Tool Holder for Consistent Geometric Tooling Application
- Operates From a Single Shop Air Line
- Self-Contained Air-Over-Oil Cylinder for Clean, Quiet, Reliable Operation

## OPTIONS:

- Press Unit Only
- Bench Model with Foot Stand
- Floor Stand
- Custom Force-Frame Engineered to Your Requirements
- Heavy Duty Stripper for Thicker Material

## TOOLING (Required, Sold Separately)

- Tog-L-Loc® 3.0, 3.8, 4.6
- V-Loc™ 3.8, 4.6
- Oval-Loc® 3x6
- Lance-N-Loc® 3.0, 3.8

**330 MM [13 IN] THROAT DIMENSIONS**

**460 MM [18 IN] THROAT**  
**PD3556**



SPECIFICATIONS	
Maximum Combined Material Thickness	3.5 mm [.13 in] Mild Steel
Throat Depth	460 mm [18 in]
Maximum Stroke	102 mm [4 in]
Working Gap	6.0 mm [.24 in]
Compressive Force	44 kN [5 Ton]
Cycle Time	1 second
Weight	169 kg [372 lb]
Standard Input Pressure	5.5 BAR [80 PSI]
Tool Size	3.0 to 4.6

**FEATURES:**

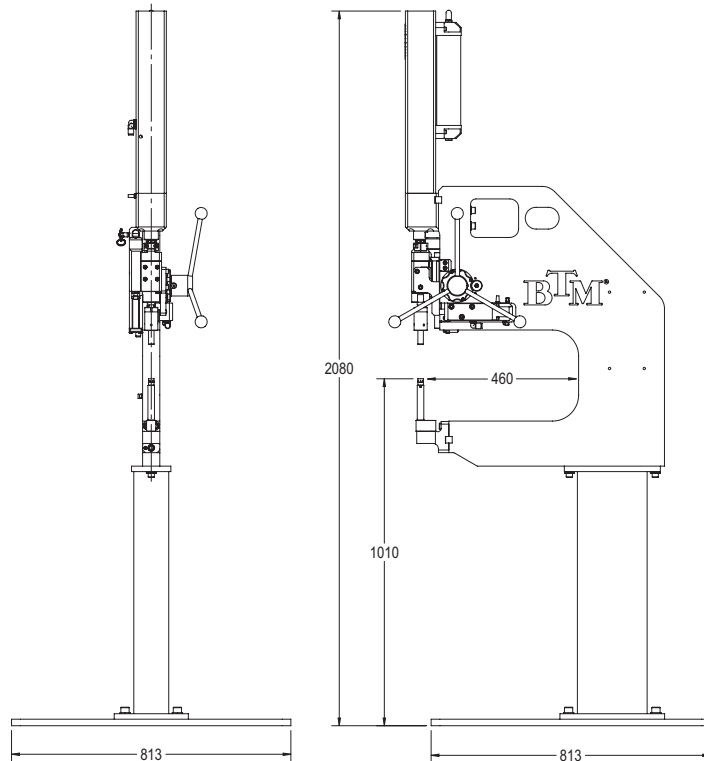
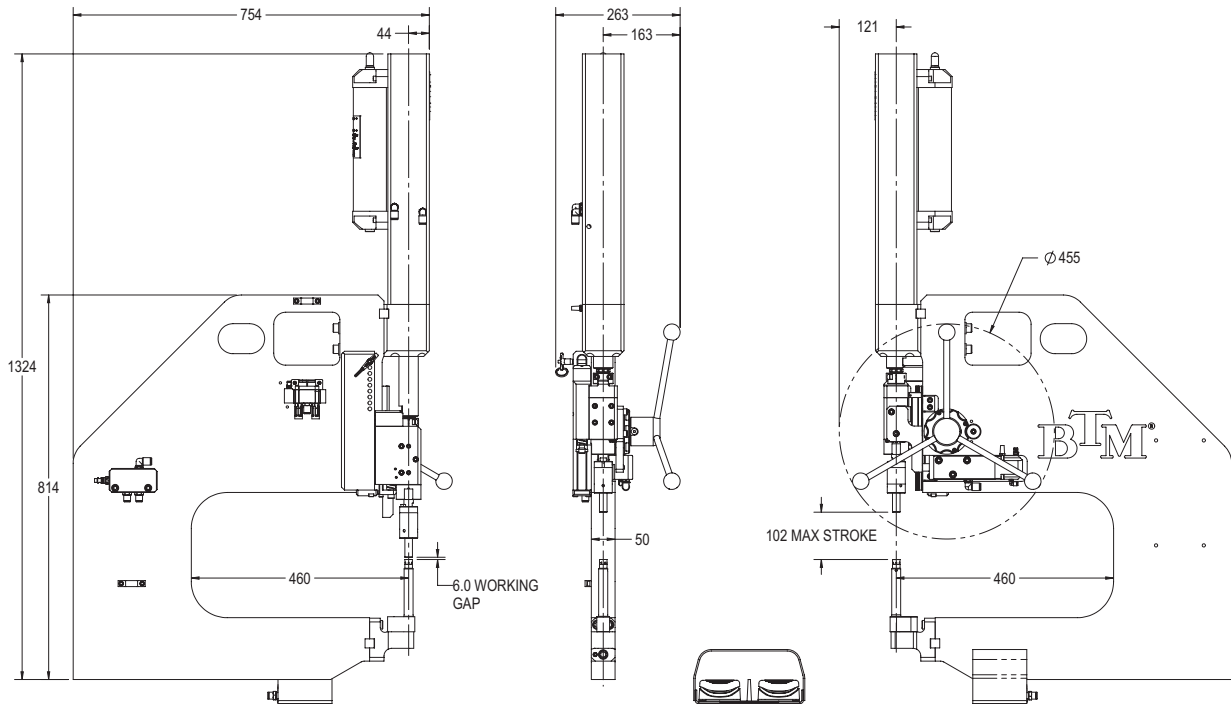
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**OPTIONS:**

- Press Unit Only
- Bench Model with Foot Stand
- Floor Stand
- Custom Force-Frame Engineered to Your Requirements
- Heavy Duty Stripper for Thicker Material

**TOOLING (Required, Sold Separately)**

- Tog-L-Loc® 3.0, 3.8, 4.6
- V-Loc™ 3.8, 4.6
- Oval-Loc® 3x6
- Lance-N-Loc® 3.0, 3.8

**460 MM [18 IN] THROAT DIMENSIONS**

# 635 MM [25 IN] THROAT

PD4246



## SPECIFICATIONS

Maximum Combined Material Thickness	3.5 mm [.13 in] Mild Steel
Throat Depth	635 mm [25 in]
Maximum Stroke	102 mm [4 in]
Working Gap	6.0 mm [.24 in]
Compressive Force	44 kN [5 Ton]
Cycle Time	1 second
Weight	240 kg [528 lb]
Standard Input Pressure	5.5 BAR [80 PSI]
Tool Size	3.0 to 4.6

## FEATURES:

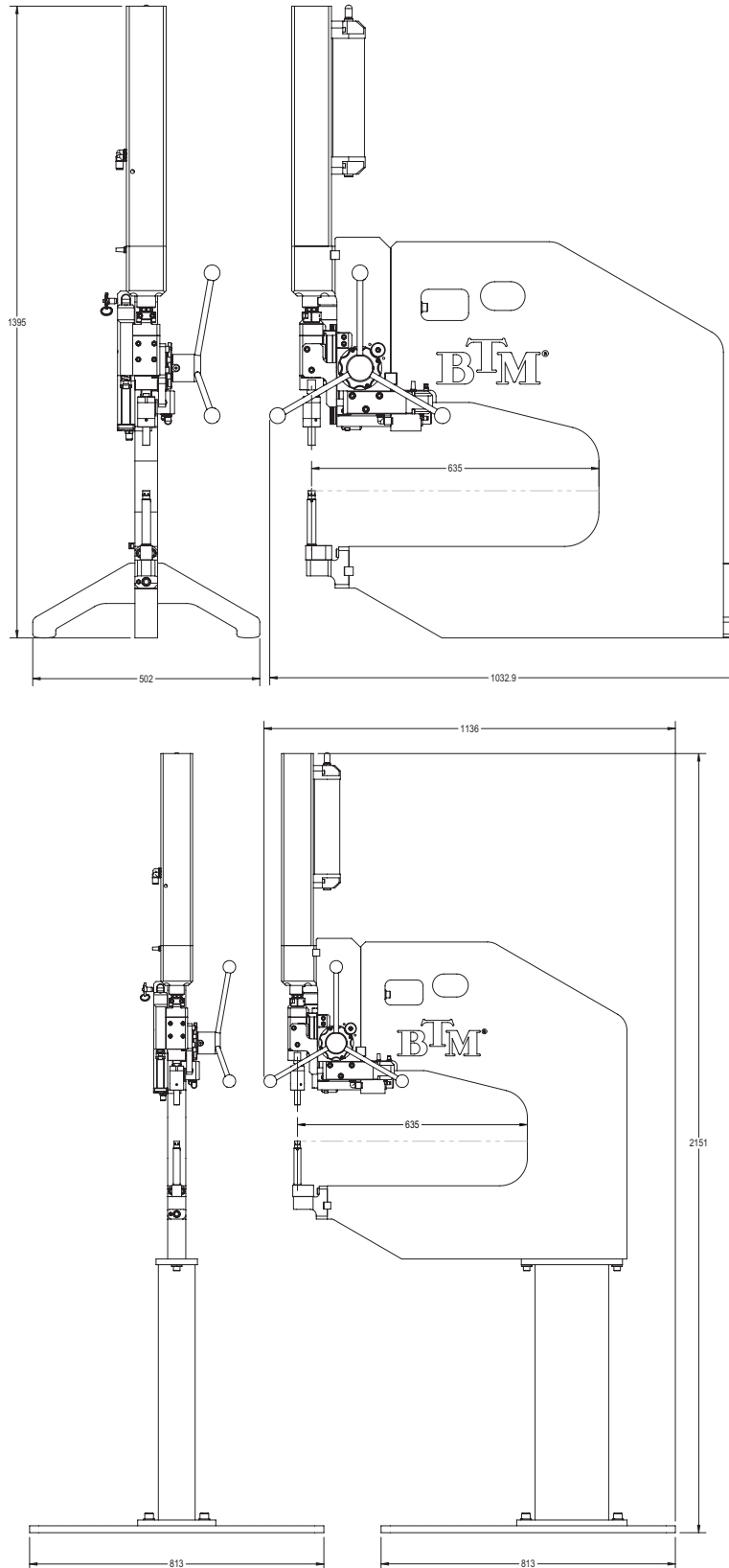
- Foot Pedal Control Package for Operator Part Handling
- Hand Lever Allows Operator to Quickly Position Tooling
- Adjustable Return Stroke for Faster Cycle Time
- Quick Change Tooling for Multiple Applications
- Reversible Tooling
- Precision Linear Slide for Improved Clinch Joint Integrity
- Non-Rotating Tool Holder for Consistent Geometric Tooling Application
- Operates From a Single Shop Air Line
- Self-Contained Air-Over-Oil Cylinder for Clean, Quiet, Reliable Operation

## OPTIONS:

- Press Unit Only
- Bench Model with Foot Stand
- Floor Stand
- Custom Force-Frame Engineered to Your Requirements
- Heavy Duty Stripper for Thicker Material

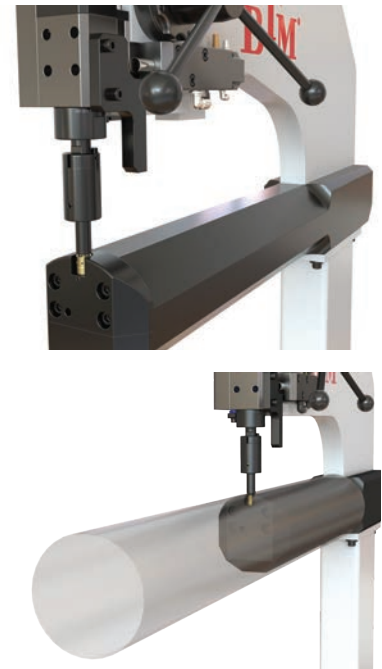
## TOOLING (Required, Sold Separately)

- Tog-L-Loc® 3.0, 3.8, 4.6
- V-Loc™ 3.8, 4.6
- Oval-Loc® 3x6
- Lance-N-Loc® 3.0, 3.8

**635 MM [25 IN] THROAT DIMENSIONS**

# MANDREL 610 MM [24 IN] THROAT

PD4247



## SPECIFICATIONS

Maximum Combined Material Thickness	3.5 mm [.13 in] Mild Steel
Throat Depth	610 mm [24 in]
Maximum Stroke	102 mm [4 in]
Working Gap	6.0 mm [.24 in]
Compressive Force	44 kN [5 Ton]
Cycle Time	1 second
Weight	294 kg [649 lb]
Standard Input Pressure	5.5 BAR [80 PSI]
Tool Size	3.0 to 4.6

## FEATURES:

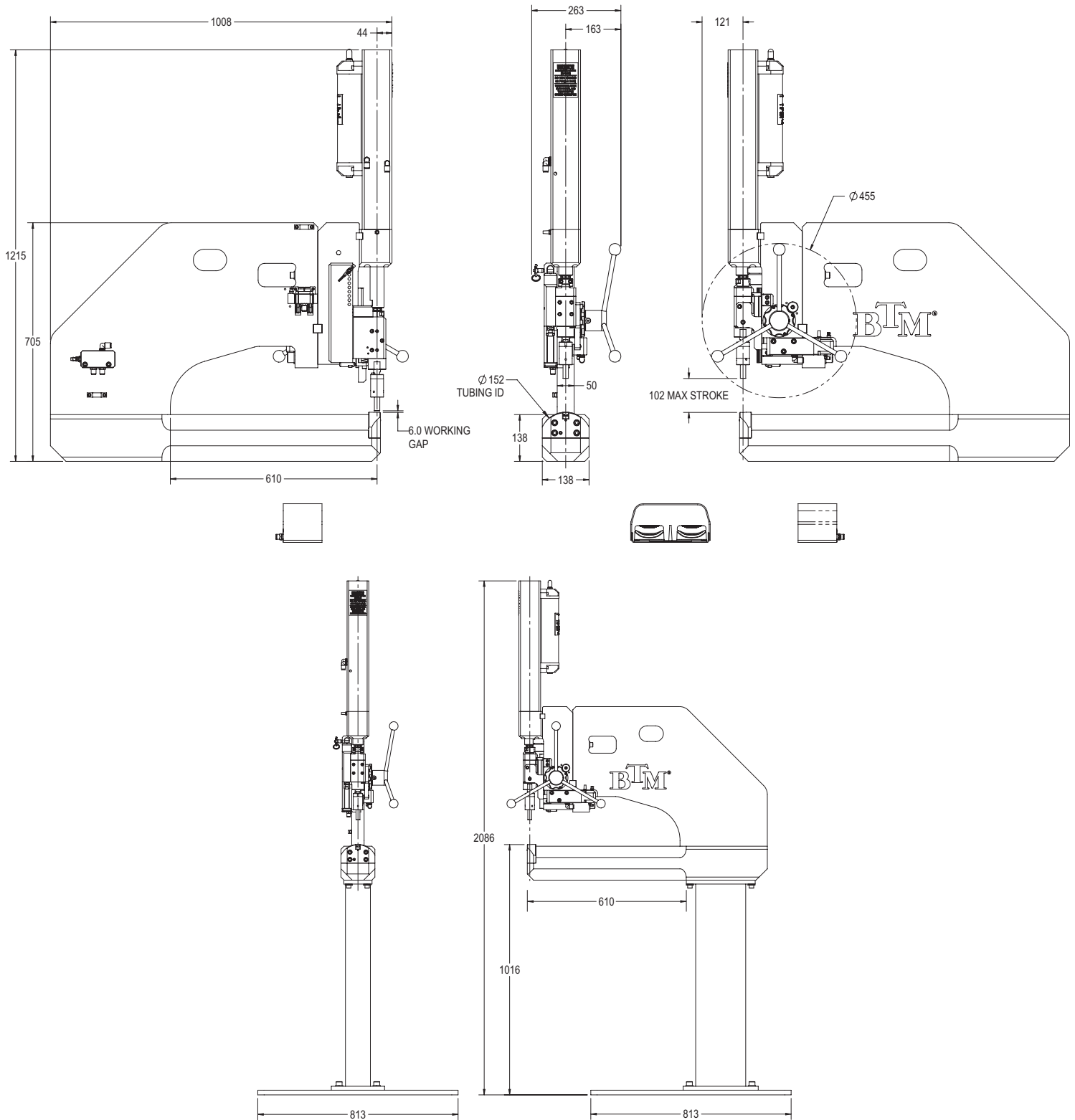
- Excellent for HVAC Clinch Joint Seams and Custom 6" Duct Work Fabrication
- Large Throat Depth Provides Access for Deep Part Clinching
- Floor Stand with Foot Pedal Control Package for Operator Part Handling Convenience
- Hand Lever Allows Operator to Quickly Position Tooling
- Adjustable Return Stroke for Faster Cycle Time
- Quick Change Tooling for Multiple Applications
- Precision Linear Slide for Improved Clinch Joint Integrity
- Non-Rotating Tool Holder for Consistent Geometric Tooling Application
- Operates From a Single Shop Line
- Self-Contained Air-Over-Oil Cylinder for Clean, Quiet, Reliable Operation

## OPTIONS:

- Press Unit Only
- Bench Model
- Floor Stand
- Custom Mandrels Designed for Your Duct Work Application
- Custom Force-Frame Engineered to Your Requirements
- Heavy Duty Stripper for Thicker Materials

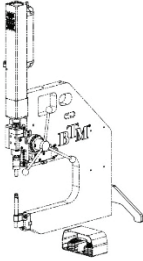
## TOOLING (Required, Sold Separately)

- Tog-L-Loc® 3.0, 3.8, 4.6
- V-Loc™ 3.8, 4.6
- Oval-Loc® 3x6 (By Special Order)
- Lance-N-Loc® 3.0, 3.8 (By Special Order)

**MANDREL 610 MM [24 IN] THROAT DIMENSIONS**

## PRESS OPTIONS & ACCESSORIES

### OPTIONAL MOUNTING



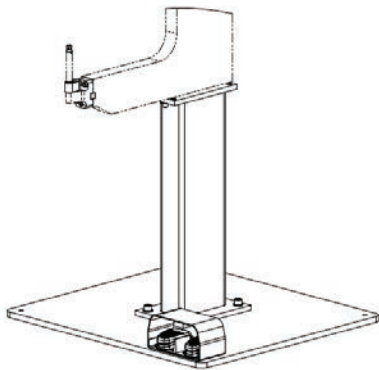
#### **BENCH LEG**

(BTM No. PD307200N)

Convert your press into a bench-top unit with this support leg.

USE ORDER CODE:

**BL**



#### **RISER BASE FOR FLOOR STAND MODEL**

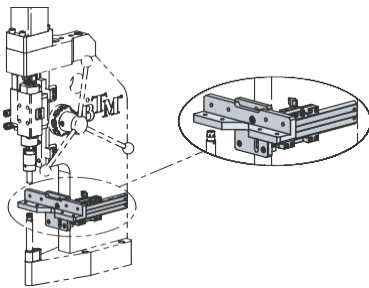
(BTM No. PD323700F)

The Riser Base effectively converts your press into a floor press.

USE ORDER CODE:

**RB**

### OPTIONAL NESTING / LOCATING



#### **ADJUSTABLE FENCE ASSEMBLY**

(BTM No. PD307200F)

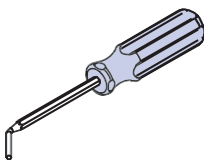
This Adjustable Fence Assembly helps you to nest/locate the parts being joined.

Note: Only available on the Narrow Throat MCP-44-TD153, PD374200A

USE ORDER CODE:

**FA**

### HARDWARE



#### **BALL RELEASE TOOL**

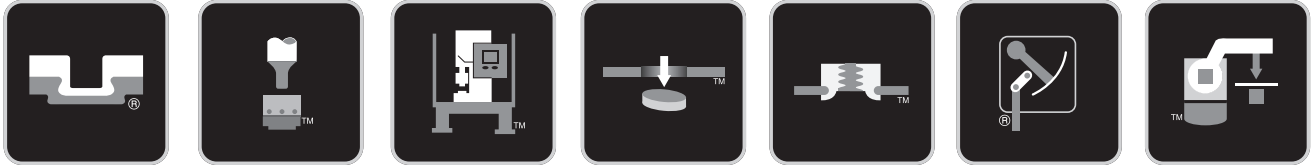
(BTM No. 044514)

This tool allows you to release ball-lock retention.

USE ORDER CODE:

**BRT**

# CONTACT YOUR LOCAL BTM SALES TEAM FOR SUPPORT



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<b>LOCAL</b> Customer Relationships & Project Support		
<b>LOCAL</b> Application Expertise Supported By Globally Shared Expertise	<b>LOCAL</b> Engineering & Manufacturing For Project Specific Content	<b>LOCAL</b> After-Sales Support Leveraged For Global Coverage
<b>GLOBAL</b> Shared Research & Technology Development		
<b>GLOBAL</b> Manufacturing For Scale Optimized Content		



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