



Presses & Automation  
*SINCE 1975*

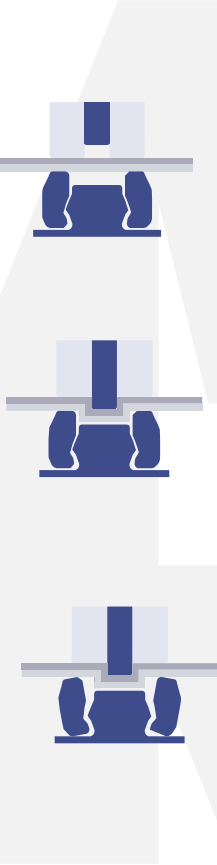


Clinching press  
Technical brochure



# Azimuth Clinching press

## GEN III Servo Clinching Press



### STEP 1 : CLAMP

The stripper clamps the sheet metal parts to be joined.

### STEP 2 : DRAW

The punch draws the sheet metal into the die and the metals expand when they hit the die anvil.

### STEP 3 : LOCK

The metals, unable to continue their downward expansion, are compressed against the anvil and are forced to expand laterally, forming an interlock below the bottom sheet. The die blades expand, allowing this interlock to occur.



### Standard features

- Servo motorized – Fully Electrical (No AIR required)
- 5 years warranty – Best in Industry
- Up to 600SPM - Fastest in Industry
- Several mode of operation
- Programmable jobs allows you to program sequences based on job
- Built in safety features Safety programmable torque for finger safe operation
- Several frame sizes available

### Optional features

- Additional tooling
- Extra punches
- Stainless steel tooling
- 400VAC-3PH options
- Custom ARM
- 2,75" Stroke Option





# Azimuth Servo press

## Control capabilities

- 7" color Touch Screen for ease of operation
- 4 modes of operations
- Built-in Instruction Manual in screen (spare parts, punch requirements, etc)
- Torque monitoring prevent die & punch failure



- Up to 10 programmable sequence based on complexity of your parts
- Save jobs based of your sequence
- Parts counter for every sequence completed

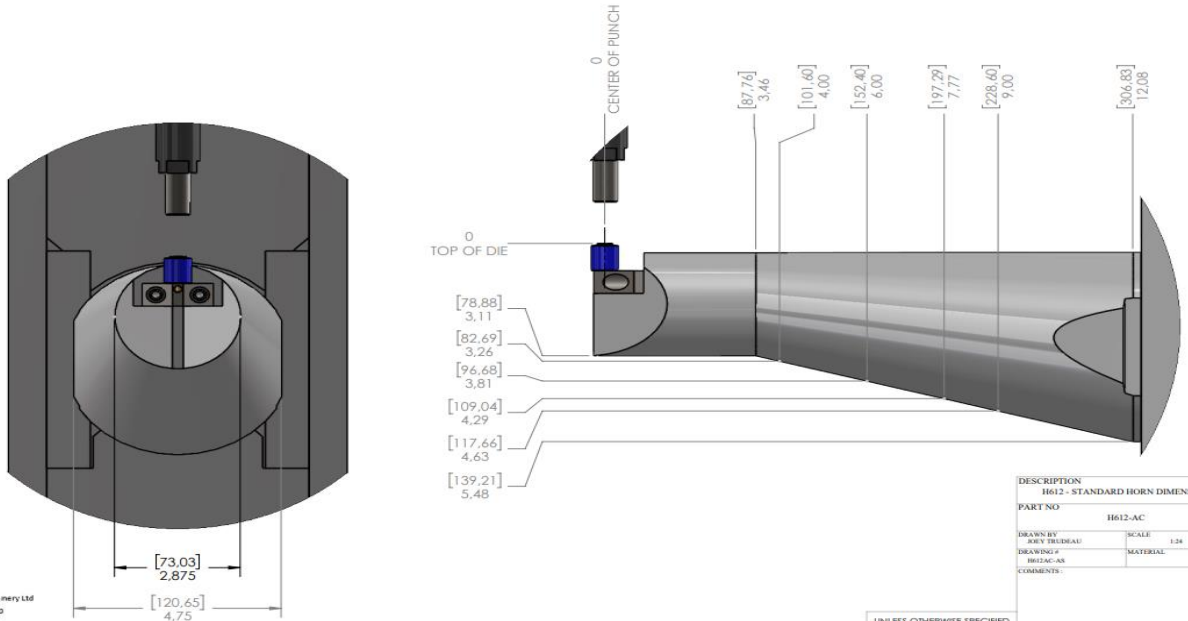
- Programmable stroke height from screen for safety of operation
- Safety intelligent stroke offer safety, productivity & speed of operation





# Azimuth Clinching press

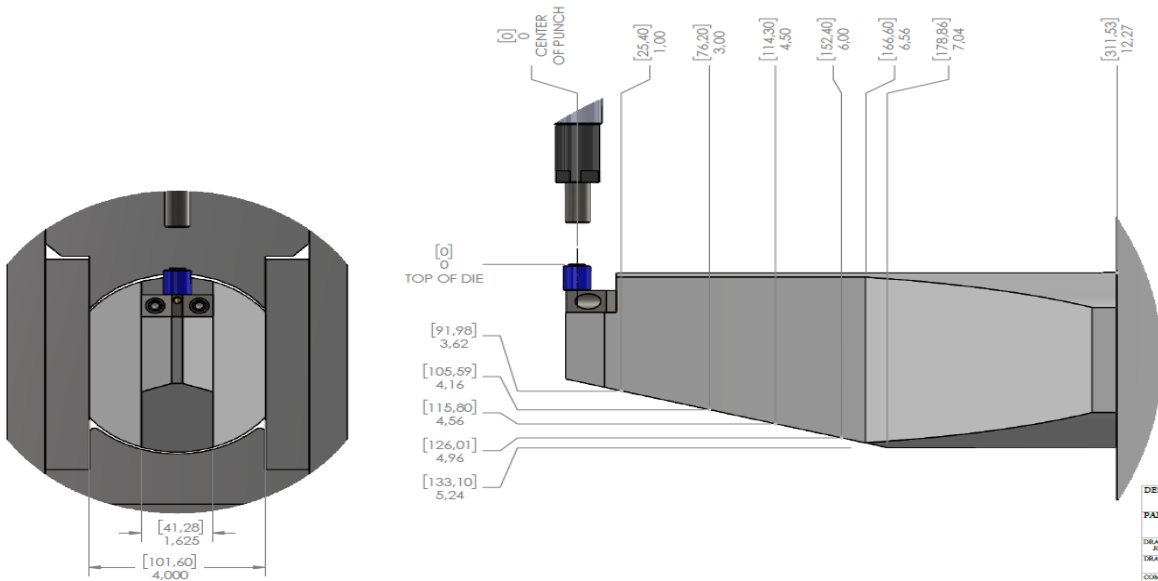
## H412/H612 standard arm & narrow arm



UNLESS OTHERWISE SPECIFIED  
 DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 FRACTIONAL ±1/64  
 TWO PLACE DECIMAL ±.01  
 THREE PLACE DECIMAL ±.005

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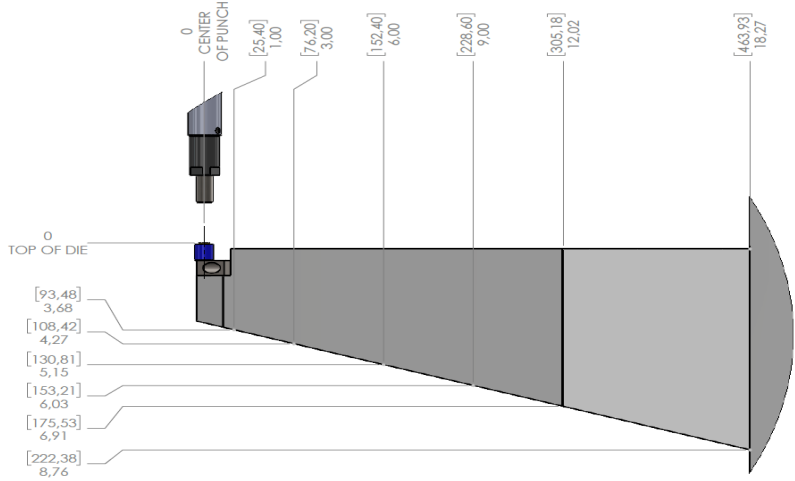
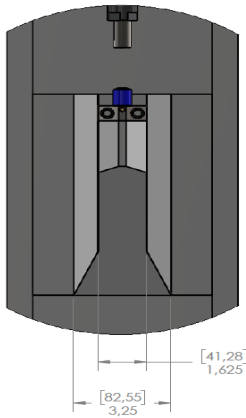
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# Azimuth Clinching press

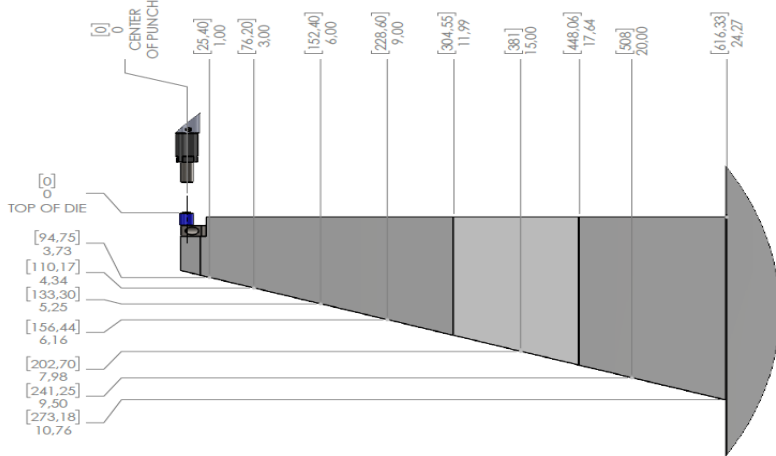
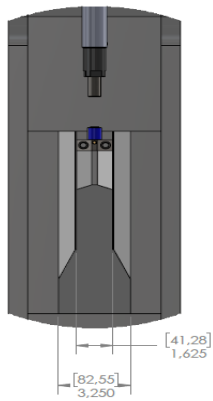
## H618 & H624 narrow arm



DESCRIPTION	
H618 - HORN DIMENSION	
PART NO	H618-AC
DRAWN BY	JOEY TREDEAU
SCALE	1:24
DRAWING #	
MATERIAL	
COMMENTS	

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DESCRIPTION	
H624 - NARROW HORN DIMENSION	
PART NO	H624-AC
DRAWN BY	JOEY TREDEAU
SCALE	1:24
DRAWING #	
MATERIAL	
COMMENTS	

UNLESS OTHERWISE SPECIFIED  
 DIMENSIONS ARE IN INCHES  
 TOLERANCES :  
 FRACTIONAL ±1/64  
 TWO PLACE DECIMAL ±.01

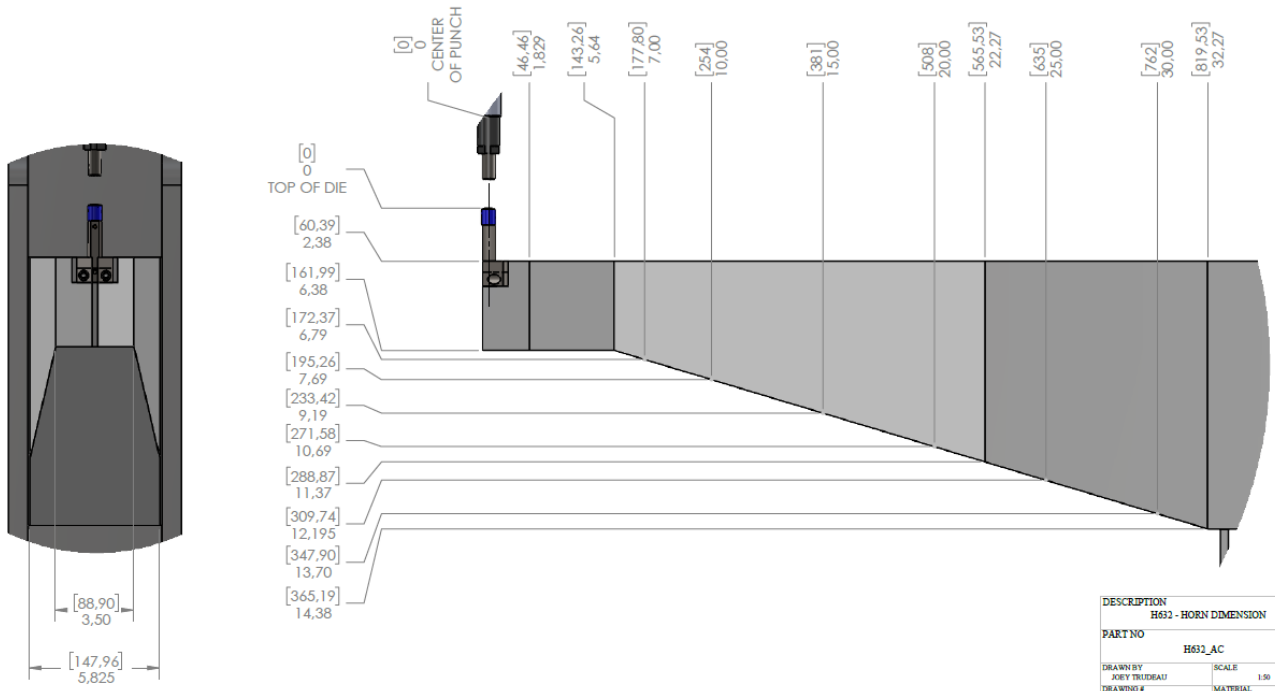
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# Azimuth Clinching press

## H632 narrow arm



DESCRIPTION	H632 - HORN DIMENSION
PART NO	H632_AC
DRAWN BY	JOEY TREDEGAR
DRAWING #	MATERIAL
SCALE	1:50
COMMENTS	

UNLESS OTHERWISE SPECIFIED  
 DIMENSIONS ARE IN INCHES  
 TOLERANCES :  
 FRACTIONAL ±1/64  
 TWO PLACE DECIMAL ±.01

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# Azimuth Clinching press

## GEN III

AZIMUTH MACHINERY LTD, is a leading manufacturer of presses, clinching presses & Sheet metal equipment. AZIMUTH is renowned for the quality, its ability to supply custom built presses based on customers' unique specifications, and its outstanding customer and after-sales services.

MAIN FEATURES		OTHER CLINCHING PRESS MANUFACTURER
<b>ACTUATION TYPE</b>	Fully electrical (servo motorized)	Air over-oil system Air / Hydraulic
<b>SPEED OF OPERATION</b>	Up to 600 SPM	Max 150SPM
<b>STROKE</b>	Adjustable 1.25" stroke	Fix stroke 2-3"
<b>MACHINE INTERFACE</b>	Yes	No
<b>MODE OF OPERATION</b>	Safety mode Automatic / Single stroke	Single Stroke only
<b>BUILT-IN SAFETY FEATURES</b>	Yes	Optional
<b>WARRANTY</b>	5 years	From 1-3 years





# Azimuth Clinching press

## GEN III

The first fully electrical servo motorized clinching press in the industry, our GEN III now meets speed of operation, safety standards & consistency within your clinching joints. Backed up with an outstanding 5 years warranty, you won't have to worry about your clinching unit for a very long time.



### EASY INSTALLATION

Fully electrical (220VAC  
or 480VAC).  
Optional 120VAC



### INCREASED PRODUCTIVITY

Programmable HMI allows the  
operator to program JOB &  
speed of operation



### FASTEST MACHINE IN THE INDUSTRY

up 600 strokes per minutes



### SAFETY INCLUDED

Safety intelligent stroke  
provides safety for operator



### SELF MONITORING SYSTEMS

Built-in procedure for easy  
maintenance of the machine  
& adjustment



### TROUBLE FREE

5 years warranty







# CLINCHING PROCESS

## STEP 1 : CLAMP

The stripper clamps the sheet metal parts to be joined.



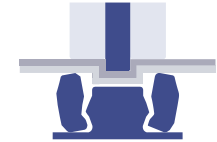
## STEP 2 : DRAW

The punch draws the sheet metal into the die and the metals expand when they hit the die anvil.



## STEP 3 : LOCK

The metals, unable to continue their downward expansion, are compressed against the anvil and are forced to expand laterally, forming an interlock below the bottom sheet. The die blades expand, allowing this interlock to occur.



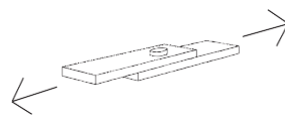
## ADVANTAGES

- Vibration-Resistant & Leak proof
- Do not destroy material coating
- Consistent & reliable joint
- May join different thicknesses together
- Long tool life of approximately 300,000 cycles

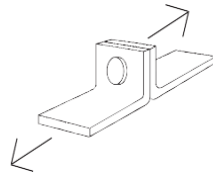
## CAN MY MATERIAL BE CLINCHED ?

Mild Steel (galvanized, pre-painted material) or Aluminum are standard materials. Stainless steel & multiple layers of material requires optional tooling.

## Joint STRENGTH



FROM 225 lbs. (thinner material) to 600 lbs (thicker material)



FROM 30 lbs. (thinner material) to 250 lbs (thicker material)

Send us your samples today  
for a free evaluation





## WARRANTY PLAN Clinching Press

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### *Year's servo, drive & Gear-head, PLC & electrical components warranty*

Azimuth machinery warrants to the original purchaser, to repair or, at AZIMUTH MACHINERY'S sole option, replace any major servo failure, servo drive & gear head & ALL Electrical components (greaser, oiler, motor, main controller, sensors or buttons) after examination by AZIMUTH MACHINERY's properly authorized representative, to be defective in material or workmanship under normal use within three (3) years or, if sooner, **5,000,000 strokes** after the original date of shipment from the AZIMUTH MACHINERY plant.

**Does not include labor<sup>[1]</sup> or diagnostic work. The original purchaser will be responsible for travel costs and expenses.**

3

### *Years mechanical parts warranty (Frame, mechanical components)*

Azimuth machinery warrants to the original purchaser, to repair or, at AZIMUTH MACHINERY'S sole option, replace any parts that are found defective (Ball-screw, pitman(s), crankshaft(s), slide, GIBS, RAM, after examination by AZIMUTH MACHINERY's properly authorized representative, to be defective in material or workmanship under normal use within three (3) years or, if sooner, **3,000,000 strokes** after the original date of shipment from the AZIMUTH MACHINERY plant.

**Does not include labor<sup>[2]</sup> or diagnostic work. The original purchaser will be responsible for travel costs and expenses.**

∞

### *Lifetime support over phone & online videos*

Azimuth machinery offers lifetime support to all its end-users. This means free support over phone & access to online videos for technical support & maintenance tips on new machine.



