



CQC  
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Certificate

# *Preda* **PREDA MACHINE**

## RECTANGULAR DUCT MACHINE

Pittsburgh Lock Forming Machine/Pittsburgh Rollformer

Angle Iron Flange Forming Line

TDF Flange Forming Machine

Pneumatic Lock-Seaming Machine

Duplex TDF Flange Forming Machine

Plasma Cutting Machine

Duct Beader

Slitting Machine

Folding Machine

Corner Matics

Electric Shearing Machine

Decoiler

Punching machine

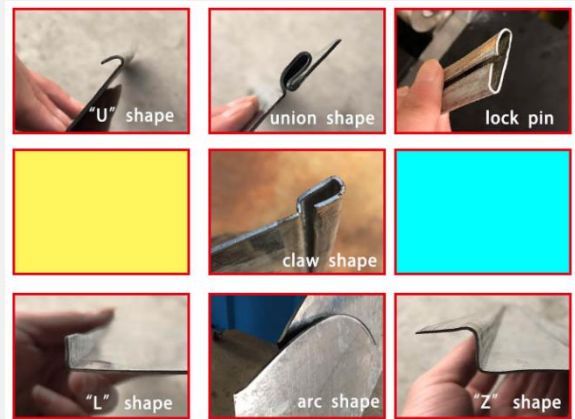


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## Pittsburgh Lock forming machine/Pittsburgh roll former



Pittsburgh Lock former machine/Pittsburgh lock roll former is a basic HVAC duct forming machine that forms the locks of a duct. Preda Machine Pittsburgh lock former is made from highest quality components which include an all steel forming head hardened with ground shafts. The steel forming rolls on this Pittsburgh machine are hardened using matching cut gears and needle bearings which can be used for years.



### Workstations and functions

- Seven stations available on the machine as per the following,
  - Arc shape
  - Claw shape
  - Orthogonal shape
  - U shape
  - Union shape
  - Z shape
  - Lock pin
- SA-12HB is capable of 1.2mm(18Ga) galvanized steel and SA-15B is capable of 1.5mm(16Ga) galvanized sheet or 1.0mm(20Ga) stainless steel. Main difference between SA-12HB and SA-15HB is the rollers used, as SA-12HB is using 45# steel and SA-15HB is using GCr15 steel.
- SA-12C and SA-15C are specially designed for round duct lock forming.
- 380V/50HZ/3PH is the regular standard Voltage for our lock forming machine. Yet we can manage them into 220V/50HZ/1PH or 420V/50HZ/3PH and etc. Cost will be free of charge as cooperation to our international customers!!!
- Preda Machine provides rollers and axles changing the whole life time of the machine
- Customized roll forming flange size and shape can be achieved by Preda Machine in case required.

### Main Technical Parameters

Model	Max sheet thickne (mm)	Shape	Power (kW)	Weight (kg)	Dimension L*W*H (mm)
SA-12HB	1.2		1.5	230	1070x570x1000
SA-15HB	1.5		3	250	1100x600x1000
SA-12C	1.2		1.5	230	1070x570x920
SA-15C	1.5		3	350	1200x650x1050

## “S” pittsburgh lock forming machine



Preda Machine “S” Cleat Pittsburgh Lock Former includes following lock cleats,  
 S cleat profile  
 L shape cleat profile  
 C shape locking pin / Drive cleat Pittsburgh lock (regular flange lock for square duct)  
 Round duct female lock cleat  
 Round duct male lock cleat

Capacity: 18 - 24 Gauge (0.5 - 1.2 mm) galvanized steel or other low carbon steel.

This lock forming machine is designed for industrial manufacture of ducts with high efficiency, low noise and good performance.

1 Year Warranty.

### Main Technical Parameters:

Model	Shape	Shape name	Thickness (mm)	Material (mm)	Molding (mm)	Power (kw)	Weight (kg)	Dimensions(mm) L*W*H
SA-12S		Pittsburgh lock	0.5-1.2	30	13.2	2.2	365	1512x628x1190
		Claw Shape	0.5-1.2	9	13.2			
		'C' cleat	0.5-1.0	54	28			
		'S' shape	0.5-0.8	92	28			

### Main advantages of our Pittsburgh Lock Forming Machine

- 1.Heat treated rollers with hardened character;
- 2.Machine makes 5 different lock shapes without roller changing at all;
- 3.Arc welded steel stand, heavy top plate;
- 4.Roller material: GCr15;
- 5.Roller shaft material: Thermal refined 45#;
- 6.Motor : 2.2KW;
- 7.Speed: 26 FPM(9M/min);
- 8.Compact size and mobility;
- 9.High efficiency;



## Snap lock forming machine



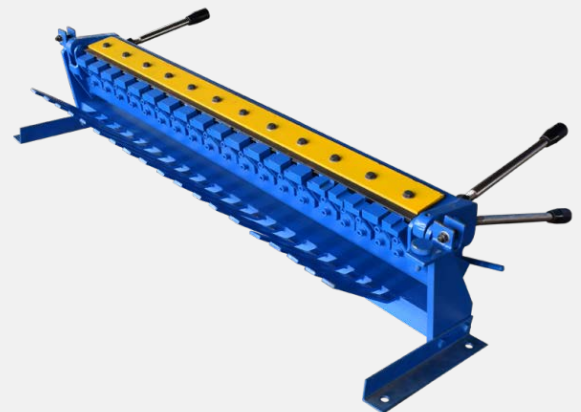
The Snap lock machine is one of the most basic production equipment in the production of air ducts. It can process the "S"-shaped interface, so that the interface of the air pipe is perfectly hidden, and the surface of the air pipe is smooth and flat. Easy to join. Suitable for 0.4-1.2mm thick galvanized sheet or carbon steel sheet.

### Main Technical Parameters:

Model	Shape	Thickness (mm)	Power (kw)	Weight (kg)	Dimensions(mm) L*W*H
SN-10		0.5-1.2	2.2	340	1500*630*1000

## Cleat bender/ Drive cleat

Preda Machine cleat bender is suitable for mobile construction sites, ventilation duct manufacturing, and processing of metal tin box parts. It is widely used worldwide for its lightness, energy saving, high work efficiency and high rate of production outcome. The cleat bender machine is an ideal energy-saving equipment for enterprises and factories.



### Machine advantages:

1. The machine is small, light and easy to carry;
2. The effect handling the thin iron sheet of the machine needle is even better than electric machines;
3. The machine is simple and easy to operate.

### Main Technical Parameters:

Model	Shape	Thickness (mm)	Useful length (mm)	Weight (kg)	Dimensions(mm) L*W*H
SN-20		0.5-1	750	20	1000*400*320



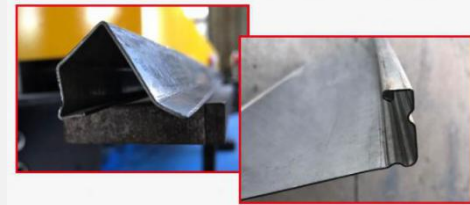
## TDF Flange Forming Machine

TDF flange forming machine/TDF roll former/TDF roll forming machine, mainly used for making flange at edge of plate for further joint, is also among basic equipments for modern duct forming line.

All bearings used are ball bearings rather than traditional needle bearings so the machine more durable. All gears, axles and rollers equipped in the machine are made from high quality steel to ensure their stability and durability.

The flange shape made by the machine is nice and practical, which makes it a perfect part of duct forming line.

Preda Machine TDF roll former has two version, T-12 capable of 1.2mm and T-15 capable of 1.5mm galvanized metal sheet.



### Workstations and functions

1. Two stations available on each side of the flange forming machine with one side capable of TDF flange, the other side capable of "Claw shape" flange connector!
2. Optional GCr15 material rollers and axles (Which is equipped on T-15) make sure the very long durability of this machine
3. T-12 is capable of maximum 1.2mm(18Ga) galvanized steel sheet while T-15 is capable of 1.5mm(16Ga) galvanized steel sheet or 1.0mm(20Ga) stainless steel sheet.
4. Preda Machine provides rollers and axles changing the whole life time of the machine
5. Customized roll forming flange size and shape can be achieved by Preda Machine in case required.

### Main Technical Parameters

Model	Power (kW)	Sheet thickness (mm)	Shape	Weight (kg)	Dimension L*W*H (mm)
T12	3	0.5-1.2		720	2550x700x1100
T15		0.8-1.5			

### Duplex TDF Flange Forming Machine

Duplex TDF flange forming machine overcomes the normal TDF flange forming machine's disadvantage that only one end of the sheet can be operated to form flange.


Duplex TDF flange forming machine provides a perfect solution for that by have two stations of roll forming so to make TDF flange on both sides of a coil plate.

Flange forming can be achieved for both ends at a time, which makes the flanging process much more efficient and stable.

This machine is a top priority for companies who are short of staff but desired for massive production.



### Main Technical Parameters

Model	Power (kW)	Sheet thickness (mm)	Shape	Weight (kg)	Dimension L*W*H (mm)
T-12-2	4	0.5-1.2		2100	2450x2700x1100
T-15-2	5.5	0.8-1.5			



### Workstations and functions

1. Duplex TDF flange forming stations on both sides of a plate
2. Transporting table in between the two TDF flange forming stations.
3. Optional Claw shape roll forming available in case required by customer!
4. GCr15 material rollers and axles make sure the very long durability of this machine
5. Preda Machine provides rollers and axles changing the whole life time of the machine
6. Capable of not only galvanized sheet within 16Ga/1.5mm, but also capable of stainless metal sheet within 20Ga/1.0mm!
7. Customized roll forming flange size and shape can be achieved by Preda Machine in case required.



## TDC Flange Forming Machine

The TDC flange forming machine is one of the major systems for universal flange making in the world. It has the characteristics of time saving, material saving, high work efficiency, better sealing, sturdy and durable, and strong connection. It is best suitable for ducts with a large cross-section of general purpose duct.

The TDC flange forming machine is mainly composed of a coil decoiler, the rolling forming main body and a cutting part. The cutting part can be divided into a grinding wheel cutting and keep cutting, and the cutting system can realize the cutting of the length. The burr is small and can be fully automated. Its working speed is 5-7 m/min.

There are 4 types according to its working performance and flange forming strength and sealing strength: PDT-20, PDT-30, PDT-35, PDT-40.



### Main Technical Parameters

Model	Shape high (mm)	Thickness (mm)	Power (kw)	Weight (kg)	Dimension L*W*H (mm)
PDT-20	20	0.8	3	2000	6300x1200x1700
PDT-30	30	1	3	2200	6300x1200x1700
PDT-35	35	1	3	3000	6300x1200x1700
PDT-40	40	1.2	4	3000	6300x1200x1700



### Power Fastener

Preda Machine power fastener is used for TDC flange ducts. You can use this machine to fasten TDC flange ducts quickly and easily!

Thickness capable for the sheet is 0.8mm-4mm with adjustment to the sheet thickness automatic.

This machine is in 12KG, power is 1.4kw, which is easy to carry and suitable for on-site ductworks.



### Hand Folding Machine

Folding machine or Folder is a very basic machine for HVAC ductworks.

It is used to fold sheet metal and also used for making air duct and fittings manual.

Frame of Preda Machine Folding machine is made of steel welded construction with single bladed available for different sizes of sheets to be folded. A heavy duty welded steel frame with strong top and bottom beam makes the machine very strong and good for long using life.

### Hand Folding Machine Main Technical Parameters

Model	Max thickness (mm)	Max width (mm)	Min folding angle	Weight (kg)	Dimension L*W*H (mm)
WS-1.5x1300	1.5	1300	45°	318	1950x650x1550
WS-1.5x1500	1.5	1500	45°	336	2160x650x1550
WS-1.5x2000	1.5	2000	45°	388	2650x650x1550
WS-1.5x2500	1.5	2500	45°	430	3100x650x1550

### Hand TDF Folding Machine

TDF folding machine or folder is capable of plates with TDF flange on it!

So normally TDF Folders are used together with TDF Flange Formers.

It has slots on the bottom bed in which the formed flange lies during folding operation process.

With this machine you can make L profiles or fully wrap around duct-work as per your needs.

Generally it is a perfect companion to TDF Flange Former! Standard capability is 1.5mmx1300mm,

1.5mmx1500mm, 1.5mmx2000mm,

1.5mmx2500mm.....



### Hand Folding Machine Main Technical Parameters

Model	Max thickness (mm)	Max width (mm)	Min folding angle	Weight (kg)	Dimension L*W*H (mm)
TDF-1.5x1300	1.5	1300	45°	320	1950x650x1550
TDF-1.5x1500	1.5	1500	45°	340	2160x650x1550
TDF-1.5x2000	1.5	2000	45°	390	2650x650x1550
TDF-1.5x2500	1.5	2500	45°	450	3100x650x1550



## Pneumatic Folding Machine

A pneumatic folder adopts 4-pneumatic-cylinder as the power source driven by 0.6Mpa air pressure. Two cylinders of the four are used for folding when the other two are used for pressing the plates. It works stably without electricity by just connecting the air pump. The worker can operate the upper die up down and folding and releasing by controlling foot pedal. The max. folding thickness of Preda Machine pneumatic folder is 1.5 mm, which also depends of the plate width. For example, a 1300mm or 1500mm pneumatic folding machine is capable of max. 1.5mm with no problem, but a 2000mm or 2500mm version would capable max. 1.0mm! Of course a pneumatic folder has two versions also, which are normal folder and TDF pneumatic folding machine. If you only want to bend flat sheet, the pneumatic flat sheet folding machine would be just fine. You have to choose pneumatic TDF flange sheet folding machine if you need to bend TDF sheet. As an efficient equipment for folding TDF flange duct sheet metal, this machine can be customized according to customers' requirement. As part of rectangular HVAC duct forming machines, the pneumatic TDF folding machine can be used with other rectangular duct forming machines such as cut to length line, TDF flange forming machine, Pittsburgh lock former, lock seaming machine, electric shearing machine and etc.

### Main Technical Parameters

Model	Max thickness (mm)	Max width (mm)	Min folding angle	Weight (kg)	Dimension L*W*H (mm)
QTDF-1.5x1300	1.5	1300	45°	350	2000x800x1550
QTDF-1.5x1500	1.5	1500	45°	400	2200x800x1550
QTDF-1.5x2000	1.5	2000	45°	460	2700x800x1550
QTDF-1.5x2500	1.5	2500	45°	500	3200*800x1550





### Electric plate shearing machine.

Rigid frame with strong steel welded is simple but nice.

Low electricity consuming and ease for operation make it widely used for shearing thick steel plate sheet.

### Main Technical Parameters

Model	Max thickness (mm)	Max width (mm)	Cutting angle (° )	Backage range (mm)	Power (kw)	Dimension L*W*H (mm)
1.5x600	1.5	600	1° 30'	350	1.5	1200*950*1100
1.5x1000	1.5	1000	1° 30'	350	1.5	1600*950*1100
1.5x1300	1.5	1300	1° 30'	350	1.5	1900*950*1100
1.5x1500	1.5	1500	1° 30'	350	2.2	2200*1000*1100
2x1000	2	1000	2° 14'	400	3	1600*1000*1100
2x1300	2	1300	2° 14'	400	3	1900*1000*1100
3x1000	3	1000	2° 14'	400	4.5	1600*1100*1200
3x1300	3	1300	2° 14'	500	4.5	1900*1100*1200
3x1600	3	1600	2° 14'	500	4.5	2200*1100*1200
2x2500	2	2500	2° 14'	500	5.5	3300*1100*1200
4x1600	4	1600	2° 14'	500	5.5	2200*1100*1200

### Product Application

1. the whole machine body uses the integrally weld structure, ensuring the high strength and good rigidity of the machine.
2. The machine hasn't the clutch and the flywheel. It shears the sheet-metal directly driven by the magnetic brake motor. This reduces the idle time of the motor and saves the energy.
3. Preda Machine's machine blade uses 6Cr2Si material, ensuring the good performance and long performance life.
4. the structure of the machine is simple, easy operation and low consumption.



### Tiltable Punching Machine J23 series



---remarkable and flexible pressing quality and capacity in great cost performance.

General characteristics for all our Punching machine:

Rigid frame is built with thick concrete plate steel to ensure function stability and durability.

Steel rotating key clutch is installed for easy operation.

Overload protecting device, which will collapse as safeguard, is equipped in band brake system to protect operators and equipment.

This series are most widely used among all press machines due to verified precision, stability and durability as well.

This type is of tiltable design for easy blanking of finished part and waste materials down fm the working table.

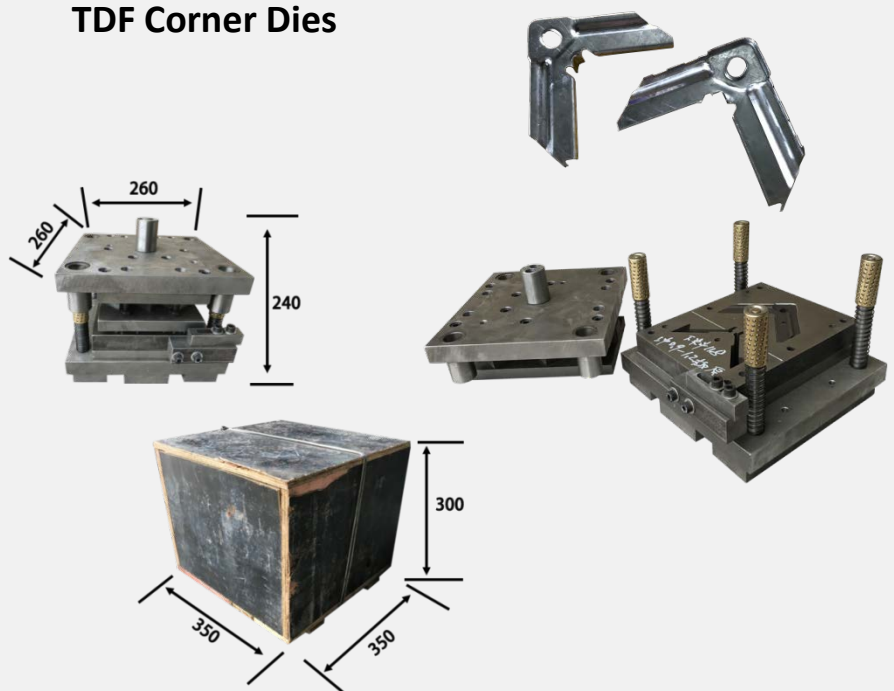
Equipped with our TDF corner dies, J23-25 can produce HVAC duct TDF corners fast and accurately!!

Additionally, by using automatic air feeding mold and TDF corner dies, J-23-40 can produce TDF corners automatically in very fast speed!

### Main Technical Parameters

Model	Pressure (kn)	Dimension of die holder (mm)	Slide stroke (mm)	Time (min)	Power (kw)	Dimension L*W*H (mm)
J23-25T	250	40x60	70	60	2.2	1220x920x2060
J23-40T	400	50x70	100	50	3	1320x970x2380

### TDF Corner Dies



### Duct Beader

Preda Machine duct beader is designed and built in Anhui, China.

This machine is used to form beads on flat sheet metal for stiffening ductwork and fittings

The machine has a 1.2mm\*1300mm capacity.

Beading rolls are designed for easy replacement if damaged and

bead rolls are etched into the bead roll shaft for easy alignment.

Duct beading is a much faster practice as compared to the original cross breaking method.

A Duct Beader machine is a fairly simple machine where in you feed flat sheet metal into the machine and the machine forms 5 beads on 1300mm width sheet or 7 beads on 2000mm!!(depending on the machine model).



### Main Technical Parameters

Model	Max thickness (mm)	Max Width (mm)	Power (kw)	Weight (kg)	Dimension L*W*H (mm)
G1.2x1300	1.2	1300	1.5	380	1550x900x1060
G1.2x2000	1.2	2000	2.2	570	2300x900x1120

### Duct Beader and Leveler

Duct beader and leveler is an upgraded machine of normal duct beader. This machine is equipped with leveling station before beading station. So that the finished sheet metal and duct are flatter. Dealing with coil steel, this is definitely a more advanced and better machine for beading.

Tooling of Preda duct beader, if broken or damaged, is replaceable without replacing an entire machine.

You can adjust the beading depth by rolling up/ down of beading rollers.

(A convenient handwheel raises or lowers, the top roll assembly to set depth of bead. The top and bottom rollers are kept parallel with adjustable screw.)



### Main Technical Parameters

Model	Max thickness (mm)	Max Width (mm)	Power (kW)	Weight (kg)	Dimension L*W*H (mm)
JXP-1.5x1300	1.5	1300	2.2	700	1550x1100x1050





### Slitting Machine


Preda Machine slitting machine (also called “beader and slitter”) is capable of both beading and slitting function in one machine!

It is equipped with two sets of moulds for beading and slitting.

Its size is not big which is very easy to take to working site for duct-works.

Power with 1.5kw motor makes it functioning fast and easy!

### Main Technical Parameters

Model	Sheet thickness(mm)	Shape	Power (kW)	Weight (kg)	Dimension L*W*H (mm)
LQ-15	0.5-1.2		1.5	260	1600x630x1120

### Basic parts

1. One motor in 1.5KW
2. One set of slitting roller moulds
3. One set of beading roller moulds
4. One switcher and rod.



## Plasma Cutting Machine

Rigid frame built with thick concrete plate steel to ensure function stability and durability.

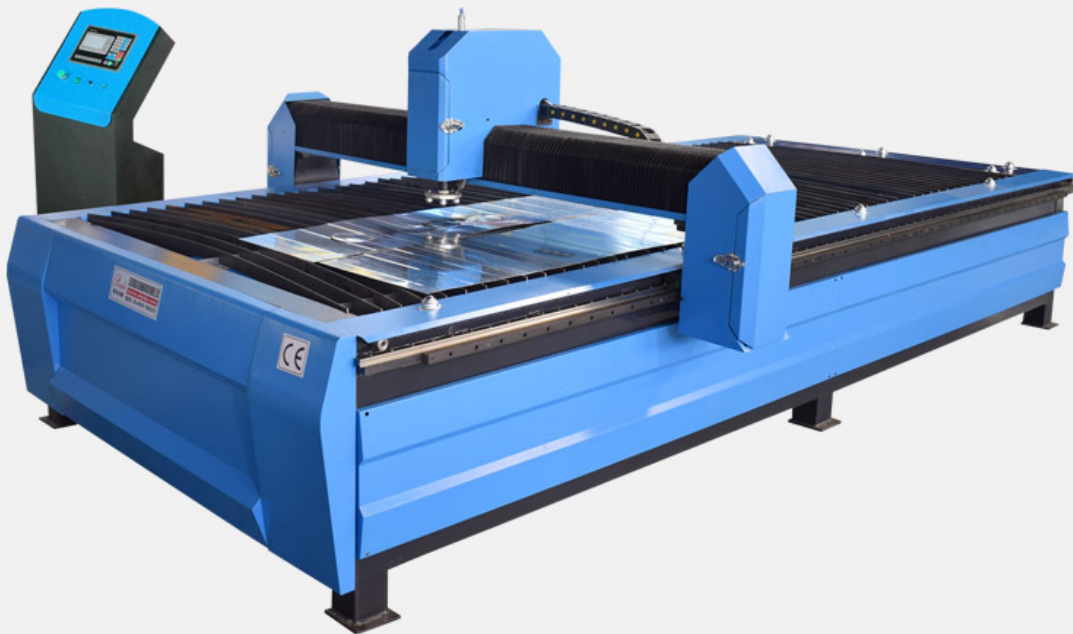
High speed cutting with great precision.

Starfire CNC system makes operating easy, effective and precise.

Huayuan Brand generator ensures stable and durable cutting performance!

Large variety of cutting material: steel, copper, iron, aluminum, galvanized sheet...

Wide use for cutting operation on traditional plate shearing, duct manufacture line...



## Software

The machine adopts the latest CAM-DUCT software which is easy to learn and operate. Choose the size and shape you need and leave the rest to the plasma cutting machine itself running automatically!

## Specification

Model	PC-1540
Cutting way	Plasma cutting
Cutting voltage	380+10%VAC 50HZ
Effective cutting range (W*L)mm	1500x4000 or as per requirements
Maximum speed mm/min	more than 12000
Cutting thickness (mm)	0.5mm-5mm
Control mode	Beijing Starfire CNC system
Plasma source brand	63A huayuan plasma source
Cutting angle	3-5degree
Transmission way	Gear wheel and rack, linear guide rail
Height adjusting method	Pneumatic height regulating



### Hydraulic Duct Seam Closing Machine

Hydraulic duct seam closing machine for rectangular duct seaming process! This is an automatic vertical lock seaming machine, which is driven by hydraulic oil and it can seam 1550mm length rectangular ducts. It control through PLC and Japan Mitsubishi system which operate easy. The tightness of seam closing is very good.

#### Basic Parts

1. One control box;
2. One control system;
3. One cylinder;
4. One foot switch.

#### Main Technical Parameters

Model	Thickness (mm)	Max length (mm)	Power (kw)	Weight (kg)	Dimension L*W*H (mm)
HF-1550	0.5-1.2	1550	3	800	1000*1000*2250



### Pneumatic Lock-Seaming Machine

Pneumatic lock seaming machine is an auto seam locker for rectangular duct. It is driven by air pressure so it is a very power saving machine which makes lock seaming easy. The locks that seamed by this machine is smooth and even, which is much better than manual work. Easy handling and efficiency makes it a useful HVAC machine for duct makers.



#### Main Technical Parameters

Model	Max thickness (mm)	Max duct length (mm)	Fluid Pressure (Mpa)	Weight (kg)	Dimension L*W*H (mm)
HF-1250	1.0	1250	0.6-0.8	660	3200x1000x1030



### Electric Seam Locker

Preda Machine seam locker is used for closing Pittsburgh seams on straight or curved ducts. You can use this machine to seam the Pittsburgh locks quickly and easily! Thickness capable for the sheet is 0.5mm-1.2mm with adjustment to the sheet thickness automatic. Suitable for flange heights of 9 mm – 13 mm and for sheet thicknesses of 0.5 mm – 1.25 mm. This machine is in 6KG, which is easy to carry and suitable for on-site ductworks.

#### Main Technical Parameters

Model	Max thickness (mm)	Power (kW)	Weight (kg)	Dimension L*W*H (mm)
L-12	1.2	0.75	11	400x150x200



### Corner Matics

Pneumatic corner matics for rectangular duct forming process!

Fixing one TDF corner will take only about 6seconds, which is extremely efficient!

What's more, it is much nicer for a TDF corner fixed on the duct than fixing manually!

This machine is a perfect match to work with TDF flange forming machine .

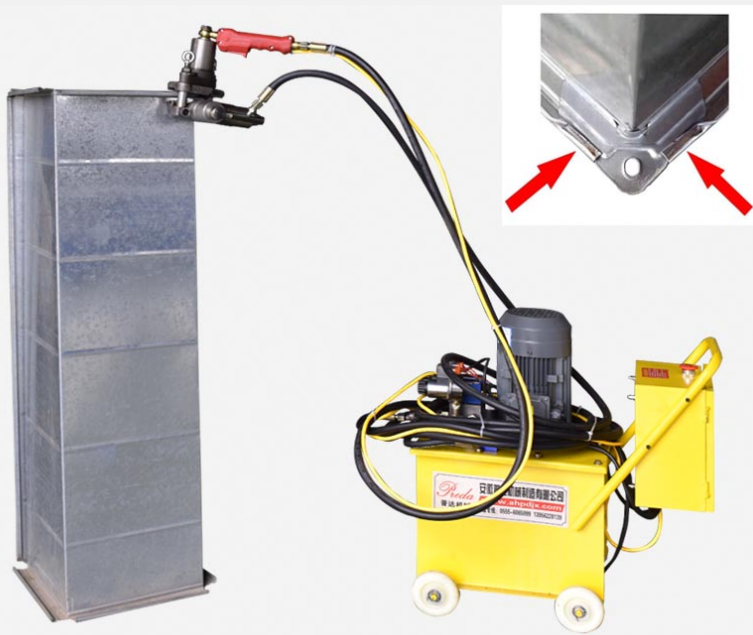
Also it is a companion with 25T punching machine and TDF corner moulds, which can make TDF corners in massive quantity in short time!



### Main Technical Parameters

Model	Sheet thickness(mm)	Fluid pressure(Mpa)	Weight(kg)	Dimensions(mm) L*W*H
PC-12	1.2	0.6-0.8	300	1500x800x1050





### Hydraulic Corner Matics

Hydraulic corner installation machine is a new design, dedicated to the installation of the corner, the standard corner size is placed in the mold, the mold is portable, and then placed on the TDF flange duct, press the button will automatically put the corner securely fastened to the TDF flange duct.

The machine is hydraulically operated, mobile and economical, it is a best choice for duct production.

### Main Technical Parameters

Model	Sheet thickness(mm)	Oil Capacity (L)	Weight(kg)	Dimensions(mm) L*W*H
TDF-12	1.2	20	100	800x400x900

### Basic Parts

1. One control box;
2. One hydraulic station;
3. TDF corner fixed mold.



## Angle Iron Flange Forming Line



Angle iron flange forming line can automatically punch holes on Angle iron to make it suitable for further flange forming process!

Meanwhile it can also shear or notch Angle iron as per your requirements.

All processes are well controlled by numeral control system! You can just put in all the data and let the machine working automatically.

### Basic Parts

- 1.Motors
- 2.Auto feeding system
- 3.Notching station
- 4.Punching station
- 5.Cutting station
- 6.Numeral control system



### Main Technical Parameters

Model	Working range	Power(kW)	Weight(kg)	Dimensions(mm) L*W*H
J-50	30/40/50 angle steel	5	900	3650x1100x1450

## Angle Iron Punching Machine

Angle iron punching machine can punch holes on angle iron to make it suitable for further flange forming process!

Meanwhile it can also shear or notch angle iron as per your requirements.

All processes are well controlled by hand control. All the size you can cut and punch according to your requirements.



### Main Technical Parameters

Model	Working range	Power(kW)	Weight(kg)	Dimensions(mm) L*W*H
J-50H	30/40/50 angle steel	3	300	640x550x1400



## Decoiler

Preda Machine decoiler is specially designed for duct forming line to make the material loading and transporting stable.

Generally, auto duct line 2 and auto duct line 3 would equip with 2 coil holders, while auto duct line 4 and auto duct line 5 would equip with 4 coil holders.

Each coil holder is capable of 5tons of coils.





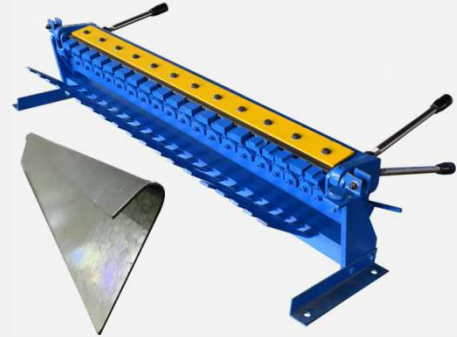
**Portable Machines**



**Claw cleat cutting machine**



**Portable clinching machine/riveting machine**



**Cleat bender**



**Hydraulic notching machine**



**Pneumatic notching machine**



**Manual notching machine**



**Portable electric scissors**

---Shear metal plate within 1.2mm



**Portable pneumatic scissors**

---Shear metal plate within 1.0mm



**Portable slitter**

---Shear metal plate within 0.8mm

# 10<sup>+</sup> YEARS

DESIGN & MANUFACTURE EXPERIENCE IN HVAC MACHINES!



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