

Boxer

Lockforming
Machinery

Boxer

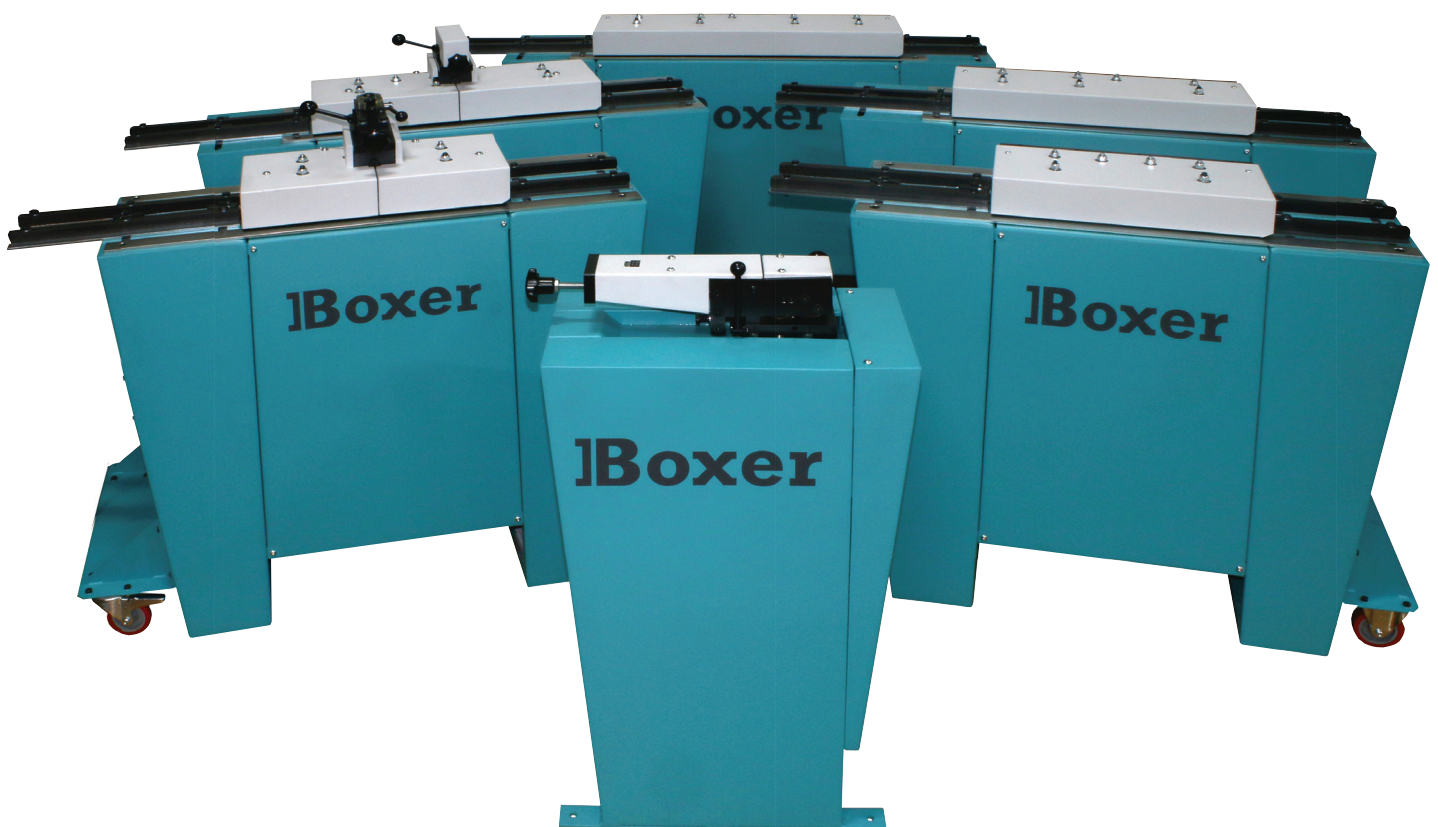
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Boxer Machinery Range

Boxer manufacture a standard range of machinery, primarily for the ventilation ducting industry, which is used to form various seams for joining sheet metal.

The rolling heads of Boxer lockforming machines are manufactured using precision machined components, consisting of hardened and ground shafts, running in needle roller bearings; a silent running integral geared motor; hardened and black oxide coated CNC machined rolls and zinc plated, or blackened components for corrosion resistance.

These heads are supported on aesthetically pleasing stands, which are powder-coated along with all the other guards. Tooling can be specifically setup to suit pre painted steel, PVC coated steel, stainless steel or aluminium.



The lockforming machines possess between 5 and 12 pairs of rolls, mounted at 102mm horizontal and 63mm vertical centres and are driven at a throughput speed of 10m/min.

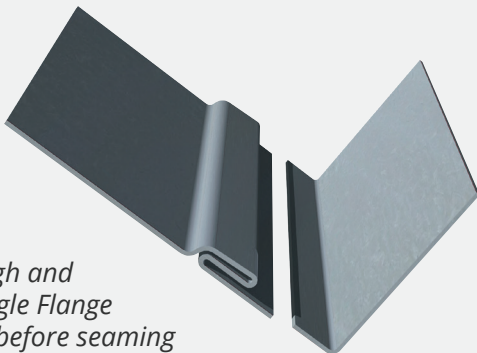
Boxer Pittsburgh



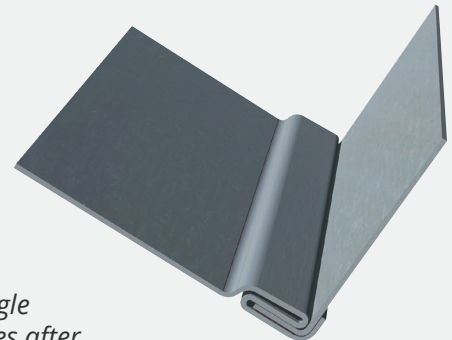
The Pittsburgh rolls are fitted between sideplates, with the option to fit 1 of 10 CNC machined roll sets to the outboard extension shafts (see back page). Our 16s Pittsburgh roll set incorporates automatic material gauge compensation, to ensure tight definition of the seam throughout the gauge range.

The Pittsburgh machine can be supplied as a 20s (5 station) or 16s (7 station) option, depending on the size of seam required and thickness of material.

Profile	20s	16s
Gauge Range	0.5-1.0	0.7-1.6
Material Used	22mm	33mm
Pocket Size	8.5mm	12.5mm



Pittsburgh and Right Angle Flange profiles before seaming



Pittsburgh and Right Angle Flange profiles after seaming, joining 2 edges at 90 degrees

Boxer Flanging Machines

The Boxer flanging machine is constructed using hardened working components for wear resistance and blackened plates to protect against corrosion. It is housed in a modern powder-coated cabinet, allowing easy access during operation.



This machine is used to form a right angle flange up to 15mm high on material between 0.7 and 1.6mm thick.

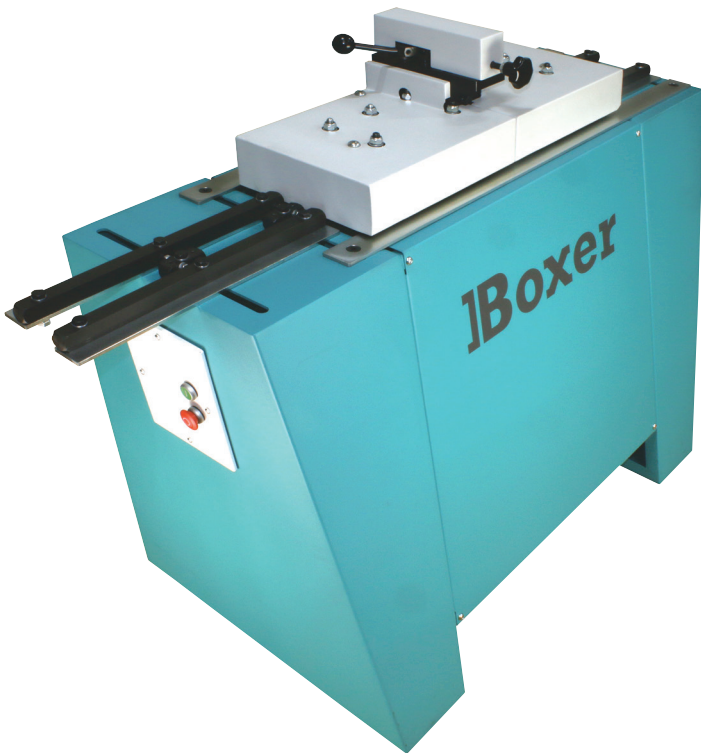
A uniform flange can be formed on straight or consistent curved components down to a radius of 60mm. The outer roll is able to pivot up to remove completely formed discs, using a simple release lever. The gear connected flanging rolls are driven by a 0.37Kw motor at a throughput speed of 4m/min.



An Autoguide version is available, which produces a consistent height flange on straight or contoured components, by using a spring-loaded follower roll and height pin. The spring is adjustable for different gauges and flange height and remains retracted to ease product removal.

A Button Punch / Snaplock head can be added to be used in conjunction with the female profile.

Boxer Flanging Attachments



The Boxer flanging attachment can be fitted to any of the Boxer standard lockformers and is capable of forming up to 10mm flanges on products between 0.4 and 1mm thick. An option to produce a completely flanged disc is available, utilising a pivoting front roll.

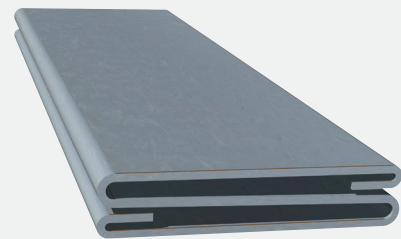
These mount directly to the top of the forming head, picking up drive from it and are supplied as standard with the autoguide feature, as described on the previous page. Again, a Button Punch / Snaplock option is available.

Boxer S Cleat

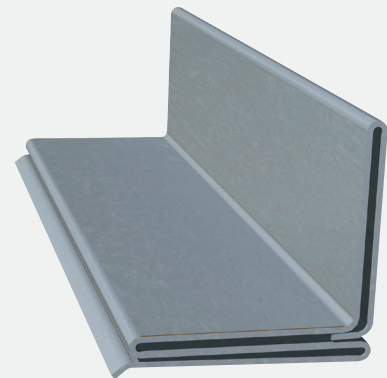
The S Cleat profile complements the drive cleat profile, as a means of joining the unformed overlapping edges, when making in-line duct connections.

Both S Cleats are the same width as the drive cleat (28mm), giving a uniform appearance, but the Standing S Cleat has an additional 25mm high flange, to increase rigidity over long runs. They can both be formed in mild steel between 0.5 and 0.7mm thick. The S Cleat machine has 9 forming stages with outboard extension shafts to both sides, giving the option to fit up to 2 of the 10 available roll sets.

The Standing S Cleat has 12 stations with the option to fit up to 2 of the 11 available roll sets. See table on page 7.



S Cleat profile - 92mm



Standing S Cleat profile - 136mm

IBoxer Button Punch / Snaplock

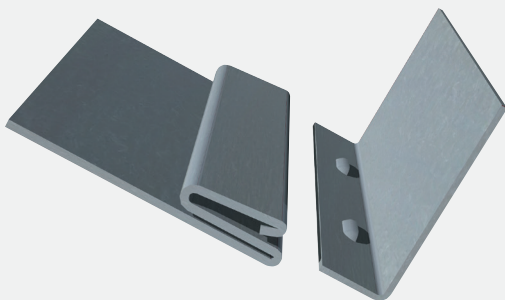


This system is used as a simple method to join between 0.6mm and 1.2mm sheet metal at right angles and is designed to lock rigidly together, without the need for a post seaming operation. See back page.

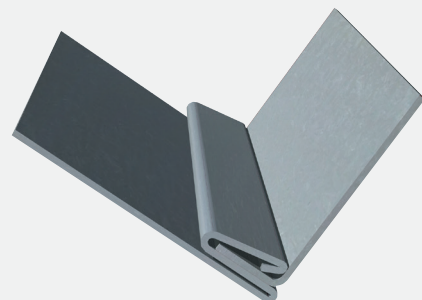
When used in conjunction with a Button Punch / Snaplock Autoguide Flanging Machine, it is possible to join a curved edge at right angles to another sheet. The outboard roller tooling set can also be interchanged for 1 of 9 available roll sets.

The Button Punch / Snaplock machine has 9 forming stages and is fitted with the female profile roll set between the sideplates and the male Button Punch / Snaplock profile roll set outboard.

The female roll set incorporates automatic material gauge compensation, to ensure tight seams are formed on all material gauges. The female profile has a pocket depth of 14mm and uses 35mm of material.




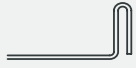








Button Punch / Snaplock profiles before seaming



Button Punch / Snaplock profiles after seaming, joining 2 edges at 90 degrees

Standard Roll Options

PROFILE	GAUGE Range mm	METAL USED mm	SIZE mm	MACHINE				
				20s	16s	BP	SC	SSC
Small Pittsburgh 	0.5 - 1.0	22	8.5 Pocket	s	o	o	o	o
Double Seam 	0.7 - 1.6	15.5 per edge	12.5 seam	-	o	o	o	o
Small Double Seam	0.5 - 1.0	12.5 per edge	10.5 seam	o	o	o	o	o
Plain Seam 	0.7 - 1.0	12.5	12.0 wide	-	o	o	o	o
Standing Seam 	1.0 - 1.6	35	19 high	-	o	o	o	o
Right Angle Flange 	0.7 - 1.6	10	11 high	-	o	o	o	o
Right Angle Flange	0.7 - 1.0	10	11 high	o	-	-	-	-
Drive Cleat 	0.5 - 1.0	54	28 wide	-	o	o	o	o
Radius Cleat 	0.5 - 1.0	54	28 wide	-	o	o	o	o
Large Safe Edge 	0.7 - 1.6	14	15 return	-	o	o	o	o
Small Safe Edge	0.5 - 1.0	14	15 return	-	o	o	o	o
3 in 1 	0.5 - 1.0	43 - 3 bend 30 - 2 bend 15 - 1 bend	16 high	-	o	o	o	o
'S' Cleat 	0.5 - 0.7	92	28 wide	-	-	-	s	o

S = Standard O = Outboard Option — = Not Available

Shipping Specifications

MACHINE TYPE	WEIGHT Kg	LENGTH mm	MAX HEIGHT mm	WIDTH mm	CURRENT at 415v (A)
LOCKFORMING MACHINES					
20s Pittsburgh - 5 stage	170	1330	1170	665	3
16s Pittsburgh - 7 stage	220	1550	1170	665	5
18s B/P Snap Lock - 9 stage	262	1740	1040	665	5
22s S Cleat - 9 stage	260	1740	1040	765	5
22s Standing S Cleat - 12 stage	350	2050	1040	765	5
FLANGING MACHINES					
16s Power Flanger	70	560	1060	715	1.1
16s Autoguide Power Flanger	75	560	1060	730	1.1
18s Button Punch - 2 Head A Guide	95	560	1200	730	1.1
20s Flanging Attachment	13	200	185	300	-

ADDITIONAL ROLL SETS WEIGHT	WEIGHT Kg
20s - 5 stage	13
16s - 7 stage	16
S Cleat - 9 stage	20
Standing S - 12 stage	25



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