

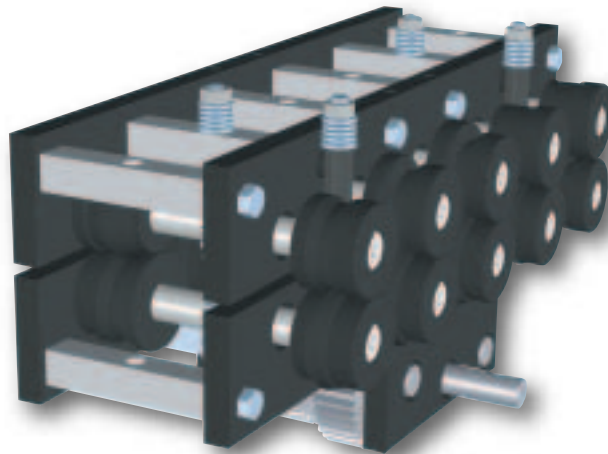
Boxer

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



These 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 rolling heads are manufactured using precision machined components consisting of hardened & ground shafts running in needle roller bearings; a hardened gear train; hardened and blacked rolls and zinc plated or blacked components for corrosion resistance.



A Boxer 20's Pittsburgh head fitted with small double seam rolls

These heads are supported on aesthetically pleasing stands which are powder coated along with all the other guards.



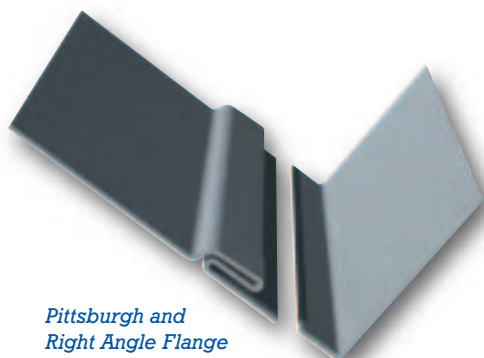
Boxer Pittsburgh



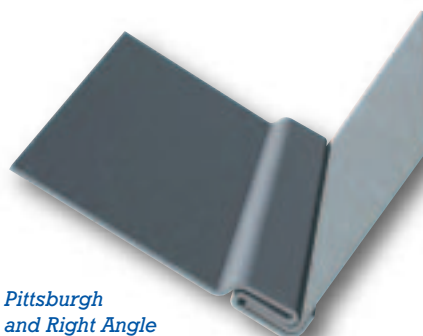
The Pittsburgh machine can be supplied in a 20's (5 station) or 16's (7 station) option depending on the size of seam required and thickness of material.

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 16's Pittsburgh roll set incorporates automatic material gauge compensation to ensure tight definition of the seam throughout the gauge range.

Profile	20's	16's
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 can then 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.



Boxer 16's Autoguide Flanging Machine

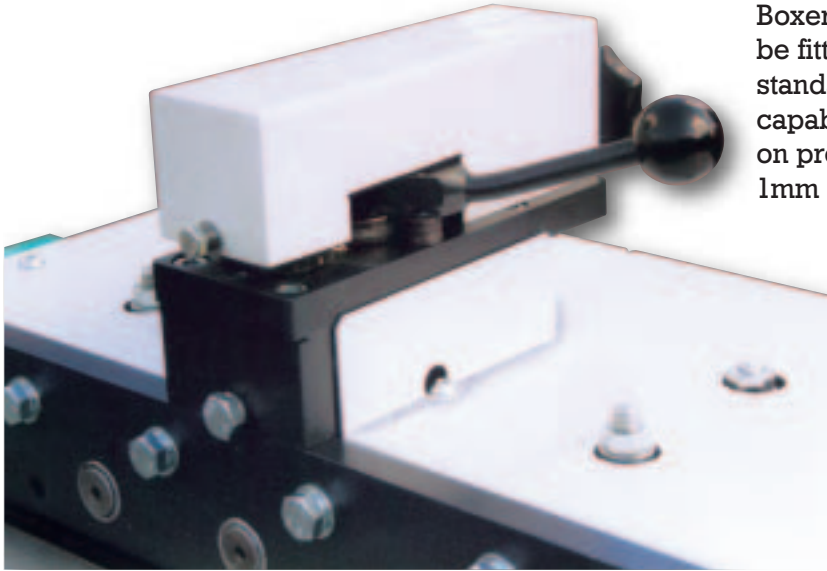


Boxer 16's Autoguide FM fitted with 18's Male Button Punch head

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 can be locked back to ease product removal.

A button punch head can be added for use with the female profile, see the previous page.

Boxer Flanging Attachments

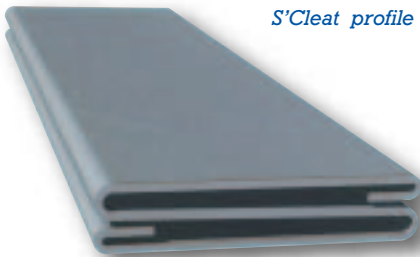


Boxer flanging attachments can be fitted to any of the Boxer standard rollformers and are capable of forming 10mm flanges on products between 0.4 and 1mm thick.

These mount directly to the top of the forming head picking up drive from it and come as standard with the autoguide feature as described on the previous page. Again a button punch option is available.

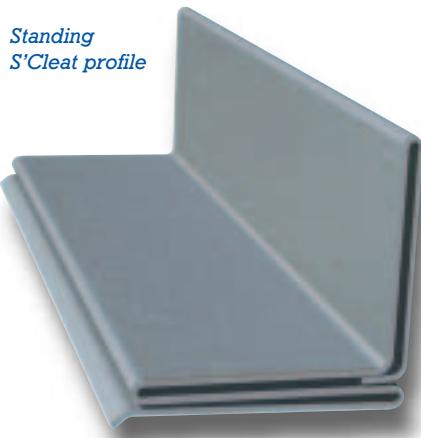
A Boxer 20's Pittsburgh head fitted with an Autoguide Flanging Attachment

Boxer S'Cleat



S'Cleat profile

Material used = 92mm



Standing S'Cleat profile

Material used = 136mm

S'Cleat profiles have been designed to complement the drive cleat profile as a means of joining the unformed overlapping edges when making in line duct connections.

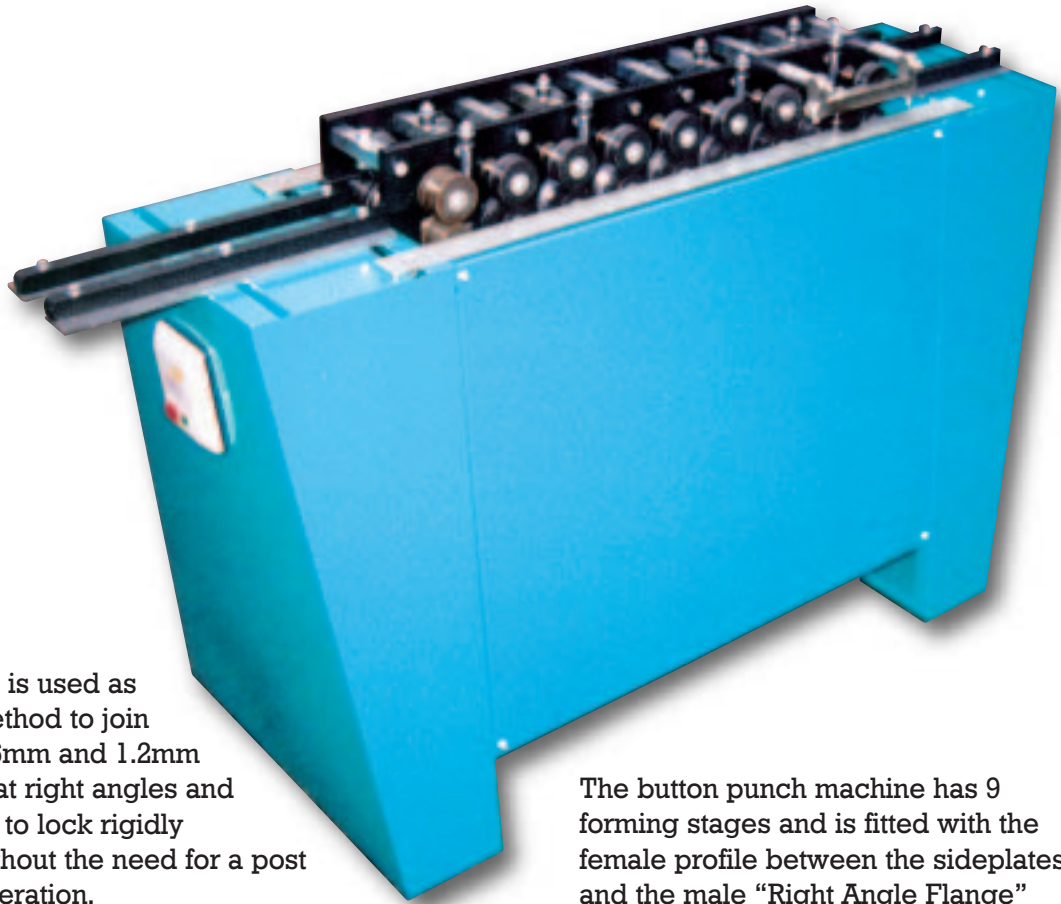
Both S'Cleats are the same width as the drive cleat (28mm) giving a uniform appearance but the Standing S'Cleat has an additional 25 high flange to increase rigidity over long runs. They can both be formed in mild steel between 0.5 and 0.7mm thick.

The S'Cleat machine has 9 forming stages with outboard extension shafts to both sides giving the option to fit any 2 of 10 roll sets.

The Standing S'Cleat has 12 stations with the option to fit 2 of 11 roll sets. (see back page).



Boxer Button Punch

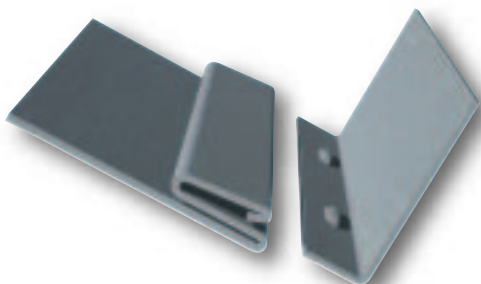


This system is used as a simple method to join between 0.6mm and 1.2mm sheet steel at right angles and is designed to lock rigidly together without the need for a post seaming operation.

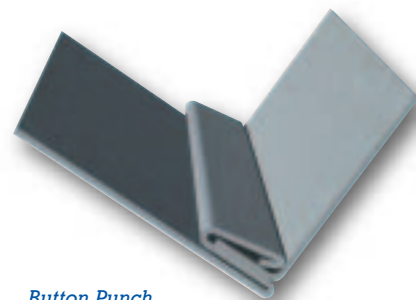
When used in conjunction with a button punch autoguide flanging machine it is possible to join a curved edge at right angles to another sheet. The outboard roller tooling set can also be interchanged for 1 of 9 roll sets. (see back page).

The button punch machine has 9 forming stages and is fitted with the female profile between the sideplates and the male "Right Angle Flange" profile outboard.

As with the 16's Pittsburgh the female roll set incorporates automatic material gauge compensation to ensure tight seams are formed on thinner materials. The female profile has a pocket depth of 14mm and uses 35mm of material.
















Button Punch profiles before seaming



Button Punch profiles after seaming joining 2 edges at 90 degrees

Boxer Standard Roll Options

PROFILE	GAUGE Range mm	METAL USED mm	SIZE mm	MACHINE				
				20's	16's	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	s	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	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

Shipping Specifications

MACHINE TYPE	WEIGHT Kg	LENGTH mm	MAX HEIGHT mm	WIDTH mm	CURRENT at 415v (A)
LOCKFORMING MACHINES					
20's Pittsburgh - 5 stage	170	1330	1170	665	3
16's Pittsburgh - 7 stage	220	1550	1170	665	5
18's B/P Snap Lock - 9 stage	262	1740	1040	665	5
22's 'S' Cleat - 9 stage	250	1740	1040	665	5
22's Standing 'S' Cleat - 12 stage	350	2050	1040	765	5
FLANGING MACHINES					
16's Power Flanger	70	560	1060	715	1.1
16's Autoguide Power Flanger	75	560	1060	730	1.1
18's Button Punch - 2 Head A Guide	95	560	1200	730	1.1
20's Flanging Attachment	13	200	185	300	-

ADDITIONAL ROLL SETS

WEIGHT
Kg

20's - 5 stage	13
16's - 7 stage	16
'S' Cleat - 9 stage	20
Standing 'S' - 12 stage	25

Boxer Design & Manufacturing Limited

Unit 2 · Boundary Court · Crossley Road · Heaton Chapel
 Stockport SK4 5GA · England
 Telephone: 0161 975 1830 · Fax: 0161 431 3364
 E-mail: sales@boxer-design.co.uk
 Web Site: www.boxer-design.co.uk

