

The logo for Morgan Rushworth is a yellow oval with a black border, containing the text 'MORGAN RUSHWORTH' in bold black capital letters. The oval is centered on a white background with two horizontal red stripes passing through it.

**MORGAN
RUSHWORTH**

**SECTION BENDING, ROLL FORMING &
SWAGING MACHINES 2009/2010**



MODEL HSR 50/160
STOCK CODE M6000

MODEL HSR 60/175
STOCK CODE M6001

MODEL HSR 80/245
STOCK CODE M6001

MODEL HSR 100/315
STOCK CODE M6001

MODEL HSR 120/390
STOCK CODE M6001

With Optional Tie Rod



MODEL HSR
In Horizontal Position



The Morgan Rushworth HSR range of hydraulic section bending machines are designed to roll various material sections and are available with shaft diameters from 50mm up to 120mm. The entry level HSR 50/160 model has a single hydraulic ram to adjust the top roll, whilst the remaining machines have twin rams powering both of the lower rolls, providing pre bending capability and the convenience of performing the bending operation with the material in the horizontal position. All of the HSR machines can be operated in either vertical or horizontal plain. The standard rolls supplied with the machine are hardened and have been designed to bend most sections, avoiding the cost of additional tooling. Lateral guide rolls ensure straight and true bending, or if required can be adjusted in order to spiral the material.



















FEATURES

- All three rolls driven for excellent traction
- Smooth rolls ensure minimum material marking
- Hardened rolls
- Moveable control panel
- Digital read out indicating both lower roll position (not HSR 50/160)
- Overload protection device (not HSR 50/160)
- Hydraulically powered rotation - HSR 100/315, HSR 120/390
- Hydraulically adjusted lateral guide rolls in 2 axis - HSR 120/390

OPTIONS

- Tube rolls
- Digital read out indicating top roll position - HSR 50/160
- Variable speed of rotation
- Spiral bending device
- NC control system
- CNC control system

CAPACITIES

MODEL	HSR 50/160	HSR 60/175	HSR 80/245	HSR 100/315	HSR 120/390	Tooling
1. 	60x10 8000 20x10 3000	60x20 5000 40x10 2200	100x20 21000 40x10 3000	100x25 16000 40x10 4000	140x30 30000 40x10 5000	○ STD ○ ○
2. 	80x15 6000	80x20 12000 50x5 2000	120x30 6000 50x10 2600	200x35 10000 60x10 4000	200x50 10000	○ STD ○ ○
3. 	32x32 7000	35x35 14000 15x15 3000	45x45 10000 30x30 3000	60x60 10000 30x30 4000	75x75 8000	○ STD ○ ○
4. 	35 7000	40 8000	60 10000	70 8000	85 9000	○ STD ○ ○
5. 	60x2 10000 15x1 3500	70x2 16000 25x1.5 2000	100x3 30000 40x2 4000	140x3 30000 50x2 6000	160x4 30000 50x2 6000	○ SPE ○ ○
6. 	60.3x2.9 10000	60.3x3.2 10000	88.9x4 16000	114.3x4.5 16000	139.7x5 16000	○ SPE ○ ○
7. 	60x30x3	80x30x3 60000 30x15x1.5 3000	100x40x3.2 30000 50x25x2 6000	140x40x3 40000 40x20x2 5000	140x50x5	○ STD ○ ○
8. 	45x45x3	60x60x3 40000 20x20x2 2400	70x70x4 30000 40x40x2.7 5000	100x100x5 30000 50x50x2.5 5000	90x90x8	○ STD ○ ○
9. 	50x5 6000 25x3 3500	50x5 5000 30x3 2500	80x8 16000 35x3 5000	100x10 14000 50x6 7000	120x15 13000 50x5 6500	○ STD ○ ○
10. 	45x5 6000 25x3 3500	50x6 10000 30x3 2500	80x8 20000 40x4 5000	100x10 16000 50x6 7000	120x12 11000 50x5 6500	○ STD ○ ○
11. 	50x50x6 6000	70x70x7 10000 30x30x3 3000	80x80x8 14000 70x30x4 4000	100x100x10 12000	120x120x12 12000	○ STD ○ ○
12. 	50x50x6 6000	70x70x6 10000 30x30x3 3000	80x80x8 14000 30x30x4 4000	100x100x10 10000	100x100x10 12000	○ STD ○ ○
13. 	50x50x6 6000	70x70x7 10000 30x30x3 3000	80x80x8 14000 70x30x4 4000	120x120x10 12000	130x130x10 13000	○ STD ○ ○
14. 	80x45x6 8000	85x45x6 8000 30x15x4 3000	140x60x7 12000 60x30x6 4000	200x75x8 12000 180x70x7 8000	240x85x10 10000	○ STD ○ ○
15. 	80x45x6 12000	80x45x6 10000 30x15x4 3000	140x60x7 12000 60x30x6 4000	200x75x8 12000 180x70x7 8000	240x85x10 10000	○ STD ○ ○
16. 			120x5 8000	180x82 10000	220x98 10000	○ STD ○ ○
17. 					140x60 30000	○ SPE ○ ○
18. 				140x66 30000	160x74 35000	○ SPE ○ ○

TECHNICAL SPECIFICATIONS

MODEL	HSR 50/160	HSR 60/175	HSR 80/245	HSR 100/315	HSR 120/390
Section Modulus	cm ³ 6	10	15	45-80	70-120
Shaft Diameter	mm 50	60	80	100	120
Roll Diameter	mm 162	177	245	315	390
Motor	kw 1.5	4	5.5	11	15
Rolling Speed	m/min 3.3	6.4	4.2	5.4	4
Length	mm 950	1260	1375	1435	1985
Width	mm 780	940	1040	1220	1450
Height	mm 1450	1390	1540	1680	2040
Weight	Kg 500	1080	1600	2240	4720

ROLL FORMER

MODEL RF 5/1.0
STOCK CODE M7000
415V

MODEL RF 7/1.6
STOCK CODE M7001
415V



The Morgan Rushworth RF range of heavy duty Rollforming and flanging machinery are designed to join straight or curved sheet metal material. A full range of tooling is available to achieve the various connection methods required, including the ingenious snap lock system for valuable time saving right angle joins.

SNAP LOCK FORMER

MODEL RFS 9/1.0
STOCK CODE M7004
415V

ROLL FORMER & FLANGER

MODEL RFF 5/1.0
STOCK CODE M7002
415V

MODEL RFF 7/1.6
STOCK CODE M7003
415V



CAPACITIES

Model		RF 5/1.0	RF 7/1.6	RFF 5/1.0	RFF 7/1.6	RFS 9/1.0	RFL 1.6	RFLS 1.0
Forming Roll A - STD	mm	0.5-1.0	0.5-1.6	0.5-1.0	0.5-1.6	-	-	-
Forming Roll B - OPT	mm	0.5-1.0	0.5-1.2	0.5-1.0	0.5-1.6	-	-	-
Forming Roll C - OPT	mm	0.5-1.0	0.5-1.0	0.5-1.0	0.5-1.0	-	-	-
Forming Roll D - OPT	mm	0.5-1.0	0.5-1.0	0.8-1.2	0.5-1.2	-	-	-
Forming Roll E - OPT	mm	-	0.5-1.0	-	0.5-1.2	-	-	-
Forming Roll F - OPT	mm	-	0.5-1.2	-	0.5-1.2	-	-	-
Forming Roll G - STD	mm	-	-	-	-	0.5-1.0	-	-
Forming Roll H - STD	mm	-	-	-	-	0.5-1.0	-	-
Flange form J - STD	mm	-	-	0.5-1.0	0.5-1.6	-	0.5-1.6	0.5-1.6
Crimp form K - STD	mm	-	-	-	-	-	-	0.5-1.0

TECHNICAL SPECIFICATIONS


Model		RF 5/1.0	RF 7/1.6	RFF 5/1.0	RFF 7/1.6	RFS 9/1.0	RFL 1.6	RFLS 1.0
No. of stations		5	7	5	7	9	-	-
Forming speed	m/min	6	5	6	5	6	3	3
Motor	kw	0.75	1.5	0.75	1.5	1.5	0.75	0.75
Length	mm	1065	1460	1065	1460	1650	610	1000
Width	mm	510	620	510	620	620	610	660
Height	mm	940	990	1070	1130	1020	1020	1020
Weight	kg	105	250	135	280	290	105	130

FLANGER


MODEL RFL 1.6
STOCK CODE M7005
415V



FORMING ROLLS

Type A - Pittsburgh lock 

Type B - Double seam 


Type C - Flat drive cleat 

Type D - Right angle flange 

Type E - Plain seam 

Type F - Standing seam 

Type G - Pittsburgh snap lock 

Type H - Crimped flange 

Type J - Flange 

Type K - Crimp to flange 

FEATURES

RF

- Type A Pittsburgh rolls fitted as standard
- Fast straight forming in one pass
- Available in 1.0mm and 1.6mm capacities
- Auxiliary drive shafts fitted to accept optional rolls

RFF

- As RF but with the useful feature of a flanging unit, forming roll type J, fitted to the top of the machine in order to perform radius joins

RFS

- Type G rolls fitted as standard to perform Pittsburgh style profile but with return leg to accept type H flange
- Type H rolls fitted as standard to perform a right angle flange which is crimped to snap into type G profile to produce a virtually unbreakable joint
- No exposed sharp edges after join completed
- Fast straight forming in one pass

RFL

- Produces type J right angle flange for curved material
- 1.6mm capacity

RFLS

- Twin station flanging capability
- First station produces type J right angle flange for curved material
- Second station produce type K crimp to the flange, to allow the material to snap into type G profile for curved applications

FLANGER & SNAP LOCK

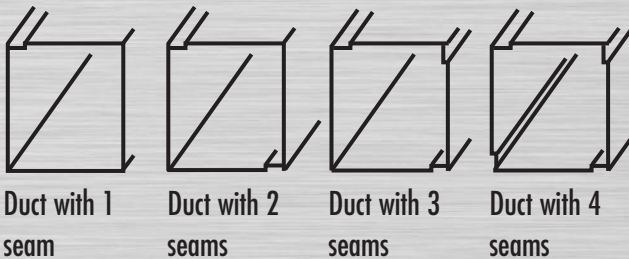
MODEL RFLS 1.0
STOCK CODE M7006
415V





MODEL DSA 1.0
STOCK CODE M7007
415V

Section of completed seam



The Morgan Rushworth DSA automatic duct seaming machine has been designed to meet the requirement for fast efficient joining of square and rectangular corners of sheet metal. The DSA machine is ideal for time saving production applications as rollforming, flanging and seam closing is carried out in one single operation. To produce the finished end product, the operator simply secures the two leading edges with the toggle clamp, lightly positions the workpiece to engage the first roller and the DSA machine automatically feeds and joins the material.

Seamed duct lengths can be produced with material thickness from 0.5mm to 1.0mm and lengths from 600mm to 3000mm with the standard table supports. Longer lengths can be accommodated by utilising additional support tables.

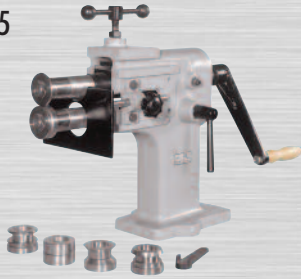
FEATURES

- Heavy duty production seaming machine
- Automatic self feeding design
- Fast operation - 15m/min speed
- Burr free finish
- Can seam one, two, three or all four corners of square or rectangular duct
- Quick release clamping mechanism

TECHNICAL SPECIFICATION

Model	DSA 1.0	
Capacity	mm	0.5-1.0
No of stations		10
Forming speed	m/min	15
Motor	kw	2.2
Length	mm	5385
Width	mm	600
Height	mm	1070
Weight	kg	800

MODEL MS 250/1.25
STOCK CODE M7008



The Morgan Rushworth range of MS, PS and HPS swaging machines are available in manual, powered and hydraulic variants. Swaging machines are designed to form various shapes to sheet material and are particularly suited for tubular ductwork applications. Easily interchangeable rolls are included as standard equipment to form the specific shape required.

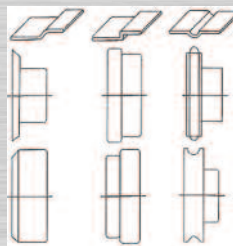
FEATURES

- Steel welded frame
- Adjustable idler roll
- Adjustable end stop
- Reduction motor with brake - PS and HPS
- Hydraulic top roll adjustment - HPS 400
- 3 sets of standard rolls - PS 250, PS 400 and HPS 400
- 5 sets of standard rolls - MS 125 and PS 125
- Optional special rolls available

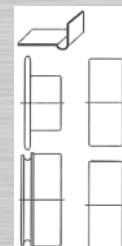


MODEL PS 250/1.25
STOCK CODE M7009
415V

FORMING ROLLS



Standard forming rolls for all models



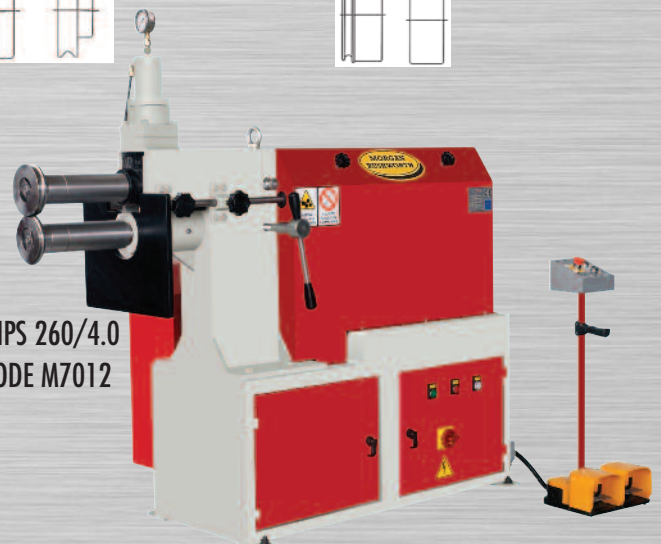
Additional forming rolls for models MS 125 and PS 125

MODEL PS 260/2.5
STOCK CODE M7010
415V



MODEL PS 260/4.0
STOCK CODE M7011
415V

MODEL HPS 260/4.0
STOCK CODE M7012
415V



TECHNICAL SPECIFICATION

Model		MS 250/1.25	PS 250/1.25	PS 260/2.5	PS 260/4.0	HPS 260/4.0
Thickness	mm	1.25	1.25	2.5	4	4
Roll Distance	mm	62	62	92	132	132
Roll Body Distance	mm	250	250	260	260	260
Motor Power	kw	-	0.7	1.5	2.2	2.2 + 0.75
Length	mm	600	700	1200	1500	1600
Width	mm	550	600	700	800	900
Height	mm	350	1300	1200	1200	1200
Weight	kg	50	170	295	350	450

Morgan Rushworth
Common Road, Stafford, ST16 3EQ
Tel: +44 (0) 1785 247575
Fax: +44 (0) 1785 254232
email: sales@morganrushworth.com
www.morganrushworth.com