



Tube & Pipe Bevelling



Machining Range	Power Option
1 - 3" 25 - 76mm	110V Electric
1 - 4 1/2" 25 - 115mm	Pneumatic or 110V Electric
1/2 - 3/4" 12 - 19mm	Additional attachment for above machines
3/4 - 1" 19 - 25mm	Additional attachment for above machines
2 1/2 - 8 5/8" 64 - 219mm	110V Electric
3 9/16 - 12" 90 - 305mm	Pneumatic



Tube & Pipe Bevelling

An extensive range of cutting tools are available for common applications such as :

30° OD Bevel

37.5° OD Bevel

45° OD Bevel

60° OD Bevel

90° End Facing

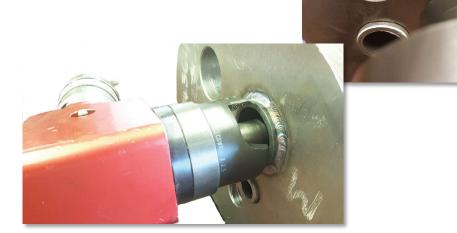
45° ID Bevel/Weld removal

12° ID Bevel

J-Prep Weld removal

Special attachments are also available for specific functions such as gasket seat facing and tube to tube-sheet weld removal.

Please enquire





Pipe Cutters

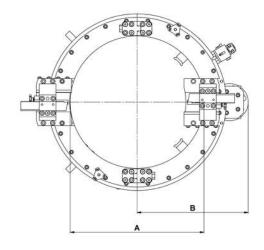


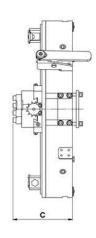
A series of low clearance, split frame, pipe cutting and bevelling machines.

These machines mount on the outside of tube or pipe allowing it to be cut and bevelled (at the same time).

Suitable for a wide range of materials

Model	S	iize Range	Α	В	С	Weight
MSF6-12	6 - 12"	152 - 305mm	13.00" (330mm)	10.94" (278mm)	6.0" (152mm)	25 Kgs
MSF8-14	8 - 14"	203 - 356mm	14.25" (362mm)	11.45" (291mm)	6.0" (152mm)	27 Kgs
MSF14-20	14 - 20"	356 - 508mm	20.25" (514mm)	14.70" (373mm)	6.0" (152mm)	42 Kgs
MSF18-24	18 - 24"	457 - 610mm	24.25" (616mm)	16.63" (422mm)	7.0" (178mm)	86 Kgs







Flange Facers

A range of internal and external mounting machines for the efficient and precise refinishing of flange faces.

These can be used in a wide range of applications including rise face flanges, RTJ Grooves, heat exchanger

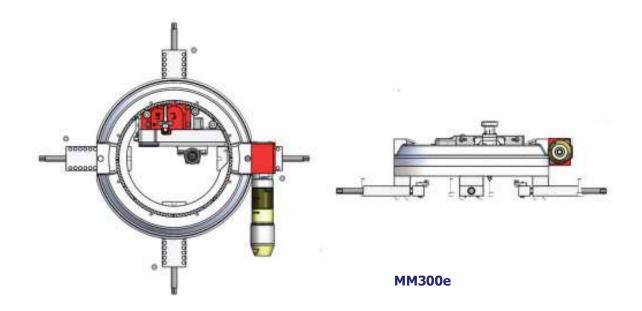






Flange Facers

Model	Mounting	Mou	nting Range	Machining R	ange	Weight
MM200e	External	3 - 8.25"	76 - 210mm	0 - 8"	0 -203mm	23 Kgs
MM300e	External	2 - 12"	50 - 305mm	0 - 12"	0 - 305mm	54 Kgs
MM610i	Internal	2 - 20"	50 - 508mm	2 - 24"	50 - 610mm	45 Kgs
MM1000i	Internal	5.7 - 32"	145 - 813mm	6 - 40"	152 - 1016mm	53 Kgs
MM1080ie	External Internal	12 - 42" 55 - 110"	305 - 1067mm 1400 - 2800mm	0 - 42" 55 - 157"	0 - 1067mm 1400 - 4000mm	1300 Kgs





As the tubes of boilers, heat exchangers and condensers corrode and suffer damage from long-term use the tubes need to be periodically replaced. Tube Pulling systems (tube pullers) are designed for this task. Using Hydraulic power they break the seal and pull expanded tubes from the tube sheets or Boiler Plates.

Typically this is done by driving a mandrel (also called a spear) into the tube inner diameter. A hydraulic ram with special attachments is then loaded over the mandrel and grips hold of it. As the ram extends it applies force to the mandrel which then acts to pull on the tube in order to extract it.





MANUAL SYSTEM

The JAVELIN is a compact and dependable Hydraulic Tube Puller designed for continuous removal of tubes from Heat Exchangers, Condensers and Boilers. Available with 2 Pulling Ram options to cover 1/2" to 1 1/4" or 1 1/2" to 2" OD.

Ideal for low volume or 'sample' extractions. Well suited to tight access applications.

The Pulling Ram requires consumable items (Jaws, Collar & Mandrel) matched to the tube size for operation.

Ancillary items such as impact wrenches and counterbalances are also available for hire.



Pulling Ram	Stroke	Min Tube OD	Max Tube OD	Weight
30 Ton	5" 125mm	0.50" 12.5mm	1.25" 32.0 mm	26 Kg
60 Ton	4" 102mm	1.25" 38.0mm	2.0" 51.0mm	31 Kg



AUTOMATIC SYSTEM

The TRIDENT is a fast and dependable Automatic Tube Puller designed for continuous removal of tubes from Heat Exchangers, Condensers and Boilers.

Available with 2 Pulling Ram options to pull 1/2" to 1 1/2" or 1 1/2" to 3" OD tubes continuously (through the ram).

Ideal for complete re-tubes, with large numbers of tubes or for long tubes.

We offer a 415V 3 phase powerpack for workshop and low hazard areas, or a fully pneumatic unit for use in hazardous environments.

The Pulling Ram requires consumable items (Jaws, Collar & Mandrel) matched to the tube size for operation.

Ancillary items such as impact wrenches and counterbalances are also available for hire.





AUTOMATIC SYSTEM (TRIDENT)

Pulling Ram	Stroke	Free Pull Speed	Min Tube OD	Max Tube OD	Weight
30 Ton	150mm 6"	3m/min	12.5mm 0.5"	38.0 mm 1.5"	52 Kg
45 Ton	75mm 3″	1.5m/min	38.0mm 1.5"	75.0mm 3.0″	67 Kg





Tube Rolling Motors



Model	Nomii	nal Size Range	Max Torque	Free Speed	Std Chuck	Weight
M16	5/8"	16mm	8 Nm (71 In.lbs)	800 rpm	3/8"	2 Kgs
M19	8 - 14"	203 - 356mm	14.25" (362mm)	11.45" (291mm)	6.0" (152mm)	27 Kgs
M25	14 - 20"	356 - 508mm	20.25" (514mm)	14.70" (373mm)	6.0" (152mm)	42 Kgs
M32	18 - 24"	457 - 610mm	24.25" (616mm)	16.63" (422mm)	7.0" (178mm)	86 Kgs
K63	6 - 12"	152 - 305mm	13.00" (330mm)	10.94" (278mm)	6.0" (152mm)	25 Kgs
M76	8 - 14"	203 - 356mm	14.25" (362mm)	11.45" (291mm)	6.0" (152mm)	27 Kgs
M110	14 - 20"	356 - 508mm	20.25" (514mm)	14.70" (373mm)	6.0" (152mm)	42 Kgs



Ancillaries

BSA Tube Runner also offer a wide range of ancillary, tools to support rental machinery or other operations.

Vacuum Leak Tester

The Vacuum Leak Tester is a simple and precise method of testing tubes, in Boiler, Condensers, and Heat Exchangers. It is a fast and accurate means of locating leaky tubes.



Grooving Tools

For machining of grooves in tube sheet holes. Available with standard 3-6-3 grove configuration. (other configurations available as special orders)

Tools to suit 3/4" & 1" tubes available.



In-Line Oiler

For use with any of our pneumatic rental tools. This protects the tool by efficiently oiling the tool mechanisms.

Recommended for on-site applications where air quality may be poor.

Supplied with whip hose and fittings



Ancillaries

Pipe Clamps

Used to hold pipes and fittings in position during fabrication

The adjusting screws have stainless steel balls at their ends. The clamps can be used for the welding of all kinds of materials such as carbon steel, stainless steel, duplex, super duplex and titanium

3 clamps are available, covering the following sizes:

1-2 1/2"

2-6"

6-14"

With wall thickness of up to 15 mm.



Impact Wrenches

We offer pneumatic Impact wrenches specifically selected for industrial applications.

These tools are heavy duty with High Torque outputs.

Available in 3/4" & 1" Drive







Ancillaries

Flange Spreaders

Flange spreaders are useful in many industrial applications. They are a safe, quick and reliable method of spreading or splitting flanges.

Further benefits are their ease of use and Low Spark risk.

6 different size tools are available to cover common flange sizes.



STANDARD FLANGE SPREADERS

PART NO.	ТҮРЕ	BOLT DIA.	SPREAD	WEIGHT	NOMINAL PIPE SIZE
25.0001	1	5/8" (16mm)	2 ³ / ₄ " (70mm)	5 lbs (2.27Kg)	UP TO 4"
25.0002	2	³ / ₄ " (19mm)	3 ³ / ₄ " (95mm)	6 lbs (2.73Kg)	6" OR 8"
25.0003	3	7/8" (22mm)	4 7/8" (124mm)	9 lbs (4.10Kg)	10" OR 12"
25.0004	4	1" (25mm)	6 1/8" (155mm)	14 lbs (6.36Kg)	14" OR 16"
25.0005	5	1 1/8" (28mm)		18 lbs (8.18Kg)	18"
25.0006	6	1 ¼" (31mm)	9 1/8" (231mm)	21 lbs (9.55Kg)	OVER 18"
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Conversion Tables

WIRE GAUGES TO MILLIMETRES

GAUGE NO.	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
BG-mm	3.99	3.55	3.17	2.83	2.52	2.24	1.99	1.77	1.59	1.41	1.26	1.12	1.00	0.79	0.79	0.71	0.63
SWG-mm	4.05	3.66	3.25	2.95	2.64	2.34	2.03	1.83	1.62	1.42	1.22	1.02	0.91	0.81	0.71	0.61	0.56
BWG-mm	4.19	3.76	3.40	3.05	2.77	2.41	2.11	1.83	1.65	1.47	1.24	1.07	0.89	0.81	0.71	0.63	0.56

CHART TO DETERMINE INSIDE DIAMETER OF TUBES (INCHES)

BWG	WALL THICK-		OUTSIDE DIAMETER TUBES																			
	NESS	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4	4	4 1/4	4 1/2
00	.380	-	-	_	_	_	.115	.240	.490	.740	.990	1.24	1.49	1.74	1.99	2.24	2.49	2.74	2.99	3.24	3.49	3.74
0	.340	-	-	-	-	.070	.195	.320	.57	.82	1.07	1.32	1.57	1.82	2.07	2.32	2.57	2.82	3.07	3.32	3.57	3.82
1	.300	-	-	-	.025	.150	.275	.400	.550	.900	1.15	1.40	1.65	1.90	2.15	2.40	2.65	2.90	3.15	3.40	3.65	3.90
2	.284	-	-	-	.0.57	.182	.307	.432	.682	.932	1.182	1.432	1.682	1.932	2.182	2.432	2.682	2.932	3.182	3.432	3.682	3.932
3	.259	-	-	-	.107	.232	.357	.482	.732	.982	1.232	1.482	1.732	1.982	2.232	2.482	2.732	2.982	3.232	3.482	3.732	3.982
4	.238	-	-	.024	.149	.274	.399	.524	.774	1.024	1.274	1.524	1.774	2.024	2.274	2.524	2.774	3.024	3.274	3.524	3.774	4.024
5	.220	-	-	.060	.185	.310	.435	.560	.810	1.060	1.310	1.560	1.810	2.050	2.310	2.560	2.810	3.060	3.310	3.560	3.810	4.060
6	.203	-	-	.094	.219	.344	.469	.594	.844	1.094	1.344	1.594	1.844	2.094	2.344	2.594	2.844	3.094	3.344	3.594	3.844	4.094
7	.180	-	-	.140	.265	.390	.515	.640	.890	1.140	1.390	1.640	1.890	2.140	2.390	2.640	2.890	3.140	3.390	3.640	3.890	4.140
8	.165	-	.045	.170	.295	.420	.545	.670	.920	1.170	1.420	1.670	1.920	2.170	2.420	2.670	2.920	3.170	3.420	3.670	3.920	4.170
9	.148	-	.079	.204	.329	.454	.579	.704	.954	1.204	1.454	1.704	1.954	2.204	2.454	2.704	2.954	3.204	3.454	3.704	3.954	4.204
10	.134	-	.107	.232	.357	.482	.607	.732	.982	1.232	1.482	1.732	1.982	2.232	2.482	2.732	2.982	3.232	3.482	3.732	3.982	4.232
11	.120		.135	.260	.385	.510	.635	.760	1.010	1.260	1.510	1.760	2.010	2.260	2.510	2.760	3.010	3.260	3.510	3.760	4.010	4.260
12	.109	.032	.157	.282	.407	.532	.657	.782	1.032	1.282	1.532	1.782	2.032	2.282	2.532	2.782	3.032	3.282	3.532	3.782	4.032	4.282
13	.095	.060	.185	.310	.435	.560	.685	.810	1.060	1.310	1.560	1.810	2.060	2.310	2.560	2.810	3.060	3.310	3.560	3.810	4.060	4.310
14	.083	.084	.209	.334	.459	.584	.709	.834	1.084	1.334	1.584	1.834	2.084	2.334	2.584	2.834	3.084	3.334	3.584	3.834	4.084	4.334
15	.072	.106	.231	.356	.481	.606	.731	.856	1.106	1.356	1.606	1.856	2.106	2.356	2.606	2.856	3.106	3.356	3.606	3.856	4.106	4.356
16	.065	.120	.245	.370	.495	.620	.745	.870	1.120	1.370	1.620	1.870	2.120	2.370	2.620	2.870	3.120	3.370	3.620	3.870	4.120	4.370
17	.058	.134	.259	.384	.509	.634	.759	.884	1.134	1.384	1.634	1.884	2.134	2.384	2.634	2.884	3.134	3.384	3.634	3.884	4.134	4.384
18	.049	.152	.277	.402	.527	.652	.777	.902	1.152	1.402	1.652	1.902	2.152	2.402	2.652	2.902	3.152	3.402	3.652	3.902	4.152	4.402
19	.042	.166	.291	.416	.541	.666	.791	.916	1.166	1.416	1.666	1.916	-	-	-	-	-	-	-	-	-	-
20	.035	.180	.305	.430	.555	.680	.805	.930	1.180	1.430	1.680	1.930	-	-	-	-	-	-	-	-	-	-
21	.032	.186	.311	.436	.561	.686	.811	.936	1.186	1.436	1.686	1.935	-	-	-	-	-	-	-	-	-	-
22	.028	.194	.319	.444	.569	.694	.819	.944	1.194	1.444	1.694	1.944	-	-	-	-	-	-	-	-	-	-
23	.025	.200	.325	.450	.575	.700	.825	.950	1.200	1.450	1.700	1.950	-	-	-	-	-	-	-	-	-	-
24	.022	.206	.331	.456	.581	.706	.831	.956	1.206	1.456	1.706	1.956	-	-	-	-	-	-	-	-	-	-



Conversion Tables

CHART TO DETERMINE PIPE SIZE AND SCHEDULE NUMBER

NOMINAL PIPE SIZE	O.D. (IN)	SCHEDULE NUMBER FOR PIPE SIZES WALL THICKNESS / INSIDE DIAMETER (INCHES)									
P1PL 31ZL		40	I.D.	80	I.D.	120	I.D.	160	I.D.		
1/8	.405	.068	.269	.095	.215	-	-	-	-		
1/4	.540	.088	.364	.119	.302	-	-	-	-		
3/8	.675	.091	.493	.126	.423	-	-	-	-		
1/2	.840	.109	.622	.147	.546	-	-	.187	.466		
3/4	1.050	.113	.824	.154	.742	-	-	.218	.614		
1	1.315	.133	1.049	.179	.957	-	-	.230	.815		
1 1/4	1.660	.140	1.380	.191	1.28	-	-	.250	1.160		
1 1/2	1.900	.145	1.610	.200	1.500	-	-	.281	1.338		
2	2.375	.154	2.067	.218	1.939	-	-	.343	1.689		
2 1/2	2.875	.203	2.469	.276	2.323	-	-	.375	2.125		
3	3.500	.216	3.068	.300	2.900	-	-	.437	2.626		
3 1/2	4.000	.226	3.548	.318	3.364	-	-	-	-		
4	4.500	.237	4.026	.337	3.826	.437	3.626	.531	3.438		
5	5.563	.258	5.047	.375	4.813	.500	4.563	.625	4.313		
6	6.625	.280	6.065	.432	5.761	.562	5.501	.718	5.189		
8	8.625	.322	7.981	.500	7.625	.718	7.189	.906	6.813		
10	10.750	.365	10.020	.593	9.564	.843	9.064	1.125	8.500		
12	12.750	.406	11.938	.687	11.376	1.000	10.750	1.312	10.126		

COMMON IMPERIAL SIZES TO METRIC

mm	6.35	9.53	12.70	15.89	19.05	22.23	25.40	31.75	38.10	44.45	50.80	57.15	69.85
Inch	1/4"	3/8″	1/2″	5/8"	3/4″	7/8″	1″	1 1/4"	1 1/2"	1 ³ / ₄ "	2″	2 1/4"	2 3/4"



Conversion Factors

WEIGHTS

	FACTOR		FACTOR	
Grams	0.0010	Kilograms	1,000.0 0	Grams
Grams	0.0353	Ounces	28.3495	Grams
Grams	0.0022	Pounds	453.592 4	Grams
Kilograms	35.2740	Ounces	0.0283	Kilograms
Kilograms	2.2046	Pounds	0.4536	Kilograms
Ounces	0.0625	Pounds	16.0000	Ounces

FLOW RATES

	FACTOR		FACTOR	
Cubic Feet per Minute	0.0283	Cubic Meters per Minute	35.3133	Cubic Feet per Minute
Cubic Feet per Minute	7.4805	Gallons per Minute	0.1337	Cubic Feet per Minute
Cubic Feet per Minute	28.3163	Litres per Minute	0.0353	Cubic Feet per Minute
Cubic Meters per Minute	264.1700	Gallons per Minute	0.0038	Cubic Meters per Minute
Cubic Meters per Minute	1,000.00	Litres per Minute	0.0010	Cubic Meters per Minute
Gallons per Minute	3.7878	Litres per Minute	0.2641	Gallons per Minute

MEASURES

	FACTOR		FACTOR	
Millimetres	0.1000	Centimeters	10.0000	Millimetres
Millimetres	0.0010	Metres	1,000.0 0	Millimetres
Millimetres	0.0033	Feet	304.801	Millimetres
Millimetres	0.0394	Inches	25.4000	Millimetres
Metres	100.0000	Centimeters	0.0100	Metres
Metres	3.2808	Feet	0.3048	Metres
Metres	39.3700	Inches	0.0254	Metres

PRESSURE

	FACTOR		FACTOR	
Bar	1.0197	Kilograms/sq Centimetre	0.9807	Bar
Bar	14.5038	Pounds/sq Inch	0.0689	Bar
Pounds/sq Inch	0.0703	Kilograms/sq Centimetre	14.22	Pounds/sq Inch



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