Catalogue

2008

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Busbar Work-Centre

Features

- Bending machine is mounted on adjustable lift so that copper can sit on the bench and the machine is adjusted to the centre of the copper.
- Engraved scale on bench top so that distance from end of copper to centre of bend is shown.
- Engraved scale on bench top so that distance from end of copper to cutting position is shown.
- Cutter has centring guide for copper bar.
- Rollers support copper at correct height for punching machine.
- Electric pump controlled by 2-pedal foot switch.
- Rubber bumper strip round bench.
- Waste collection bins under cutting and punching machine.

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***Busbar Work Centre* Specification**	**Standard**	**Optional extras**
Cutting capacity	125 x 10	
Punching capacity (thickness)	10	
Punching capacity (maximum diameter)	21	
Bending capacity (maximum width)	150	200
Bending capacity (maximum thickness)	10	15
Bending capacity (max cross-section mm^2)	1200	2250
Bending angle control	visual	electronic or limit-switch
Function selection by rotary valve	3-way	4-way
Supply voltage	220v 1 ph	110v 1 ph
KW rating	0.55	1.5
Maximum pressure (bar / psi)	700 / 10,000	700 / 10,000
Oil flow rate at max pressure (ltr/min)	0.43	1.0
Overall dimensions (cm)	73 x 115 x 128	
Total weight (kg)	188	
Wheel diameter mm (2 wheels with brakes)	200	

Manual Benders for Copper Bar

Application

- An inexpensive, simple and robust bender.
- Available in 2 sizes.

The benders have a quick clamping arrangement for the copper and can be adjusted for copper thickness with a few turns of a screw. Supplied complete with end stops to set the angle of bend and distance from the bend to the end of the copper. The bending arm and length stop may be easily removed for transportation. The radius block may be turned round to give a sharp bend.

Specification	300-550	300-600
Maximum thickness of copper mm	7.5	10
Maximum width of copper mm	70	100
Maximum distance between 'U' bends mm	95	95
Maximum distance between 'Z' bends mm	90	85
Standard bending radius mm	10	10
Fixing centres mm	168 x 217	210 x 280
Fixing hole diameter mm	10	10
Weight (kg)	23	41
Base dimensions cm	20 x 25	32 x 25
Overall dimensions (WxLxH) cm	130 x 25 x 20.5	137 x 25 x 26.5

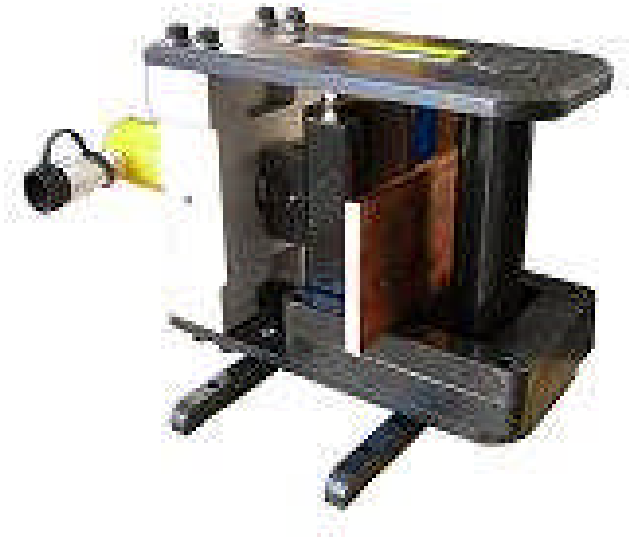
Hydraulic Benders for Copper Bar

Application

This very solid machine is designed to give years of reliable work.

It has 3 spacers which are used in various combinations to position the copper centrally to the bending block.

In the basic form of the machine, copper is bent to the desired angle as measured by a protractor. The position of the bending block is indicated on a scale fitted to the top of the machine. Repeat bends can then be made to the same position. For an enhanced capability, the machine is supplied with a cam and limit-switch which may be set to stop the machine automatically at the desired position. Finally, in the top-of-the-range format, an electronic angle control system may be fitted whereby the desired angle is preset on a counter, and the machine will stop and reverse automatically.



Specification	300-050	300-060
Maximum thickness of copper mm	10	15
Maximum width of copper mm	150	200
Maximum cross-section of copper mm²	1200	2250
Max. distance between 'U' bends mm (inside)	50	55
Max. distance between 'Z' bends mm (inside)	40	45
Max. distance between 45° bends	35	40
Standard bending radius mm	10	10
Fixing centres mm	220 x 135	220 x 135
Fixing hole diameter mm	9	9
Weight (kg)	30	35
Base dimensions cm	142 x 425	142 x 425
Overall dimensions (WxLxH) cm	30 x 42.5 x 27	30 x 42.5 x 27
Maximum oil pressure required (bar/PSI)	700 / 10,000	700 / 10,000

Copper Punching

Features

A heavy duty machine for punching round or elongated holes in copper or aluminium.

The calibrated end stop can be rotated out of the way when long bars are being punched. The two calibrated back-stops are coupled together and ensure that the bar is positioned square to the machine.

There are two dies for each punch size to cover copper thickness 0-5mm and 5-10mm.

A pressure plate is available for use with flexible bar.

Specification	300-100	300-150
Maximum hole diameter mm	21	21
Maximum copper thickness mm	10	12
Thorat depth mm	65	100
Weight kg	27	50
Overall dimensions (without carrying handle) cm	23 x 22 x 38	26 x 26.5 x 48
Fixing hole diameter mm	8.5	8.5
Fixing centres mm	131 x 170	160 x 200
Tonnage	25	25

Standard range of round punches (not included) mm

6.5 9.0 11.0 14.0 18.0 21.0

Standard range of elongated punches (not included) mm

6.5 x 13 9 x 18 11 x 21 14 x 21

Other sizes can be made to order

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CONSUMABLE PARTS

Reference	*Description*
300-150	6.5mm punch for copper up to 6mm thick
300-151	6.5mm die for copper 0-5mm thick
300-152	6.5mm die for copper 5-10mm thick
300-180	6.5 x 13mm punch
300-181	6.5 x 13mm die
300-154	9mm punch
300-155	9mm die for copper 0-5mm thick
300-156	9mm die for copper 5-10mm thick
300-182	9 x 18mm punch
300-183	9 x 18mm die
300-158	11mm punch
300-159	11mm die for copper 0-5mm thick
300-160	11mm die for copper 5-10mm thick
300-184	11 x 21mm punch
300-185	11 x 21mm die
300-162	14mm punch
300-163	14mm die for copper 0-5mm thick
300-164	14mm die for copper 5-10mm thick
300-186	14 x 21mm punch
300-187	14 x 21mm die
300-166	18 mm punch
300-167	18mm die for copper 0-5mm thick
300-168	18mm die for copper 5-10mm thick
300-170	21mm punch
300-171	21mm die for copper 0-5mm thick
300-172	21mm die for copper 5-10mm thick

PRESSURE PLATES FOR USE WITH LAMINATED BAR

Reference	*Description*
300-175	For use with 6.5mm punch
300-176	For use with 9.0mm punch
300-177	For use with 11mm punch
300 -178	For use with 14mm punch

SPARES

Reference	*Description*
300-201	Fixed & moving blade for busbar cutter (300-200)
300-200	Blade support bar for busbar cutter (300-200)

Copper Cutting

Features

This powerful cutting machine for copper and aluminium bar gives a clean cut with minimum burr. After cutting, the bar remains flat and ready for connecting to another bar with minimum contact resistance.

A self-centring mechanism ensures that the copper is presented centrally to the cutting blade. Polycarbonate guards on both sides of the machine prevent finger contact with the cutting edges.

Specification

	300-200	300-250
Maximum width of copper mm	125	200
Maximum thickness of copper mm	10	20
Width of cut section mm	8	12
Overall dimensions (without carrying handle) W x D x H	22.5 x 19 x 36	37 x 45 x 70
Fixing hole diameter	8	8
Fixing centres mm	140 x 170	180 x 290
Weight kg	23	60
Maximum oil pressure required (bar / psi)	700 / 10,000	700 / 10,000

Foot Operated Hole Puncher

Features

The foot operated pump is a two-speed pump which takes up any free movement very rapidly. The two-metre hose enables the punch to be positioned anywhere on the door of a floor-standing enclosure. Foot operation leaves both hands free to position the punch. Pressure release is by means of the neat toe-operated lever on the side of the pump.

Specification

Maximum round hole	142.8 mm dia
Maximum square hole	138 x 138 mm
Maximum thickness mild steel with standard punches	3mm
Maximum thickness of stainless steel with bulldog punches	4mm
Length of hose	2 metres
Total weight with / without carrying case	18 / 12 kg
Dimensions of carrying case cm	66.5 x 29 x 18

Included in Kit

Foot pump with 2 meter hose and coupler	240-110
Hydraulic cylinder with coupler	130-010
19mm tie bolt	230-020
9.5mm tie holts (2)	230-010
19mm reducing to 9.5mm tie bolts and spacer	230-140
19mm reducing to 11.2mm tie bolts and spacer	230-320
Set of 3 spacers	130-110

Instruction manual and guarantee card

Wooden carrying case only provided with model 220-010

Hand Operated Hole Puncher

Features

This hole punching kit uses a modern light-weight pump with a 1 metre hose. Ideal for use on the bench. Pressure release is by means of a knob at the side of the pump.

Specification

Maximum round hole	100.5mm dia
Maximum square hole	92 x 92mm
Maximum thickness mild steel with standard punches	3mm
Maximum thickness of stainless steel with bulldog punches	4mm
Length of hose	1 metre
Total weight with / without carrying case	8 / 6 kg
Dimensions of carrying case cm	49 x 27 x 25

Included in Kit

Hand pump with 1 meter hose and coupler	240-010
Hydraulic cylinder with coupler	130-010
19mm tie bolt	230-020
9.5mm tie bolts (2)	230-010
19mm reducing to 9.5mm tie bolt and spacer	230-140
19mm reducing to 11.2mm tie bolt and spacer	230-320
Set of 3 spacers	130-110
Instruction manual and guarantee card	
Plastic carrying case	

Combined Hole Puncher

Application

Ideal for site work. The articulated head makes it easy to get into tight corners to punch holes for cable glands. This economical unit is just as useful in the workshop, punching holes for push-buttons and pilot-lights.

Specification

Maximum round hole	60.5mm dia
Maximum square hole	46 x 46mm
Maximum thickness mild steel with standard punches	3mm
Maximum thickness of stainless steel with Bulldog punches	4mm
Total weight with/without carrying case	7kg / 3kg
Dimensions of carrying case (cm)	39 x 24.5 x 12.5

Included in Kit

19mm tie-bolt	230-020
19mm reducing to 9.5mm tie-bolt and spacer	230-140
19mm reducing to 11.2mm tie-bolt and spacer	230-320
Set of 2 spacers	130-110
Steel carrying case	
Instruction manual and guarantee card	

Electrically-Operated Hole Puncher

Application

For high volumes of hole punching, the electric power pack and cylinder is the solution. This takes all the effort out of punching and is ideal for continual use. Available in 220 or 110 volt versions with foot or hand controls. There is no bending down to operate the pressure release lever.

Options

110 volt 50Hz pump with hand controls	210-450
110 volt 50Hz pump with foot controls	220-550
220/240 volt 50Hz pump with hand controls	210-250
220/240 volt 50Hz pump with foot controls	220-350

Specification

Maximum round hole	142.8mm dia
Maximum square hole	138 x 138mm
Maximum thickness mild steel with standard punches	3mm
Maximum thickness of stainless steel with Bulldog punches	4mm
Length of hose	2 metres
Total weight	25.5kg

Included in Kit

Electric pump with 2 metre hose and coupler	
Hydraulic cylinder with coupler	130-010
19mm tie bolt	230-020
9.5mm tie bolts (2)	230-010
19mm reducing to 9.5mm tie bolt and spacer	230-140
19mm reducing to 11.2mm tie bolt and spacer	230-320
Set of 3 spacers	130-110
Instruction manual and guarantee card	

Spanner Operated Hole Punching

Features

The hole punches can be operated by a simple tie-bolt and bearing. This is a very cheap and easy way to add the occasional extra hole on site or in the workshop.

Specification	**230-030**	**230-040**
Bolt Diameter	9.5mm	19mm
Punch Range	12.7 - 26mm	27 - 60mm
Maximum thickness of mild steel	2mm	2mm

Round Punches & Dies

Standard heavy-duty industrial grade punches have 3 cutting points to ensure a balanced punching action. This minimises any bending forces on the tie-bolt and at the same time maximises the tonnage on each cutting point. These punches are ideal for mild steel and thinner grades of stainless steel.

Bulldog punches are intended for use on heavier grades of stainless steel where a greater tonnage is needed. These punches have two edges which split the blank in two and then sheer round the circumference.

- Refer to the price list for the full range of punches.
- Special sizes can be made to order.
- All SML dies have 4 scribe lines to ensure accurate positioning.

Standard Industrial 3-point punches

44 sizes

'Bulldog' Punches for Stainless Steel

17 sizes

Punch Sets

Included in Kit

	100-001	100-002
Punch & die sets	12.7	
	15.2	15.2
	18.6	18.6
	20.5	20.5
	22.5	22.5
	28.3	28.3
	30.5	-
	37.0	-
	47.0	-
	54.0	-
	60.5	-
9.5mm bearing bolt (230-030)	2	1
19mm bearing bolt (230-040)	1	-
Drill for pilot hole (130-100)	-	1
Carrying case	yes	yes

Square and Rectangular Punches & Dies

Features

- Each punch and die is made from a single block of steel to ensure maximum strength.
- All punch and die sets are supplied complete with a tie-bolt and nut.
- Refer to the price list for the full range of punches.
- Special sizes can be made to order.

12 sizes of square punch

16 sizes of rectangular punch

6 special shapes

Non-stock sizes can be made to order

Punch Sizes

ROUND 3-POINT HEAVY-DUTY INDUSTRIAL PUNCH/DIE SETS

Reference	*Diameter mm*	*Suitable tie-bolt*	*Max. thickness of mild steel*	*Max. thickness of stainless steel*
100-010	12.7	230-010 or 230-140	2.0	1.0
100-020	14.0	230-010 or 230-140	2.0	1.0
100-025	15.2	230-010 or 230-140	2.0	1.0
100-030	16.0	230-010 or 230-140	2.0	1.0
100-040	18.0	230-010 or 230-140	2.0	1.0
100-045	18.6	230-010 or 230-140	2.0	1.0
100-050	19.0	230-010 or 230-140	2.0	1.0
100-060	20.0	230-010 or 230-140	2.0	1.0
100-070	20.5	230-010 or 230-140	2.0	1.0
100-080	22.0	230-010 or 230-140	2.0	1.0
100-090	22.5	230-010 or 230-140	2.0	1.0
100-100	23.0	230-010 or 230-140	2.0	1.0
100-110	25.0	230-010 or 230-140	2.0	1.0
100-120	26.0	230-010 or 230-140	2.0	1.0
100-130	27.0	230-020	3.0	1.5
100-141	28.3	230-010 or 230-140	2.0	1.0
100-140	28.3	230-020	3.0	1.5
100-150	30.5	230-020	3.0	1.5
100-160	31.0	230-020	3.0	1.5
100-170	32.7	230-020	3.0	1.5
100-180	34.2	230-020	3.0	1.5
100-190	37.0	230-020	3.0	1.5
100-200	38.0	230-020	3.0	1.5
100-210	39.0	230-020	3.0	1.5
100-220	40.0	230-020	3.0	1.5
100-230	41.2	230-020	3.0	1.5
100-240	42.5	230-020	3.0	1.5
100-250	45.0	230-020	3.0	1.5
100-260	47.0	230-020	3.0	1.5
100-270	48.7	230-020	3.0	1.5
100-280	50.0	230-020	3.0	1.5
100-290	51.4	230-020	3.0	1.5
100-300	52.5	230-020	3.0	1.5
100-310	54.0	230-020	3.0	1.5
100-320	55.0	230-020	3.0	1.5
100-330	57.0	230-020	3.0	1.5
100-340	60.5	230-020	3.0	1.5
100-350	63.5	230-020	3.0	1.5
100-360	64.5	230-020	3.0	1.5
100-370	67.0	230-020	3.0	1.5
100-380	70.2	230-020	3.0	1.5
100-390	76.2	230-020	3.0	1.5
100-400	80.0	230-020	3.0	1.5
100-410	82.0	230-020	3.0	1.5

ROUND 3-POINT HEAVY-DUTY INDUSTRIAL PUNCH/DIE SETS

Reference	*Diameter mm*	*Suitable tie-bolt*	*Max. thickness of mild steel*	*Max. thickness of stainless steel*
100-420	89.0	230-020	3.0	1.5
100-430	92.0	230-020	3.0	1.5
100-440	95.2	230-020	3.0	1.5
100-450	100.5	230-020	3.0	1.5
100-460	102.5	230-020	3.0	1.5
100-470	110.5	230-020	3.0	1.5
100-480	114.0	230-020	3.0	1.5
100-490	120.0	230-020	3.0	1.5
100-500	142.8	230-020	3.0	1.5

Non standard sizes can be made to order

ROUND 3-POINT PUNCHES IN BOXED SETS

Reference	Contents
100-001	12.7mm, 15.2mm, 18.6mm, 20.5mm, 22.5mm, 28.3mm, 30.5mm, 37.0mm, 47.0mm, 54.0mm, 60.5mm, 9.5mm bearing bolt (230-030), 19mm bearing bolt (230-040)
100-002	15.2mm, 18.6mm, 20.5mm, 22.5mm, 28.3mm, 2 – 9.5mm bearing bolts (230-030), double ended drill (130-100)

‘BULLDOG’ PUNCH & DIE SETS FOR STAINLESS STEEL

Reference	Diameter mm	Suitable tie-bolt	Max. thickness of mild steel	Max. thickness of stainless steel
150-012	12.7	230-010 or 230-	3.0	3.0
150-010	15.2	230-010 or 230-	3.0	3.0
150-016	16.0	230-010 or 230-	3.0	3.0
150-015	18.6	230-010 or 230-	3.0	3.0
150-019	19.0	230-320	4.0	3.5
150-200	20.0	230-320	4.0	3.5
150-020	20.4	230-320	4.0	3.5
150-090	22.5	230-320	4.0	3.5
150-025	25.0	230-320	4.0	3.5
150-030	28.3	230-020	4.0	3.5
150-305	30.5	230-020	4.0	3.5
150-327	32.7	230-020	4.0	3.5
150-037	37.0	230-020	4.0	3.5
150-040	40.0	230-020	4.0	3.5
150-047	47.0	230-020	4.0	3.5
150-054	54.0	230-020	4.0	3.5
150-605	60.5	230-020	4.0	3.5

SQUARE 4-POINT PUNCH/DIE SETS (Price includes tie-bolt & nut)

Reference	*Description mm*	*Suitable tie-bolt*	*Max. thickness of mild steel*	*Max. thickness of stainless steel*
110-010	12.7 x 12.7	230-145	2.0	1.0
110-020	15.8 x 15.8	230-145	2.0	1.0
110-030	19.0 x 19.0	230-150	2.0	1.0
110-040	22.2 x 22.2	230-150	2.0	1.0
110-050	25.0 x 25.0	230-150	2.0	1.0
110-055	45.0 x 45.0	230-160	2.5	1.5
110-060	46.0 x 46.0	230-160	2.5	1.5
110-070	50.8 x 50.8	230-160	2.5	1.5
110-080	68.0 x 68.0	230-160	2.5	1.5
110-090	92.0 x 92.0	230-160	2.5	1.5
110-100	104.8 x 104.8	230-165	2.5	1.5
110-110	138.0 x 138.0	230-165	2.5	1.5

RECTANGULAR 4-POINT PUNCH/DIE SETS (Price includes tie-bolt & nut)

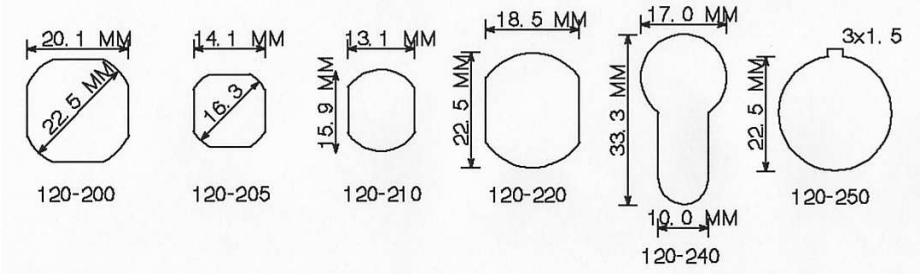
Reference	*Description mm*	*Suitable tie-bolt*	*Max. thickness of mild steel*	*Max. thickness of stainless steel*
120-010	17.0 x 19.0	230-150	2.0	1.0
120-020	19.7 x 27.2	230-145	2.0	1.0
120-030	21.8 x 25.8	230-150	2.0	1.0
120-040	22.0 x 30.0	230-150	2.0	1.0
120-050	22.0 x 40.0	230-150	2.0	1.0
120-060	22.0 x 42.0	230-150	2.0	1.0
120-065	22.2 x 45.0	230-150	2.0	1.0
120-080	22.6 x 25.4	230-150	2.0	1.0
120-085	29.0 x 71.0	230-160	2.0	1.0
120-100	35.0 x 52.0	230-160	2.5	1.5
120-110	35.0 x 65.0	230-160	2.5	1.5
120-120	35.0 x 85.5	230-160	2.5	1.5
120-130	35.0 x112.0	230-160	2.5	1.5
120-150	46.0 x 92.0	230-160	3.0	1.5
120-155	52.0 x 90.0	230-160	2.0	1.0
120-160	68.0 x138.0	230-165	3.0	1.5

TIE-BOLTS FOR SQUARE AND RECTANGULAR PUNCHES

Reference	*Description*	*Dia. of pilot*
230-145	9.5 dia., 7mm across flats, 145mm long	11.0
230-150	13mm dia., 9mm across flats, 145mm long	15.0
230-160	19mm dia, 14mm across flats, 190mm long	20.0
230-165	28.3mm dia., 22mm across flats, 173mm long	30.0

SPECIAL SHAPE PUNCH/DIE SETS (Price includes tie-bolt & nut)

Reference	*Description mm*	*Suitable tie-bolt*	*Max. thickness of mild steel*	*Max. thickness of stainless steel*
120-200	20.1mm square x 22.5mm diameter (Emka/Dzus)	230-150	2.0	1.0
120-205	14.1mm square x 16.3mm diameter (Emka)	230-145	2.0	1.0
120-210	15.9mm diameter x 13.1mm across flats		2.0	1.0
120-220	22.5mm diameter x 18.5mm across flats		2.0	1.0
120-240	17.0mm diameter x 33.3mm long (Keyhole)		2.0	1.0
120-250	22.5mm diameter with 3mm locating notch		2.0	1.0



Special sizes and shapes can be made to order

Din Rail Cutting

Features

A heavy-duty machine which will give many years of service. Both cutting blades are made from a single block of steel to ensure rigidity and dimensional accuracy.

An extension bracket holds the rail at right angle to the machine. Close tolerance profiles in the cutting blades guarantee a clean cut with virtually no burr. Models 320-000 and 320-100 incorporate two elongated punches and dies; one in line with the rail and the other at 90° to the rail. Each hole is at a fixed distance from the rail but intermediate holes may be added to the rail if desired. The holes are punched in a separate operation so the operator has the choice of punching holes or not.

Specification	320-000	320-100	320-200
Cuts 'top hat' profile 36mm x 15mm	yes	yes	yes
Cuts 'top hat' profile 35mm x 7.3mm	yes	yes	yes
Cuts 'top hat' profile 15mm x 5mm	yes	yes	yes
Cuts 'G' profile 32mm x 15mm	yes	yes	no
Punches elongated hole 12mm x 6.4mm	yes	yes	no
Method of operation	Manual	Hydraulic	Manual
1 metre measuring rail	yes	yes	yes
Adjustable end stop	yes	yes	yes
Footprint (excluding 1m rail) mm	193 x 270	193 x 270	143 x 270
Height mm	1200	260	1200
Fixing centres mm	90 x 165	90 x 165	80 x 114
Weight (including 1m rail) kg	18	17	12

Step Drills

Features

Single flute for maximum drilling control in sheet steel.

Unique flute design ensures perfect round holes in sheet metal.

Self-centring point eliminates centre punching.

Flatted shank prevents the drill bit from slipping in the chuck.

Made from industrial grade M7 high-speed steel.

Laser marking of hole diameter.

Specification

Catalogue Ref.	Range mm	No. of Steps	Increments mm
250 – 102	4 – 12	9	1
250 – 103	6 – 18	7	2
250 – 104	4 – 22	10	2
250 – 105	5 – 35	13	2 – 3
250 – 194	5 – 29	10	2.5

Hole Saws

Features

SML hole saws have a cast iron body to give dimensional rigidity and tungsten carbide teeth for cutting ability. The saws can be used in a pistol drill or a pillar drill and the shank is hexagonal for a positive drive. The pilot drill is removable and can be replaced easily.

Sizes

15mm to 92mm in 1mm steps

95, 100, 102, 105, 110, 115, 120mm

Applications

Mild Steel, Stainless Steel and Cast Iron

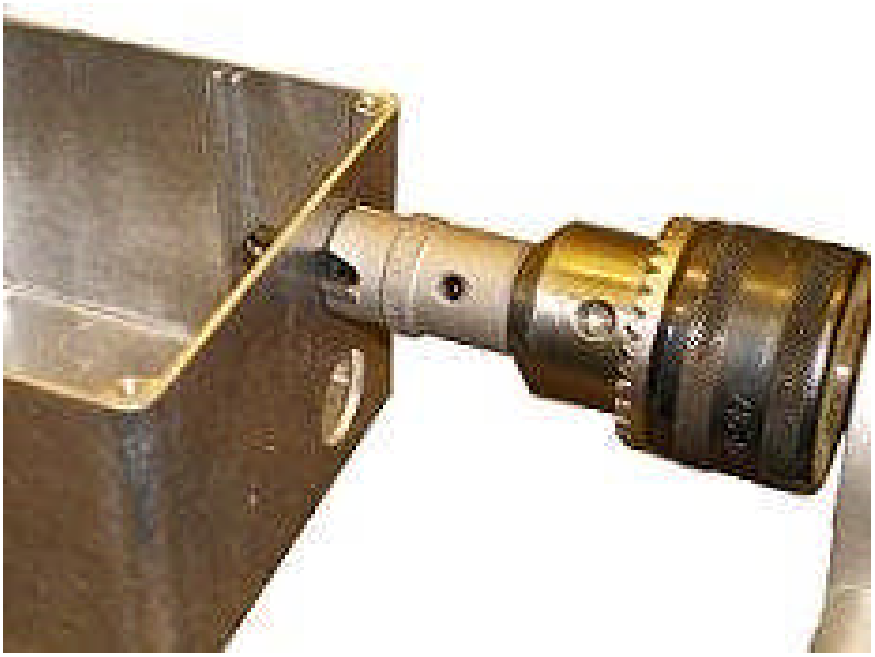
Enamel, GRP

Pilot Drills

Cobalt drill for cast iron, stainless steel etc.

Carbide drill for enable and GRP

Shank	Chuck diameter
For saws 15 - 59mm diameter	10.0mm
For saws 60 - 120mm diameter	13.0mm



TUNGSTEN CARBIDE HOLE SAWS

Ref.	*Dia. mm*	*Ref.*	*Dia. mm*	*Ref.*	*Dia. mm*
140-015	15	140-044	44	140-073	73
140-016	16	140-045	45	140-074	74
140-017	17	140-046	46	140-075	75
140-018	18	140-047	47	140-076	76
140-019	19	140-048	48	140-077	77
140-020	20	140-049	49	140-078	78
140-021	21	140-050	50	140-079	79
140-022	22	140-051	51	140-080	80
140-023	23	140-052	52	140-081	81
140-024	24	140-053	53	140-082	82
140-025	25	140-054	54	140-083	83
140-026	26	140-055	55	140-084	84
140-027	27	140-056	56	140-085	85
140-028	28	140-057	57	140-086	86
140-029	29	140-058	58	140-087	87
140-030	30	140-059	59	140-088	88
140-031	31	140-060	60	140-089	89
140-032	32	140-061	61	140-090	90
140-033	33	140-062	62	140-091	91
140-034	34	140-063	63	140-092	92
140-035	35	140-064	64	140-095	95
140-036	36	140-065	65	140-100	100
140-037	37	140-066	66	140-102	102
140-038	38	140-067	67	140-105	105
140-039	39	140-068	68	140-110	110
140-040	40	140-069	69	140-115	115
140-041	41	140-070	70	140-120	120
140-042	42	140-071	71		
140-043	43	140-072	72		

REPLACEMENT PILOT DRILLS

Reference	*Diameter*	*For saw sizes*
140-150	6	15 – 59mm
140-151	8	60 – 120mm

Clean Earth

Features

The SML 'clean earth' is a combined drill and paint removal tool. Removal of paint down to bare metal ensures a good earth connection.

The tool is available in a range of drill sizes for tapping or clearance holes from 4mm to 12mm. Paint is removed from an area to suit washers from M4 to M12.

The drill can be easily replaced and the tool fits in a standard 12mm chuck.

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