

# Steel Fabrication Solutions

# Steelmax<sup>®</sup>

The tools of innovation.



## **Tools for the Steel Fabricator**

Steelmax offers a wide range of tools and equipment tailored for the Steel Fabricator and MRO. Our unique, high quality tools reduce costs and increase productivity. They are designed and engineered for long-term, heavy industrial use and built to the highest quality standards of ISO 9001.

The Steelmax product line includes:

- Portable Magnetic Drills and Annular Cutters
- Hydraulic Punches
- Metal Cutting Saws and Blades
- Weld Preparation/Beveling Machines for Plate and Pipe
- Lifting Magnets
- Welding/Cutting Automation Solutions

Our qualified and experienced team is available to help our customers solve all of their steel fabrication challenges. Steelmax provides its business partners with innovative products, custom solutions, excellent reliability, and industry-leading after sales services.

Please contact us to help with your fabrication and welding projects to determine the right tools for your application.



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## D1 AUTO

### ADVANCED SEMI-AUTOMATIC DRILLING MACHINE

The **D1 Auto** from Steelmax is an advanced semi-automatic drilling machine that is the ideal solution for efficiently drilling large numbers of holes in plates, girders, and other steel fabrication applications. With a maximum 1-3/8" diameter and 2" depth of cut, the **D1 Auto** covers a wide range of drilling needs in a compact, lightweight machine.

#### FEATURES:

- 1-3/8" (36 mm) diameter x 2" (51 mm) depth of cut
- Compact, rigid design that weighs just 30 lbs. (13.5 kg)
- Optimal combination of spindle speed and torque produces industry leading cycle times with TCT and HSS cutters
- Safe magnet control systems for excellent performance and operator safety
- Dual rail guide system provides extraordinary stiffness and maintenance free operation
- High efficiency magnetic base provides superior holding power on plate as thin as 1/4" (6mm)
- Integrated cutter guard and large coolant tank



Max Hole Size:  
1-3/8" (36 mm)



Depth of cut:  
2" (51 mm)



Stroke:  
2-3/4" (70 mm)



Weight:  
30 lbs. (13.5kg)



Minimum work piece  
thickness: 1/4" (6 mm)

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## EXCELLENT PERFORMANCE & PRODUCTIVITY

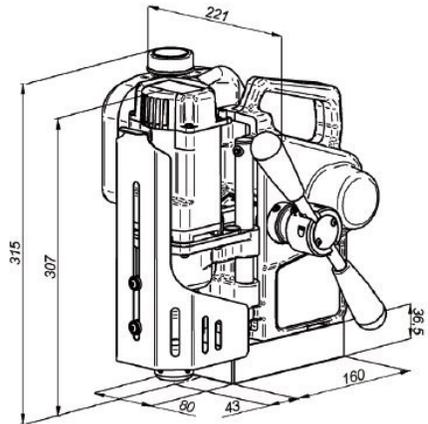
- Max drilling capacity of 1-3/8" (36 mm) diameter with 2" (51 mm) depth of cut
- Auto-feed mechanism is activated by pushing the handles in.
- Feed control system reduces idle run time and enables smooth start of cutting
- Dynamic control systems adjust the feed speed proportionally to the cutting load maximizing cutting performance with both TCT and HSS cutters
- Auto-feed control stops the machine when drilling is complete

## SAFETY

- Overload control stops both cutting and feeding motors immediately
- Magnetic Power Adhesion Control (MPAC) prevents drilling when the electromagnetic holding force is not sufficient. This protects both the machine and the operator from work in unsafe conditions

## USER-FRIENDLY

- Ultra light weight - only 30 lbs.
- Maintenance free dual rail system
- Uses standard 3/4" Weldon shank cutters
- Large coolant tank



### D1 AUTO Technical Specifications

Voltage	1~ 110-120 V, 50-60 Hz, 1~ 220-240 V, 50-60 Hz
Total power	1000 W
Motor power	920 W
Cutter holder	3/4" Weldon (19 mm)
Max milling capacity	1-3/8" (36 mm)
Max depth of cut	2" (51 mm)
Electromagnetic base holding force (surface with the thickness of 1" (25 mm) and roughness $R_a = 1.25$ )	9500 N
Electromagnetic base dimensions	3.1" x 6.3" x 1.4" (80 mm x 160 mm x 36.5 mm)
Slide stroke	2-3/4" (70 mm)
Spindle speed under load	350 rpm
Spindle speed without load	580 rpm
Minimum work piece thickness	1/4" (6 mm)
Weight	30 lbs (13.5 kg)

### Standard shipping set:

- D1 AUTO
- Metal shipping box
- Handles
- Cooling system bottle
- Chip guard
- Safety strap
- 4 mm hex wrench
- Operator's Manual

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 **American Welding Society**  
Supporting Company Member

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## D1 PORTABLE MAGNETIC DRILL

### ULTRA COMPACT DRILL COMBINES PORTABILITY AND PERFORMANCE

The **D1** is an ultra-compact magnetic drilling machine with maximum capacity of 1-3/8" (36 mm) diameter in 2" (51 mm) thick material. The unit's ultra-light weight of 22 lbs. (10 kg) is the lowest in its class. The maintenance-free rail guide system minimizes run-out, maintains accuracy and reduces cutter breakage.

The **D1** is equipped with an electromagnetic Energy Saving Base (ESB) which uses only 50% of the power when the motor is not under load, dramatically increasing the operating life of the electromagnet, and a Magnetic Field Shape Control (MFSC) system which provides maximum holding power on thin material. Safe Magnet™ circuitry assures adequate adhesive force for safe operation.

#### FEATURES

- 1-3/8" (36 mm) diameter x 2" (51 mm) depth of cut
- Ultra-compact and light weight: 14-3/4" working height (with coolant bottle) and only 22 pounds
- Adjustable cutter guard with built-in chip breaker
- Through spindle coolant system with removable reservoir
- Maintenance free rail guide system for long life, minimal run-out and extreme accuracy
- Safe Magnet™ circuitry recognizes magnetic holding power
- Automatic slug ejection system
- Magnet is 1/3 smaller, lighter and stronger than competing models
- Magnet uses only 50% power when motor is not under load
- Designed for easy field service and repair
- All aluminum parts are heat treated for rigidity



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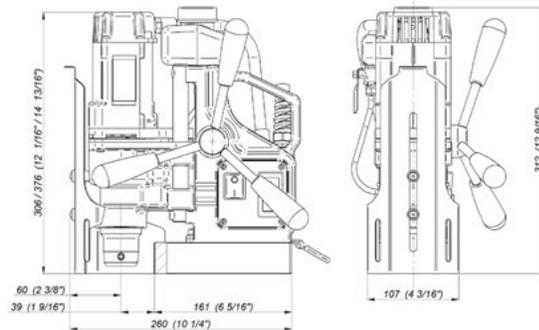


**Standard shipping set:**

- Magnetic base drilling machine
- Metal shipping box
- Swarf shield/Cutter guard
- Coolant bottle assembly
- Safety chain with snap hook
- Allen wrench
- Instruction manual
- Standard shipping weight – 36 lbs (16.7 kg)



<b>D1 Technical Specifications</b>		
Tool holder	3/4" (19 mm) Weldon	
Annular cutter (Core drill) Ø	max 1-3/8" (36 mm)	
Countersinking Ø	1-9/16" max (40 mm)	
Stroke	2 -3/4" (70 mm)	
Max depth of cut	2" (51 mm)	
Voltage	115V/60Hz or 230V/50Hz	
Power consumption [W]	1000	
Motor power	920 W 1.2 HP	
Speed [rpm]	350	
Overload protection	yes – 115V/60Hz yes – 230V/50Hz	
MPAC (Magnetic Power Adhesion Control)	yes	
MFSC (Magnetic Field Shape Control)	yes	
ESB (Energy Saving Base)	yes	
Magnet – on 1" (25 mm) plate	Dead lift	Drill point breakaway
	2135 lbs (968 kg)	859 lbs (389 kg)
Magnet base dimensions	3-1/8 x 6-5/16 x 1-7/16" 80 x 160 x 36.5 mm	
Minimum workpiece thickness	1/4" (6 mm)	
Weight	22 lbs (10 kg)	
Part number	<b>SM-D1</b> (115V/60Hz) <b>SM-D1-230</b> (230V/50Hz)	



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# ULTRA LOW PROFILE MAG DRILL FROM STEELMAX®

## D1 Low Profile

### VERY LOW PROFILE ELECTRIC DRILL FOR RESTRICTED SPACE

The **D1 Low Profile** is an ultra-low-profile mag drill, that fits in the tightest of work spaces. It is a perfect solution for any applications in confined spaces, where typical mag drills are too large. A powerful motor and strong, electromagnetic base enable drilling of holes up to 1-3/8" (36 mm) diameter to a depth of up to 1-3/16" (30 mm).

The **D1 Low Profile** Mag Drill accepts both TCT and HSS cutters as well as twist drill bits with a standard 3/4" Weldon shank.



#### FEATURES

- Ultra low profile mag drill – only 7" tall – with electromagnetic base
- Light weight – only 21 lbs (9.5 kg)
- 1-3/8" (36 mm) diameter x 1-3/16" (30 mm) depth of cut maximums with annular cutters
- Accepts Weldon Shank twist drill bits up to 3/4" diameter
- Over 1-1/2" stroke (39 mm)
- Integrated swarf guard
- Convenient lifting handle for easy transportation

#### STANDARD SET INCLUDES:

- Drilling machine
- Plastic case
- Handle
- Handle adapter
- Pilot pin
- Safety strap
- 4 mm hex wrench
- Operator's Manual



The D1 Low Profile fits in the tightest spots



Core drill:  
max 1-3/8"  
(36 mm)



Twist drill:  
max 1/2" (12 mm)  
with Weldon Shank  
3/4" (19mm)



Depth of cut:  
up to 1-3/16"  
(30 mm)



Stroke:  
1-1/2"  
(39 mm)



Speed:  
370 rpm



Motor Power:  
920 W



Weight:  
21 lbs  
(9.5 kg)

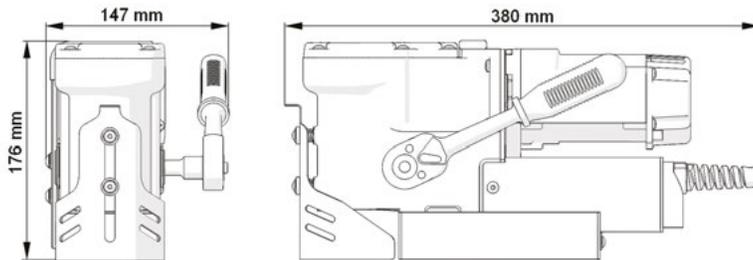
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## D1 Low Profile Technical Specifications

Voltage	115V or 230V 50-60Hz
Motor Power	920W
Power Consumption	1000W
Motor Speed (Under Load)	350 RPM
Tool Holder	3/4" Weldon Shank
Minimum Material Thickness	1/4" (6 mm)
Maximum Hole Size - Annular Cutter	1-3/8" (36 mm)
Maximum Hole Size - Twist Bit	1/2" (12 mm)
Maximum Countersink	1-9/16" (40 mm)
Stroke	1-1/2" (39 mm)
Maximum Depth of Cut	1-3/16" (30 mm) with TCT Cutters 13/16" (20 mm) with HSS Cutters*
Magnetic Clamping Force	2,000 lbs (8900 N)
Magnetic Base Dimensions	3-9/16" x 7-1/16" x 1-1/2" (90 x 180 x 38.5 mm)
Machine Height	7" (175 mm)
Machine Weight	21 lbs (9.5 Kg)
Part Number	115V: <b>SM-DI LP</b> 230V: <b>SM-DI LP-230</b>

\* Up to 1" (25 mm) when used with an optional long quill assembly (SM-ZSP-0521-04-00-00-0)



### Optional Accessories:

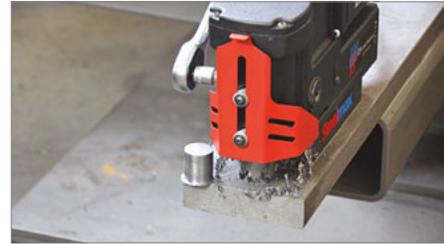
- SM-ZSP-0521-04-00-00-0  
Long quill assembly
- SM-PJM-000003  
Coolant bottle with nozzle



### Hole making with various tools:



Compact design for height restricted areas.  
Detachable feed lever can be fixed from either side



Max milling capacity up 1-3/8" (36 mm)



Easily work out of position



Lifting handle for easy transportation



Handy plastic case

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## D1 PRO PORTABLE MAGNETIC DRILL

### HIGH PRODUCTION DRILLING MACHINE FOR THE PROFESSIONAL STEEL FABRICATOR

The Steelmax **D1 PRO** is an all-purpose drilling machine for the steel fabricator that demands dependable and versatile production tools. Lightweight and portable, this single-speed drill features a powerful 1020-watt motor capable of drilling with annular cutters up to 1-9/16" (40 mm) diameter holes through 2" (50 mm) thick material. The optional three jaw drill chuck can be used with solid, twist drills up to 5/8" (16 mm) diameter.

The **D1 PRO** is equipped with the most advanced electromagnetic technology. Using only 50% power when the motor is not under load, the Energy Saving Base (ESB) reduces excessive heat build-up and dramatically increases the operating life of the electromagnet. Our Magnetic Field Shape Control (MFSC) system provides maximum holding power on thin materials. The integrated Magnetic Power Adhesion Control Module (MPAC) detects the adhesive force of the electromagnet base and prevents drill activation when there is insufficient adhesive power, protecting both the machine and the operator.

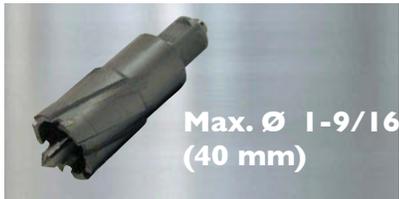
#### FEATURES

- Up to 1-9/16" diameter and 2" depth of cut
- Magnetic Power Adhesion Control (MPAC)
- Magnetic Field Shape Control (MFSC)
- Energy Saving Base (ESB)
- Comes complete with swarf shield and coolant bottle assembly



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**Standard shipping set:**

- Magnetic base drilling machine
- Metal shipping box
- 3/4" (19 mm) Weldon Arbor – with cooling ring
- Swarf shield/Cutter guard with guideway
- Coolant bottle assembly
- Safety chain
- Set of tools
- Instruction manual
- Standard shipping weight – 44 lbs

<b>D1 PRO Technical Specifications</b>	
Tool holder	3/4" (19 mm) Weldon
Milling cutter (Core drill) Ø	max 1-9/16" (40 mm)
Twist drill Ø	max 5/8" (16 mm)
Countersinking Ø	max 1-9/16" (40 mm)
Stroke	4-7/8" (124 mm)
Max depth of cut	2" (51 mm)
Voltage	110-120 V 50/60 Hz or 220-240 V 50/60 Hz
Power consumption [W]	1140
Motor power	1020 W 1.4 HP
Speed under load [rpm]	440
MPAC (Magnetic Power Adhesion Control)	yes
MFSC (Magnetic Field Shape Control)	yes
ESB (Energy Saving Base)	yes
Magnetic Clamping Force [N] (25 mm, Ra=1.25)	9800 (2200 lbs)
Magnet base dimensions	3-5/16 x 6-5/8 x 1-5/8" (84 x 168 x 41.5 mm)
Minimum workpiece thickness	1/4" (6 mm)
Noise level	above 85 dB
Surrounding temperature	32°F to 104°F (0°C to 40°C)
Length of power cord	9.8 ft (3.0 m)
Weight	28 lbs (12.7 kg)
Part numbers	<b>SM-D1PRO</b> <b>SM-D1PRO-230</b>

**Optional Accessories:**

<b>SM-TLJ-0197-10-00-03-0*</b>	Adapter/Arbor Weldon 19 x 1/2" - 20 UNF
<b>SM-DC-PRO40*</b>	Drilling Chuck 16-1/2" - 20 UNF

\*Items necessary for use with twist drill bits.



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## D2x PORTABLE MAGNETIC DRILL

### PURPOSE-DESIGNED PRODUCTION DRILLING MACHINE

The **D2x** magnetic drill from Steelmax is a powerful drilling machine for every-day industrial use. With its high-torque, 1260-watt electric motor, the **D2x** is capable of drilling 2" (51 mm) diameter holes in material up to 3" (76 mm) thick. The **D2x** features a revolutionary – and service-friendly – design with a unique, semi-automatic, self-adjusting gib system that requires minimal maintenance over the drill's life and produces accurate hole cutting. A proprietary replaceable spline on the end of the armature shaft further reduces maintenance and repair costs.

The **D2x** accepts arbors and drill chucks with Morse Taper No. 2 shafts and easily switches between drilling with annular cutters and solid twist drill bits for maximum flexibility.

Equipped with an electromagnetic Energy Saving Base (ESB), the **D2x** uses only 50% of the power when the motor is not under load, which dramatically increases the operating life of the electromagnet. A Magnetic Field Shape Control (MFSC) system provides maximum holding power on thin material.

A Magnetic Power Adhesion Control (MPAC) module detects an adequate adhesive force of electromagnetic base for safe operation.

#### FEATURES

- 2" (51 mm) diameter x 2" (51 mm) depth of cut
- Unique self-adjusting gib system extends cutter life
- Through-spindle coolant system with integrated reservoir
- Safe magnet™ circuitry recognizes magnetic holding power
- Powerful 1260W motor and all metal housing make the D2x a production tool for industrial environments
- 2-speed gearbox works with twist bits to 7/8" and annular cutters to 2" diameter
- Integrated gearbox housing with slide
- Adjustable cutter guard with built-in chip breaker
- Semi-automatic gib backlash adjustment
- Energy Saving Base (ESB)
- Magnetic Power Adhesion Control (MPAC)
- Magnetic Field Shape Control (MFSC)



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<b>D2x Technical Specifications</b>		
Spindle	MT2	
Tool holder	3/4" (19 mm) Weldon	
Milling cutter (Core drill) Ø	max 2" (51 mm)	
Twist drill Ø	max 7/8" (23 mm)	
Countersinking Ø	max 2" (51 mm)	
Stroke	6" (153 mm)	
Max depth of cut	3" (76 mm)	
Voltage	115V/60Hz or 230V/50Hz	
Power consumption [W]	1300	
Motor power	1260 W 1.7 HP	
Speeds [rpm]	200 400	
MFSC (Magnetic Field Shape Control)	yes	
Magnet – on 1" (25 mm) plate	Dead lift	Drill point breakaway
	2697 lbs (1223 kg)	1074 lbs (487 kg)
Magnet base dimensions	3-9/16" x 7-1/16" x 1-7/8" (90 x 180 x 48 mm)	
ESB (Energy Saving Base)	yes	
MPAC (Magnetic Power Adhesion Control)	yes	
Minimum workpiece thickness	5/16" (8 mm)	
Semi-automatic gib backlash adjustment	yes	
Weight	35 lbs 5 oz (16.5 kg)	
Part number	<b>SM-D2x</b> (115V/60Hz) <b>SM-D2x-230</b> (230V/50Hz)	

**Standard shipping set:**

- Magnetic base drilling machine
- Metal shipping box
- MT2 Arbor with 3/4" (19 mm) Weldon Bore – with cooling ring
- Swarf shield/Cutter guard
- Coolant bottle assembly
- Safety chain
- Set of tools with wedge
- Instruction manual
- Standard shipping weight – 60 lbs

**Optional Accessories:**

**SM-DC-MT2-13** Morse Taper #2, 1/2" drill chuck



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## D3XRS PORTABLE MAGNETIC DRILL

### 3x3 VARIABLE-SPEED, REVERSIBLE DRILL WITH SWIVEL BASE

The **D3XRS** is a heavy-duty, multi-function magnetic drilling machine with Morse Taper No. 3 attachment system. Its powerful 1,650 Watt motor, two-speed gear box and variable speed control are designed for drilling holes up to 3" (76 mm) diameter through 3" thick material. With an optional drill chuck, the **D3XRS** can drill holes up to 1-1/4" (32 mm) in diameter using solid twist drill bits. The reversing feature of the **D3XRS** enables it to tap 3/4" diameter through-holes without a separate tapping attachment. With a separate Morse Taper No. 3 tapping head, the **D3XRS** can also tap blind holes up to 3/4" in diameter.

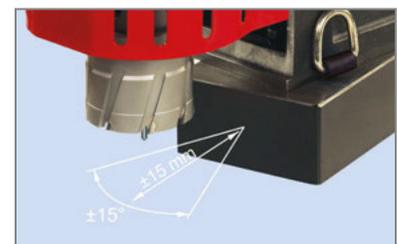
The **D3XRS** uses an integrated swivel base for easy alignment of your pilot pin with the desired center location of your hole. It is also equipped with motor overload protection for additional safety and long motor life. In addition, the **D3XRS** uses a state of the art Electronic Speed Stabilization System (ESSS) to stabilize motor speed under varying spindle load conditions. Its precision and durability are significantly increased as its gearbox housing and slide are manufactured as a single piece.

A unique, semi-automatic gib adjustment system (patent pending) enables simple, fast and precise adjustments without expert knowledge or experience. The replaceable spline on the end of the armature shaft eliminates laborious and expensive armature maintenance.

The **D3XRS** is equipped with our proprietary Magnetic Field Shape Control (MFSC) system which provides maximum holding power on thin material (minimum 3/8" thickness), a Magnetic Power Adhesion Control (MPAC) module which insures adequate magnetic adhesion for safe operation and our Safe Magnet™ technology which recognizes magnetic holding power and will not allow the drill to function in unsafe conditions.

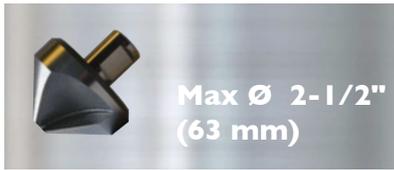
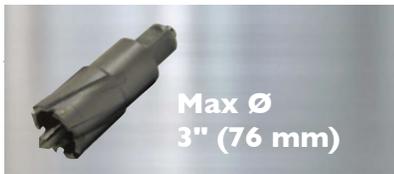
#### FEATURES

- 3" (76 mm) diameter x 3" (76 mm) depth of cut
- Soft start electronics for long motor life
- Continuous speed adjustment with two-speed gearbox
- Motor overload protection
- Swivel base
- Electronic Speed Stabilization System (ESSS)
- Safe Magnet™ circuitry recognizes magnetic holding power
- Semi-automatic gib backlash adjustment
- Magnetic Power Adhesion Control (MPAC)
- Magnetic Field Shape Control (MFSC)



Swivel base is standard on all **D3XRS**  
Swivel base:  $\pm 15^\circ$ ,  $\pm 9/16"$  (15 mm)

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**Standard shipping set:**

- Magnetic base drilling machine
- Metal shipping box
- MT3 Arbor with 3/4" (19 mm) Weldon Bore – with cooling ring
- Swarf shield/Cutter guard
- Coolant bottle assembly
- Safety chain
- Set of tools with wedge
- Instruction manual
- Standard shipping weight – 86 lbs 5 oz (40 kg)

**Attention:**

Standard shipping set of **D3XRS** includes MT3 Arbor with 3/4" (19 mm) Weldon Bore that accepts cutters up to 2-3/8" (60 mm) diameter.

Optional MT3 Arbor with 1-1/4" (32 mm) Weldon Bore for cutters of larger diameters available.

**D3XRS Technical Specifications**

Spindle	MT3	
Tool holder	3/4" (19 mm) Weldon	
Milling cutter (Core drill) Ø	max 3" (76 mm)	
Twist drill Ø	max 1-1/4" (32 mm)	
Countersinking Ø	max 2-1/2" (63 mm)	
Max tap size	M24 (special tapping attachment required)	
Stroke	8-7/8" (225 mm)	
Max depth of cut	3" (76 mm)	
Voltage	115V/60Hz or 230V/50Hz	
Power consumption [W]	1800	
Motor power	1650 W 2.2 HP	
Speeds [rpm]	80/160 and 210/420	
Overload protection	yes	
ESSS (Electronic Speed Stabilization System)	yes	
Continuous speed adjustment	yes	
MFSC (Magnetic Field Shape Control)	yes	
	Dead lift	Drill point breakaway
Magnet – on 1" (25 mm) plate	4383 lbs (1987 kg)	1779 lbs (806 kg)
Magnet base dimensions	4-5/16" x 8-11/16" x 2-3/16" (110 x 220 x 56 mm)	
MPAC (Magnetic Power Adhesion Control)	yes	
Swivel base	+ 15°; + 9/16" (15 mm)	
Minimum workpiece thickness	3/8" (10 mm)	
Semi-automatic gib backlash adjustment	yes	
Weight	58 lbs 6 oz (27 kg)	
Part numbers	<b>SM-D3XRS</b> (115 Volt/60Hz) <b>SM-D3XRS-230</b> (230 Volt/50Hz)	

**Optional Accessories:**

<b>SM-DC-MT3-13</b>	Morse Taper #3, 1/2" drill chuck
<b>SM-DC-MT3-20</b>	Morse Taper #3, 3/4" drill chuck
<b>SM-UCW-0191-00-00-00-0</b>	Morse Taper #3, arbor for 1-1/4" shank cutters

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## D4x PORTABLE MAGNETIC DRILL

### POWER & PERFORMANCE: HEAVY-DUTY DRILLING MACHINE

The **D4x** heavy-duty magnetic drilling machine from steelmax is equipped with a 4-speed mechanical gearbox and a high-torque 1,650 Watt motor with overload protection to tackle the toughest hole-making requirements. Its precision, durability and reliability are significantly enhanced due to its one-piece gearbox housing and slide. Our unique semi-automatic gib adjustment system enables simple, fast and precise fine tuning without any expert knowledge or experience. A replaceable spline on the end of the armature shaft eliminates laborious and expensive armature maintenance.

The **D4x** is equipped with our proprietary Magnetic Field Shape Control (MFSC) system which provides maximum holding power on thin material (down to 3/8" thick), a Magnetic Power Adhesion Control (MPAC) module which detects adequate adhesive force for safe operation and our Safe magnet™ circuitry which will not allow the drill to function in unsafe conditions.

#### FEATURES

- 4-3/8" (111 mm) diameter x 3" (76 mm) depth of cut
- Purpose-designed 1,650 Watt motor with heavy-duty 4-speed gearbox
- Soft start circuitry and motor overload protection with LED indicator
- Morse Taper No. 4 for maximum capability and flexibility
- Maintenance-friendly design
- Gear box and slide system made as one piece
- Semi-automatic gib backlash adjustment
- Safe Magnet™ circuitry recognizes magnetic holding power
- Magnetic Power Adhesion Control (MPAC)
- Magnetic Field Shape Control (MFSC)



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**Standard shipping set:**

- Magnetic base drilling machine
- Metal shipping box
- MT4 Arbor with 3/4" (19 mm) Weldon Bore – with cooling ring
- Swarf shield/Cutter guard
- Coolant bottle assembly
- Safety chain
- Set of tools with wedge
- Instruction manual
- Standard shipping weight – 82 lbs 6 oz (38.2 kg)

**Attention:**

Standard shipping set of **D4x** includes MT4 Arbor with 3/4" (19 mm) Weldon Bore that accepts cutters up to 2-3/8" (60 mm) diameter.

Optional MT4 Arbor with 1-1/4" (32 mm) Weldon Bore for cutters of larger diameters available.

<b>D4x Technical Specifications</b>		
Spindle	MT4	
Tool holder	3/4" (19 mm) Weldon	
Milling cutter (Core drill) Ø	max 4-3/8" (111 mm)	
Twist drill Ø	max 1-7/8" (47 mm)	
Countersinking Ø	max 2-1/2" (63 mm)	
Max tap size	M30 (special tapping attachment required)	
Stroke	9-1/16" (230 mm)	
Max depth of cut	3" (76 mm)	
Voltage	115V/60Hz or 230V/50Hz	
Power consumption [W]	1800	
Motor power	1650 W 2.2 HP	
Speeds [rpm]	85/135 and 160/250	
MFSC (Magnetic Field Shape Control)	yes	
Overload protection	yes	
LED Overload protection	yes	
Magnet – on 1" (25 mm) Plate	Dead lift	Drill point breakaway
	4945 lbs (2242 kg)	1945 lbs (882 kg)
Magnet base dimensions	4-3/4" x 9-7/16" x 2-1/2" (120 x 240 x 63 mm)	
MPAC (Magnetic Power Adhesion Control)	yes	
Minimum workpiece thickness	3/8" (10 mm)	
Semi-automatic gib backlash adjustment	yes	
Weight	66 lbs 3 oz (31 kg)	
Part number	<b>SM-D4x</b> (115V/60Hz) <b>SM-D4x-230</b> (230V/50Hz)	

**Optional Accessories:**

<b>SM-DC-MT4-13</b>	Morse Taper #4, 1/2" drill chuck
<b>SM-DC-MT4-20</b>	Morse Taper #4, 3/4" drill chuck
<b>SM-UCW-0191-02-00-00-0</b>	Morse Taper #4, arbor for 1-1/4" shank cutters

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## D1AIR ATEX CERTIFIED PNEUMATIC DRILL

### VERY LOW PROFILE DRILL FOR RESTRICTED SPACE

The **D1AIR ATEX** is an extremely small portable pneumatic drilling machine for cutting holes up to 1-3/8" (36 mm) diameter in hazardous environments and where access to the hole location is restricted. The **D1AIR ATEX** conforms to the ATEX II 2 G/D c IIC T6/T4 standard for equipment used in hazardous environments.

A combination of pneumatic drive and permanent magnetic base eliminate the need of an electric power supply, thus making this machine an ideal solution in many hazardous environments such as offshore oil platforms, mining applications, shipbuilding and petrochemical industries. The **D1AIR ATEX** is one of the lowest height magnetic drills currently available on the world market.

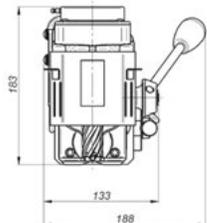
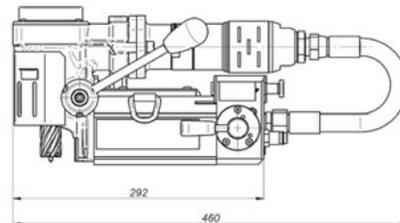
#### FEATURES

- 1-3/8" (35 mm) diameter x 1" (25 mm) depth of cut with annular cutters
- 5/8" (16 mm) diameter with solid twist drill bits
- For use in hazardous environments – fully ATEX compliant
- Low profile for use in height-restricted spaces
- Pneumatic drive and permanent magnetic base



#### D1AIR ATX Technical Specifications

Air consumption	50 CFM (1400 l/min)
Air pressure	90 psi (630 kpa)
Motor power	800W 1.1 HP
Tool holder	3/4" (19 mm) Weldon
Milling cutter (Core drill) Ø	1/2" – 1-3/8" (12 - 36 mm)
Max depth of cut	1" (25 mm)
Stroke	1-9/16" (39 mm)
Cooling system	Through spindle
Type of cooling fluid	Water soluble
Magnet dead lift on 1" (25 mm) plate	1461 lbs (6500 N)
Magnet dimensions: L x W x H	7-1/16" x 3-1/8" x 1-7/16" (180 x 80 x 36.5 mm)
Overall dimensions: L x W x H	18-7/8" x 6-5/8" x 7-1/16" (480 x 168 x 180 mm)
Weight	37 lbs (17 kg)
Part number	<b>SM-D1AIR ATX</b>



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## D175 ATEX CERTIFIED PNEUMATIC DRILL

### HEAVY-DUTY DRILL FOR HAZARDOUS ENVIRONMENTS

The **D175 ATEX** Pneumatic Drill from Steelmax is a small, portable drilling machine which drills holes up to 1.75" (45 mm) in diameter and up to 2" deep. The combination of a pneumatic drive and a permanent magnetic base eliminates the need for an electric power supply making this machine the ideal solution in many hazardous environments – such as oil drilling platforms, petrochemical plants, oil refineries, shipbuilding and the petrochemical industry – where electric appliances are prohibited for safety reasons. The **D175** is fully ATEX certified for use in these environments.

#### FEATURES:

- ATEX certified for use in hazardous environments
- No need for electric power
- Strong permanent magnet base
- Comprehensive safety features
- Protection against motor start-up when magnetic base is not secure
- Two-speed gear box

D175 ATEX conforms to ATEX II 2 G/D c IIC T6/T4 Standard for equipment used in hazardous environments



Annular Cutters  
up to 1.75" (45 mm)



Twist drill  
0.75" (20 mm)



Depth of cut  
2" (51 mm)



Stroke  
6" (150 mm)



Speed  
190 rpm, 290 rpm



Motor Power  
800 W



Weight  
58.5 lbs (26.5 kg)

# Steelmax

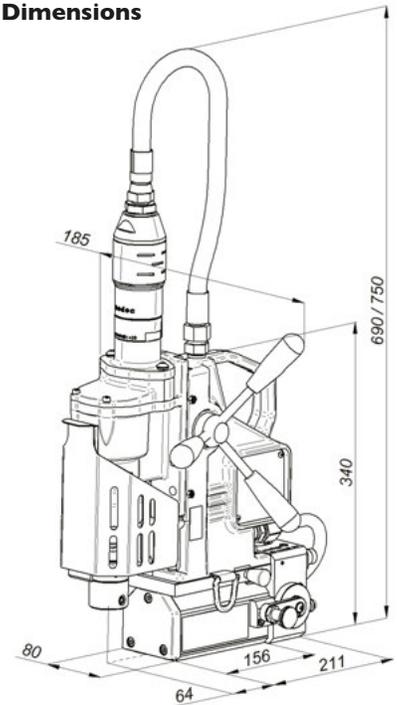
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# PNEUMATIC DRILLING MACHINE FROM STEELMAX®

## DI75 ATEX Technical Specifications

Motor speed (under load)	190 rpm (gear I); 290 rpm (gear II)
Motor power	800 W
Weight	58.5 lbs (26.5 kg)
Max milling capacity	1.75" (45 mm)
Max drilling capacity	0.75" (20 mm)
Stroke	6" (150 mm)
Max depth of cut	2" (51 mm)
Tool holder	3/4" Weldon Shank
Air consumption	50 CFM (1400 l/min)
Pressure	87 psi (6 bar)
Spindle	#2 Morse Taper
Minimum workpiece thickness	0.40" (10 mm)
Required ambient temperature	32–104° F (0–40° C)
Magnetic base holding force	765 kG (7 500 N)
Magnetic base dimensions	3.15" x 3.15" x 5.63" (80 mm x 80 mm x 143 mm)
Overall dimensions LxWxH	16.7" x 10.5" x 27.7" (424 mm x 268 mm x 703 mm)
Product Code	SM-DI75 ATEX

## Dimensions



### Standard package includes:

- Pneumatic drilling machine
- Metal box
- Feed handles
- MT2 arbor for 3/4" weldon shank cutters
- Safety chain
- Cooling system
- Protective spring for cooling hose
- Set of tools
- Operator's manual

*Drill chucks, arbor extensions and other accessories are available. See the full line catalog for more information.*



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# STEELMAX® DRILL FEATURES & SPECIFICATIONS

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MODEL	D1		D1 Auto		D1 LP	
Drill Operation	Manual		Semi-automatic		Manual	
Spindle	-		-		-	
Tool holder	3/4" (19 mm) Weldon		3/4" (19 mm) Weldon		3/4" (19 mm) Weldon	
Milling cutter (Core drill) Ø	max 1-3/8" (36 mm)		max 1-3/8" (36 mm)		max 1-3/8" (36 mm)	
Twist drill Ø	-		-		max 1/2" (12 mm)	
Countersinking Ø	1-9/16" max (40 mm)		-		max 1-9/16" (40 mm)	
Max tap size	-		-		-	
Stroke	2-3/4" (70 mm)		2-3/4" (70 mm)		1-1/2" (39 mm)	
Max depth of cut	2" (51 mm)		2" (51 mm)		1-3/16" (30 mm)	
Voltage	115V/60Hz		115V/60Hz		115V/60Hz	
International Voltage	230V/50Hz		230V/50Hz		230V/50Hz	
Power consumption	1000 W		1000 W		1000 W	
Motor power	920 W 1.2 HP		920 W 1.2 HP		920 W 1.2 HP	
Speed	350 RPM		350 RPM		350 RPM	
Overload protection	yes		yes		-	
Reversing available	no		no		no	
ESSS (Electronic Speed Stabilization System)	-		-		-	
MPAC (Magnetic Power Adhesion Control)	yes		yes		yes	
Continuous speed adjustment	-		-		-	
MFSC (Magnetic Field Shape Control)	yes		yes		yes	
Magnetic Clamping Force (25 mm, Ra=1.25 mm)	2135 lbs (9500 N)		2135 lbs (9500 N)		2000 lbs (8900 N)	
ESB (Energy Saving Base)	yes		yes		yes	
Magnet – on 1" (25 mm) plate	Dead lift	Drill point breakaway	Dead lift	Drill point breakaway	Dead lift	Drill point breakaway
	2135 lbs (968 kg)	859 lbs (389 kg)	2135 lbs (968 kg)	859 lbs (389 kg)	2000 lbs (907 kg)	810 lbs (367 kg)
Magnet base dimensions	3-1/8" x 6-5/16" x 1-7/16" (80 x 160 x 36.5 mm)		3-1/8" x 6-5/16" x 1-7/16" (80 x 160 x 36.5 mm)		3-9/16" x 7-1/16" x 1-1/2" (90 x 180 x 38.5 mm)	
Swivel base	-		-		-	
Minimum workpiece thickness	1/4" (6 mm)		1/4" (6 mm)		1/4" (6 mm)	
Tapping accessories available	no		no		no	
Tool Weight	22 lbs (10 kg)		30 lbs (13.5 kg)		21 lbs (9.5 kg)	
Part number	<b>SM-D1</b> (115V/60Hz) <b>SM-D1-230</b> (230V/50Hz)		<b>SM-D1Auto</b> (115V/60Hz) <b>SM-D1Auto-230</b> (230V/50Hz)		<b>SM-D1LP</b> (115V/60Hz) <b>SM-D1LP-230</b> (230V/50Hz)	

# STEELMAX® DRILL FEATURES & SPECIFICATIONS



**D1 Pro**

**D2X**

**D3XRS**

**D4X**

Manual		Manual		Manual		Manual	
-		MT2		MT3		MT4	
3/4" (19 mm) Weldon		3/4" (19 mm) Weldon		3/4" (19 mm) Weldon		3/4" (19 mm) Weldon	
max 1-9/16" (40 mm)		max 2" (51 mm)		max 3" (76 mm)		max 4-5/16" (111 mm)	
max 5/8" (16 mm)		max 7/8" (23 mm)		max 1-1/4" (32 mm)		max 1-7/8" (47 mm)	
max 1-9/16" (40 mm)		max 2" (51 mm)		max 2-1/2" (63 mm)		max 2-1/2" (63 mm)	
-		-		Reversing feature no tapping attachment required		M30 (special tapping attachment required)	
4-7/8" (124 mm)		6" (153 mm)		8-7/8" (225 mm)		9-1/16" (230 mm)	
2" (51 mm)		3" (76 mm)		3" (76 mm)		3" (76 mm)	
115V/60Hz		115V/60Hz		115V/60Hz		115V/60Hz	
230V/50Hz		230V/50Hz		230V/50Hz		230V/50Hz	
1140 W		1300 W		1800 W		1800 W	
1020 W 1.4 HP		1260 W 1.7 HP		1650 W 2.2 HP		1650 W 2.2 HP	
440 RPM		200 or 400 RPM		80/160 and 210/420 RPM		85/135 and 160/250 RPM	
-		-		yes		yes – LED light	
no		no		yes		no	
-		-		yes		-	
yes		yes		yes		yes	
-		-		yes		-	
yes		yes		yes		yes	
2200 lbs (9800 N)		2697 lbs (12000 N)		4383 lbs (19500 N)		4945 lbs (22000 N)	
yes		yes		-		-	
Dead lift	Drill point breakaway	Dead lift	Drill point breakaway	Dead lift	Drill point breakaway	Dead lift	Drill point breakaway
2203 lbs (1000 kg)	880 lbs (400 kg)	2697 lbs (1223 kg)	1074 lbs (487 kg)	4383 lbs (1987 kg)	1779 lbs (806 kg)	4945 lbs (2242 kg)	1945 lbs (882 kg)
3-5/16" x 6-5/8" x 1-5/8" (84 x 168 x 41.5 mm)		3-9/16" x 7-1/16" x 1-7/8" (90 x 180 x 48 mm)		4-5/16" x 8-11/16" x 2-3/16" (110 x 220 x 56 mm)		4-3/4" x 9-7/16" x 2-1/2" (120 x 240 x 63 mm)	
-		-		+ 15°; + 9/16" (15 mm)		-	
1/4" (6 mm)		5/16" (8 mm)		3/8" (10 mm)		3/8" (10 mm)	
no		no		yes		yes	
28 lbs (12.7 kg)		35 lbs 5 oz (16.5 kg)		58 lbs 6 oz (27 kg)		66 lbs 3 oz (31 kg)	
<b>SM-D1PRO</b> (115V/60Hz) <b>SM-D1PRO-230</b> (230V/50Hz)		<b>SM-D2X</b> (115V/60Hz) <b>SM-D2X-230</b> (230V/50Hz)		<b>SM-D3XRS</b> (115V/60Hz) <b>SM-D3XRS-230</b> (230V/50Hz)		<b>SM-D4X</b> (115V/60Hz) <b>SM-D4X-230</b> (230V/50Hz)	

# DRILL ACCESSORIES FROM STEELMAX®

## Industrial Arbors & Drill Chucks

CONVERT YOUR MAGNETIC DRILL FOR USE WITH TWIST DRILLS ON SMALLER HOLES



<b>SM-DC-MT2-13</b>	1/2" Drill chuck for D2 & D2X
<b>SM-DC-MT3-13</b>	1/2" Drill Chuck for D3XRS Drill
<b>SM-DC-MT3-20</b>	3/4" Drill Chuck for D3XRS Drill
<b>SM-DC-MT4-13</b>	1/2" Drill Chuck for D4X Drill
<b>SM-DC-MT4-20</b>	3/4" Drill Chuck for D4X Drill
<b>SM-TLJ-0197-10-00-03-0</b>	Adapter/Arbor Weldon 1 9/16" - 20 UNF for D1 Pro Drill
<b>SM-DC-PRO40</b>	Drilling Chuck 1 1/2" - 20 UNF for D1 Pro Drill
<b>SM-IA-MT-2</b>	2MT Industrial Arbor for 3/4" Weldon Shank Cutters
<b>SM-IA-MT-3</b>	3MT Industrial Arbor for 3/4" Weldon Shank Cutters
<b>SM-IA-MT3-125</b>	3MT Industrial Arbor for 1-1/4" Weldon Shank Cutters
<b>SM-IA-MT4-125</b>	4MT Industrial Arbor for 1-1/4" Weldon Shank Cutters
<b>SM-IA-R8</b>	R8 Industrial Arbor

## HIGH PERFORMANCE, BIODEGRADABLE Cutting Fluid



- 100% biodegradable; fully-synthetic, nitrite-free, water soluble concentrate
- High tech pressure additives provide outstanding tool life and finish
- Superior cooling properties
- No unpleasant odors; non-toxic & non-carcinogenic
- Excellent rust protection & non-corrosive
- Extends cutter life
- Low foaming; easy clean up

PART NUMBERS	SIZE
<b>SM-TBCF-1Q</b>	Quart
<b>SM-TBCF-1G</b>	Gallon
<b>SM-TBCF-55G</b>	55-Gallon Drum (special order)

For most cutting applications, a mix of 8:1 with water is typically recommended with this concentrated solution.

Made in USA.

## Automatic Self-Reversing Tapping Heads

PRODUCE GAGE PERFECT THREADS QUICKLY AND EFFICIENTLY

Eliminate laborious hand tapping! Convert your magnetic base drill to a portable tapping machine. When the drill press spindle is raised, gears within the tapping head engage, causing the tapping head to reverse, quickly backing the tap out of the hole while producing perfect threads.

- Achieve higher production rates. Batch quantities and heavy production rapidly achieved through accuracy and repeatability of the tapping heads.
- The ball-clutch mechanism reduces tap breakage and can extend the life of the tap as much as 100%.
- A large planetary gear reverses the tap 75% faster than the drill speed.
- The tapping heads include rubber flex collets which can be used across the entire tapping head capacity.
- The Steelmax reversible tapping heads are excellent tools to work with the D3XRS magnetic drill with its variable speed capability.



<b>SM-HR2</b>	Reversing tapping head with MT3 1/8" - 1/2" (3 - 12 mm)
<b>SM-HR3</b>	Reversing tapping head with MT3 5/16" - 3/4" (8-20 mm)



## Magnetic Pick-Up Tool

SAFETY FIRST!

Never pick up metal chips or shavings again. This handy magnetic tool helps you put safety first.

- Safely remove metal chips and debris from machinery and work areas using the Steelmax magnetic pick-up tool.
- The slide action lever instantly demagnetizes the tool which releases chips for quick and safe disposal.
- Available in 10" and 15" lengths

PART NUMBERS	SIZE
<b>SM-MPI0</b>	10" tool
<b>SM-MPI5</b>	15" tool



# DRILL ATTACHMENTS FROM STEELMAX®

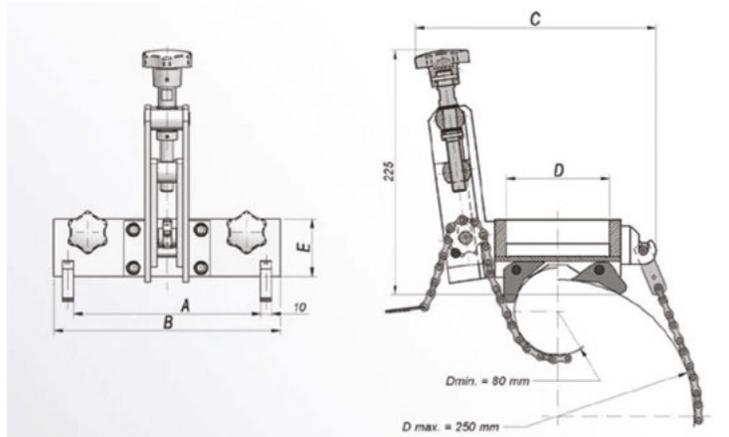
## MAGNETIC DRILL PIPE ATTACHMENTS

### MOUNT DRILLS TO PIPES FOR SAFE OPERATION

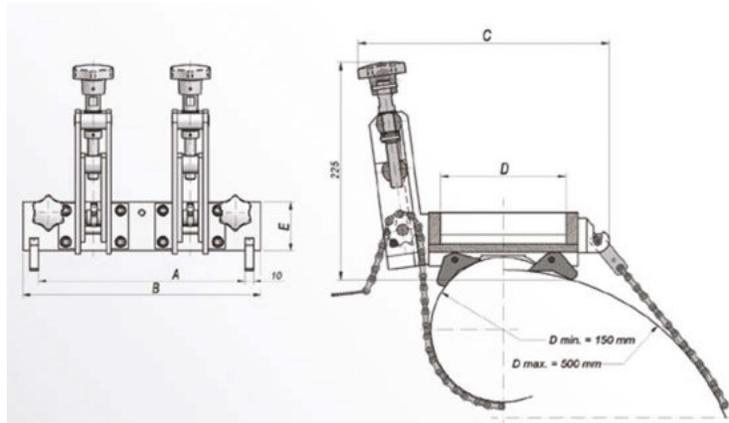
Our magnetic drill pipe attachments are designed for mounting Steelmax drills on pipes, tubes, tanks, oval workpieces and other parts which can be gripped with mounting chains.



DMP types 0250, 0251



DMP type 0501



DMP Type	A	B	C	D	E	Suitable for:
<b>SM-DMP 0250</b>	6" (152 mm)	7-3/8" (188 mm)	8-5/16" (211 mm)	3-5/16" (85 mm)	2-1/16" (52.5 mm)	<b>D1, D1 Pro</b> 3" to 10" pipe
<b>SM-DMP 0251</b>	6-3/4" (172 mm)	8-3/16" (208 mm)	8-11/16" (221 mm)	3-3/4" (95 mm)	2-1/16" (52.5 mm)	<b>D2x</b> 3" to 20" pipe
<b>SM-DMP 0501</b>	9-3/16" (234 mm)	10-5/8" (270 mm)	10-1/16" (256 mm)	5-1/8" (130 mm)	2-1/16" (52.5 mm)	<b>D2x, D3XRS, D4x</b> 6" to 20" pipe

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# STEELMAX® ANNULAR CUTTERS

## HSS & TCT ANNULAR CUTTERS

### A FULL LINE OF HIGH-QUALITY ANNULAR CUTTERS – OFFERING OUR CUSTOMERS THE LOWEST COST PER HOLE ON THE MARKET TODAY

Steelmax offers a full line of high-quality High Speed Steel (HSS) and Tungsten Carbide Tipped (TCT) annular cutters for all of your hole-making needs. We stock a full range of both HSS and TCT cutters from 7/16" to 3" in diameter and 1", 2" and 3" depths of cut. Custom sizes are also available. All Steelmax annular cutters have standard Weldon shanks (3/4" shank for cutter diameters up to 2-3/8" and 1-1/4" shank for cutter diameters above 2-3/8"). As a result, Steelmax cutters will fit and improve the performance of any mag drill!

All Steelmax cutters ship with a pilot pin installed at no extra charge.

Annular cutters have many advantages over traditional twist drills:

- Eliminates costly and time consuming step-drilling
- Significantly less drilling time – 3-4 times faster than twist drills
- Longer tool life – 5-10 times as many holes as a comparable twist drill bit
- More accurate and higher quality holes – burr-free with no clean up
- Easily drill on curved surfaces such as pipe or tubing
- Create overlapping holes
- Lower machine and horsepower requirements when compared to twist drills

#### HSS Cutters

Steelmax HSS cutters utilize an M2Al (aluminum additive) formulation which increases cutter life due to better heat propagation characteristics and its less brittle character compared to other M2 formulations, such as those using a cobalt additive. HSS cutters are most cost effective for mild steel applications and holes up to 2-3/8" in diameter in material up to 2" thick and can be re-sharpened to extend cutter life.

#### TCT Cutters

Steelmax TCT cutters are made with the highest quality carbide available and are extremely well suited to work on harder materials and higher speed applications. TCT cutters are most cost effective for larger holes (over 1-1/2" in diameter) and in thicker materials (2" and over).

#### Cutting Fluid

Steelmax High-Performance Cutting Fluid should be used with all annular cutters for optimal cutting performance and to extend cutter life. Our High-Performance Cutting Fluid is a water-based cutting fluid that is bio-degradable and does not require time-consuming cleanup prior to welding or assembling parts.



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# STEELMAX® HSS ANNULAR CUTTERS

## M2AL HSS Annular Cutters

HSS (M2AL) ANNULAR CUTTERS - 3/4" WELDON SHANK - IMPERIAL SIZES					
Cutter Diameter (in)	Decimal Equivalent	Steelmax Part Number			
		1" Depth of Cut	Included Pilot Pin	2" Depth of Cut	Included Pilot Pin
7/16	0.4375	SM-AC-04375-1	SM-PP-01	SM-AC-04375-2	SM-PP-03
1/2	0.5000	SM-AC-05000-1	SM-PP-02	SM-AC-05000-2	SM-PP-04
9/16	0.5625	SM-AC-05625-1	SM-PP-02	SM-AC-05625-2	SM-PP-04
5/8	0.6250	SM-AC-06250-1	SM-PP-02	SM-AC-06250-2	SM-PP-04
11/16	0.6875	SM-AC-06875-1	SM-PP-02	SM-AC-06875-2	SM-PP-04
3/4	0.7500	SM-AC-07500-1	SM-PP-02	SM-AC-07500-2	SM-PP-04
13/16	0.8125	SM-AC-08125-1	SM-PP-02	SM-AC-08125-2	SM-PP-04
7/8	0.8750	SM-AC-08750-1	SM-PP-02	SM-AC-08750-2	SM-PP-04
15/16	0.9375	SM-AC-09375-1	SM-PP-02	SM-AC-09375-2	SM-PP-04
1	1.0000	SM-AC-10000-1	SM-PP-02	SM-AC-10000-2	SM-PP-04
1 1/16	1.0625	SM-AC-10625-1	SM-PP-02	SM-AC-10625-2	SM-PP-04
1 1/8	1.1250	SM-AC-11250-1	SM-PP-02	SM-AC-11250-2	SM-PP-04
1 3/16	1.1875	SM-AC-11875-1	SM-PP-02	SM-AC-11875-2	SM-PP-04
1 1/4	1.2500	SM-AC-12500-1	SM-PP-02	SM-AC-12500-2	SM-PP-04
1 5/16	1.3125	SM-AC-13125-1	SM-PP-02	SM-AC-13125-2	SM-PP-04
1 3/8	1.3750	SM-AC-13750-1	SM-PP-02	SM-AC-13750-2	SM-PP-04
1 7/16	1.4375	SM-AC-14375-1	SM-PP-02	SM-AC-14375-2	SM-PP-04
1 1/2	1.5000	SM-AC-15000-1	SM-PP-02	SM-AC-15000-2	SM-PP-04
1 9/16	1.5625	SM-AC-15625-1	SM-PP-02	SM-AC-15625-2	SM-PP-04
1 5/8	1.6250	SM-AC-16250-1	SM-PP-02	SM-AC-16250-2	SM-PP-04
1 11/16	1.6875	SM-AC-16875-1	SM-PP-02	SM-AC-16875-2	SM-PP-04
1 3/4	1.7500	SM-AC-17500-1	SM-PP-02	SM-AC-17500-2	SM-PP-04
1 13/16	1.8125	SM-AC-18125-1	SM-PP-02	SM-AC-18125-2	SM-PP-04
1 7/8	1.8750	SM-AC-18750-1	SM-PP-02	SM-AC-18750-2	SM-PP-04
1 15/16	1.9375	SM-AC-19375-1	SM-PP-02	SM-AC-19375-2	SM-PP-04
2	2.0000	SM-AC-20000-1	SM-PP-02	SM-AC-20000-2	SM-PP-04
2 1/16	2.0625	SM-AC-20625-1	SM-PP-02	SM-AC-20625-2	SM-PP-04
2 1/8	2.1250	SM-AC-21250-1	SM-PP-02	SM-AC-21250-2	SM-PP-04
2 3/16	2.1875	SM-AC-21875-1	SM-PP-02	SM-AC-21875-2	SM-PP-04
2 1/4	2.2500	SM-AC-22500-1	SM-PP-02	SM-AC-22500-2	SM-PP-04
2 5/16	2.3125	SM-AC-23125-1	SM-PP-02	SM-AC-23125-2	SM-PP-04
2 3/8	2.3750	SM-AC-23750-1	SM-PP-02	SM-AC-23750-2	SM-PP-04

HSS (M2AL) ANNULAR CUTTERS - 3/4" WELDON SHANK - METRIC SIZES					
Cutter Diameter (in)	Decimal Equivalent	Steelmax Part Number			
		1" Depth of Cut	Included Pilot Pin	2" Depth of Cut	Included Pilot Pin
14 mm	0.5512	SM-AC-14-M-1	SM-PP-02	SM-AC-14-M-2	SM-PP-04
15 mm	0.5906	SM-AC-15-M-1	SM-PP-02	SM-AC-15-M-2	SM-PP-04
16 mm	0.6299	SM-AC-16-M-1	SM-PP-02	SM-AC-16-M-2	SM-PP-04
17 mm	0.6693	SM-AC-17-M-1	SM-PP-02	SM-AC-17-M-2	SM-PP-04
18 mm	0.7087	SM-AC-18-M-1	SM-PP-02	SM-AC-18-M-2	SM-PP-04
19 mm	0.7480	SM-AC-19-M-1	SM-PP-02	SM-AC-19-M-2	SM-PP-04
20 mm	0.7874	SM-AC-20-M-1	SM-PP-02	SM-AC-20-M-2	SM-PP-04
21 mm	0.8268	SM-AC-21-M-1	SM-PP-02	SM-AC-21-M-2	SM-PP-04
22 mm	0.8661	SM-AC-22-M-1	SM-PP-02	SM-AC-22-M-2	SM-PP-04
23 mm	0.9055	SM-AC-23-M-1	SM-PP-02	SM-AC-23-M-2	SM-PP-04
24 mm	0.9449	SM-AC-24-M-1	SM-PP-02	SM-AC-24-M-2	SM-PP-04
25 mm	0.9843	SM-AC-25-M-1	SM-PP-02	SM-AC-25-M-2	SM-PP-04
26 mm	1.0236	SM-AC-26-M-1	SM-PP-02	SM-AC-26-M-2	SM-PP-04
28 mm	1.1024	SM-AC-28-M-1	SM-PP-02	SM-AC-28-M-2	SM-PP-04
29 mm	1.1417	SM-AC-29-M-1	SM-PP-02	SM-AC-29-M-2	SM-PP-04
31 mm	1.2205	SM-AC-31-M-1	SM-PP-02	SM-AC-31-M-2	SM-PP-04

Standard Sizes Above In Stock - Please call for custom sizes

# STEELMAX® TCT ANNULAR CUTTERS

## TCT Annular Cutters

TCT ANNULAR CUTTERS - 3/4" WELDON SHANK - IMPERIAL SIZES			
Cutter Diameter (in)	Decimal Equivalent	1-3/8" Depth of Cut	Included Pilot Pins
1/2"	0.5000	SM-AC-TC-05000-1	SM-PP-11
9/16"	0.5625	SM-AC-TC-05625-1	SM-PP-11
5/8"	0.6250	SM-AC-TC-06250-1	SM-PP-11
11/16"	0.6875	SM-AC-TC-06875-1	SM-PP-11
3/4"	0.7500	SM-AC-TC-07500-1	SM-PP-12
13/16"	0.8125	SM-AC-TC-08125-1	SM-PP-12
7/8"	0.8750	SM-AC-TC-08750-1	SM-PP-12
15/16"	0.9375	SM-AC-TC-09375-1	SM-PP-12
1"	1.0000	SM-AC-TC-10000-1	SM-PP-12
1-1/16"	1.0625	SM-AC-TC-10625-1	SM-PP-12
1-1/8"	1.1250	SM-AC-TC-11250-1	SM-PP-12
1-3/16"	1.1875	SM-AC-TC-11875-1	SM-PP-12
1-1/4"	1.2500	SM-AC-TC-12500-1	SM-PP-12
1-5/16"	1.3125	SM-AC-TC-13125-1	SM-PP-12
1-3/8"	1.3750	SM-AC-TC-13750-1	SM-PP-12
1-7/16"	1.4375	SM-AC-TC-14375-1	SM-PP-12

TCT ANNULAR CUTTERS - 3/4" WELDON SHANK - IMPERIAL SIZES					
Cutter Diameter (in)	Decimal Equivalent	Steelmax Part Number			
		2" Depth of Cut	Included Pilot Pin	3" Depth of Cut	Included Pilot Pin
1/2	0.5000	SM-AC-TC-05000-2	SM-PP-14		
9/16	0.5625	SM-AC-TC-05625-2	SM-PP-14		
5/8	0.6250	SM-AC-TC-06250-2	SM-PP-14		
11/16	0.6875	SM-AC-TC-06875-2	SM-PP-14		
3/4	0.7500	SM-AC-TC-07500-2	SM-PP-14	SM-AC-TC-07500-3	SM-PP-17
13/16	0.8125	SM-AC-TC-08125-2	SM-PP-14	SM-AC-TC-08125-3	SM-PP-17
7/8	0.8750	SM-AC-TC-08750-2	SM-PP-14	SM-AC-TC-08750-3	SM-PP-17
15/16	0.9375	SM-AC-TC-09375-2	SM-PP-14	SM-AC-TC-09375-3	SM-PP-17
1	1.0000	SM-AC-TC-10000-2	SM-PP-14	SM-AC-TC-10000-3	SM-PP-17
1 1/16	1.0625	SM-AC-TC-10625-2	SM-PP-14	SM-AC-TC-10625-3	SM-PP-17
1 1/8	1.1250	SM-AC-TC-11250-2	SM-PP-14	SM-AC-TC-11250-3	SM-PP-17
1 3/16	1.1875	SM-AC-TC-11875-2	SM-PP-14	SM-AC-TC-11875-3	SM-PP-17
1 1/4	1.2500	SM-AC-TC-12500-2	SM-PP-14	SM-AC-TC-12500-3	SM-PP-17
1 5/16	1.3125	SM-AC-TC-13125-2	SM-PP-14	SM-AC-TC-13125-3	SM-PP-17
1 3/8	1.3750	SM-AC-TC-13750-2	SM-PP-14	SM-AC-TC-13750-3	SM-PP-17
1 7/16	1.4375	SM-AC-TC-14375-2	SM-PP-14	SM-AC-TC-14375-3	SM-PP-17
1 1/2	1.5000	SM-AC-TC-15000-2	SM-PP-14	SM-AC-TC-15000-3	SM-PP-17
1 9/16	1.5625	SM-AC-TC-15625-2	SM-PP-14	SM-AC-TC-15625-3	SM-PP-17
1 5/8	1.6250	SM-AC-TC-16250-2	SM-PP-14	SM-AC-TC-16250-3	SM-PP-17
1 11/16	1.6875	SM-AC-TC-16875-2	SM-PP-14	SM-AC-TC-16875-3	SM-PP-17
1 3/4	1.7500	SM-AC-TC-17500-2	SM-PP-14	SM-AC-TC-17500-3	SM-PP-17
1 13/16	1.8125	SM-AC-TC-18125-2	SM-PP-14	SM-AC-TC-18125-3	SM-PP-17
1 7/8	1.8750	SM-AC-TC-18750-2	SM-PP-14	SM-AC-TC-18750-3	SM-PP-17
1 15/16	1.9375	SM-AC-TC-19375-2	SM-PP-14	SM-AC-TC-19375-3	SM-PP-17
2	2.0000	SM-AC-TC-20000-2	SM-PP-14	SM-AC-TC-20000-3	SM-PP-17
2 1/16	2.0625	SM-AC-TC-20625-2	SM-PP-14	SM-AC-TC-20625-3	SM-PP-17
2 1/8	2.1250	SM-AC-TC-21250-2	SM-PP-14	SM-AC-TC-21250-3	SM-PP-17
2 3/16	2.1875	SM-AC-TC-21875-2	SM-PP-14	SM-AC-TC-21875-3	SM-PP-17
2 1/4	2.2500	SM-AC-TC-22500-2	SM-PP-14	SM-AC-TC-22500-3	SM-PP-17
2 5/16	2.3125	SM-AC-TC-23125-2	SM-PP-14	SM-AC-TC-23125-3	SM-PP-17
2 3/8	2.3750	SM-AC-TC-23750-2	SM-PP-14	SM-AC-TC-23750-3	SM-PP-17
2 7/16	2.4375	SM-AC-TC-24375-2	SM-PP-16		
2 1/2	2.5000	SM-AC-TC-25000-2	SM-PP-16		
2 9/16	2.5625	SM-AC-TC-25625-2	SM-PP-16		
2 3/4	2.6250	SM-AC-TC-26250-2	SM-PP-16		
2 11/16	2.6875	SM-AC-TC-26875-2	SM-PP-16		
2 3/4	2.7500	SM-AC-TC-27500-2	SM-PP-16		
2 13/16	2.8125	SM-AC-TC-28125-2	SM-PP-16		
2 7/8	2.8750	SM-AC-TC-28750-2	SM-PP-16		
2 15/16	2.9375	SM-AC-TC-29375-2	SM-PP-16		
3	3.0000	SM-AC-TC-30000-2	SM-PP-16		

TCT cutters 2-7/16" in diameter and larger have 1-1/4" Weldon shanks and require an appropriate arbor.

# STEELMAX® ANNULAR CUTTER SETS

<b>Steelmax Cutter Set SM-AC-SET-7-1</b> 1" Depth of Cut, 3/4" Shank		
Cutter Diameter	Decimal Equivalent	Part Number
9/16"	0.5625	SM-AC-05625-1
11/16"	0.6875	SM-AC-06875-1
13/16"	0.8125	SM-AC-08125-1
15/16"	0.9375	SM-AC-09375-1
1-1/16"	1.0625	SM-AC-10625-1
1" Pilot Pin		SM-PP-02

<b>Steelmax Cutter Set SM-AC-SET-7-2</b> 2" Depth of Cut, 3/4" Shank		
Cutter Diameter	Decimal Equivalent	Part Number
9/16"	0.5625	SM-AC-05625-2
11/16"	0.6875	SM-AC-06875-2
13/16"	0.8125	SM-AC-08125-2
15/16"	0.9375	SM-AC-09375-2
1-1/16"	1.0625	SM-AC-10625-2
2" Pilot Pin		SM-PP-04

<b>Coutersinks For Magnetic Drills</b> 3/4" Weldon Shank			
Diameter	# of Flutes	Degree	Part Number
1"	3	82	SM-CTS-1000-82
1"	3	90	SM-CTS-1000-90
1-1/2"	3	82	SM-CTS-1500-82
1-1/2"	3	90	SM-CTS-1500-90
2"	3	82	SM-CTS-2000-82
2"	3	90	SM-CTS-2000-90

<b>Twist Bits for Magnetic Drills</b> 3/4" Weldon Shank			
Diameter	Decimal Equivalent	Depth of Cut	Part Number
1/4"	0.2500	2"	SM-AC-TB-02500-2
5/16"	0.3125	2"	SM-AC-TB-03125-2
3/8"	0.3750	2"	SM-AC-TB-03750-2

<b>Quick Change Adaptors for 3/4" Weldon Shank Cutters*</b>			
	1" DOC HSS Cutters	2" DOC HSS Cutters 2" DOCTCT Cutters	3" DOCTCT Cutters
Adaptor	SM-NDA-634	SM-NDA-634	SM-NDA-798
Pilot Pin	SM-PP-04	SM-PP-19	SM-PP-20

\*Allows any standard 3/4" weldon shank cutter to fit in a Nitto Drill



Steelmax point-of-sale cutter display available. Call for details.

<b>Steelmax Cutter Set SM-AC-SET-13-1</b> 1" Depth of Cut, 3/4" Shank		
Cutter Diameter	Decimal Equivalent	Part Number
7/16"	0.4375	SM-AC-04375-1
1/2"	0.5000	SM-AC-05000-1
9/16"	0.5625	SM-AC-05625-1
5/8"	0.6250	SM-AC-06250-1
11/16"	0.6875	SM-AC-06875-1
3/4"	0.7500	SM-AC-07500-1
13/16"	0.8125	SM-AC-08125-1
7/8"	0.8750	SM-AC-08750-1
15/16"	0.9375	SM-AC-09375-1
1"	1.0000	SM-AC-10000-1
1-1/16"	1.0625	SM-AC-10625-1
1" Pilot Pin (7/16")		SM-PP-01
1" Pilot Pin		SM-PP-02

<b>Steelmax Cutter Set SM-AC-SET-13-2</b> 2" Depth of Cut, 3/4" Shank		
Cutter Diameter	Decimal Equivalent	Part Number
7/16"	0.4375	SM-AC-04375-2
1/2"	0.5000	SM-AC-05000-2
9/16"	0.5625	SM-AC-05625-2
5/8"	0.6250	SM-AC-06250-2
11/16"	0.6875	SM-AC-06875-2
3/4"	0.7500	SM-AC-07500-2
13/16"	0.8125	SM-AC-08125-2
7/8"	0.8750	SM-AC-08750-2
15/16"	0.9375	SM-AC-09375-2
1"	1.0000	SM-AC-10000-2
1-1/16"	1.0625	SM-AC-10625-2
2" Pilot Pin (7/16")		SM-PP-03
2" Pilot Pin		SM-PP-04



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## HP60 & HP110

### FULLY PORTABLE PUNCHES PRODUCE SMOOTH PRECISE HOLES IN SECONDS

Available in two models with 35 ton and 47 ton capacities, Steelmax Portable Hydraulic Punches are ideal solutions to speed the production of holes and slots in beam flanges, angle, channel, plates and bar stock. The Double Action design minimizes cycle times and, coupled with high portability, promotes reduced material handling generating highly efficient hole production compared to other processes.

#### Primary features and benefits:

- Maximum Hole Diameter 1-1/16" (27 mm)
- Double Action Design Prevents Punch Binding and Speeds Retraction
- Intelligent Control System with Automatic Load Detection and Mode Indicator Light
- Rugged Forged Steel "C" Frame for Strength and Durability
- Fully Portable Punch and Pump Package Reduces Material Handling
- Optional Free Standing Base with Foot Pedal permits Bench Top Operation



**SM-HP700**  
**HydraulicPunchPowerPack**

#### HP60/HP110 Round Hole Capacities

(60,000 PSI Shear Strength Material)

Plate Thickness	1/16	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8
HP60 <sup>1</sup>	1-1/16	1-1/16	1-1/16	1-1/16	1-1/16	1	13/16	3/4	–	–
HP110 <sup>2</sup>	1-1/16	1-1/16	1-1/16	1-1/16	1-1/16	1-1/16	1-1/16	1	7/8	3/4

1. HP 60 maximum plate thickness is 1/2"

2. HP 110 maximum plate thickness is 5/8"

**Steelmax**

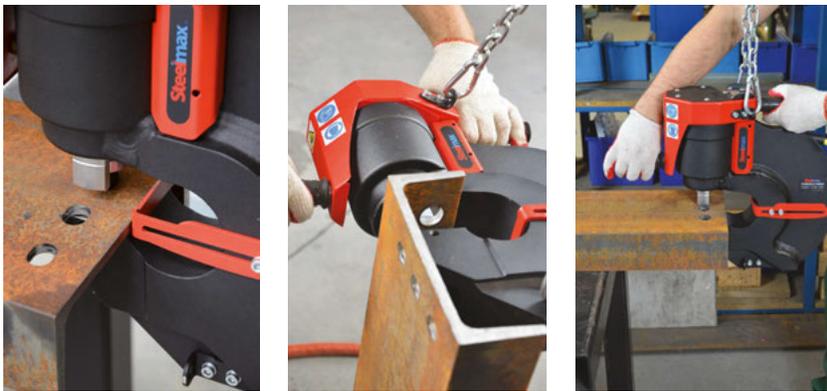
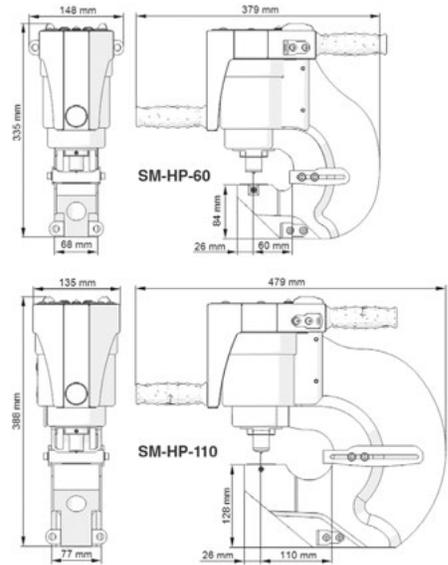
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# PORTABLE HYDRAULIC PUNCHES FROM STEELMAX®

## TECHNICAL SPECIFICATIONS

Portable Double-Action Hydraulic Punch	SM-HP60	SM-HP110
Max. throat depth	2-3/8" (60 mm)	4-5/16" (110 mm)
Max. hole*	1-1/16" (Ø 27 mm)	1-1/16" (Ø 27 mm)
Max. oblong hole	25 x 18 mm	25 x 18 mm
Punch cycle time	5 sec	8 sec
Max. plate thickness*	1/2" (13 mm)	5/8" (16 mm)
Punch power	35 ton	47 ton
Working pressure	10,000 psi	10,000 psi
Weight	44 lbs (20 kg)	77 lbs (35 kg)

\*See round hole capacity chart on previous page.



Ready to work in both vertical and horizontal positions



Ergonomic location of "quick-connect" ports at the rear of unit

Double-Action Hydraulic Power Pack SM-HP700	
Power supply*	230V/50Hz; 115V/60Hz
Motor power	1500 W
Working pressure	10,000 psi
Pump output	1.5 L/min
Oil capacity	10 L



Portable hydraulic power pack with shelf for punch transport SM-HP700



\*Contact Steelmax for other voltage options

Spring balancers available for both machines SM-BLN-000005



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**American Welding Society**  
Supporting Company Member

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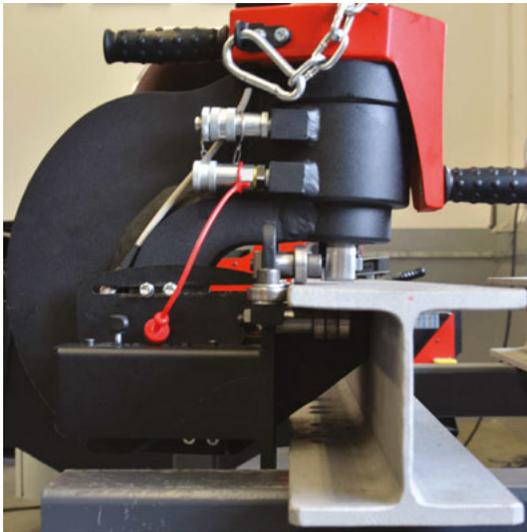
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## Optional Accessories



**Free Standing Base for Punch** SM-ZST-0507-91-00-00-0  
With Foot Petal Activation for bench top operation



**Wheeled Carriage for Punch** SM-PRW-0507-90-00-00-0  
Permits smooth and efficient lineal movement along the work piece.



**Overhead Support for Punch**  
SM-ZUR-0517-15-00-00-0  
Integrated overhead boom support allows for easy manipulation of punch and power pack as single unit.

## Punches & dies



HOLE DIAMETER	DECIMAL EQUIVALENT	PUNCH PART #	DIE PART#
5/16	0.3125	SM-HP-P-0313	SM-HP-D-0313
3/8	0.3750	SM-HP-P-0375	SM-HP-D-0375
7/16	0.4375	SM-HP-P-0438	SM-HP-D-0438
1/2	0.5000	SM-HP-P-0500	SM-HP-D-0500
9/16	0.5625	SM-HP-P-0563	SM-HP-D-0563
5/8	0.6250	SM-HP-P-0625	SM-HP-D-0625
11/16	0.6875	SM-HP-P-0688	SM-HP-D-0688
3/4	0.7500	SM-HP-P-0750	SM-HP-D-0750
13/16	0.8125	SM-HP-P-0813	SM-HP-D-0813
7/8	0.8750	SM-HP-P-0875	SM-HP-D-0875
15/16	0.9375	SM-HP-P-0938	SM-HP-D-0938
1	1.0000	SM-HP-P-1000	SM-HP-D-1000
1 1/16	1.0625	SM-HP-P-1063	SM-HP-D-1063

Slot sizes in stock. Other sizes available by special order.

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## S7XP METAL CUTTING SAW

### 7" OR 7-1/4" BLADE DIAMETER

Pick up a Steelmax saw this morning, and it can pay for itself by the end of the day.

This saw is a money maker, delivering quick cuts with a cool, burr-free finish. The S7XP's powerful 1560 W (13 Amp) motor with overload protection provides a portable, powerful, and practical metal cutting saw.

The S7XP cuts mild steel up to 1/4" (6 mm) thick – solid material, channel, angle, tube and pipe with a maximum profile depth of 2-1/2" (63 mm). Other materials such as aluminum and stainless steel are cut as easily as plywood. A laser alignment guide reduces set-up time for straight and accurate long cuts which are cool-to-the-touch.

It takes less than 6 seconds to cleanly cut a 4" long piece of 1/4" mild steel. No milling or de-burring necessary with this near-surgical dry-cut technology.

#### FEATURES

- Blade guiding laser
- Unique cover collects chips and sparks
- Includes a 7-1/4" TCT mild steel cutting blade
- Includes a carrying case, protective glasses and hearing protection, and extra carbon brushes
- Overload protection
- UL certified



Steelmax S7 XP Technical Specifications	
Rated Voltage	120V / 60Hz
Motor Power	1,560 W
No Load Motor Speed	3,800 RPM
Arbor	20.0 mm
Saw Blade Diameter	7-1/4" (185 mm) / 7" (180 mm)
Weight, Gross/Net	16 lbs. (7.3 kg) / 12.75 lbs. (5.8 kg)
Max. Plate Thickness	1/4" (6 mm)
Max. Cutting Depth at 90°	2-1/2" (63 mm) Profile
Max. Cutting Depth at 45°	1-3/8" (36 mm ) Profile
Sound power level	98dB(A)
Sound pressure level	88dB(A)
Part Number	<b>SM-S7 XP</b>



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# METAL CUTTING SAW FROM STEELMAX®

## S9XP METAL CUTTING SAW WITH LASER GUIDE

### 9" BLADE DIAMETER

Pick up a Steelmax saw this morning, and it can pay for itself by the end of the day.

The most powerful saw of this size in the market, the Steelmax S9XP is designed for heavy duty industrial uses and widespread on-site applications including: fabrication, construction, and fire and rescue. Competitively priced, the S9XP cuts mild steel, stainless steel and aluminum as easy as cutting plywood.

This versatile saw cuts mild steel up to 1/2" thick and has a depth of cut of 3-1/4" for cutting pipe, channel, angles, car posts, and sheet metal. It delivers a cool-to-the-touch, precise, and burr-free cut in seconds. A laser alignment guide speeds set-up time for accurate, straight and long cuts.

It takes less than 6 seconds to cleanly cut 4" x 1/2" mild steel. No milling or de-burring with a near-surgical dry-cut technology.

#### FEATURES

- Blade guiding laser
- Unique cover collects chips and sparks
- Includes a 9" TCT mild steel cutting blade
- Includes a carrying case, hearing and eye protection, and extra carbon brushes
- UL 745 certified



#### Steelmax S9XP Technical Specifications

Cutting capacity	3-1/4" profile 1/2" solid
Weight	20 lbs
Blade diameter	9"
Arbor	1"
RPM	2700
Beveling/Mitering	Beveling/45°
Motor	15 amps; 120V/1750W 2.3 HP
Depth adjustment	Yes
Chip cover	Included
Applications	Pipe, plate, channel, grating, roof decking, silos, emergency rescue, door posts
Part number	<b>SM-S9XP</b>

# Steelmax

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## S14 METAL CUTTING SAW

### 14" BLADE DIAMETER WITH STABLE CAST IRON BASE

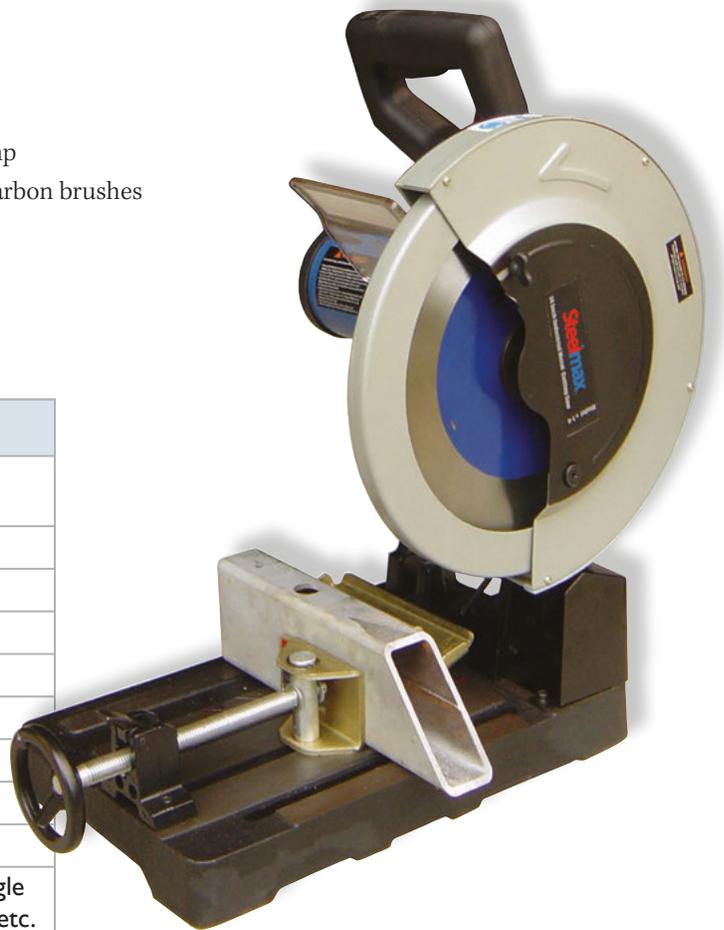
**Pick up a Steelmax saw this morning, and it can pay for itself by the end of the day.**

When a saw is engineered to work as efficiently as the Steelmax S14, your purchase pays immediate dividends. With its precise, fast, clean, burr-free, cool-to-touch cutting, further processing is eliminated, saving you expensive de-burring and further machining. Only Steelmax has a "quick-pipe clamp" built onto its base that allows the S14 to securely hold round material, pipe and tubing so it doesn't come loose or turn when being cut – which could damage the material or blade. A heavy cast iron base reduces vibration to extend blade life and provide more precise cutting.

#### FEATURES

- Mitering capability up to 45°
- Powerful 15 amp, 1750W motor
- 1450 rotations per minute
- Stable cast iron base
- Quick adjustment vise with innovative quick-pipe clamp
- Includes hearing and eye protection, and extra set of carbon brushes
- Pipe capacity up to 4-3/4"
- 1" Arbor Bore, chip collection tray
- Includes a 14" TCT mild steel cutting blade
- UL 745 certified

Steelmax S14 Technical Specifications	
Cutting capacity 1" solid	4-3/4" profile
Weight	64 lbs
Blade diameter	14"
Arbor	1"
RPM	1450
Beveling/Mitering	Mitering/45°
Motor	120V / 1750W 2.3 HP
Depth adjustment	2-position vice
Chip tray	Slide out
Applications	Pipe, plate, channel, conduit, angle iron, metal studs, rebar, tubing, etc.
Part number	<b>SM-S14</b> (120V/60Hz)



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## TUNGSTEN CARBIDE & CERMET TIPPED SAW BLADES

### CUT MILD STEEL, STAINLESS STEEL, ALUMINUM & THIN STEEL FAST & CLEAN

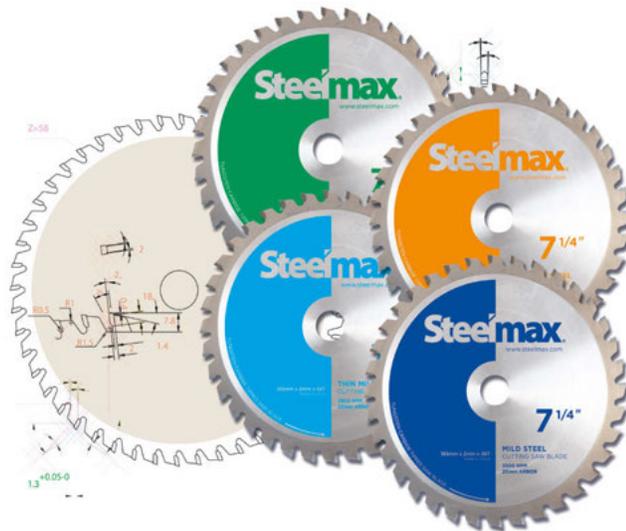
Steelmax metal cutting saw blades are designed to provide maximum performance when cutting ferrous and nonferrous metals. Compared to abrasive cutting wheels, Steelmax metal cutting saw blades cut faster and more accurately. They also impart less heat and produce no hazardous dust. Steelmax blades are offered with Tungsten Carbide Tips (TCT) or Cermet (Ceramic Metallic) Tips, designed for clean cool cutting of mild steel, stainless steel, aluminum and thin steel. They are suitable for cutting plate, grating, angle, channel, tube, pipe and many other materials.

#### TCT Blades

Our industry leading Tungsten Carbide Tipped (TCT) saw blades utilize the highest-quality European C6 grade tungsten carbides. With application-specific tooth counts and rake geometry, Steelmax offers a TCT saw blade to cut any material for any job.

#### FEATURES

- High-quality, European C6 Tungsten Carbide Tips
- Clean cuts with fewer sparks and burrs
- Cool cutting
- Designed with varying tooth counts and rake angles for specific purposes
- Safe alternative to abrasive cutoff wheels



#### Cermet Tipped Blades

For heavy-duty cutting applications, Steelmax Cermet Tipped saw blades offer superior wear and heat resistance for long cutting life. These blades feature a super-thin kerf for fast, efficient cutting and laser-cut stabilizer slots, reducing dissonant noise and vibration for maximum stability and precise cuts. Our proprietary blade geometry, incorporating wide and shallow tooth pockets, combined with our advanced Triple Chip Grind, provide speed and durability for clean, burr-free cuts in even the hardest alloys.

#### FEATURES

- Cermet Tips for high impact and wear resistance
- Laser-cut body and stabilizer slots for smooth operation
- Triple Chip Grind for rapid cutting
- Stainless Steel versions feature a two-step blade body and a Fluorine coating for added lubricity for reduced friction
- Proprietary blade geometry (wide & shallow tooth pockets) improves blade stability and durability

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### Tungsten Carbide Tipped Metal Cutting Saw Blades

Blade Diameter	Part No.	Teeth	Arbor	RPM (MAX)	Applications
7.0"	SM-BL-07	36T	20 mm	3500	Mild Steel (less than 5/16")
7.25"	SM-BL-07-5	36T	20 mm	3500	Mild Steel (less than 5/16")
7.25"	SM-BL-07-5-TS	68T	20 mm	3500	Thin Mild Steel (less than 1/4")
7.25"	SM-BL-07-5-AL	54T	20 mm	3500	Aluminum (up to 3/8")
7.25"	SM-BL-07-5-SS	48T	20 mm	3500	Stainless Steel (less than 1/8")
7.25"	SM-BL-07-5-WVD	40T	20 mm	3500	Wood Cutting (framing with wood cover)
8.0"	SM-BL-08	48T	5/8"	3700	Mild Steel (less than 1/2")
9.0"	SM-BL-09	48T	1.0"	2700	Mild Steel (less than 1/2")
9.0"	SM-BL-09-TS	80T	1.0"	2700	Thin Mild Steel (less than 1/4")
9.0"	SM-BL-09-AL	80T	1.0"	2700	Aluminum (up to 3/8")
9.0"	SM-BL-09-SS	54T	1.0"	2700	Stainless Steel (less than 1/8")
12.0"	SM-BL-12	60T	1.0"	1000	Mild Steel (less than 1")
14.0"	SM-BL-14	66T	1.0"	1450	Mild Steel (less than 1")
14.0"	SM-BL-14-TS	90T	1.0"	1450	Thin Mild Steel (less than 1/4")
14.0"	SM-BL-14-AL	100T	1.0"	1450	Aluminum (up to 3/8")
14.0"	SM-BL-14-SS	90T	1.0"	1450	Stainless Steel (less than 1/4")

### Cermet Tipped Metal Cutting Saw Blades

Blade Diameter	Part No.	Teeth	Arbor	RPM (MAX)	Applications
7.25"	SM-BL-CT-07-5	36T	20 mm	5500	Mild Steel (less than 5/16")
7.25"	SM-BL-CT-07-5-SS	64T	20 mm	5500	Stainless Steel (less than 1/8")
9.0"	SM-BL-CT-09	44T	1.0"	3500	Mild Steel (less than 1/2")
9.0"	SM-BL-CT-09-SS	76T	1.0"	3500	Stainless Steel (less than 1/8")
14.0"	SM-BL-CT-14	64T	1.0"	1500	Mild Steel (less than 1")
14.0"	SM-BL-CT-14-SS	110T	1.0"	1500	Stainless Steel (less than 1/4")



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## PLATE & PIPE BEVELING SOLUTIONS



## BM7 MULTIPURPOSE BEVELING TOOL

### BEVEL, DEBURR, CHAMFER & RADIUS EDGES

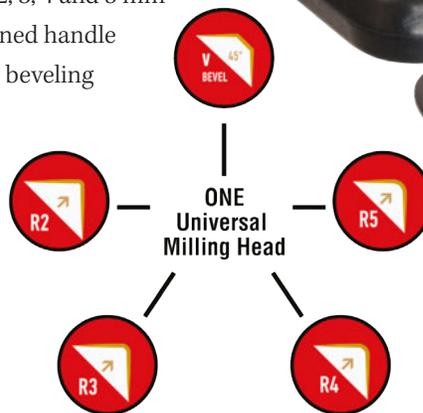
The Steelmax **BM7** is a compact, multipurpose milling tool that can bevel, deburr, chamfer and radius mill edges of plate, pipe, tubes, and holes. The machine can be used on flat, curved and radius cut edges and can countersink holes as small as 1-3/8" (35 mm) diameter. The **BM7** is an efficient solution for quick and consistent beveled edges for weld preparation, rounding off edges for paint and coating preparation, removing burrs and removing sharp edges on workpieces. It is ideal for cleaning out holes and cut outs.

#### BENEFITS

- Increased production. Up to 3x faster than grinding
- Consistent high-quality finish produced by rotary milling process
- Improved safety compared to abrasive grinding wheels which can shatter
- Produces no hazardous dust
- No distortion or heat input to the part.
- Requires no secondary grinding process to remove heat affected zones

#### FEATURES

- Rotary milling head with 4 piece tool holder for indexable TiN coated carbide inserts
- 45-degree bevel with variable width up to 1/4" (7 mm)
- Radius milling inserts available in sizes 2, 3, 4 and 5 mm
- Compact ergonomic design with cushioned handle
- Special anti-loading inserts available for beveling aluminum and other soft materials
- Optional Anti-Abrasion Guide Plate for smoother operation of aluminum milling



Bevel width  
up to 7 mm



Radius edge milling  
R2, R3, R4 or R5



Countersinking  
Min. ID 1.38" (35 mm)



Top beveling



Contour edge beveling  
& radius milling



Pipe OD beveling



Bevel angles  
45° (standard)  
30° (optional)



Min plate thickness  
1.5 mm



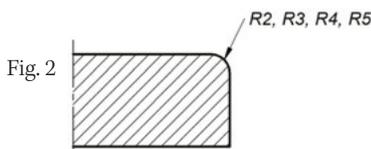
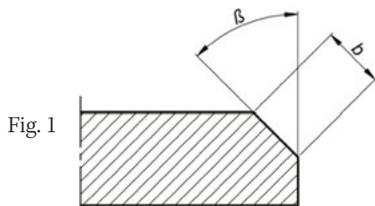
Pipe ID beveling  
Min. ID 1.57" (40 mm)

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## BM7 Technical Specifications

Power Supply	110-120 V, 50-60 Hz or 220-240 V, 50-60 Hz
Spindle Speed (Without Load)	6500 rpm
Maximum Bevel Width (b)	0.38" (7mm); Fig.1
Bevel Angle ( $\beta$ , depending on milling head)	45° (standard); 30° (optional); Fig.1
Minimum Diameter for Countersinking	1.38" (35mm)
Dimensions (L x W x H)	13" x 5.6" x 12.5" (327 x 142 x 319 mm)
Weight (Without Milling Head)	13 lbs (5.8 kg)
Part Numbers	SM-BM7 (120V/50-60Hz) SM-BM7-230 (230V/50-60Hz)



Radius edge milling



Contour edge beveling and radius milling



Plate beveling



Pipe beveling



Countersinking

### Standard set includes:

- BM7 beveler including milling head 45° w/o inserts
- Plastic box
- Special wrench
- Torx T15 screwdriver
- Screw grease (5 g)
- Operator's Manual



- SM-UST-0509-16-00-00-0  
Radius positioner  
(R2, R3, R4, R5)

### Accessories:

SM-GLV-0540-08-00-00-0	45° Milling Head for Beveling & Radius Edge Milling
SM-GLV-0540-09-00-00-0	30° Milling Head for Beveling
SM-PLY-000391	Beveling Insert for Steel (4 Required)
SM-PLY-000423	Beveling Insert for Aluminium (4 Required)
SM-NKL-0540-15-00-00-0	Anti-Abrasion Plate for Aluminum Milling
SM-PLY-000360	Radius Insert R2 (4 Required)
SM-PLY-000159	Radius Insert R3 (4 Required)
SM-PLY-000160	Radius Insert R4 (4 Required)
SM-PLY-000161	Radius Insert R5 (4 Required)
SM-UST-0509-16-00-00-0	Radius Edge Milling Depth Setting Tool

### Spare and Wearing Parts:

SM-SRB-000289	Insert Screw
SM-RLK-0540-08-02-00-0	Guiding roller
SM-SMR-000005	Screw grease (5 g)
SM-SCZ-000009	Carbon brush for 115 V / 230 V

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## BM16 PORTABLE BEVELER

### BEVEL OR RADIUS FLAT, CURVED OR ROLLED PLATE

The Steelmax **BM16** is a light-weight portable beveling machine for use on flat, curved or rolled plate. It can also perform O.D. and I.D. bevels on pipe, including deburring, and can chamfer and countersink holes with a minimum diameter of 1-9/16" (40 mm). Interchangeable bevel milling heads, utilizing indexable carbide inserts, are available for bevel angles of 22.5°, 30°, 37.5°, 45° and 60°. A radius milling head is also available with indexable carbide inserts to radius plate edges with a perfect 2, 3, 4 and 5 mm radius

The **BM16** is equipped with a simple bevel depth adjustment, overload protection and electronic speed control for use on a variety of materials, including steel and aluminum. The **BM16** is highly efficient for edge weld preparation and for producing radiused plate edges for optimal paint and coating adhesion. The compact design makes the **BM16** an excellent tool for many fabrication applications.

#### FEATURES

- Highly efficient beveling machine – up to 10 times faster than grinding
- Produces no hazardous dust, greatly improving working environment
- Guide plate and roller guides insure consistent, highly accurate bevel angles
- Lightweight ergonomic design reduces worker fatigue
- Variable speed control permits adjustment of milling head for use on various grades of steel and aluminum
- Versatile tool which can be used to bevel or radius mill straight edges, contours and holes
- Ideal solution for radius milling for paint and coating preparation
- Optional anti-abrasion plate and special inserts available for aluminum milling



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## BMI6 Technical Specifications

Power supply	110-120V/50-60Hz or 220-240V/50-60Hz
Motor	2200W 3.0 HP
Motor speeds (without load)	1800 - 5850 rpm
Maximum bevel width	b=5/8" (16 mm) see figure 1
Bevel angles ( $\beta$ ) depending on milling head	22.5, 30, 37.5, 45, 60, degrees
Min. material thickness	1/8" (1.5 mm)
Min. diameter of countersink	ca 1-9/16" (40 mm)
Beveling with radius	R2, R3, R4, R5 see figure 2
Dimensions (L x W x H)	23" x 6.1" x 9.4" (585 x 156 x 238 mm)
Weight (without milling head)	22 lbs (10 kg)
Part numbers	SM-BM16 (110-120V/50-60Hz) SM-BM16-230 (220-240/50-60Hz)

### Basic set:

- BM16 beveling machine
- Metal box
- 32 mm flat wrench
- Allen wrench hex s=5
- Allen wrench hex s=14
- Operator's manual

Milling head and inserts sold separately.

Figure 1

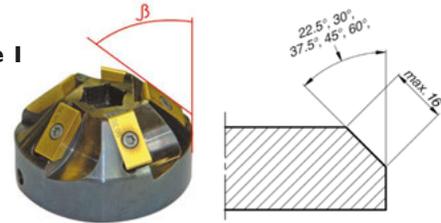
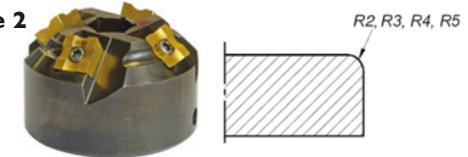


Figure 2



### Accessories to be chosen by customer:

SM-GLW-000011	Radius Milling Head W/ Depth Setting Tool
SM-PLY-000360	Radius Insert R2 (4 Required)
SM-PLY-000159	Radius Insert R3 (4 Required)
SM-PLY-000160	Radius Insert R4 (4 Required)
SM-PLY-000161	Radius Insert R5 (4 Required)
SM-UST-0509-16-00-00-0	Radius Edge Milling Depth Setting Tool



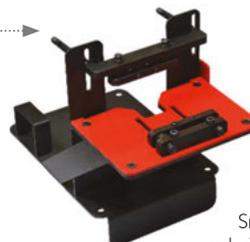
Radius edge milling depth setting tool

SM-GLW-000010	Beveling Milling Head 22.5°
SM-GLW-000005	Beveling Milling Head 30°
SM-GLW-000009	Beveling Milling Head 37.5°
SM-GLW-000006	Beveling Milling Head 45°
SM-GLW-000007	Beveling Milling Head 60°
SM-PLY-000294	Beveling Insert for Steel (5 Required)
SM-PLY-000195	Beveling Insert for Aluminum (5 Required)
SM-NKL-0509-05-00-00-0	Anti-Abrasion Plate for Aluminum Milling



Pipe beveling attachment  
ID ≥ 110 mm  
OD ≥ 150 mm

SM-PRW-0509-07-00-00-0	Pipe Beveling Attachment
SM-ZBD-0509-12-00-00-0	Small Workpiece Machining Table



Small workpiece machining table

### Spare and wearing parts:

SM-SRB-000289	Mounting Screw for Radius Milling Head
SM-SRB-000290	Mounting Screw for Beveling Milling Head
SM-RLK-0509-03-00-00-0	Guiding Roller



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## BM20 Plus PORTABLE BEVELER

### HEAVY-DUTY TOOL PRODUCES HIGH-QUALITY MACHINED BEVELS

The **Steelmax BM20 Plus** is a portable, heavy-duty hand-operated beveling machine designed to mill accurate high-quality bevels for weld preparation on plate and pipe. Utilizing a rotary milling head and ten four-sided indexable carbide inserts, the **BM20 Plus** will create precise bevel angles that improve fit-up time, eliminate weld defects and reduce welding consumables.

Unlike thermal cutting for weld preparation, the **BM20 Plus** produces no heat-affected zone or distortion of the work piece. This simple-to-operate machine can be carried anywhere and will eliminate costly material handling associated with moving plates around the shop to stationary burning and milling machines.

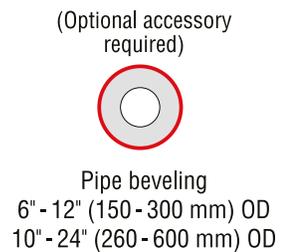
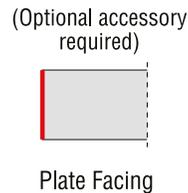
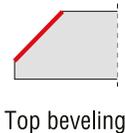
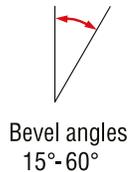
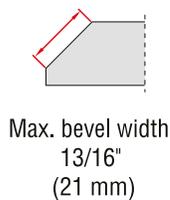
Automatic thermal overload protection circuitry protects the motor from premature failure, providing a reliable tool that can withstand the toughest jobs.

#### FEATURES

- Portable, heavy-duty machine
- Equipped with guide rolls for easy operation
- Automatic motor overload protection
- Fitted with two milling heads for smooth and efficient operation
- Adjustable bevel angle, 15° - 60°

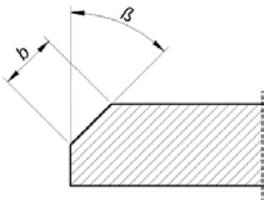
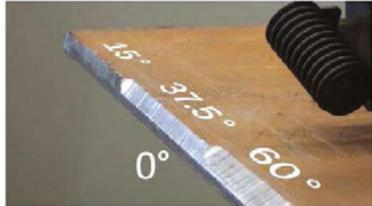


#### APPLICATIONS



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BM20 Plus Technical Specifications	
Power supply	115V/60Hz or 230V/50Hz
Power	2.41 HP (1.8 kW) for 60 Hz 2.5 HP (1.6 kW) for 50 Hz
Spindle speed	2740 - 3290 rpm (at 115V) 2780 - 3340 rpm (at 230V)
Tooling	Two milling heads with 10 square cutting inserts
Maximum bevel width (b)	13/16" (21 mm) (see figure 1)
Bevel angle ( $\beta$ )	15 - 60° (see figure 1); 0° (see facing attachment)
Weight	45 lbs (20.5 kg)
Part number	<b>SM-BM20+</b> (115V/60Hz) <b>SM-BM20+-230</b> (230V/50Hz)



$\beta$	15°	30°	45°	60°
b	21 mm	20.5 mm	21 mm	20.5 mm

Figure 1: Bevel dimensions – maximum achievable bevel width depending on the bevel angle (multiple 1/4" passes)



2 rotary milling heads, each holding five 4-sided indexable inserts

Cutting insert (1 piece)

Part No. SM-PLY-000282  
10 inserts required



Plate beveling



Plate facing (option)



Pipe beveling (option)

### Optional Accessories:



Pipe beveling attachment  
6" - 12" (150 - 300 mm)  
Part No. SM-ZSP-0075-31-00-00-0



Large Pipe beveling attachment  
10" - 24" (260 - 600 mm)  
Part No. SM-ZSP-0075-31-00-00-1



Facing attachment (0°)  
enables beveling at zero degrees  
Part No. SM-ZSP-0075-32-00-00-1

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## BM21 PORTABLE BEVELING MACHINE

### PRODUCE HIGH-QUALITY MACHINED BEVELS EFFICIENTLY WITH THIS PORTABLE ERGONOMIC POWER TOOL

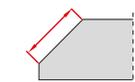
Reduce your costs and lay the foundation for high-quality welds with the **Steelmax BM21**. Inaccurate bevels and poor weld preparation are often the root cause of weld defects and excessive welding costs. This machine utilizes a high-speed rotary milling head with ten carbide inserts to produce precise bevel angles from 0 to 60 degrees that dramatically improve fit up and all subsequent welding operations.

Unlike flame or plasma cut weld preparation, the **BM21** produces no heat affected zone or distortion of the work piece. This portable tool can be carried anywhere and eliminates time consuming and costly material handling associated with moving plates around the shop to stationary burning and milling machines.

The **BM21** features an ergonomic design that includes vibration dampening technology to protect the operator and the machine during heavy continuous operation. Automatic thermal overload protection circuitry protects the motor from premature failure, providing a reliable tool that can withstand the toughest jobs. The **BM21** can be used on plate and pipe without any additional accessories.

#### FEATURES:

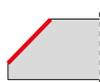
- Single milling head with 10 carbide inserts produces weld-ready bevels quickly and more efficiently with less operator effort
- Fast and easy exchange of carbide inserts minimizes down time
- Working range from 0 to 60 degrees with continuous angle adjustment
- Simple bevel angle and bevel width set up
- Vibration insulation protects both the operator and the machine electronics
- Universal guide plate requires no additional accessories for beveling both plate and pipe



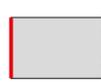
Max. bevel width  
13/16" (21mm)



Bevel angles  
0-60°



Top  
beveling



Facing  
Max 13/16" (21mm)



Pipe beveling  
OD 6 - 12"; option: OD 10 - 24"



Vibration  
dampers  
produce smooth  
operation



Special model BM-21SS with lower speed motor dedicated for machining **STAINLESS STEELS** also available

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# PORTABLE BEVELING MACHINE FROM STEELMAX®

## BM21 Technical Specifications

Voltage	115V 60 Hz or 230V 50 Hz
Power	1100 W Induction Motor
Spindle Speed	2820 RPM
Tooling	Integrated Milling Head with 10 Square Carbide Inserts
Bevel Angle	0° - 60° Continuous Angle Adjustment
Max Bevel Width	13/16" (21 mm)
Weight	43 lbs (20 Kg)
Part Number	SM-BM21 (115V/60Hz) SM-BM21-230 (230V/50Hz)



Pipe beveling



Plate facing



Plate beveling



Mono block milling head, with 10 indexable inserts.

Single universal guide plate for beveling both plates, and for pipes  $\phi$  6-12" (150-300 mm)



### Optional equipment:

Replacement cutting inserts – 10 required

Part No. **SM-PLY-000282**



An optional guide is needed for larger pipes with a diameter of 10-24" (260-600 mm)

Part No. **SM-PRW-0461-22-00-00-0**



Continuous angle adjustment from 0 to 60 degrees.

**Enhanced  
Vibration  
Dampening**



The BM21 incorporates industry leading anti-vibration technology for more comfortable operation and extended machine life.

Testing indicates that this new anti-vibration system **reduces vibration by up to 37%** over comparable machines.

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American Welding Society  
Supporting Company Member



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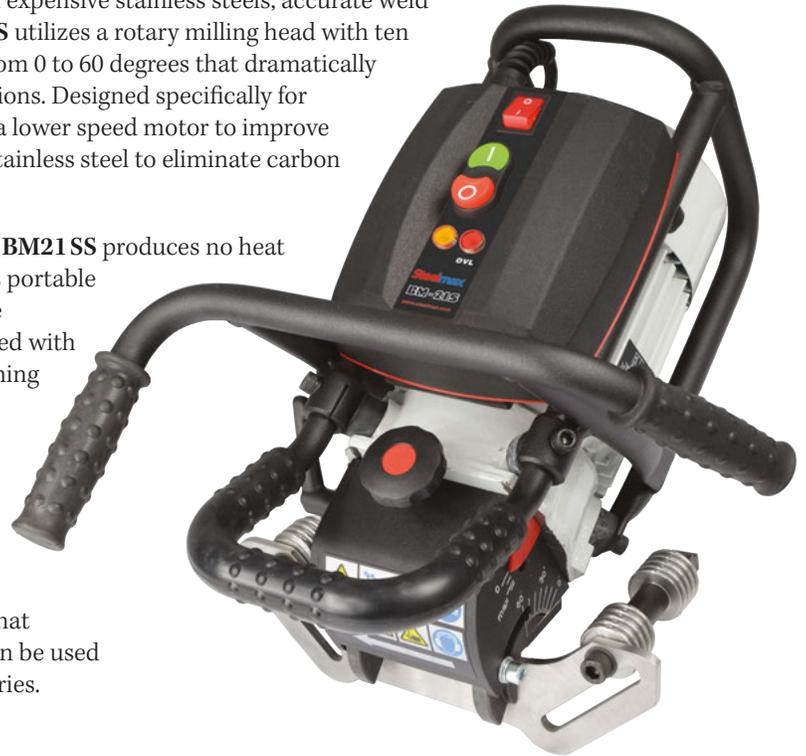
## BM21 SS

### PRODUCE HIGH-QUALITY MACHINED BEVELS IN STAINLESS STEEL WITH THIS PORTABLE ERGONOMIC POWER TOOL

The **Steelmax BM21 SS** beveling machine is a customized version of our industry-leading BM21 beveling machine specifically designed for use on stainless steel plate and pipe. Inaccurate bevels and poor weld preparation often lead to weld defects and excessive welding costs. With expensive stainless steels, accurate weld preparation is even more important. The **BM21 SS** utilizes a rotary milling head with ten carbide inserts to produce precise bevel angles from 0 to 60 degrees that dramatically improve fit up and all subsequent welding operations. Designed specifically for stainless steel applications, the **BM21 SS** utilizes a lower speed motor to improve machining and all contact surfaces are made of stainless steel to eliminate carbon contamination of the stainless steel work piece.

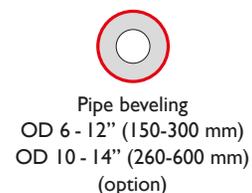
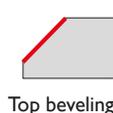
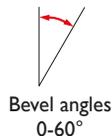
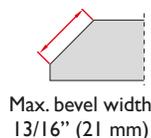
Unlike flame or plasma cut weld preparation, the **BM21 SS** produces no heat affected zone or distortion of the work piece. This portable tool can be carried anywhere and eliminates time consuming and costly material handling associated with moving plates around the shop to stationary burning and milling machines.

The **BM21 SS** features an ergonomic design that includes vibration dampening technology to protect the operator and the machine during heavy continuous operation. Automatic thermal overload protection circuitry protects the motor from premature failure, providing a reliable tool that can withstand the toughest jobs. The **BM21 SS** can be used on plate and pipe without any additional accessories.



#### FEATURES

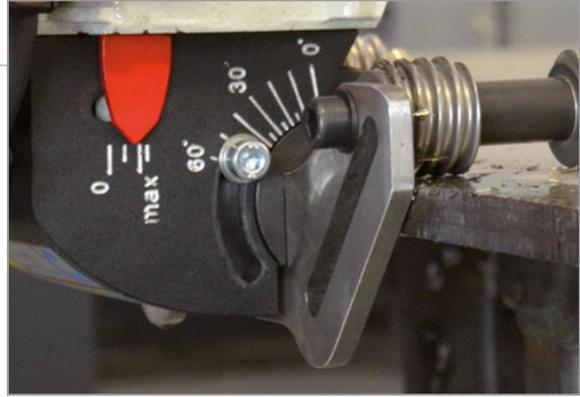
- All stainless steel contact surfaces to eliminate carbon contamination
- Single milling head using 10 indexable carbide inserts produces weld-ready bevels quickly and efficiently with low operator effort
- Fast and easy exchange of inserts with no need for special adjustment
- Working range from 0 to 60 degrees with continuous angle adjustment
- Simple bevel angle and bevel width setup
- Advanced vibration isolation protects both the operator and the machine
- Universal guide plate requires no additional accessories for beveling both plate and pipe



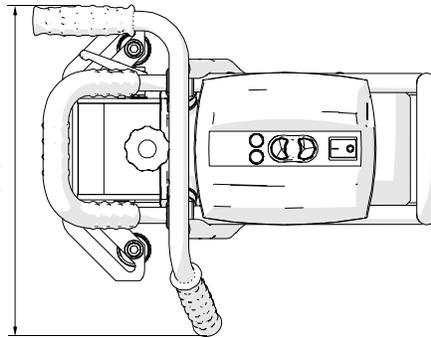
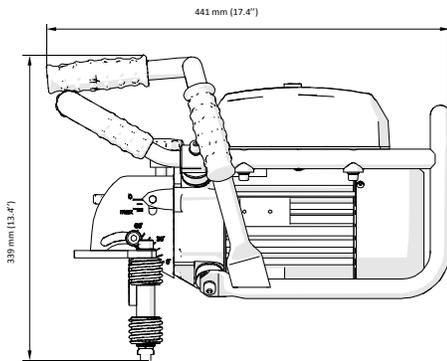
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## BM21 SS Technical Specifications

Voltage	115V 60 Hz or 230V 50 Hz
Power	1800 W Induction Motor
Spindle Speed	1560 RPM
Tooling	Integrated Milling Head with 10 Square Carbide Inserts
Bevel Angle	0° - 60° Continuous Angle Adjustment
Max Bevel Width	13/16" (21 mm)
Weight	51 lbs (23 Kg)
Part Number	<b>SM-BM21-SS</b> (115V/60Hz) <b>SM-BM21-SS-230</b> (230V/50Hz)



Continuous angle adjustment from 0 to 60 degrees



Standard universal guide plate  
made of Stainless Steel  
for beveling both plates and pipes  
Ø 6-12" (150-300 mm)



Plate facing



Plate beveling



Pipe beveling

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## ABM28 AUTO-FEED PLATE BEVELING MACHINE

### INNOVATIVE, AUTO-FEED BEVELING MACHINE BEVELS TOP, FACE AND BOTTOM EDGES WITH ONE SET UP

The Steelmax **ABM28** is the latest generation in automatic portable beveling machines with the ability to face plates (0 degrees) and produce top and bottom side bevels at any angle between +60 degrees and -60 degrees from a single setup. With its unique self-indexing guide rail system, the **ABM28** can bevel plates in both travel directions, significantly improving machining times and overall productivity.

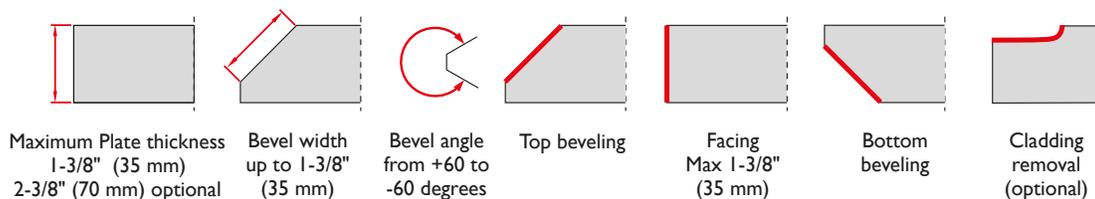
An optional cladding-removal setup is available for the **ABM28** which dramatically simplifies preparing clad materials for welding

#### FEATURES:

- Auto-feed beveler with overload protection produces consistent high-quality bevels with minimal operator fatigue
- Continuously adjustable bevel angle between +60 and -60 degrees enables beveling of both sides of the plate without turning the plate over – significantly enhancing safety and productivity
- Maximum bevel width (depending on the beveled angle) from 1-1/8" to 1-3/8" (28-35 mm)
- Variable feed speed accommodates many types of metals and thicknesses up to 1-3/8" (35 mm) as standard or optionally up to 2-3/4" (70 mm)
- Bevels in both directions reducing cycle times and improving productivity
- Optional cladding-removal attachment simplifies preparing clad materials for welding
- Quick setup and simple operation
- Multiple guide rails can be connected to bevel long plates



Beveling greater lengths of plate is accomplished with additional sections of guide tracks.



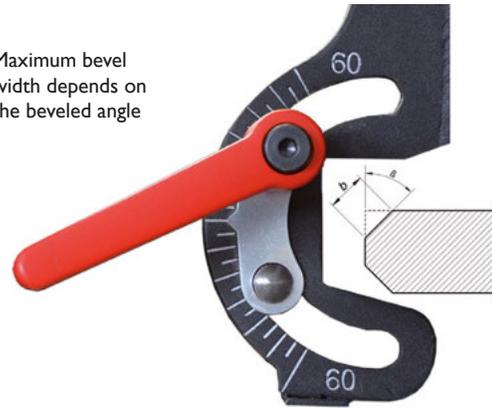
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# AUTO-FEED BEVELING MACHINE FROM STEELMAX®

ABM28 TECHNICAL SPECIFICATIONS	
Voltage	~220-240V, 50-60 Hz
Power	1600W
Spindle speed (no load)	2780 rpm
Bevel angle (b)	60 to -60°
Maximum bevel width (b)	1-3/8" (35 mm)
Feed speed	10"-20"/minute (250 mm-500 mm/min)
Plate thickness	1-3/8" (35 mm); 2-3/4" (70 mm) option
Weight	173 lbs. (70.5kg)

$\beta$	0°	30°	45°	60°
b	1-3/8" (35 mm)	1-3/16" (30 mm)	1-1/8" (28 mm)	1-3/16" (30 mm)

Maximum bevel width depends on the beveled angle



Milling head  
**SM-GLW-000013**



Replacement cutting inserts  
- 7 required  
**SM-PLY-000282**

### Standard shipping set:

1. Carriage mounted on a guide track
2. Milling unit
3. Milling unit support for beveling at 60° to -60°
4. Additional guide track section
5. Track clamp for 3/8"-1-3/8" (10-35 mm) thick plates (3 pcs)
6. Chip container
7. Set of tools
8. Clamp for 3/8"-1-3/8" (10-35 mm) thick plates (2 pcs)
  - Wooden box
  - Operator's Manual



### Accessories and optional equipment:

- SM-GLW-000013 Milling head (7 inserts required)
- SM-PLY-000282 Cutting Insert (1 piece), sold 10pcs/box
- SM-SGM-0152-04-01-00-2 Guide track L=47-1/4" (1200 mm)
- SM-UST-0152-04-04-00-3 Track clamp for 3/8" - 1-3/8" (10-35 mm) thick plates
- SM-UST-0152-15-01-00-1 Track clamp for 1-3/8" to 2-3/4" (36-70 mm) thick plates
- SM-ZCS-0152-04-02-00-1 Clamp for 3/8" - 1-3/8" (10-35 mm) thick plates
- SM-ZCS-0152-15-02-00-0 Clamp for 1-3/8" to 2-3/4" (36-70 mm) thick plates
- SM-WSP-0518-03-00-00-0 Milling unit support for beveling 3/8" - 1-3/8" (10-35 mm) thick plates from -60° to 60°
- SM-WSP-0518-04-00-00-0 Milling unit support for beveling 1-3/8" to 2-3/4" (36-70 mm) thick plates at 0° to 60° (incl. facing)
- SM-WSP-0518-05-00-00-0 Milling unit support for beveling 1-3/8" to 2-3/4" (36-70 mm) thick plates at 0° to -60°
- SM-WSP-0518-07-01-00-0 12° Angle attachment with height adjustment



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 **American Welding Society**  
Supporting Company Member

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## DBM12 DOUBLE-SIDED PLATE/PIPE BEVELING MACHINE

### LIGHTWEIGHT, SELF-FEEDING BEVELER WITH 12 MM CAPACITY

The Steelmax **DBM12** Portable Beveling Machine produces weld-ready bevels on flat plates of any shearable material up to 85,000 psi tensile strength. The **DBM12** uses a shearing process that is silent and fast. A powerful 3 phase electric motor drives the machine at speeds up to 6 feet per minute and cuts bevels up to ½" wide on material thickness from 1/8" up to 1-3/8" thick (see technical specifications table for more details). Interchangeable bevel angle attachments permit creation of 22.5, 30, 37.5, 45 and 50 degree bevels. This lightweight machine is easily inverted to bevel the underside of the plate for creation of X and K double-sided bevels without flipping the plate. The **DBM12** produces no smoke or dust and almost no noise. It will not distort the plate or create a heat affected zone.

All electronic components are housed in a dust proof enclosure and the machine conforms to all appropriate CE specifications.

#### FEATURES

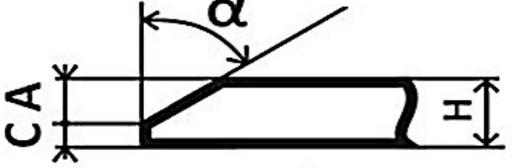
- 180° inversion allows for creation of a double-sided bevel – no need to rotate or flip heavy material. Dramatically reduces material handling costs and improves safety.
- Shearing cutting wheel is long lasting, quiet, and fast; beveling up to 6 feet per minute.
- Great machine for creating weld test coupons.
- Bevel pipe & round tubes 3-3/4" in diameter and larger.



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**DBM12 Technical Specifications**

Part Number	SM-DBM12
Motor Power	400W, 7.5 rpm
Voltage	480V, 60Hz, 3 Phase
Plate Thickness	0.12"-1.38" (3mm-35mm) for 22.5°, 30° & 37.5° bevel angles 0.12"-0.87" (3mm-22mm) for 45° & 50° bevel angles
Max Bevel Width	12mm (0.5")
Cutting Speed	6 ft/min (1.8m/min)
Bevel Range	22.5° - 50° (See accessories below for angle attachments)
Dimensions	18.5" x 11.6" x 20.6" (470mm x 294mm x 523mm)
Weight	66 lbs (30kg)
<b>Accessories for DBM12</b>	
22.5° Bevel Angle Attachment	SM-DBM12-1926
30° Bevel Angle Attachment	SM-DBM12-1923
37.5° Bevel Angle Attachment	SM-DBM12-1925
45° Bevel Angle Attachment	SM-DBM12-1924
50° Bevel Angle Attachment	SM-DBM12-1929
Set of Three Cutting Wheels	SM-DBM12-1928
Adaptor for Pipe Beveling	SM-DBM12-1919



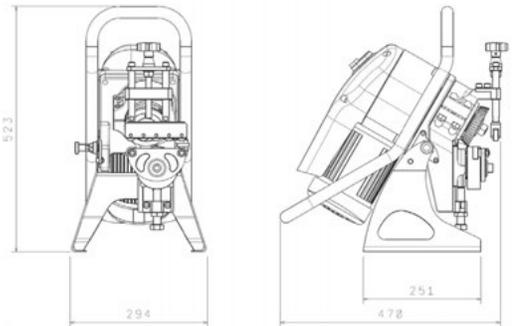
H	α	C2
3-8 mm (0.12"-0.32")	22.5° - 50°	0mm (0")
10mm (0.4")	50°	2mm (0.08")
	45°	1.5mm (0.06")
	37.5°	0.5mm (0.02")
	30°	0mm (0")
	22.5°	0mm (0")
12mm (0.47")	50°	4mm (0.16")
	45°	3.5mm (0.14")
	37.5°	2.5mm (0.1")
	30°	1.5mm (0.06")
	22.5°	1mm (0.04")
15mm (0.6")	50°	7mm (0.28")
	45°	6.5mm (0.26")
	37.5°	5.5mm (0.22")
	30°	4.5mm (0.18")
	22.5°	4mm (0.16")
20mm (0.8")	50°	12mm (0.47")
	45°	11.5mm (0.45")
	37.5°	10.5mm (0.41")
	30°	9.5mm (0.37")
	22.5°	9mm (0.35")
22mm (0.87")	50°	14mm (0.55")
	45°	13.5mm (0.53")
	37.5°	12.5mm (0.49")
	30°	11.5mm (0.45")
	22.5°	11mm (0.43")
25mm (1.0")	37.5°	15.5mm (0.61")
	30°	14.5mm (0.57")
	22.5°	14mm (0.55")
	37.5°	20.5mm (0.81")
30mm (1.18")	30°	19.5mm (0.77")
	22.5°	19mm (0.75")
	37.5°	25.5mm (1.00")
35mm (1.38")	30°	24.5mm (0.97")
	22.5°	24mm (0.95")

Bevel Angle Attachment for DBM12



Set of three cutting wheels for DBM12

Adaptor for beveling pipe & round tubes 3-3/4" and larger



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## DBM15 DOUBLE-SIDED PLATE BEVELING MACHINE

### HIGH-EFFICIENCY, SELF-FEEDING BEVELER WITH 15 MM CAPACITY

The Steelmax **DBM15** creates weld-ready bevels on flat plates of shearable materials up to 85,000 psi tensile strength. The **DBM 15** uses a shearing process that is silent and fast, beveling at travel speeds up to 11 feet per minute. It cuts bevels between 15 and 50 degrees on flat plate from 3/16" to 1-9/16" (5 to 40 mm) in thickness with a maximum bevel depth of 15 mm. It is perfect for preparing weld test coupons as small as 2-3/4" (70 mm) wide by 5-7/8" (150 mm) long. With the optional 3D trolley, the **DBM15** can be quickly inverted to bevel the bottom side of large plates, easily producing X- and K-bevels without having to flip the plate.

All electronic components are housed in a dust proof enclosure and the machine conforms to all appropriate CE specifications.

#### FEATURES

- 180° inversion allows for creation of a double-sided bevel – no need to rotate or flip heavy material
- Dramatically reduces material handling costs and improves safety
- Shearing cutting wheel is long lasting, quiet, and fast – beveling up to 11' per minute
- Optional floating 3D Trolley compensates for uneven floors and can be adjusted to work at a range of heights
- Easily adjusts to bevel angles from 15° to 50°.
- Functions as a traveling machine with the trolley, or as a stationary machine
- Great machine for creating weld coupons

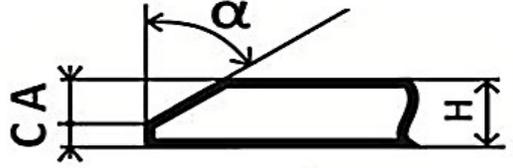


*3D Trolley features vertical height adjustment and floating compensation for uneven floors*



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DBM15 Technical Specifications	
Part number	<b>SM-DBM15</b>
Motor power	2 HP (1.5 KW), 2800 rpm
Voltage	480V, 60Hz, 3 phase
Plate thickness	0.23 to 1.57" (6-40 mm)
Max Bevel Width	9/16" (14 mm)
Cutting speed	11.5 ft/min (3.5 m/min)
Adjustable working angle	15 - 50° infinitely variable
Dimensions	20-7/8 x 15-1/2 x 33-7/8" (530 x 395 x 860 mm)
Weight	207 lbs (94 kg)
Accessories for DBM15	
Trolley	<b>SM-DBM15-T</b>
Standard Cutting Wheel	<b>SM-DBM15-2137</b>
Premium Cutting Wheel	<b>SM-DBM15-2136</b>



H	$\alpha$	C $\geq$
6-10 mm (0.24-0.4")	20°- 50°	0 mm (0")
12 mm (0.47")	50°	2.5 mm (0.1")
	45°	1.5 mm (0.06")
	30°	0 mm (0")
15 mm (0.6")	20°	0 mm (0")
	50°	5.5 mm (0.22")
	45°	4.5 mm (0.18")
20 mm (0.8")	30°	2 mm (0.08")
	50°	10.5 mm (0.41")
	45°	9.5 mm (0.37")
25 mm (1.0")	30°	7 mm (0.28")
	20°	6 mm (0.24")
	50°	15.5 mm (0.61")
30 mm (1.18")	45°	14.5 mm (0.57")
	30°	12 mm (0.47")
	20°	11 mm (0.43")
35 mm (1.38")	50°	20.5 mm (0.81")
	45°	19.5 mm (0.77")
	30°	17 mm (0.67")
40 mm (1.57")	20°	16 mm (0.63")
	50°	25.5 mm (1.00")
	45°	24.5 mm (0.96")
40 mm (1.57")	30°	22 mm (0.87")
	20°	21 mm (0.83")
	50°	30.5 mm (1.20")
40 mm (1.57")	45°	29.5 mm (1.16")
	30°	27 mm (1.06")
	20°	26 mm (1.02")



Rotates 180 degrees for bottom side bevel.



Infinitely adjustable angle between 15 and 50 degrees



Extra wide guide rollers for easy alignment to the plate



Premium coated cutting wheel for longer cutting life

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## DBM50 DOUBLE-SIDED PLATE BEVELING MACHINE

### SELF-PROPELLED ROTATING BEVELING MACHINE REDUCES MATERIAL HANDLING

The Steelmax **DBM50** produces accurate high-quality, machined bevels on plate thickness from 1/4" to 2-3/4" (7-70 mm) using a high-speed rotary milling head with replaceable carbide inserts. Infinitely adjustable bevel angle settings from 15 to 60 degrees require no tooling change.

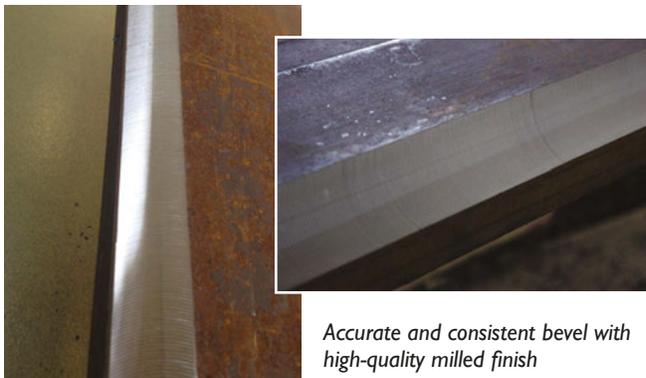
The **DBM50** employs a unique 3D trolley which allows the machine to be quickly inverted to create double-sided X- or K-bevels. Eliminating the need to flip the material improves operational safety and vastly increases productivity. The 3D Trolley features vertical height adjustment and floating compensation for uneven floors.

#### FEATURES

- 180° inversion allows for creation of a double-sided bevel – no need to rotate or flip heavy material. Dramatically reduces material handling costs and improves shop safety
- Rotary milling head with carbide inserts produces accurate high-quality finish without thermal distortion or creation of heat affected zone
- Floating 3D Trolley compensates for uneven floor
- Portable machine can be moved easily throughout the shop

*Optional small plate beveling table available for working with small work pieces.*

*Part # SM-DBM50-1942 ▶*



*Accurate and consistent bevel with high-quality milled finish*



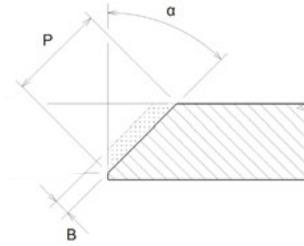
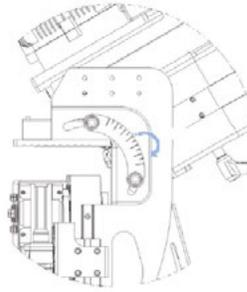
*3D Trolley features vertical height adjustment and floating compensation for uneven floors*

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### DBM50 Technical Specifications

Part number	<b>SM-DBM50</b>
Milling head motor power	5.36 HP (4000 W)
Voltage	480V, 60Hz, 3 phase
2 Auto-feed motors / each	.16 HP (120W)
Voltage	480V, 60Hz, 3 phase
Automatic feed speed adjustment with inverter:	6" to 43"/min (.17 - 1.1 m/min) Varies with type of material and depth of cut
Material thickness	1/4" to 2-3/4" (7 - 70 mm)
Min. dimension of material	7-7/8" x 3-1/16" (200 x 100 mm)
Max Bevel Width	Varies with angle setting: 2.44" (62 mm) at 15° 1.97" (50 mm) at 45°
Adjustable working angle	15 - 50° infinitely variable
Working Height/ Plate Position	32"-40"(812 mm-1016 mm) above floor with 22" (559 mm) overhang from supports
Weight (with trolley)	386 lbs (175 kg)



Bevel angle $\alpha$	Max. Bevel Width = P
15 - 60°	infinitely variable
15°	2.44" (62 mm) <i>recommended in 3 steps</i>
20°	2.44" (62 mm) <i>recommended in 4 steps</i>
25°	2.20" (56 mm) <i>recommended in 4 steps</i>
30°	2.05" (52 mm) <i>recommended in 5 steps</i>
35°	2.00" (51 mm) <i>recommended in 5 steps</i>
40°	2.00" (51 mm) <i>recommended in 5 steps</i>
45°	1.97" (50 mm) <i>recommended in 5 steps</i>
50°	2.00" (51 mm) <i>recommended in 5 steps</i>
55°	2.00" (51 mm) <i>recommended in 5 steps</i>
60°	2.05" (52 mm) <i>recommended in 5 steps</i>



Top side bevel



Rapid 180° inversion for bottom side bevel



High-speed rotary milling head with replaceable carbide Inserts



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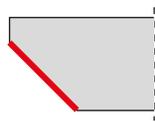
## SBM500 STATIONARY BEVELING MACHINE

### MACHINE STRAIGHT EDGES OF DIFFERENT SIZE WORKPIECES

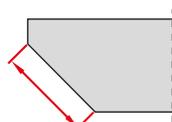
The Steelmax **SBM500** is a robust and efficient solution for beveling and deburring steel plate, angle, square/rectangular tubing and pipe. With its high-speed rotary milling head and variable auto feed, the **SBM 500** produces accurately milled weld preparations, improves welding efficiency and reduces costs. Machined bevel angles are accurate and consistent, making plate and root gap fit-up extremely precise and easy. Accurate weld preparation reduces over welding, defect repair, production time, significantly reducing production costs.

#### FEATURES

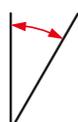
- Powerful 7,500 Watt electric motor for continuous operation
- Variable auto-feed to bevel both ferrous and non-ferrous materials
- Continuously adjustable bevel angle from 15 to 60 degrees
- Simple depth of cut adjustment
- High-speed rotary milling head with 7 replaceable carbide inserts produces a clean, milled surface free of thermal distortion with no heat affected zone
- Multiple cutting insert designs for optimal performance on different materials
- Versatile table top operation permits hand feeding of small plates, square/rectangular tubing, pipe, angle iron and round stock
- Optional table extensions accommodate longer material
- Produces bevel widths up to 1-3/16" (30 mm)
- Plate thickness up to 4" (100 mm)



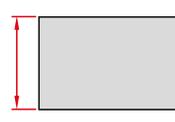
Edge Beveling



Bevel width  
up to 1-3/16"  
(30 mm)



Bevel angles 15° - 60°  
continuous adjustment



Workpiece height  
from 1/8" (3 mm)  
up to 4" (100 mm)



Min. workpiece width 2"  
(50 mm)  
Min. workpiece length 6"  
(150 mm)



Pipe OD beveling  
from 2" (50 mm)  
up to 6" (150 mm)  
(option)

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## SBM500 Technical Specifications

Power	7500 W
Spindle Speed	500 - 2920 RPM
Feed Rate	0.5 - 10 feet/min (0.2 - 3.3 m/min)
Bevel Angle Range ( $\beta$ , Figure 1)	15° - 60°
Maximum Bevel Width (b, Figure 1)	1-3/16" (30 mm)
Maximum Bevel Depth Per Pass (d, Figure 1)	1/4" (4 mm)
Minimum Plate Length	6" (150 mm)
Minimum Plate Width	2" (50 mm)
Plate Thickness Range	1/8" - 4" (3 - 100 mm)
Maximum Material Weight	220 lbs (100 Kg)
Round Stock Range	2" - 6" (50 - 150 mm)
Maximum Square/Rectangular Tubing Dimensions	4" x 4" (100 x 100 mm)
Minimum Angle Profile	2" x 2" (50 x 50 mm)
Voltage	480V, 3 Phase, 50/60 Hz
Weight	1,910 lbs (865 Kg)
Part Number	<b>SM-SBM500</b>



High-quality bevel results



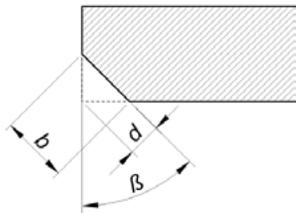
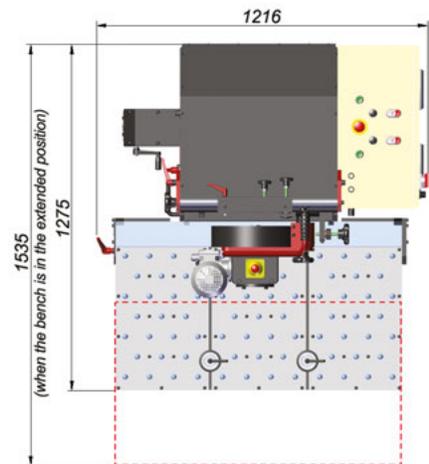
Easily machine various materials



Auxiliary tables to accommodate long workpieces



OD pipe beveling



$\beta$	15°	30°	45°	60°
b	30 mm	30 mm	30 mm	30 mm

Fig. 1.  
Bevel dimensions; maximum bevel width depending on the angle

### STANDARD SET INCLUDES:

- SBM500
- Set of Tools
- Operator's Manual (English)

### ACCESSORIES:

- SM-GLW-000030 - Milling head
- SM-PLY-000396 - Cutting insert for steel (7pcs required)
- SM-PLY-000408 - Cutting insert for aluminum (7pcs required)

Cutting inserts for stainless steel are available on request

**SM-STL-0573-35-00-00-0** Auxiliary table for long workpieces

**SM-PRK-0573-36-00-00-0** Pipe beveling attachment for pipes 2-6" (50-150 mm) OD

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## PB5 ID MOUNTED BEVELING MACHINE

RAPIDLY PRODUCE ACCURATE WELD PREPARATION FOR TUBE, PIPE AND BOILER REPAIR



**Eliminate laborious hand grinding, poor fit-up, weld defects and over welding with this in-line machining tool!**

Extremely productive when full penetration welding is required, the Steelmax **PB5** will produce accurate weld preparation within seconds. Creating highly repeatable and consistent fit-up, this tool dramatically reduces cycle times and improves work flow. By utilizing a self-centering mandrel which mounts internally to the open end of the tube or pipe, the PB5 can be rapidly deployed from one pipe to another.

Available with a pneumatic or electric motor, the **PB5** can be mounted in pipe or tubing with a minimum inside diameter of 1.25" (32 mm) and can bevel outside diameters up to 4.5" (114 mm). Designed with three tool holders, the **PB5** will simultaneously perform three different machining operations milling the OD Bevel, Root Face and an I.D. counterbore to create consistent wall thickness around the joint and ensure complete weld penetration.

### Optional Accessories include:

- An extension set to accommodate pipe or tubing up to 5 ½" (140 mm) O.D.
- Boiler Repair Kit for working on water walls and in restricted spaces.

### FEATURES

- Bevel, face and ID counterbore the pipe or tubing simultaneously
- Available with pneumatic or electric motor options
- Variety of tool bits available for creating various bevel angles for V and J groove preparation
- Self-Centering ID Mounted Mandrel



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# PB5 PIPE BEVELING MACHINE

PB5-E / PB5-P Technical Specifications		
	PB5-E	PB5-P
Motor Drive	Electric	Pneumatic
Motor Power	1,100 Wats	800 Wats
Speed Range	0-300 RPM	90 RPM
Power Supply Options	110-120V/50-60 Hz or 220-240V/50-60 Hz	NA
Air Requirements	NA	56.5 CFM (1600 L/min) / 87 PSI (0.6 Mpa)
Operating Weight (with Motor)	24 lbs (11 kg)	22 lbs (10 kg)
Min/Max Pipe Sizes (Min ID/Max OD) - Standard Mandrel	1.26" ID/4.49" OD (32 mm ID/114 mm OD)	
Min/Max Pipe Sizes (Min ID/Max ID) - Small Mandrel	1" ID/1.25 ID (25mm ID/33mm ID)	
Min/Max Pipe Sizes (Min OD/Max OD) - Large Spindle Disc	4.5" OD/5.5" OD (114mm OD/140mm OD)	

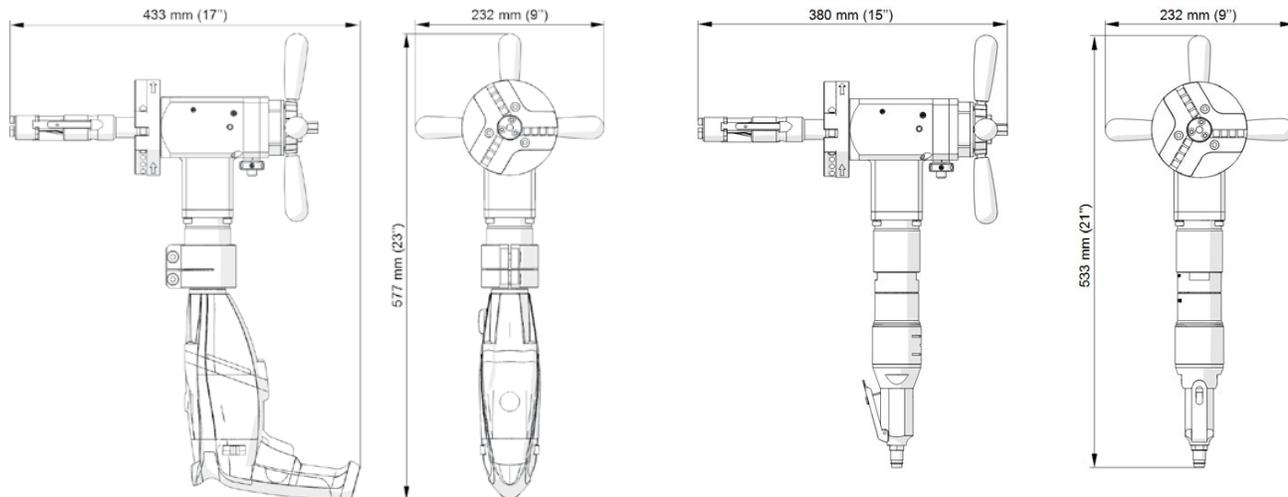
Maximum Allowable Pipe Schedule										
Nominal Pipe Diameter	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"
Maximum Pipe Schedule	SCH 40S/40/STD	SCH 80/80XS	SCH 160	XXS	SCH 160	SCH 160	SCH 80/80XS	SCH 120	SCH 40S/40/STD*	SCH 40S/40/STD*

\* Requires optional 5 1/2" (140 mm) spindle disk set.

Maximum Allowable Pipe/Tube Wall Thickness					
Pipe/Tube Size Range	1" - 1.25" ID (25 mm to 33mm ID)	1.25" ID to 4.5" OD (32 mm ID to 114 mm OD)	4.5" - 5" OD*	5" - 5.2" OD*	5.2" - 5.5" OD*
Maximum Wall Thickness	0.5" (12 mm)	0.5" (12 mm)	0.39" (10 mm)	0.31" (8 mm)	0.24" (6 mm)

\* Requires optional 5 1/2" (140 mm) spindle disk set.

## Dimensions

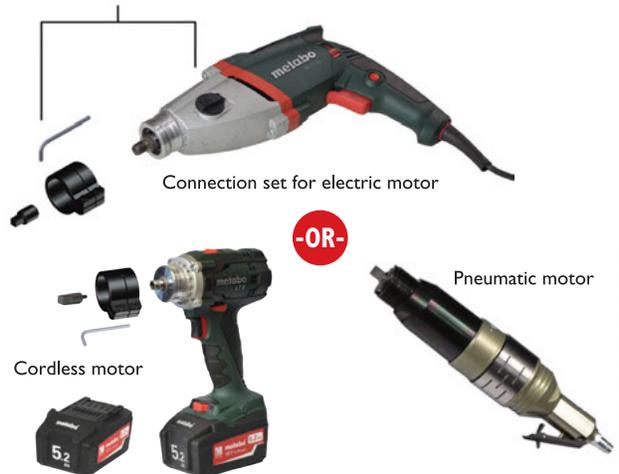


## PB5 Standard shipping set:

- Beveling head unit with either electric or pneumatic motor
- Metal shipping box
- Standard self-centering expandable mandrel for pipe ID Ø 1.25" – 4.25" (32 – 107 mm)
- 118 mm spindle disc
- Jaw blocks (1, 2, 3, 4, 5, 6) – 3 sets
- Set of tools
- Coolant container
- Operator's manual



## 115V Electric Motor



# PORTABLE BEVELING MACHINE FROM STEELMAX®

## Part Number

SM-NOZ-000031	F0-30 0° facing tool bit	
SM-NOZ-000032	B30 30° bevelling tool bit*	
SM-NOZ-000033	B30d 30° bevelling tool bit**	
SM-NOZ-000036	B375 37.5° bevelling tool bit*	
SM-NOZ-000037	B375d 37.5° bevelling tool bit**	
SM-NOZ-000040	B45 45° bevelling tool bit*	
SM-NOZ-000041	B45d 45° bevelling tool bit**	

For pipe diameters between 2.2" and 3.26" (56 mm and 83 mm), both long and short beveling tool bits can be used in conjunction with 0 degree facing tool bit.

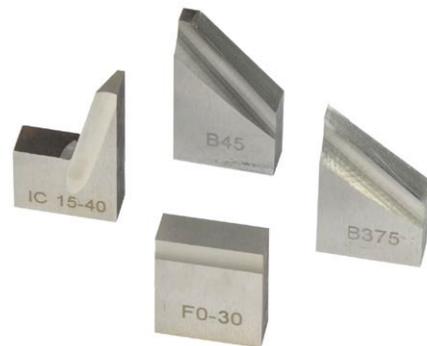
\* For pipe diameters over 2.2" (56 mm), short beveling tool bit must be used in conjunction with 0° facing tool bit

\*\* For pipe diameters under 3.26" (83 mm), long beveling tool bit must be used in conjunction with 0° facing tool bit



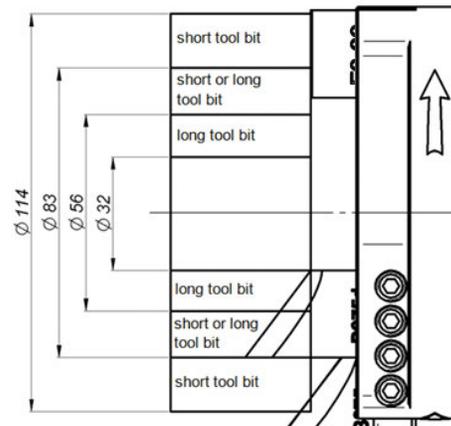
## Part Number

SM-NOZ-000052	IC15-40 15° internal counterbore tool bit	
SM-NOZ-000053	IC15-40 15° internal counterbore tool bit – for diameters over 2.2" (56 mm)	
SM-NOZ-000058	J10-R6 10° J-bevelling tool bit	
SM-NOZ-000057	J15-R2 15° J-bevelling tool bit	
SM-NOZ-000059	J20-R8 20° J-bevelling tool bit	



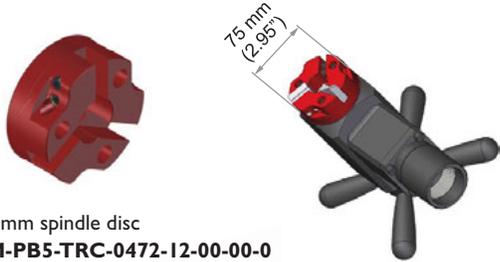
Wide range of tool bits for various applications.

When using 0° facing tool bit in conjunction with beveling tool bit, either long or short beveling tool bit is used depending on pipe diameter.



## Optional Accessories

**Boiler Repair Accessories** – For work on water walls and restricted spaces.

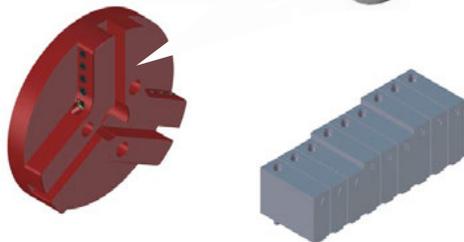


75 mm  
(2.95")

Minimum distance  
between tubes is  
75mm (2.95")



Ratchet wrench  
SM-PB5-KLC-000045



Extension set for OD Ø up to 5.5" (140 mm) including  
140 mm spindle disc and jaw blocks (7, 8, 9) – 3 sets  
SM-ZST-0472-15-00-00-0



## Additional Equipment

Item	Description
SM-PB5-BE 1100	PB5 Electric Motor 115V
SM-PB5-SLN-000176	PB5 Electric Motor 230V
SM-PB5-ZST-0472-11-00-00-1	PB5 Clamping Ring Set for Electric Motor
SM-PB5-KLC-000045	PB5 Ratchet Wrench
SM-PB5-NPD-0472-03-00-00-0	PB5 Pneumatic Motor
SM-PB5-TRC-0472-12-00-00-0	PB5 Spindle Disk
SM-PB5-UKS-0472-10-00-00-0	PB5 Beveling Head Unit
SM-PB5-ZST-0472-15-00-00-0	PB5 Extension Block Set
SM-PB5-TRZ-0472-21-00-00-0	PB5 Small Mandrel
SM-PB5-BS 18 LTX	PB5 Cordless Electric Motor
SM-PB5-ZST-0472-22-00-00-0	PB5 Clamping Ring Set for Cordless Motor



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## PB10 PIPE BEVELING MACHINE

### PNEUMATIC OR ELECTRIC TO MEET USERS SITE CONDITIONS

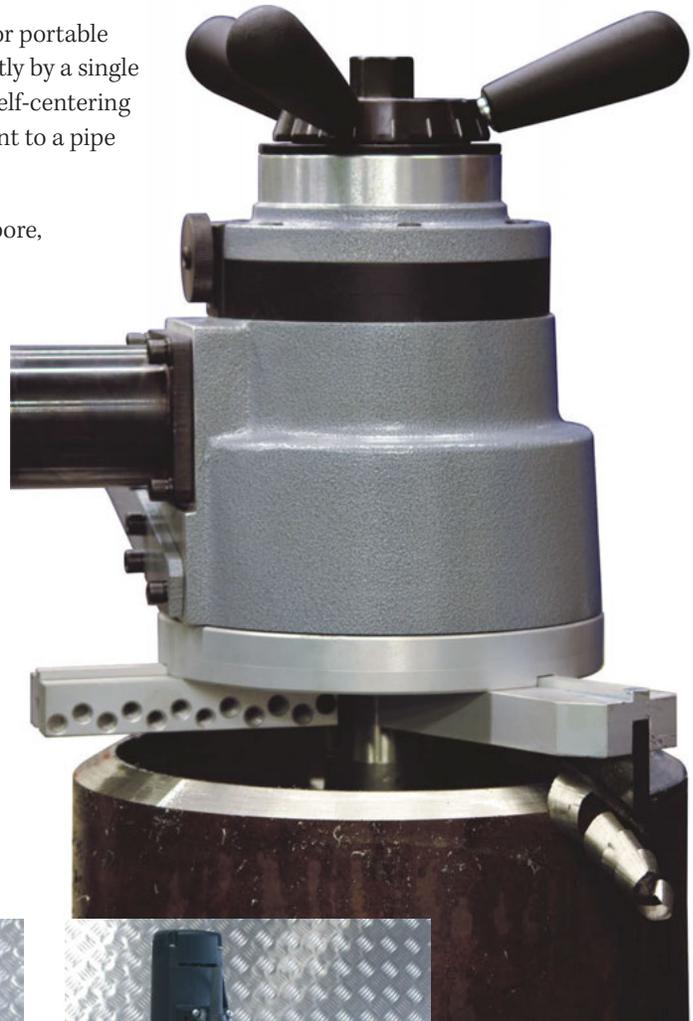
The Steelmax **PB10** pipe beveling machine is designed for portable use in pipe machining operations. It can be used efficiently by a single operator. It is a heavy-duty I.D. mounted pipe beveler. Self-centering expandable mandrels provide quick and proper alignment to a pipe or a tube prior to machining operations.

The **PB10** is able to bevel, face off, chamfer and counterbore, making all these weld prep operations quick and simple.

Depending on users preferences and site conditions, the **PB10** machine can be operated with a high-quality powerful pneumatic motor or a high-torque electric motor.

#### FEATURES

- Bevel, face off and counterbore simultaneously
- Standard and custom made tool bits available
- Available in pneumatic or electric versions
- J-Bevel tools available for high welding efficiency



Pneumatic: SM-PB10



Electric: SM-PBE10

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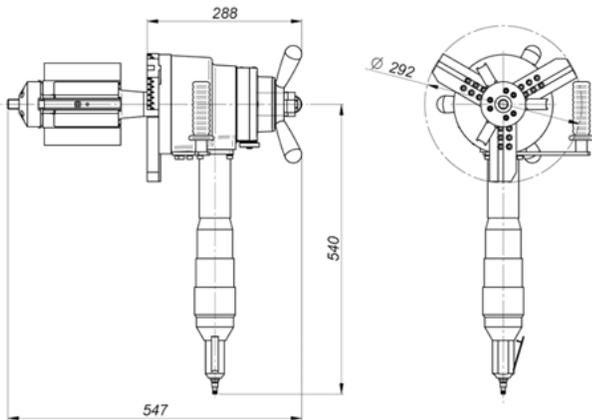
## PB10 Technical Specifications

Pipe machining range	Min I.D. – 1.6" (40 mm) Max I.D. – 10-9/16" (269 mm) Wall thickness: up to .80" (20 mm) Minimum Pipe Length: 7-1/2" (190 mm)
Part number	<b>SM-PB10</b>
Pneumatic motor	1500W 2.0 HP
Power requirements	1750 l/min (61.7 cfm) at 630 kpa (90 psi)
Headstock speed range	5 to 18 rpm
Part number	<b>SM-PBE10</b>
Electric motor	1800W
Supply	115V/60Hz or 230V/50Hz
Headstock speed range	14 to 32 rpm

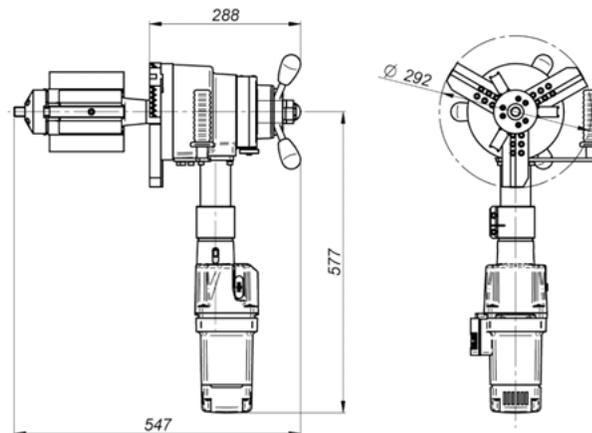


All information is subject to change without notice.

### Pneumatic: SM-PB10



### Electric: SM-PBE10



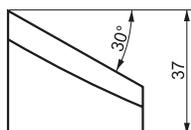
## PART NUMBERS & TOOL BITS CODES

<b>SM-NOZ-000019</b>	30° Beveling tool bit, height 1.5" (37 mm)
<b>SM-NOZ-000018</b>	30° Beveling tool bit, height 1.7" (44 mm)
<b>SM-NOZ-000020</b>	37.5° Beveling tool bit, height 1.7" (44 mm)
<b>SM-NOZ-000015</b>	37.5° Beveling tool bit, height 2.1" (54 mm)
<b>SM-NOZ-000021</b>	45° Beveling tool bit, height 2.1" (54 mm)
<b>SM-NOZ-000017</b>	0° Facing tool bit, height 1.2" (30 mm)
<b>SM-NOZ-000023</b>	30° Internal beveling tool bit, height 1.7" (44 mm)
<b>SM-NOZ-000025</b>	30° Internal beveling tool bit, height 2.1" (54 mm)
<b>SM-NOZ-000024</b>	37.5° Internal beveling tool bit, height 2.1" (54 mm)
<b>SM-NOZ-000026</b>	45° Internal beveling tool bit, height 2.1" (54 mm)
<b>SM-NOZ-000001</b>	15° Internal calibration tool bit, height 2.2" (55 mm)
<b>SM-NOZ-000022</b>	15° J-beveling tool bit, height 50mm, radius 0.08" (2 mm)
<b>SM-NOZ-000016</b>	20° J-beveling tool bit, height 50mm, radius 0.31" (8 mm)

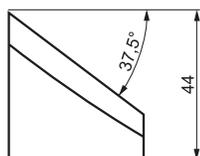
## Standard shipping set:

- PB10 (without tool bits)
- Wooden crate
- Set of jaws and blocks
- Set of adjustment tools
- Coolant container
- Operator's manual
- Self-centering expandable Mandrel for pipe I.D. Ø 3-5/16 - 10-9/16" (84 - 269 mm)  
SM-ZSP-0200-04-00-00-1

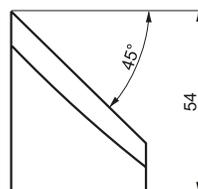
## Beveling Tool Bits



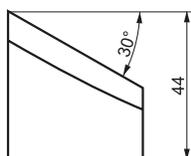
B30/37



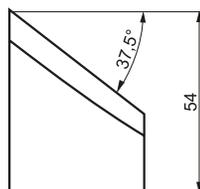
B375/44



B45/54



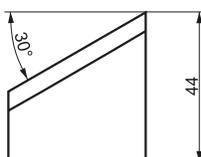
B30/44



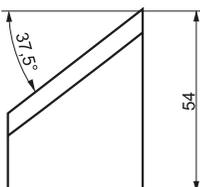
B375/54



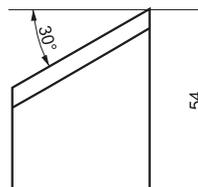
## Internal Beveling Tool Bits



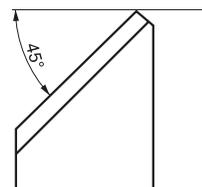
IB30/44



IB375/54



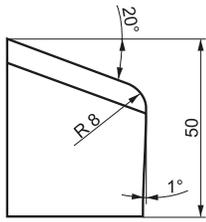
IB30/54



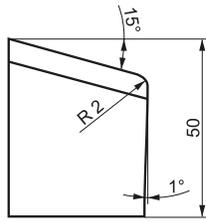
IB45/54

# PORTABLE BEVELING MACHINE FROM STEELMAX®

## J-Beveling Tool Bits

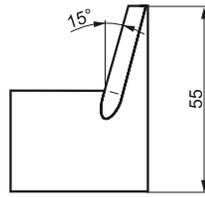


J20/50/R8



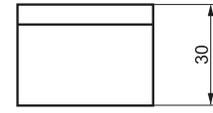
J15/50/R2

## ID Chamfer Tool Bit



IC15/55

## Facing Tool Bit



F0/30

### Additional Equipment:

- |                               |   |
|-------------------------------|---|
| <b>SM-PRK-0447-00-00-00-2</b> | Flange facing attachment with cutting capacities 3-9/16" to 20" (90 - 508 mm), delivered in a metal box                 |
| <b>SM-PRK-0463-00-00-00-1</b> | Out of round attachment set includes large mandrel for pipe ID Ø 5" to 11-5/8" (126 - 296 mm), delivered in a metal box |
| <b>SM-ZSP-0200-05-00-00-2</b> | Self-centering expandable Mandrel for pipe I.D. Ø 1-1/2 - 3-3/8" (38 - 86 mm)   |
| <b>SM-ZST-0200-13-00-00-2</b> | Extension set for ID Ø up to 14" (355 mm) includes 3 steel tool holders and jaws 7-12, delivered in metal box           |
| <b>SM-ZST-0200-12-00-00-0</b> | Electric motor set 230V   |
| <b>SM-ZST-0200-12-00-00-1</b> | Electric motor set 115V US plug   |
| <b>SM-ZSP-0200-03-00-00-0</b> | Air Motor Assembly  |

Custom made versions of toolbits are available on request.



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## MPB26 & APB32 PIPE BEVELING SYSTEMS

### MANUAL & AUTOMATIC SYSTEMS PRODUCE ACCURATE WELD PREPARATIONS IN A SINGLE PASS

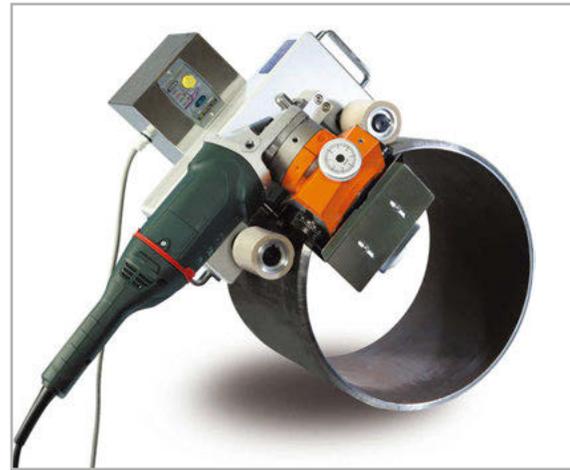
The Steelmax **MPB26** and **APB32** pipe beveling systems produce consistent, high-quality weld preparations in a single pass. With manual or automatic feed, the **MPB26** and **APB32** easily mount to the outside edge of pipe or tubing and can create a 13/16" maximum bevel width. By attaching to the pipe's circumference, the **MPB26** and **APB32** automatically compensate for out-of-round pipe and tubing and produce a consistent land dimension and bevel angle around the pipe; giving the user highly repeatable and consistent fit-up.

The **MPB26** is manually operated and can mount to pipe or tubing with a minimum diameter of 6" and can bevel outside diameters up to 26" and 1/8" up to 3/4" wall thicknesses.

The **APB32** automatically feeds itself around the pipe and can mount to pipe or tubing with a minimum diameter of 10" and can bevel outside diameters up to 32". With an optional attachment, the **APB-32** can bevel pipe of any diameter over 32", making this an incredibly versatile solution.



**MPB26** Manual Pipe Beveling Machine



**APB32** Automatic Pipe Beveling Machine

#### FEATURES

- Simple set-up and operation
- Accurate bevel depth and bevel angle adjustment
- Complete weld preparation in a single pass (at 45°, maximum 15 mm bevel width)
- Suitable for pipe thickness from 1/8" (3 mm) up to 3/4" (20 mm)
- Both machines can be used to bevel plate as well

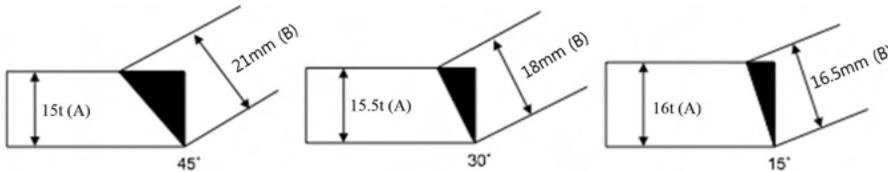
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# PORTABLE PIPE BEVELING MACHINES FROM STEELMAX®

Technical Specifications		
	MPB-26	APB-32
Power Supply	115 VAC 60Hz 2,400W	115 VAC 60Hz 2,400W
Pipe Diameter Range	6"-26" (150-660 mm)	10" and Larger (>250 mm)
Bevel Angle Range	0-45°	0-45°
Maximum Bevel Depth @ 45 degrees (A)	5/8" (15 mm)	5/8" (15 mm)
Maximum Bevel Width (B)	13/16" (21 mm)	13/16" (21 mm)
Minimum Pipe Wall Thickness	1/8" (3 mm)	1/8" (3 mm)
Maximum Pipe Wall Thickness	3/4" (20 mm)	3/4" (20 mm)
Weight	41 lbs (18.6 kg)	90 lbs (41 kg)



Easily set the bevel depth



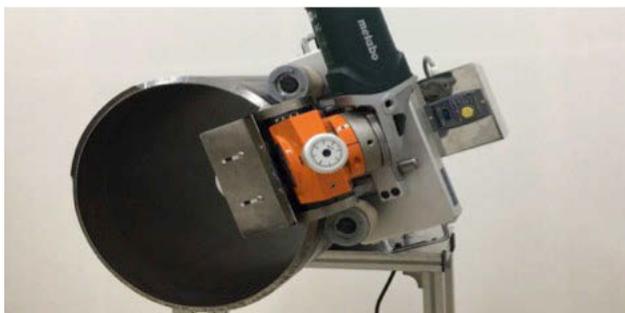
Optional speed controller optimizes milling speed for harder materials such as Stainless steel

## Accessories

SM-PB-CM2100-SC	Speed Controller for APB-32 and MPB-26 Pipe Beveling Machines
SM-PB-API020-LD	APB-32 Pipe Attachment for Pipe Diameters Above 32"

## Spare & Wearing Parts

SM-PB-CM2100-CA	Cutter Head Assembly for APB-32 and MPB-26 (without inserts)
SM-PB-CM2100-10	Cutting inserts (Package of 10)
SM-PB-CM2100-09	Cutter Wedge for APB-32 and MPB-26 (each)
SM-PB-CM2100-08	Cutter Insert Screw (each)



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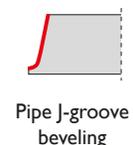
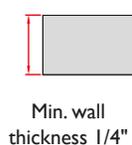
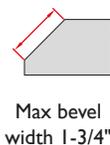
## PBM 1000 PIPE BEVELING MACHINE

### PRODUCE EFFICIENT AND ACCURATE WELD PREPARATION WITH HIGH-SPEED ROTARY MILLING HEAD WITH REPLACEABLE CUTTING INSERTS FOR LONG-TERM PERFORMANCE

The Steelmax **PBM 1000** is designed for beveling and facing pipes, tanks or tubes with diameters ranging from 8" – 40" (200 mm - 1000 mm). It is capable of machining bevel widths up to 1-3/4" (45 mm) within a range of angles from 0° – 60°. An exclusive "J" groove beveling attachment is also available. With its high-speed rotary milling head, **PBM 1000** produces accurate bevels in a fraction of the time required by traditional single point machining. This saves time and money and improves accuracy.

#### FEATURES

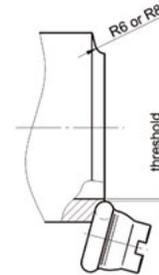
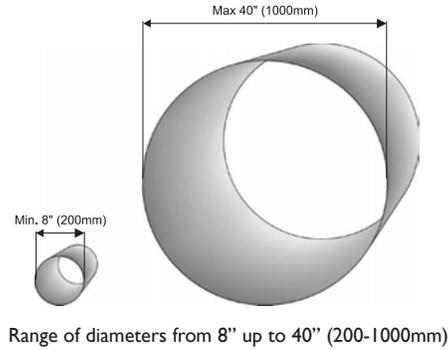
- Bevel pipe between 8" - 40" diameter
- High-speed rotary milling head with replaceable inserts
- Adjustable bevel angle between 0° - 60°
- J-groove beveling option
- 11-ton capacity
- Powerful 230 Volt 3 PH Motor



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# HIGH-SPEED PIPE BEVELING SYSTEM FROM STEELMAX®

PBM 1000 TECHNICAL SPECIFICATION	
Power supply	1~ 208-230 V, 50/60 Hz 3~ 208-230 V, 50/60 Hz
External pipe diameter range	8"– 40" (200-1000 mm) pipes longer than 830 mm; 8"– 23-5/8" (200-600 mm) pipes of 15-3/4" – 31-11/16" (400-830 mm) length
Maximum allowed pipe weight	13,200 lbs. (6000 kgs) with standard rollers. Up to 22,000 lbs. (10,000 kgs) with optional steel rollers
Min. pipe thickness	3/16" (5 mm)
Pipe fixing	mechanical with chain
Feed rate	4" – 43-5/16" (100-1100 mm/min)
Beveling angle range	0-60° degree continuous angle adjustment
Max OD bevel width	1-3/4" (45 mm)
Beveling type "J"	YES - option
"J" type beveling radius	0.24" (6 mm) or 0.31" (8 mm)



R6 & R8 J-groove available with optional milling heads

## Accessories and optional equipment

- SM-GLW-000013 Standard Milling head (7 inserts required)
- SM-PLY-000282 Cutting inserts for beveling
- SM-GLW-000014 J-groove R6 milling head (6 inserts R6 required)
- SM-PLY-000198 Cutting insert for J-groove R6 end preparation
- SM-GLW-000015 J-groove R8 milling head (5 inserts R8 required)
- SM-PLY-000201 Cutting insert for J-groove R8 end preparation
- SM-ZST-0436-25-00-00-0 Stainless Steel Set
- SM-WSP-0436-24-00-00-0 Oval Pipe Tracking Attachment



Clamping device for short pipes of 15-3/4" – 32-11/16" length



Adjustable chain (ø 8" – 40") ensures positive axial rotation



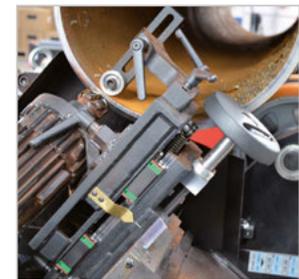
User-friendly control panel



Optional heavy-duty pipe support with 11-ton capacity



Shields and internal lighting increase safety and comfort of the operator



Optional Oval Pipe Tracking Attachment allows out of round pipe beveling

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 **American Welding Society**  
Supporting Company Member

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## MAX LIFTER LIFTING MAGNETS

### FLAT OR ROUND MATERIAL HANDLING

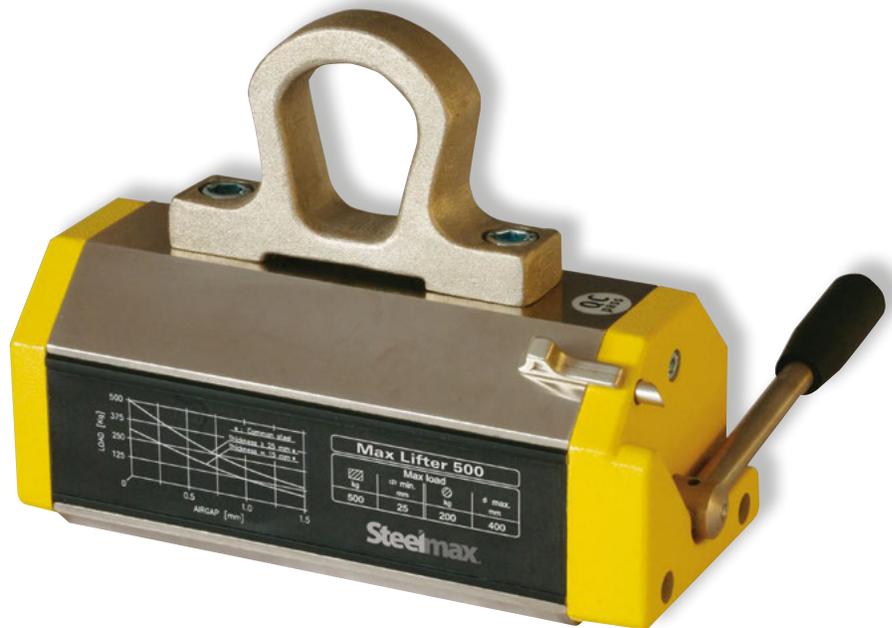
The Steelmax **Max Lifter** series of magnets are compact, self-contained lifting magnets that use permanent magnets to maintain holding power indefinitely. Because they require no electric power, they can be used where electric power is not readily available and free of the restriction of power cords.

**Max Lifter** magnets are safe and efficient. The magnets lift, transport and release the load rapidly with the simple motion of a lever in a single operation. Once activated, a spring-loaded device blocks the engagement lever preventing any accidental deactivation. Each Max Lifter magnet is tested at three times the recommended load.

**Max Lifter** magnets are robust and reliable. The rotor, the only moving part, has its fulcrum on ball bearings and doesn't make any physical contact during rotation. All steel parts are nickel coated to prevent rust formation and improve component life. **Max Lifter** magnets will operate "maintenance free" over long periods of time.

#### FEATURES

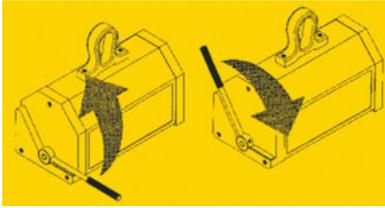
- Available in 550lbs, 1100lbs, 2200lbs, 4400lbs (250kg, 500kg, 1000kg, 2000 kg) lifting capacity
- Self-contained, permanent magnet
- No electrical power required
- Substantial weight capacity safety factor
- Self-locking safety block prevents accidental deactivation
- Intelligent magnet design activates magnet only when there is sufficient holding power
- Mono block, rust-proof nickel-coated design
- Maintenance free



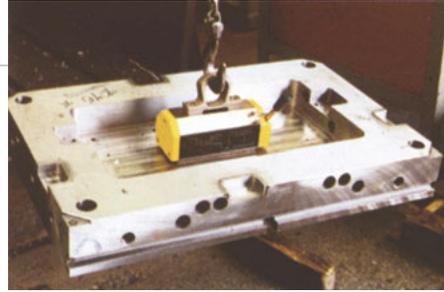
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The tools of innovation.

## Activation and Deactivation Phases

The simplicity of a single move.



Simply turning the handle, the Max Lifter is activated or deactivated. A self-locking device prevents any possible accidental deactivation of the handle when in the MAG position.



### Load Characteristic Plate

Part number	Model	Max load		Min thickness		Max length	
		lb	kg	in	mm	in	mm
<b>SM-ML125</b>	Max Lifter 125	275	125	3/4	20	39	1000
<b>SM-ML250</b>	Max Lifter 250	550	250	3/4	20	59	1500
<b>SM-ML500</b>	Max Lifter 500	1100	500	1	25	78	2000
<b>SM-ML1000</b>	Max Lifter 1000	2200	1000	1-1/2	40	118	3000
<b>SM-ML2000</b>	Max Lifter 2000	4400	2000	2	55	118	3000

### Load Characteristic Round Stock

Part number	Model	Max load		Min thickness		Max length		Max diameter	
		lb	kg	in	mm	in	mm	in	mm
<b>SM-ML125</b>	Max Lifter 125	110	50	3/8	10	39	1000	12	300
<b>SM-ML250</b>	Max Lifter 250	220	100	3/8	10	59	1500	12	300
<b>SM-ML500</b>	Max Lifter 500	440	200	9/16	15	78	2000	16	400
<b>SM-ML1000</b>	Max Lifter 1000	880	400	1	25	118	3000	18	450
<b>SM-ML2000</b>	Max Lifter 2000	1760	800	1-3/8	35	118	3000	24	600

### Technical Data

Part number	Model	Weight		Length		Width		Height	
		lb	kg	in	mm	in	mm	in	mm
<b>SM-ML125</b>	Max Lifter 125	8.1	3.7	4.8	122	3	79	5.6	142
<b>SM-ML250</b>	Max Lifter 250	14.3	6.4	7.4	189	3	79	5.6	142
<b>SM-ML500</b>	Max Lifter 500	33	15	9.8	249	4.2	106	7.4	189
<b>SM-ML1000</b>	Max Lifter 1000	71.6	32.5	13.4	342	5.25	133	8.6	219
<b>SM-ML2000</b>	Max Lifter 2000	167.5	76	18	457	6.5	166	11.5	293

Other sizes and applications available on special order.

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## TORCH RUNNER TRACK CUTTING MACHINE

### DIGITAL CONTROL PRODUCES ACCURATE HIGH-QUALITY CUTS AND BEVELS

The **Steelmax® Torch Runner** is a state-of-the-art, digitally controlled track torch which maintains precise and stable travel speeds that produce accurate cuts and bevels with oxy-fuel or plasma. The machine can be used on any standard 6" V-grooved track. Plate cutting and weld preparation can now be done with a high degree of precision. Quality cuts and bevels produced with **Torch Runner** reduce fit-up and grinding time and lay the foundation for a high quality weld.

The **Torch Runner** is available in two versions: a standard version for oxy-fuel cutting applications (up to 59 ipm) and a high-speed version for plasma cutting applications (up to 118 ipm).

#### FEATURES

- 1-3/8" (35 mm) Machine Barrel Torch Holder with precise angle setting up to 45 degrees
- Rigid heat-proof design
- Advanced Speed Control with electronic closed loop feedback for stable speed regulation
- LED Display with readout of actual and preset speed
- Two-wheel drive with braking
- Free wheel clutch system features rapid disengagement of drive mechanism for repositioning
- Interconnecting rails for long cuts and bevels
- Optional gas manifolds for two or three hose torches
- Optional circle cutting attachment



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# TORCH RUNNER FROM STEELMAX®

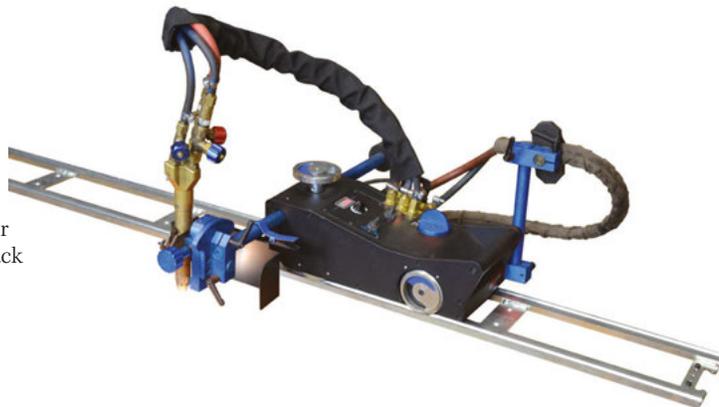


Torch Runner Technical Specifications	
Part Number	<b>SM-WC-TR</b> or <b>SM-WC-TR-230</b> <b>SM-WC-TR-PLASMA</b> or <b>SM-WC-TR-PLASMA-230</b>
Power supply	115-230V / 50-60 Hz
Travel Speeds	SM-WC-TR : 0-59 IPM (0-150 CPM) SM-WC-TR-Plasma: 0-118 IPM (0-292 CPM)
Dimensions (LxWxH)	16-13/16" (18-5/8") x 7-7/16" (25-13/16") x 7-1/16" 427 mm (473) x 189 mm (655) x 180 mm
Weight	37 lbs (16.8 kg)

## Standard kit includes:

### SM-WC-TR:

- Torch Runner drive unit
- Power cord
- Counterweight
- Geared Rack 22.8 (580 mm) long
- Machine barrel torch holder with precise angle adjustment for torch barrel diameter of 1-3/8" (35 mm) with 32 pitch gear rack



### SM-WC-TR-PLASMA:

- Torch Runner drive unit
- Power cord
- Counterweight
- Geared Rack 22.8 (580mm) long
- Trigger contact relay for Plasma
- Cable anchor support
- Torch holder with precise bevel angle settings.



*Note: Torch, gas manifold and rail sold separately*

# TRACK CUTTING MACHINE FROM STEELMAX®

## ACCESSORIES:

### 1. Track Assembly

Track assemblies can interconnect to form various lengths  
Track specification: length 72" (1800 mm), "V" Groove center-line: 6" (152 mm)  
Product Code: SM-TRO-0475-13-00-00-0



### 2. Standard Gas Manifolds

Standard Gas Manifolds act as strain relief for torch holder and allow for easy connection for gas supply hoses

2 Hose-Gas Manifold – Product Code: SM-RZD-0475-68-00-00-0

3 Hose-Gas Manifold – Product Code: SM-RZD-0475-67-00-00-0



### 3. Quick Acting Manifolds

Quick Acting Manifolds act as strain relief for the torch holder and permit quick on/off of gas supply.

Quick Action 2 Hose Gas Manifold – Product Code: SM-RZD-0475-40-00-01-0

Quick Action 3x3 Hose Gas Manifold – Product Code: SM-RZD-0475-43-00-01-0



## OPTIONAL ACCESSORIES:

### 4. Standard Torch Holder

Enables torch attachment and rough angle setting for torch barrel diameters from 1-1/8" to 1-3/8" (28-35 mm).  
Product Code: SM-UCW-0475-28-00-00-0



### 5. Torch Holder with Precise Bevel Angle Setting

Enables torch attachment with precise angle setting and quick up & down adjustment for torch barrel diameters from 1-1/8" to 1-3/8" (28-35 mm)  
Product Code: SM-UCW-0475-08-00-00-0



### 6. Machine Barrel Torch Holder with Precise Bevel Angle Setting

Enables machine barrel torch attachment for Machine Barrel Torch with diameter 1-3/8" (35 mm) with 32-pitch gear  
Product Code: SM-UCW-0475-42-00-00-0



### 7. Machine Barrel Torch Holder

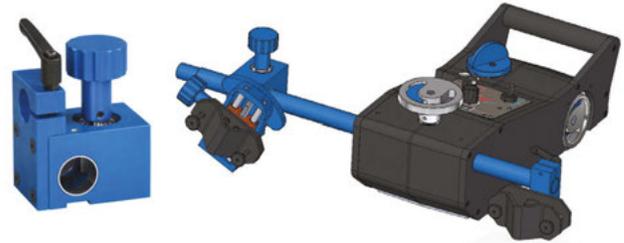
Enables machine barrel torch attachment (quick change of the height and rough angle setting)  
Holder diameter 1-3/8" (35 mm) with 32-pitch gear  
Product Code: SM-UCW-0475-29-00-00-0



# TORCH RUNNER FROM STEELMAX®

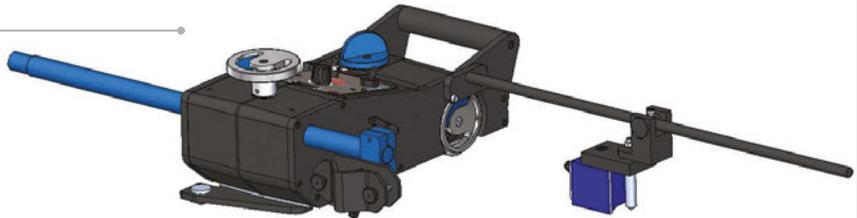
## 8. Sliding Rack Holder

Sliding rack holder enables various torch holder attachments  
Product Code: SM-UCW-0475-15-00-00-0



## 9. Circle Cutting Attachment

Enables circle cutting with radius between  
9.5" and 19.5" (240 and 500 mm)  
Product Code: SM-CYR-0475-22-00-00-0



## 10. Large Counterweight

Product Code: SM-PWG-0475-10-00-00-0



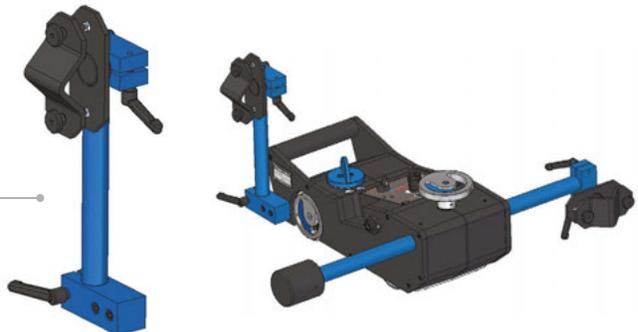
## 11. 39" (1000 mm) Geared Rack

Enables extended reach for the torch holder  
Product Code: SM-RAM-0475-23-00-00-0



## 12. Cable Anchor

Anchors power cable and fuel hoses to relieve stress  
on the torch holder  
Product Code: SM-PDT-0475-34-00-00-0



## 13. Roller Support

Stabilizes carriage and provides constant torch standoff  
Product Code: SM-PDT-0475-26-00-00-0



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# PORTABLE WELDING CARRIAGE

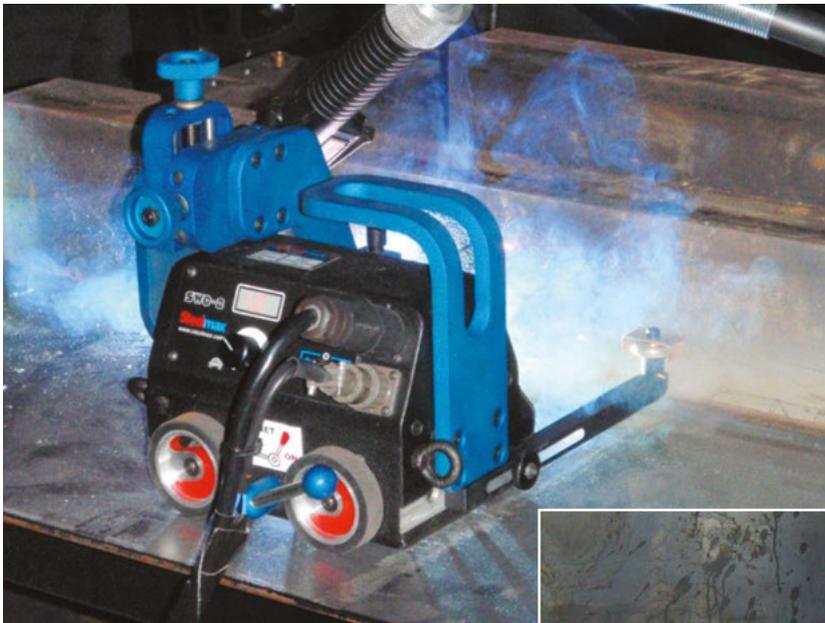
## Li'l Runner PORTABLE FILLET WELDING CARRIAGE

### COMPACT TRACKLESS FILLET WELDING CARRIAGE WITH 4-WHEEL DRIVE MAGNETIC TRACTION

Increase your production and reduce your welding costs with the **Li'l Runner** Automatic Fillet Welder. By providing constant, non-stop travel at a regulated speed, **Li'l Runner** produces consistent high-quality welds in a fraction of the time required by hand welding. The regulated travel speed creates weld bead geometry which is exact to your specifications, reducing costly over welding and decreasing filler metal usage by as much as 60%. **Li'l Runner** will produce quality welds faster and with less cost than hand welding. At just over 17 lbs (8 Kg), this compact, portable tractor can be carried anywhere.

The **Li'l Runner** is available in three unique versions: (i) the standard version (up to 40 IPM); (ii) the high-speed version (up to 86 IPM) which can be used for cutting and welding applications; and (iii) the dual-power version (battery powered with a line power adapter). The

**Li'l Runner** family of carriages offer a broad range of capabilities in one of the smallest fillet welders on the market today.



**Li'l  
Runner**  
by **Steelmax**

#### Standard kit includes:

- Li'l Runner drive unit (SM-WC-LR)
- Power cord
- Arc control cable
- Guide arm assembly with brass roller wheels

*Also available in high-speed and dual-power battery-operated models.*



**Li'l Runner with flex rail for tank fabrication.**

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# Li'l RUNNER FROM STEELMAX®

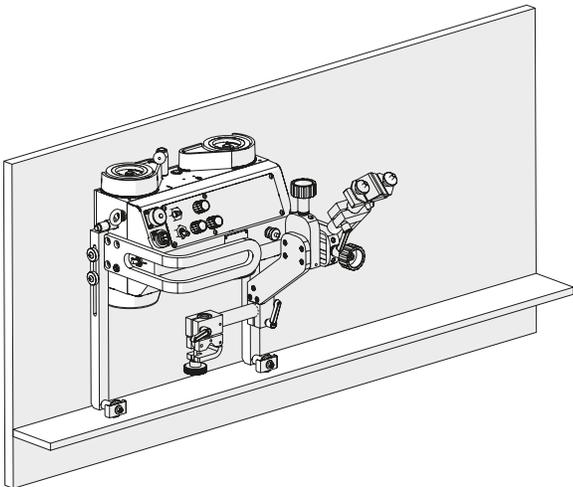
## FEATURES

- Compact, lightweight design with durable cast aluminum housing
- Positive magnetic traction permits out of position use
- Magnetic adhesion on/off lever permits easy set up and adjustment on work piece
- Maintenance-free, 4-wheel planetary gear drive system
- Digital LED display for setting travel speed
- Rapid clamp torch holder mechanism for different types of MIG/MAG torches
- Precise cross-slide torch adjustment
- Integrated automatic arc initiation
- Self-guiding roller arms eliminate the need for track



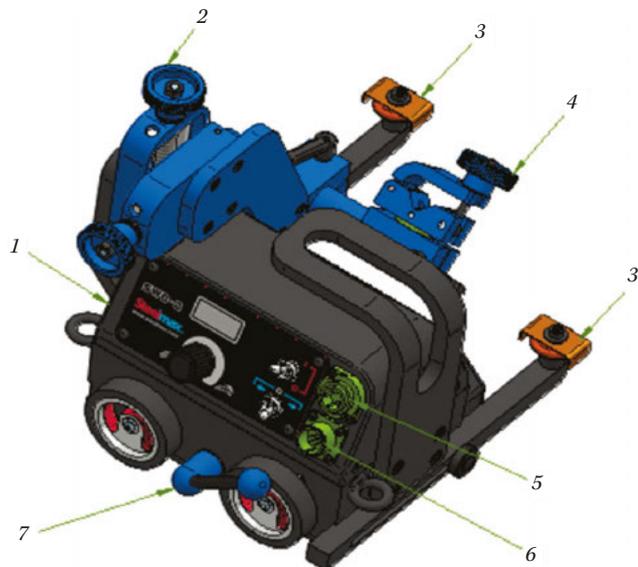
## PRIMARY BENEFITS

- Increased arc time – no starts and stops
- Reduce wasted filler metal – eliminate over welding
- Consistent heat input reduces distortion
- Precise travel speed and torch angle reduces weld defects and costly rework
- Improves work environment – reduces fatigue and repetitive stress – removes operator from heat and fumes



*The Li'l Runner is able to run on a vertical piece of steel.*

1. Drive unit with control panel
2. Cross slide assembly
3. Guide arm assembly with brass roller wheel
4. Quick release torch holder (*optional accessory*)
5. Power supply socket
6. Arc control cable socket
7. Magnet release lever

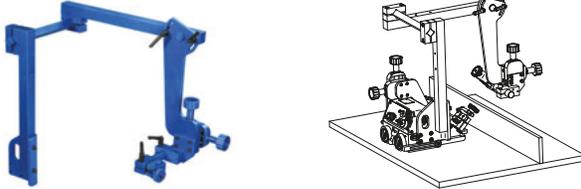


# PORTABLE WELDING CARRIAGE

## OPTIONAL ACCESSORIES:

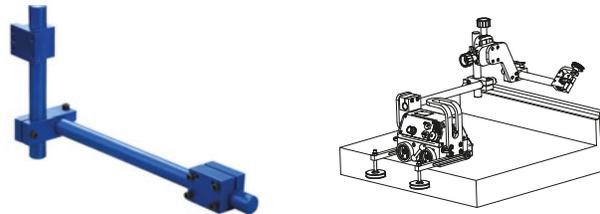
### 1. Dual Torch Mount

enables mounting of second torch for double-sided fillet welding  
Product Code: SM-PDT-0466-40-00-00-0



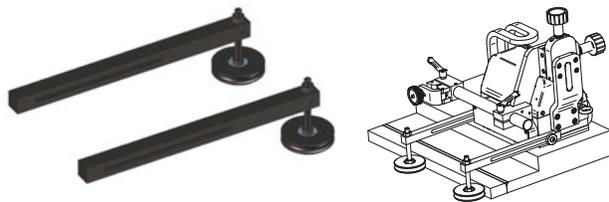
### 2. Torch Extension Arm

enables extended reach for torch placement  
Product Code: SM-PRD-0466-43-00-00-0



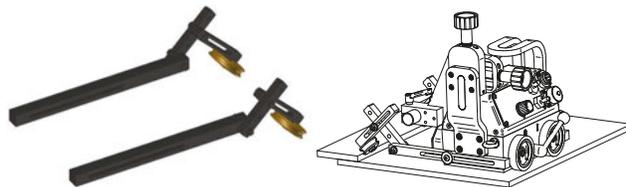
### 3. Edge Following Guide Arms

enables guiding off an outside edge  
Product Code: SM-PRW-0466-41-00-00-1



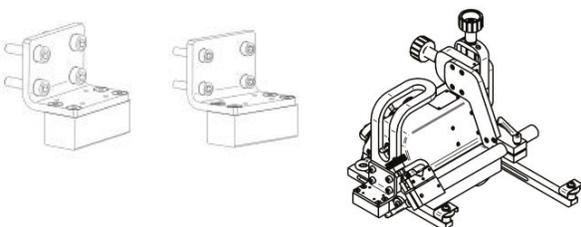
### 4. Adjustable Guide Arms

enables guiding on lap joints and templates  
Product Code: SM-PRW-0466-42-00-00-1



### 5. Auxiliary Magnet Blocks

provides additional holding power for out-of-position welding with heavy torch loads  
Left – Product Code: SM-BLO-0466-44-01-00-0  
Right – Product Code: SM-BLO-0466-45-01-00-0



### 6. Flexible Guide Rail

72" long flexible rail for welding on curved surfaces such as storage tanks  
Product Code: SM-PRW-0466-50-01-01-0



### 7. Flexible Guide Rail Alignment Tool

quickly aligns the flexible guide rail to the appropriate distance from the joint  
Product Code: SM-UST-0466-53-00-00-0



### 8. Rail Guide Arms for Li'l Runner (set of 2)

for use with flexible guide rail  
Product Code: SM-PRW-0466-50-02-00-1



### 9. Magnet for Flex Rail

used to attach flexible guide rail to curved surfaces.  
10 required per rail section  
Product Code: SM-BLO-0466-50-01-10-0



### 10. Quick Connect Torch Holder

quick connect/release torch holder  
Product Code: SM-ZRZ-0466-04-01-00-0



### 11. Magnet Guide Arms for Li'l Runner (set of 2)

enables guiding on overhead profiles and permits bi-directional movement  
Product Code: SM-PRW-0466-52-00-00-1



### 12. Low Guide Arms for Li'l Runner (set of 2)

enables guiding on short profiles and edges  
Product Code: SM-PRW-0466-65-00-00-1



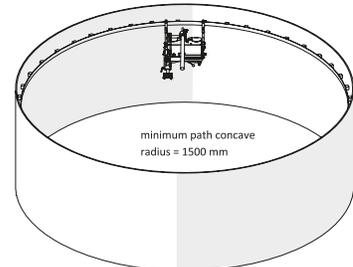
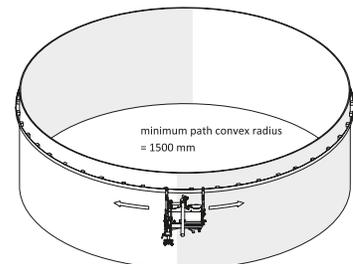
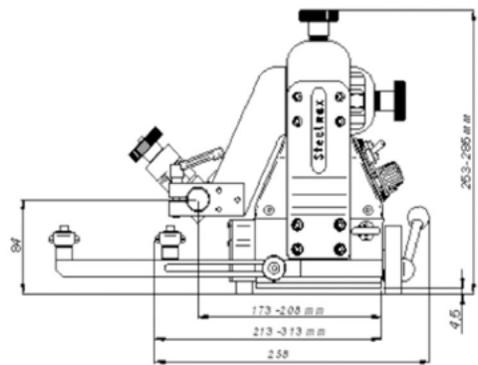
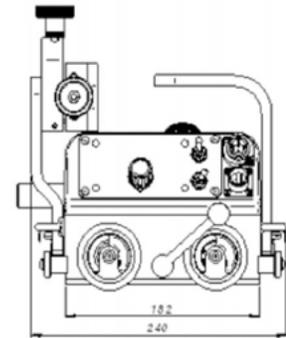
### 13. High Guide Arms for Li'l Runner (set of 2)

enables guiding on plates and stiffeners with cut outs and holes  
Product Code: SM-PRW-0466-66-00-00-1



# Li'l Runner FROM STEELMAX®

Li'l Runner Technical Specifications		
Part Number	<b>SM-WC-LR</b> (Li'l Runner) <b>SM-WC-LR-HS</b> (High-Speed) <b>SM-WC-LR-DP</b> (Dual-Power)	
Power supply	Dual Voltage 120 or 230V	
Welding position	Vertical/Horizontal	
Minimum material thickness	5/32" (4 mm)	
Chassis to material clearance	5/32" (4 mm)	
Travel mechanism	Friction drive with worm gear reduction	
	Four wheel drive, heat resistant silicone wheels	
Tracking method	2 guide rollers	
Pulling power	22 lbs (10 kg) Vertical 33 lbs (15 kg) Horizontal	
Cross slide adjustment:	Up-Down	1.4" (35 mm)
	Left-Right	1.4" (35 mm)
Guide roller adjustment	4" (100 mm)	
Control panel:	Arc Ignition Switch	Power supply On/Off
	Travel Direction Switch	Start Left, Stop, Start Right
	Li'l Runner Speed (IPM) Range	Horiz: 0 - 43.3"/min (0-1100 mm/min) Vert: 0 - 39.4"/min (0-1000 mm/min)
	Li'l Runner HS Speed (IPM) Range	Horiz: 0 - 86.6"/min (0-2199 mm/min)
Dimensions (L x W x H)	9.6 x 10 x 9.5" (240 x 258 x 253 mm)	
Weight	17.5 lbs (8 kg)	



## Li'l Runner DP Standard kit includes:

- Drive unit (SM-WC-LR-DP)  
*Dual-power, battery-operated Li'l Runner*
- Battery
- Charger
- Arc control cable
- Guide arm assembly with brass roller wheel



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## ARC RUNNER

### PORTABLE & PROGRAMMABLE WELDING CARRIAGE REPEATS OPTIMUM WELD PROCEDURE

The **Steelmax® Arc Runner** is a portable, programmable welding carriage designed to produce consistent, high-quality welds. The powerful magnetic base and closed loop electronic speed control provide speed stabilization in all positions. The unit enables weld bead geometry that is exact to the required specifications, substantially reducing costly over welding and decreasing filler metal usage.

The **Arc Runner** can be programmed in continuous or stitch welding modes. Two easy-to-use function buttons enable programming of weld length, distance between welds, reverse fill, crater fill time and other required patterns and parameters. The **Arc Runner** travels at full speed between stitches, which saves valuable welding time.

An optional pendulum torch oscillator is available for the **Arc Runner** to produce weave welds. The oscillator allows for precise control of weave width, weave speed and left/right side wall dwell.

**Arc Runner's** microprocessor allows for development, storage and reproduction of up to 40 different welding programs for various joint configurations and multi-pass, multi-layer welds. Once an optimum weld procedure is developed, stored and programmed, **Arc Runner** will repeat it over and over again.



**The Arc Runner can be used with the innovative Steelmax flexible guide rail system.**

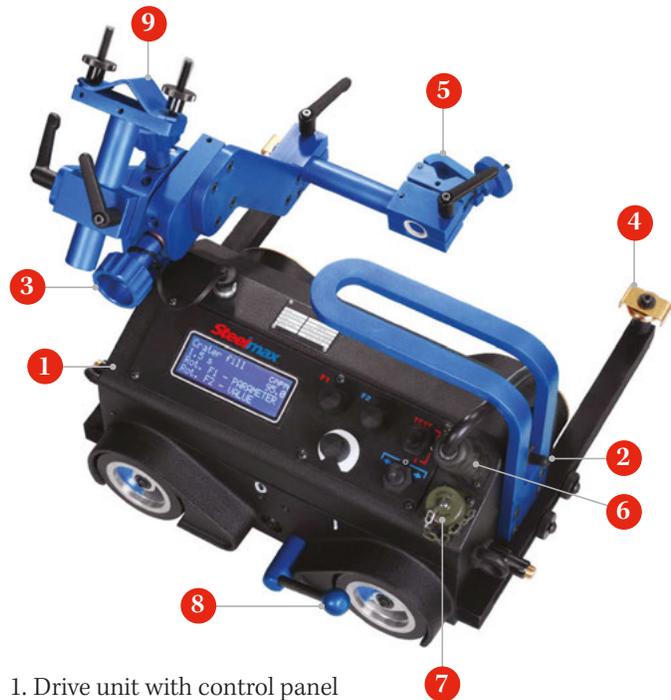
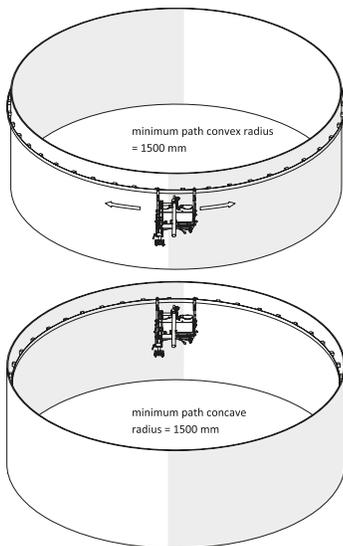
# Steelmax®

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# ARC RUNNER FROM STEELMAX®

## FEATURES

- Compact, lightweight design with durable cast aluminum housing
- Permanent magnet clamping system with on/off lever ensures positive magnetic traction
- Maintenance free, 4-wheel planetary gear drive system
- Standard torch holder for welding torches with diameters of 5/8" – 7/8" (16-22 mm); optional large holder for diameters up to 1-3/8" (35 mm)
- Precise cross-slide torch adjustment
- Multifunctional LED display and 2 function buttons for welding pattern programming
- Closed-loop speed control system stabilizes travel speed to reduce weld defects and costly repair work
- Consistent heat input reduces distortion
- Automatic ARC ON/OFF system initiates welding and travel, simultaneously
- Self-guiding roller arms eliminate the need for track
- Improves work environment – reduces fatigue and repetitive stress – removes operator from heat and fumes
- Capable of carrying and controlling 2 torches (without oscillation)
- Up to 40 complete programs may be stored in non-volatile memory



1. Drive unit with control panel
2. Main Supply Switch (0/I)
3. Cross slide assembly
4. Guide arm assembly with brass roller wheel
5. Quick release torch holder (*optional accessory*)
6. Power supply socket
7. Arc control cable socket
8. Magnetic adhesion release lever
9. Cable holder

## OPTIONAL ACCESSORIES:

### 1. Oscillator

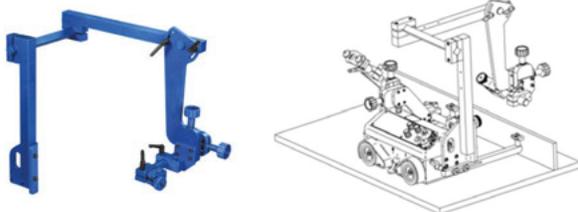
Oscillator Technical Specifications	
Oscillation type	Pendulum
Amplitude R-150 mm	0.08-1.2" (2-30 mm)
Frequency	12-115 cycles/min
Dwells	0-3 s.
Weight	5.5 lbs (2.5 kg)
Product Code	<b>SM-WC-AR-OSC</b>



### 2. Dual Torch Mount

enables mounting of second torch for dual-sided fillet welding

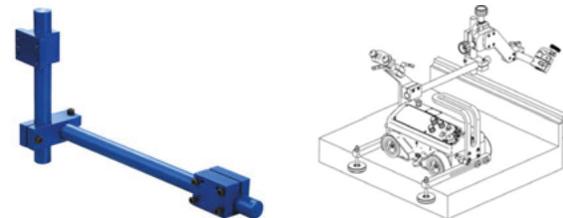
Product Code: SM-PDT-0466-40-00-00-0



### 3. Torch Extension Arm

enables extended reach for torch placement

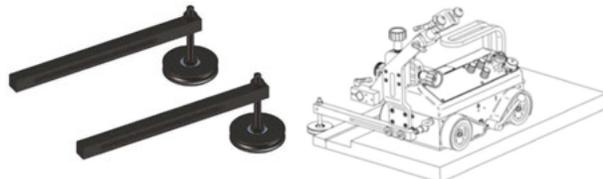
Product Code: SM-PRD-0466-43-00-00-0



### 4. Edge Following Guide Arms

enables guiding off an outside edge

Product Code: SM-PRW-0476-21-00-00-1



### 5. Adjustable Guide Arms

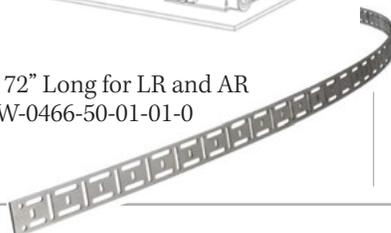
enables guiding on lap joints and templates

Product Code: SM-PRW-0476-22-00-00-1



### 6. Flexible Guide Rail 72" Long for LR and AR

Product Code: SM-PRW-0466-50-01-01-0



### 7. Flexible Guide Rail Alignment Tool

quickly aligns the flexible guide rail to the appropriate distance from the joint

Product Code: SM-UST-0466-53-00-00-0



### 8. Rail Guide Arms for Arc Runner

(set of 2)

Product Code: SM-PRW-0476-50-01-00-1

### 9. Magnet for Flex Rail

(LR and AR) - 10 required

Product Code: SM-BLO-0466-50-01-10-0



### 10. Quick Connect Torch Holder

quick connect/release torch holder

Product Code: SM-ZRZ-0466-04-01-00-0



### 11. Magnet Guide Arms for Arc Runner

(set of 2)

enables guiding on overhead profiles and permits bi-directional movement

Product Code: SM-PRW-0476-52-00-00-0



### 12. Low Guide Arms for Arc Runner

(set of 2)

enables guiding on short profiles and edges

Product Code: SM-PRW-0476-54-00-00-1



### 13. High Guide Arms for Arc Runner

(set of 2)

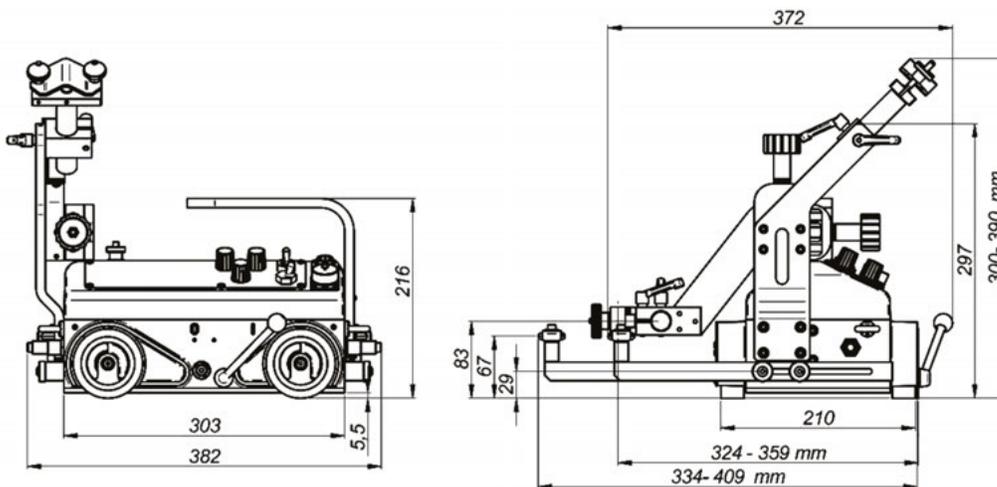
enables guiding on plates and stiffeners with cut outs and holes

Product Code: SM-PRW-0476-55-00-00-1



# PROGRAMMABLE WELDING CARRIAGE FROM STEELMAX®

Arc Runner Technical Specifications		
Part Number		<b>SM-WC-AR</b> or <b>SM-WC-AR-230</b>
Power supply		115-230 VAC / 50-60 Hz (separate units due to plug interface)
Welding positions		Vertical / Horizontal
Chassis to material clearance		3/16" (5 mm) minimum
Drive system		Friction drive with worm gear reduction Four wheel drive, heat resistant silicone wheels
Tracking method		2 roller guides in various configurations
Towing force		Vertical: 33.7 ft. lbs (150 Nm) Horizontal: 49.5 ft. lbs (220 Nm)
Torch adjustment	Up-Down	1-3/8" (35 mm)
	Left-Right	1-3/8" (35 mm)
Guide roller adjustment		3" (75 mm)
Control panel	Travel direction switch	program start, direction left / stop / program start, direction right
	Function button F1	Continuous welding, dash, crater fill, backweld
	Function button F2	Value change "+" or "-"
	Arc ignition switch	TEST / 0 / I
	Speed knob	Horizontal speed: 0 – 47-1/4"/min (0-1200 mm/min) Vertical speed: 0 – 43-3/8"/min (0-1100 mm/min)
Automatic stop		Limit switches at both ends
Noise Level		< 70 dB
Dimensions (LxWxH)		15" x 14-5/8" x 15-3/8" (382 mm x 372 mm x 390 mm)
Weight		29.8 lbs (13.5 kg)



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## RAIL RUNNER

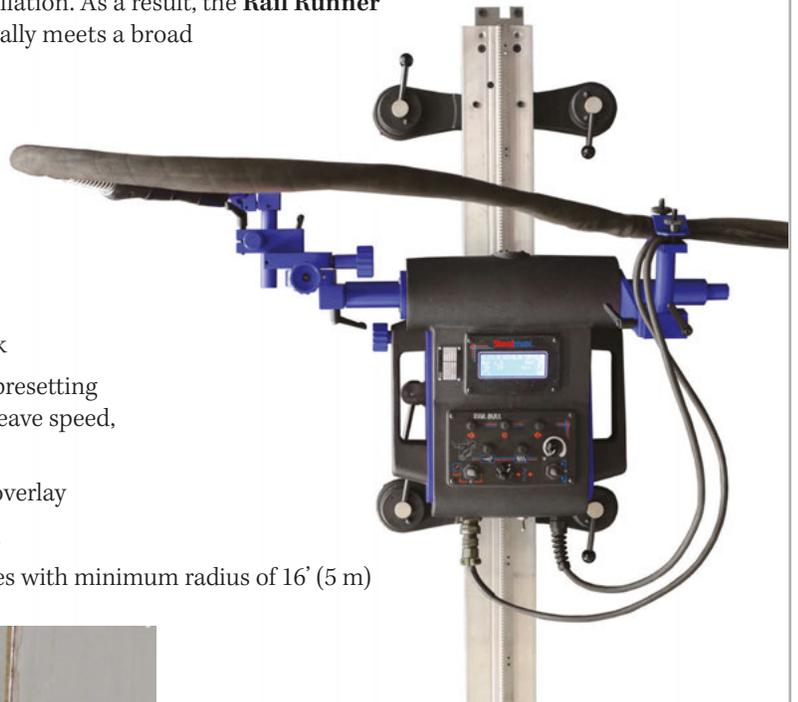
### INCREASE PRODUCTION AND IMPROVE WELD QUALITY WITH MAGNETICALLY FIXED RAIL-GUIDED TRAVEL CARRIAGE

The **Steelmax® Rail Runner** is a digitally controlled travel carriage designed for the mechanization of welding and thermal cutting processes. Featuring a positive rack and pinion drive system with electronic speed control, the **Rail Runner** can produce consistent, high quality welds and cuts in the flat, vertical or horizontal position. A multi-function LED display permits precise setting of process parameters making set up and repetition of predefined weld procedures quick and simple.

The **Rail Runner** is available in two versions: (i) the standard version with the integrated linear oscillator; and (ii) a basic version without integrated linear oscillation. As a result, the **Rail Runner** family of track mounted welding carriages economically meets a broad array of welding and cutting applications.

#### FEATURES

- Durable aluminum cast housing
- Automatic arc ignition integrated with travel switch
- Precise cross slide torch adjustment
- Closed loop position control with encoder feedback
- LED display with numeric representation permits presetting of all motion parameters including weave width, weave speed, side wall dwells and tractor travel speed
- Integrated linear oscillator for weave welding and overlay
- Electronic torch steering during weaving operation
- Semi-Flexible Guide Rail will adhere curved surfaces with minimum radius of 16' (5 m)



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# TRACK WELDING CARRIAGE FROM STEELMAX®

Rail Runner Technical Specifications		
Part Number		<b>SM-WC-RR</b> (with oscillation) <b>SM-WC-RR-WO</b> (without oscillation)
Power Supply – Dual Voltage		115-230 V / 50-60 Hz
Power		100 W .13 HP
Welding Positions	Horizontal	PA (flat), PB (horizontal vertical), PC (horiz.)
	Vertical	PF (vertical up), PG (vertical down)
Minimum track way curvature radius		16 ft (5 m)
Torch diameter		5/8" – 1" (16 - 25 mm)
Minimum welding material thickness		3/16" (5 mm)
Pulling Force	Horizontal work	77 lbs (350N)
	Vertical work	33 lbs (150N)
Torch adjustment range		1-3/8" up-down, left-right (35 mm)
Horizontal speed		0 – 47-3/8"/min (0 - 120 cm/min)
Vertical speed		0 – 43-5/16"/min (0-110 cm/min)
Oscillation type		linear
Oscillator arm stroke		0 – 4" (0 - 100 mm)
Oscillation width		0 – 1.9" (0 - 50 mm)
Oscillation speed		0 – 59"/min (0 - 1500 mm/min)
Oscillation dwells		0-5 s
Weight		44 lbs (20 kg)



*Suitable for work in both horizontal and vertical positions*

*User-friendly control panel*



## The included equipment consists of:

- Welding carriage
- Metal box
- Torch holder
- Cable holder
- Power cord
- Arc ignition cable of 6.5 m (21 ft)
- 3 mm hex wrench
- 4 mm hex wrench
- Operator's Manual

## Additional accessories:

- SM-PRW-0482-15-02-00-0  
Track segment of 6.5 ft (2 m)
- SM-ZSP-0475-56-00-00-0  
Magnetic base unit
- SM-DYS-0482-15-01-01-0  
Mounting Bracket for Magnet



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## RAIL RUNNER II

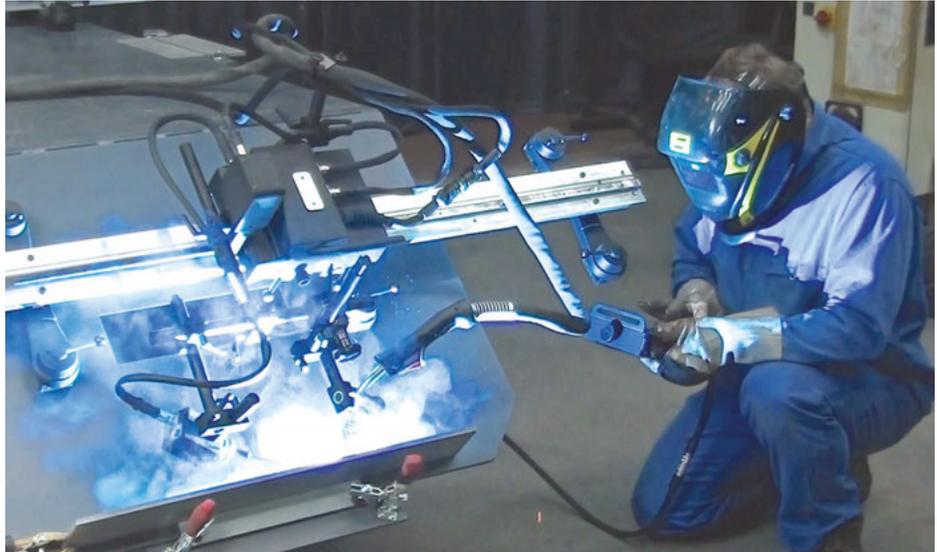
### MODULAR WELDING/CUTTING CARRIAGE WITH INTEGRATED SEAM TRACKING

The **Steelmax® Rail Runner II** is a compact, modular, mechanized carriage which can be custom configured for a variety of welding, thermal cutting and gouging applications on flat or curved plate, tube and pipe. By utilizing a magnetic guide rail and positive rack and pinion drive, the system can be utilized in all welding positions. Ergonomic remote control pendant with simple, easy to find control knobs makes process adjustment possible without the operator lifting their welding hood. A digital display with numeric representation for each motion parameter makes presetting the optimum welding or cutting procedure simple and highly repeatable. The **Rail Runner II** increases arc-on time and produces consistent, high-quality welds and cuts in a fraction of the time required by manual operations. Optional accessories include tactile probe seam tracking and motorized vertical torch slide for automatic torch height control.

The **Rail Runner II** can be used with semi-flexible rail for plate and tank work with a minimum radius of 16' (5m) or adapted to bent ring rail for pipe and tube applications. Standard ring rails are available for tube diameters from 8" (200mm) up to 9.85' (3000mm).

#### APPLICATIONS

- Trailer manufacturing
- Truck tanks
- Oil & Water storage tanks
- Pressure vessels
- Overlay/Hard facing
- Bridge girders
- Structural steel
- Structural towers
- Panel welding
- Boiler panel fabrication
- Shipbuilding and repairs



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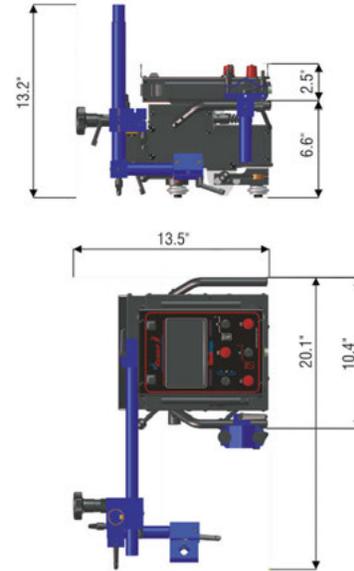
# MODULAR TRACK WELDING CARRIAGE FROM STEELMAX®

## RAIL RUNNER II Technical Specification

Voltage	1~ 42V, 115V, 230V, 50–60 Hz	
Power	120 W	
Welding positions	Horizontal	PA (flat), PB (horizontal vertical), PC (horizontal)
	Vertical	PF (vertical up), PG (vertical down)
Minimum track curvature radius	5 m (16 ft)	
Torch type	MIG/MAG	
Torch diameter	16–22 mm (0.63–0.87"); up to 35mm (1.38") option	
Minimum workpiece thickness	5 mm (0.20")	
Horizontal pulling force	400 N	
Vertical pulling force	400 N	
Horizontal speed	0–300 cm/min (0–120 in/min)	
Vertical speed	0–300 cm/min (0–120 in/min)	
Oscillation type	linear	
Oscillation path	triangle, straight line	
Oscillator arm stroke	0–100 mm (0–3.9")	
Oscillation width	0–50 mm (0–1.9")	
Oscillation speed	0–3000 mm/min (0–118.0 in/min)	
Oscillation delay at center and on ends	0–5 s	
Maximum oscillator pulling force	100 N	
Weight	10 kg (22 lbs)	

### FEATURES AND BENEFITS:

- Compact, lightweight design
- Simple, ergonomic remote control pendant with magnetic base and multifunction LED display
- Quick clamping torch holder mechanism:
  - Standard for torch diameters of 16-22 mm (0.63 – 0.87")
  - Optional for larger torch diameters up to 35 mm (1.38")
- Simple, precise torch adjustment
- Automatic ARC ON/OFF initiates welding and travel, simultaneously
- Closed loop control system insures accurate speed and position control
- Improves working environment -removes operator from heat and fumes
- Integrated linear oscillator
- Rack and pinion drive with integrated limit switches
- Improved weld performance
  - Constant travel speed maintains consistent heat input, minimizes distortion and eliminates over welding
  - Minimizes starts & stops in long welds, eliminating the associated weld defects
  - Digital display with numeric representation for each motion parameter makes presetting the optimum welding or cutting procedure simple and highly repeatable



### Required accessories:

- SM-PRW-0482-15-02-00-0  
Track segment of 6.5 ft (2 m)
- SM-ZSP-0475-56-00-00-0  
Magnetic base unit
- SM-DYS-0482-15-01-01-0  
Mounting Bracket for Magnet

### Optional accessories:

- Motorized Vertical Slide  
SM-WC-RR-VS
- Seam Tracking Sensor  
SM-WC-RR-ST

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## SHAPERUNNER TWO-AXIS CNC CUTTING SYSTEM

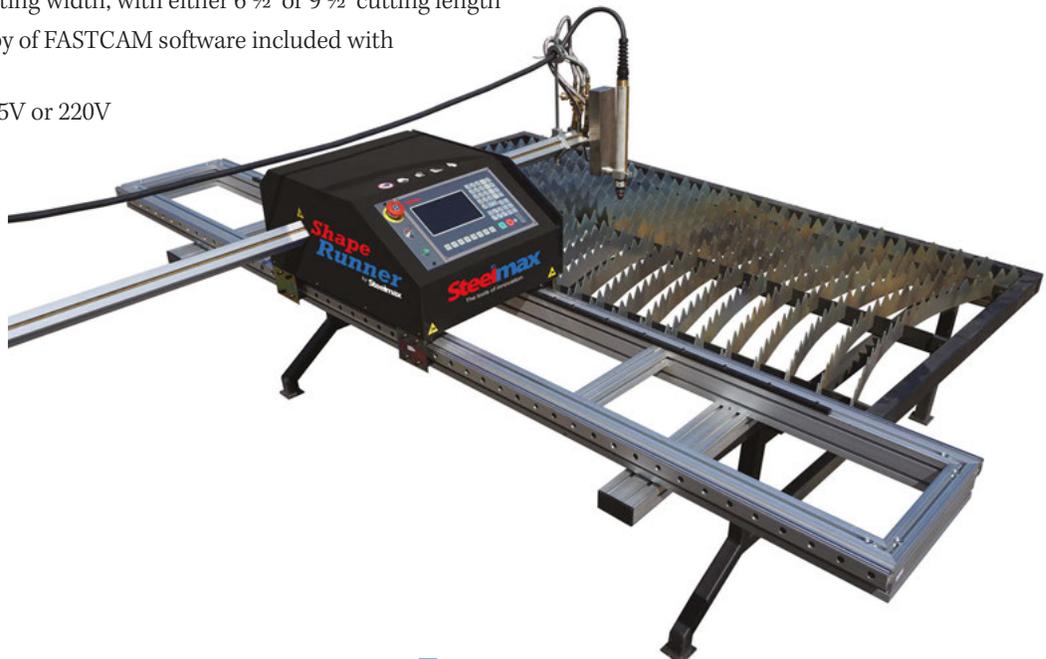
### MODULAR AND PORTABLE CNC CUTTING

The **Shape Runner**® from Steelmax is a modular, portable and affordable CNC cutting system for all of your cutting needs, whether with plasma or flame cutting processes. The **ShapeRunner's** light weight, portability and minimal footprint make it the ideal choice for small shops looking to automate their cutting processes or for larger shops that need additional capacity away from their production cutting lines. With 4.5' of reach and up to 16' of linear carriage travel, the **ShapeRunner** is an extremely versatile solution, providing high-quality results without the price or the footprint of a traditional gantry cutting system.

The **Shape Runner** works with virtually all plasma power sources and can be uniquely configured to meet each user's specific needs, providing the highest value per cut in the industry. Whether you use the **Shape Runner** with a dedicated cutting table or you move the **Shape Runner** to the material, the **Shape Runner** is the go-to cutting machine. Each machine even includes CAD drawings and specifications for a robust cutting table specifically designed by Steelmax for the **Shape Runner**!

#### FEATURES

- Multi-process controller easily manages plasma power supplies as well as Oxy-Fuel cutting processes
- Automatic arc-voltage torch-height control and pierce distance control
- Precision guide rails ensure accurate and repeatable cutting performance
- Built-in shape library – 24 standard shapes with easily edited dimensions
- Fully integrated part nesting capabilities
- Standard USB port for loading custom two-dimensional shapes from standard CAD files
- Emergency Stop button
- 32 MB standard internal memory for program storage
- Standard 4 ½' cutting width, with either 6 ½' or 9 ½' cutting length
- Fully licensed copy of FASTCAM software included with each machine
- Dual voltage – 115V or 220V



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# CNC CUTTING FROM STEELMAX®

TECHNICAL SPECIFICATIONS	
Effective Cutting Width	4.5 Ft. (1370 mm)
Effective Cutting Length	6.5 Ft., 9.5 Ft. (1980 mm, 2895 mm)
Rapid Speed	120 IPM (3050 mm/min)
Cutting Speed Range	2 - 120 IPM (50 - 3050 mm/min)
Supply Voltage	115 Volts (Standard) / 220 Volts
PLASMA CUTTING	
Torch Holder	Standard 1 3/8" (35 mm) Machine Barrel
Height Control	Through The Arc Height Control
Collision Detection	Ohmic Crash Sensing Through The Nozzle
OXY - FUEL CUTTING	
Torch Holder	Standard 1 3/8" (35 mm) Machine Barrel
Hose Sizes	Standard "B" Oxy-Fuel Fittings (9/16" - 18 UNF)
CNC CONTROLLER	
Operation Panel	7" Color Display
Program Format	G Code
Shape Library	24 Shapes with Editable Dimensions
CAM Software	FASTCAM Included with Each System
Controller features	Outline, Scale, Mirror, Rotate, Kerf compensation, and Nesting



## Standard Machine Package Includes:

- CNC Control Unit
- 4 ½' x 6 ½' or 4 ½' x 9 ½' Working envelope
- Motorized Z axis for Torch Height Control
- Torch holder for 1 3/8" machine barrel torch
- Interface cable for plasma power supply – Specify Power Supply
- Tubing/Solenoids for Oxy-Fuel cutting (Torch and short hoses sold separately)
- FASTCAM software
- CAD drawings for custom Steelmax burn table



## Part Numbers:

- SM-SR-2150 – 6.5Ft Y-axis with Hypertherm interface cable
- SM-SR-2151 – 6.5 Ft Y-axis with universal interface cable
- SM-SR-3150 – 9.5Ft Y-axis with Hypertherm interface cable
- SM-SR-3151 – 9.5 Ft Y-axis with universal interface cable

## Optional Equipment:

- SM-SR-FLM – Oxy-Acetylene torch/hose (w/o cutting tips)
- SM-SR-HYP-85 – Hypertherm Powermax 85 plasma package

## Shipping Dimensions (L x W x H) and Weights:

### SM-SR-2150/2151

- Controller – 21" x 27" x 18", 82 LBS
- Rails – 108" x 19" x 10", 159 LBS

### SM-SR3150/3151

- Controller – 21" x 27" x 18", 82 LBS
- Rails – 163" x 19" x 10", 240 LBS



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