

## **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.



112 Inverness Circle E, Ste F, Englewood, CO 80112121 Southpointe Drive, Bridgeville, PA 15017

877-833-5629 • Fax: 303-690-9172 sales@Steelmax.com

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# SEMI-AUTOMATIC DRILLING MACHINE FROM STEELMAX®

# 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: I-3/8" (36 mm)



Weight: 30 lbs. (13.5kg)



Depth of cut: 2" (51 mm)



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



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

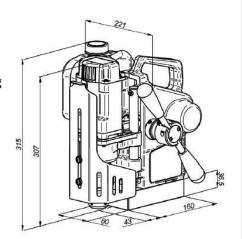


#### **EXCELLENT PERFORMANCE & PRODUCTIVITY**

- Max drilling capacity of I-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~   10−120 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	I-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	I/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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# PORTABLE DRILLING MACHINE FROM STEELMAX®

## **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<sup>™</sup> 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<sup>™</sup> 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







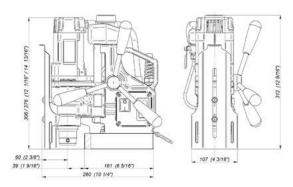


### Standard shipping set:

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



D1 Technical Specification	ıs	
Tool holder	3/4" (19 mm) Weldon	
Annular cutter (Core drill) Ø	max I-3/8"	(36 mm)
Countersinking Ø	1-9/16" max	κ (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 I.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	
	Dead lift	Drill point breakaway
Magnet – on I" (25 mm) plate	2135 lbs (968 kg)	859 lbs (389 kg)
Magnet base dimensions	3-1/8 × 6-5/16 × 1-7/16" 80 × 160 × 36.5 mm	
Minimum workpiece thickness	I/4" (6 mm)	
Weight	22 lbs (10 k	g)
Part number	SM-D1 (115V/60Hz) SM-D1-230 (230V/50Hz)	









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# PORTABLE DRILLING MACHINE FROM STEELMAX®

# **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 electromagnetic base and prevents drill activation when there is insufficient adhesive power, protecting both the machine and the operator.

#### **FEATURES**

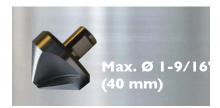
- Up to 1-9/16" diameter and 2" depth of cut
- Magnetic Power Adhesion Control (MPAC)
- Magnetic Field Shape Control (MFSC)
- Energy Saving Base (ESB)
- Comes complete with swarf shield and coolant bottle assembly











#### 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

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· Standard shipping weight -44 lbs

D1 PRO Technical Specifications		
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	I/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	SM-D1PRO SM-D1PRO-230	

### **Optional Accessories:**

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

<sup>\*</sup>Items necessary for use with twist drill bits.







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# PORTABLE DRILLING MACHINE FROM STEELMAX®

## **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 **D2**X 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.

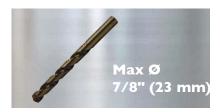
#### **FEATURES**

- 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<sup>™</sup> 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)











## 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

D2x Technical Specifications		
Spindle	MT2	
Tool holder	3/4" (19 mm) Weldon	
Milling cutter (Core drill) Ø	max 2" (51 n	,
Twist drill Ø	max 7/8" (23	
Countersinking Ø	max 2" (51 n	<u> </u>
Stroke	6" (153 mm)	
Max depth of cut	3" (76 mm)	
Voltage	115V/60Hz d	or 230V/50Hz
Power consumption [W]	1300	
Motor power	1260 W 1.	7 HP
Speeds [rpm]	200	
	400	
MFSC (Magnetic Field Shape Control)	yes	
	Dead lift	Drill point breakaway
Magnet – on 1" (25 mm) plate	2697 lbs	1074 lbs
	(1223 kg)	(487 kg)
Magnet base dimensions		I/I6" × I-7/8"
	(90 x 180 x 4	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	SM-D2x (	115V/60Hz)
	SM-D2x-2	230 (230V/50Hz)

#### **Optional Accessories:**

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





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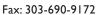




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# PORTABLE DRILLING MACHINE FROM STEELMAX®

# **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.

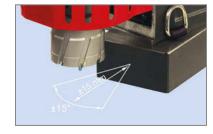
A unique, semi-automatic gib adjustment system (patent pending) enables simple, fast and precise adjustments without expert knowledge or experience. The replaceable spline on the end of the armature shaft eliminates laborious and expensive armature maintenance.

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<sup>™</sup> circuitry recognizes magnetic holding power
- · Semi-automatic gib backlash adjustment
- Magnetic Power Adhesion Control (MPAC)
- Magnetic Field Shape Control (MFSC)

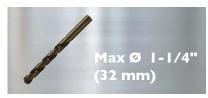




Swivel base is standard on all **D3XRS** Swivel base:  $\pm$  15°,  $\pm$  9/16 " (15 mm)











#### 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.

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D3xRS Technical Specifications		
Spindle	MT3	
Tool holder	3/4" (19 mm) Weldon	
Milling cutter (Core drill) Ø	max 3" (76 m	ım)
Twist drill Ø	max I-I/4" (3	32 mm)
Countersinking Ø	max 2-1/2" (6	53 mm)
Max tap size	M24 (special tapping	g attachment required)
Stroke	8-7/8" (225 m	nm)
Max depth of cut	3" (76 mm)	
Voltage	115V/60Hz o	r 230V/50Hz
Power consumption [W]	1800	
Motor power	1650W 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 I" (25 mm) plate	4383 lbs	1779 lbs
	(1987 kg)	(806 kg)
Magnet base dimensions	4-5/16" x 8-1	1/16" 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 (2	27 kg)
Part numbers	SM-D3xrs (115 Volt/60Hz) SM-D3xrs-230 (230 Volt/50Hz)	

#### **Optional Accessories:**

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





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# PORTABLE DRILLING MACHINE FROM STEELMAX®

## **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<sup>™</sup> 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<sup>™</sup> circuitry recognizes magnetic holding power
- Magnetic Power Adhesion Control (MPAC)
- Magnetic Field Shape Control (MFSC)













#### 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.

D4x Technical Specifications		
Spindle	MT4	
Tool holder	3/4" (19 mn	n) Weldon
Milling cutter (Core drill) Ø	max 4-3/8"	(III mm)
Twist drill Ø	max 1-7/8"	(47 mm)
Countersinking Ø	max 2-1/2"	(63 mm)
Max tap size	M30 (special tappi	ng attachment required)
Stroke	9-1/16" (23	0 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	
	Dead lift	Drill point breakaway
Magnet – on I" (25 mm) Plate	4945 lbs	1945 lbs
	(2242 kg)	(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		(115V/60Hz) <b>230</b> (230V/50Hz)

#### **Optional Accessories:**

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







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# PNEUMATIC DRILLING MACHINE FROM STEELMAX®

## **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**

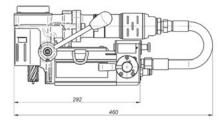
- 1-3/8" (35 mm) diameter x 1" (25 mm) depth of cut with annular cutters
- 5/8" (16 mm) diameter with solid twist drill bits
- For use in hazardous environments fully ATEX compliant
- Low profile for use in height-restricted spaces
- · Pneumatic drive and permanent magnetic base

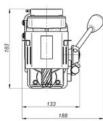
D1AIR ATX Technical Specifications					
Air consumption	50 CFM (1400 l/min)				
Air pressure	90 psi (630 kpa)				
Motor power	800W I.I HP				
Tool holder	3/4" (19 mm) Weldon				
Milling cutter (Core drill) Ø	I/2" – I-3/8" (I2 - 36 mm)				
Max depth of cut	I" (25 mm)				
Stroke	I-9/16" (39 mm)				
Cooling system	Through spindle				
Type of cooling fluid	Water soluble				
Magnet dead lift on I" (25 mm) plate	1461 lbs (6500 N)				
Magnet dimensions: L x W x H	7-1/16" × 3-1/8" × 1-7/16" (180 × 80 × 36.5 mm)				
Overall dimensions: L x W x H	18-7/8" × 6-5/8" × 7-1/16" (480 × 168 × 180 mm)				
Weight	37 lbs (17 kg)				
Part number	SM-D1AIR ATX				











All information is subject to change without notice.



The tools of innovation.

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# STEELMAX® DRILL CAPACITIES AT A GLANCE

# **DRILL FEATURES & SPECIFICATIONS**



The tools of innovation.







MODEL	D1		D1 Auto	WA WA	D1 Pro	0	
Drill Operation	Manual		Semi-automa	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 I-3/8" (	36 mm)	max I-3/8" (	(36 mm)	max 1-9/16"	(40 mm)	
Twist drill Ø	_		_		max 5/8" (16	mm)	
Countersinking Ø	I-9/16" max	(40 mm)	_		max 1-9/16"	(40 mm)	
Max tap size	_		_		_		
Stroke	2-3/4" (70 m	ım)	2-3/4" (70 m	nm)	4-7/8" (124 m	nm)	
Max depth of cut	2" (51 mm)		2" (51 mm)		2" (51 mm)		
Voltage	115V/60Hz		115V/60Hz		110-120 V 50	/60 Hz	
International Voltage	230V/50Hz		230V/50Hz		220-240 V 50	/60 Hz	
Power consumption	1000 W		1000 W		1140 W		
Motor power	920 W 1.3	2 HP	920 W 1.3	2 HP	1020W 1.4	I HP	
Speed	350 RPM		350 RPM	350 RPM		440 RPM	
Overload protection	yes		yes	yes		-	
Reversing available	no		no		no		
ESSS (Electronic Speed Stabilization System)	_		_	-		-	
MPAC (Magnetic Power Adhesion Control)	yes		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 (9	500 N)	2135 lbs (95	2135 lbs (9500 N)		00 N)	
ESB (Energy Saving Base)	yes		yes		yes		
	Dead lift	Drill point breakaway	Dead lift	Drill point breakaway	Dead lift	Drill point breakaway	
Magnet – on I" (25 mm) plate	2135 lbs (968 kg)	859 lbs (389 kg)	2135 lbs (968 kg)	859 lbs (389 kg)	2203 lbs (1000 kg)	880 lbs (400 kg)	
Magnet base dimensions	3-1/8" x 6-5/ (80 x 160 x 3	16" x 1-7/16" 36.5 mm)		3-1/8" x 6-5/16" x 1-7/16" (80 x 160 x 36.5 mm)		3-5/16" x 6-5/8" x 1-5/8" (84 x 168 x 41.5 mm)	
Swivel base	_						
Minimum workpiece thickness	I/4" (6 mm)		I/4" (6 mm)	I/4" (6 mm)		I/4" (6 mm)	
Tapping accessories available	no		no	no		no	
Tool Weight	22 lbs (10 kg	<u>;</u> )	30 lbs (13.5	kg)	28 lbs (12.7 k	(g)	
Part number	SM-D1 (II5V/60Hz) SM-D1-230 (230V/50Hz)			o (115V/60Hz) o- <b>230</b> (230V/50Hz)		(110-120V 50/60 Hz) -230 (220-240V 50/60 Hz	

# STEELMAX® DRILL CAPACITIES AT A GLANCE

# **DRILL FEATURES & SPECIFICATIONS**



The tools of innovation.





MODEL	D2x		D3xRs	U	D4x		
Drill Operation	Manual		Manual		Manual		
Spindle	MT2		MT3	MT3		MT4	
Tool holder	3/4" (19 mm) W	/eldon	3/4" (19 mm)	Weldon	3/4" (19 mm	n) Weldon	
Milling cutter (Core drill) Ø	max 2" (51 mm	)	max 3" (76 m	m)	max 4-5/16'	(III mm)	
Twist drill Ø	max 7/8" (23 m	m)	max I-1/4" (3	2 mm)	max I-7/8"	(47 mm)	
Countersinking Ø	max 2" (51 mm	)	max 2-1/2" (6	3 mm)	max 2-1/2"	(63 mm)	
Max tap size	_		Reversing fear no tapping att	cure achment required	M30 (specia attachment		
Stroke	6" (153 mm)		8-7/8" (225 m	m)	9-1/16" (230	) mm)	
Max depth of cut	3" (76 mm)		3" (76 mm)		3" (76 mm)		
Voltage	115V/60Hz		115V/60Hz		115V/60Hz		
International Voltage	230V/50Hz		230V/50Hz		230V/50Hz		
Power consumption	1300 W		1800 W		1800 W		
Motor power	1260 W 1.7 H	НP	1650 W 2.2	2 HP	1650 W	2.2 HP	
Speed	200 or 400 RPM	1	80/160 and 2	80/160 and 210/420 RPM		85/135 and 160/250 RPM	
Overload protection	_		yes	yes		yes – LED light	
Reversing available	no		yes	yes		no	
ESSS (Electronic Speed Stabilization System)	-		yes	yes		-	
MPAC (Magnetic Power Adhesion Control)	yes		yes	yes		yes	
Continuous speed adjustment	_		yes	yes			
MFSC (Magnetic Field Shape Control)	yes		yes	yes			
Magnetic Clamping Force (25 mm, Ra=1.25 mm)	2697 lbs (1200	) N)	4383 lbs (195	00 N)	4945 lbs (22	000 N)	
ESB (Energy Saving Base)	yes		_		_		
	Dead lift	Drill point breakaway	Dead lift	Drill point breakaway	Dead lift	Drill point breakaway	
Magnet – on I" (25 mm) plate	2697 lbs (1223 kg)	1074 lbs (487 kg)	4383 lbs (1987 kg)	1779 lbs (806 kg)	4945 lbs (2242 kg)	1945 lbs (882 kg)	
Magnet base dimensions	3-9/16" x 7-1/16 (90 x 180 x 48 i			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)	
Swivel base	_		+ 15°; + 9/16"	+ 15°; + 9/16" (15 mm)		_	
Minimum workpiece thickness	5/16" (8 mm)		3/8" (10 mm)		3/8" (10 mm	n)	
Tapping accessories available	no		yes	,			
Tool Weight	35 lbs 5 oz (16.5	5 kg)	58 lbs 6 oz (2	58 lbs 6 oz (27 kg)		(31 kg)	
Part number	SM-D2X (11.5V/60Hz) SM-D2X-230 (230V/50Hz)		SM-D3XRS SM-D3XRS	(115 V/60Hz) -230 (230 V/50Hz)	SM-D4X ( SM-D4X-2	115V/60Hz) 230 (230V/50Hz)	

# DRILL ACCESSORIES FROM STEELMAX®

# **Industrial Arbors** & Drill Chucks

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



I/2" Drill chuck for D2 & D2x
I/2" Drill Chuck for D3xRS Drill
3/4" Drill Chuck for D3xRS Drill
I/2" Drill Chuck for D4x Drill
3/4" Drill Chuck for D4X Drill
<ul><li>Adapter/Arbor Weldon 19x1/2"</li><li>20 UNF for D1 Pro Drill</li></ul>
Drilling Chuck 16-1/2" - 20 UNF for DI Pro Drill
2MT Industrial Arbor for 3/4" Weldon Shank Cutters
3MT Industrial Arbor for 3/4" Weldon Shank Cutters
3MT Industrial Arbor for I-1/4" Weldon Shank Cutters
4MT Industrial Arbor for I-1/4" Weldon Shank Cutters
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
SM-TBCF-IQ	Quart
SM-TBCF-IG	Gallon
SM-TBCF-55G	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.

# **AutomaticSelf-Reversing Tapping Heads**

## PRODUCE GAGE PERFECT THREADS **OUICKLY 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.

SM-HR2	Reversing tapping head with MT3 1/8" - 1/2" (3 - 12 mm)
SM-HR3	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
SM-MP10	I0" tool
SM-MP15	I5" tool



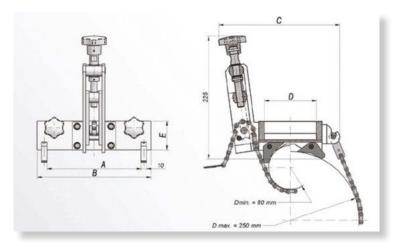
# DRILL ATTACHMENTS FROM STEELMAX®

# **MAGNETIC DRILL PIPE ATTACHMENTS**

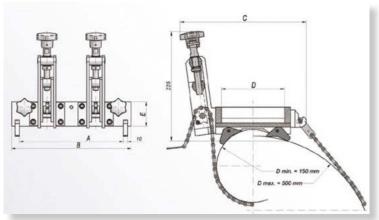
## MOUNT DRILLS TO PIPES FOR SAFE OPERATION

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 Type	Α	В	С	D	E	Suitable for:
SM-DMP 0250	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
SM-DMP 0251	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
SM-DMP 0501	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

All information is subject to change without notice.



The tools of innovation.

For ordering and customer service, or to request detailed product information or demonstration videos, contact:



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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.



# STEELMAX® HSS ANNULAR CUTTERS

# **M2AL HSS Annular Cutters**

HSS (M2AL) ANNULAR CUTTERS - 3/4" WELDON SHANK - IMPERIAL SIZES					
Cutton Diamoton (in)	Desimal Equipolens	Steelmax Part Number			
Cutter Diameter (in)	Decimal Equivalent	I" Depth of Cut	Included Pilot Pin	2" Depth of Cut	Inlcuded 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
I	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
I I/8	1.1250	SM-AC-11250-1	SM-PP-02	SM-AC-11250-2	SM-PP-04
I 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
I 5/16	1.3125	SM-AC-13125-1	SM-PP-02	SM-AC-13125-2	SM-PP-04
I 3/8	1.3750	SM-AC-13750-1	SM-PP-02	SM-AC-13750-2	SM-PP-04
I 7/16	1.4375	SM-AC-14375-1	SM-PP-02	SM-AC-14375-2	SM-PP-04
I I/2	1.5000	SM-AC-15000-1	SM-PP-02	SM-AC-15000-2	SM-PP-04
I 9/16	1.5625	SM-AC-15625-1	SM-PP-02	SM-AC-15625-2	SM-PP-04
I 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
I 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
I 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) Decim	Decimal Equivalent	Steelmax Part Number				
Cutter Diameter (III)	Decimal Equivalent	I" Depth of Cut	Included Pilot Pin	2" Depth of Cut	Inlcuded Pilot Pin	
I4 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	
I6 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-I	SM-PP-02	SM-AC-23-M-2	SM-PP-04	
24 mm	0.9449	SM-AC-24-M-I	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-I	SM-PP-02	SM-AC-26-M-2	SM-PP-04	
28 mm	1.1024	SM-AC-28-M-I	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

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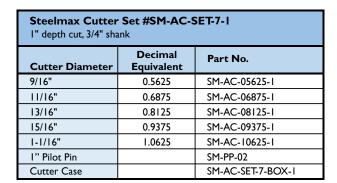
# STEELMAX® TCT ANNULAR CUTTERS

## **TCT Annular Cutters**

TCT ANNULAR CUTTERS - 3/4" WELDON SHANK - IMPERIAL SIZES						
Cutter Diameter	Decimal	Steelmax Part Number				
(in)	Equivalent	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	
I	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	
I I/8	1.1250	SM-AC-TC-11250-2	SM-PP-14	SM-AC-TC-11250-3	SM-PP-17	
I 3/16	1.1875	SM-AC-TC-11875-2	SM-PP-14	SM-AC-TC-11875-3	SM-PP-17	
I I/4	1.2500	SM-AC-TC-12500-2	SM-PP-14	SM-AC-TC-12500-3	SM-PP-17	
I 5/16	1.3125	SM-AC-TC-13125-2	SM-PP-14	SM-AC-TC-13125-3	SM-PP-17	
I 3/8	1.3750	SM-AC-TC-13750-2	SM-PP-14	SM-AC-TC-13750-3	SM-PP-17	
I 7/16	1.4375	SM-AC-TC-14375-2	SM-PP-14	SM-AC-TC-14375-3	SM-PP-17	
I I/2	1.5000	SM-AC-TC-15000-2	SM-PP-14	SM-AC-TC-15000-3	SM-PP-17	
I 9/16	1.5625	SM-AC-TC-15625-2	SM-PP-14	SM-AC-TC-15625-3	SM-PP-17	
I 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	
I 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	
I 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	TCT cutters 2-7/16" in diameter and larger have 1-1/4" Weldon shanks and require an appropriate arbor.		
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			



# STEELMAX® ANNULAR CUTTER SETS



Steelmax Cutter Set #SM-AC-SET-7-2 2" depth cut, 3/4" shank					
Cutter Diameter	Decimal Equivalent	Part No.			
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			
Cutter Case		SM-AC-SET-7-BOX-2			

Quick Change Adaptors for 3/4" Weldon Shank Cutters*						
	I" DOC HSS Cutters	2" DOC HSS Cutters 2" DOC TCT Cutters	3" DOCTCT Cutters			
Adapator	SM-NDA-634	SM-NDA-634	SM-NDA-798			
Pilot Pin	SM-PP-04	SM-PP-19	SM-PP-20			

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



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



Steelmax Cutter Set #SM-AC-SET-13-1 I" depth cut, 3/4" shank			
Cutter Diameter	Decimal Equivalent	Part No.	
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	
["	1.0000	SM-AC-10000-1	
1-1/16"	1.0625	SM-AC-10625-1	
I" Pilot Pin (7/16")		SM-PP-01	
I" Pilot Pin		SM-PP-02	
Cutter Case		SM-AC-SET-13-BOX-1	

Cutter Diameter	Decimal Equivalent	Part No.
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
Cutter Case		SM-AC-SET-13-BOX-2



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# PORTABLE HYDRAULIC PUNCHES FROM STEELMAX®

## **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	-	-
HPII0 <sup>2</sup>	1-1/16	1-1/16	1-1/16	1-1/16	1-1/16	1-1/16	1-1/16	I	7/8	3/4

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

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



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# PORTABLE HYDRAULIC PUNCHES FROM STEELMAX®

TECHNICAL SPECIFICATIONS					
Portable Double-Action Hydraulic Punch	SM-HP60	SM-HPI10			
Max. throat depth	2-3/8" (60 mm)	4-5/16" (110 mm)			
Max. hole*	I-I/I6" (Ø 27 mm)	I-I/I6" (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)			

<sup>\*</sup>See round hole capacity chart on previous page.







Ready to work in both vertical and horizontal positions



<sup>\*</sup>Contact Steelmax for other voltage options

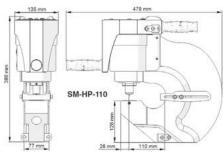
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Portable hydraulic power pack with shelf for punch transport SM-HP700



SM-HP-60





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





Spring balancers available for both machines







Fax: 303-690-9172

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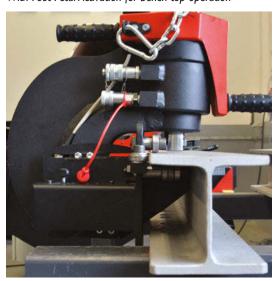
sales@Steelmax.com

# PORTABLE HYDRAULIC PUNCHES FROM STEELMAX®

# **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.





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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# METAL CUTTING SAW FROM STEELMAX®

## **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	I,560 ₩			
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	I/4" (6 mm)			
Max. Cutting Depth at 90°	2-1/2" (63 mm) Profile			
Max. Cutting Depth at 45°	I-3/8" (36 mm ) Profile			
Sound power level	98dB(A)			
Sound pressure level	88dB(A)			
Part Number	SM-S7 XP			





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# METAL CUTTING SAW FROM STEELMAX®

# **S9 METAL CUTTING SAW WITH LASER GUIDE**

## 9" OR 9-1/4" 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 S9 is designed for heavy duty industrial uses and widespread on-site applications including: fabrication, construction, and fire and rescue. Competitively priced, the S9 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

Part number

• UL 745 certified	
Steelmax S9 Te	chnical Specifications
Cutting capacity	3-1/4" profile 1/2" solid
Weight	20 lbs
Blade diameter	9" or 9-1/4"
Arbor	1"
RPM	2700
Beveling/Mitering	Beveling/45°
Motor	15 amps; I20V/1750W 2.3 HP
Depth adjustment	Yes
Chip cover	Included
Applications	Pipe, plate, channel, grating, roof decking, silos, emergency rescue, door posts

**SM-S9** 





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# METAL CUTTING SAW FROM STEELMAX®

## 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

echnical Specifications
4-3/4" profile
64 lbs
14"
1"
1450
Mitering/45°
120V / 1750W 2.3 HP
2-position vice
Slide out
Pipe, plate, channel, conduit, angle iron, metal studs, rebar, tubing, etc.
<b>SM-S14</b> (120V/60Hz)







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# METAL CUTTING SAW BLADES FROM STEELMAX®

## 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





	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	20mm	3500	Mild Steel (less than 5/16")
7.25"	SM-BL-07-5-TS	68T	20mm	3500	Thin Mild Steel (less than 1/4")
7.25"	SM-BL-07-5-AL	54T	20mm	3500	Aluminum (up to 3/8")
7.25"	SM-BL-07-5-SS	48T	20mm	3500	Stainless Steel (less than 1/8")
7.25"	SM-BL-07-5-WD	40T	20mm	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 I/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 I")
14.0"	SM-BL-14	66T	1.0"	1450	Mild Steel (less than I")
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-07-5	36T	20mm	5500	Mild Steel (less than 5/16")	
7.25"	SM-BL-07-5-SS	64T	20mm	5500	Stainless Steel (less than 1/8")	
9.0"	SM-BL-09	44T	1.0"	3500	Mild Steel (less than I/2")	
9.0"	SM-BL-09-SS	76T	1.0"	3500	Stainless Steel (less than 1/8")	
14.0"	SM-BL-14	64T	1.0"	1500	Mild Steel (less than I")	
14.0"	SM-BL-14-SS	II0T	1.0"	1500	Stainless Steel (less than 1/4")	



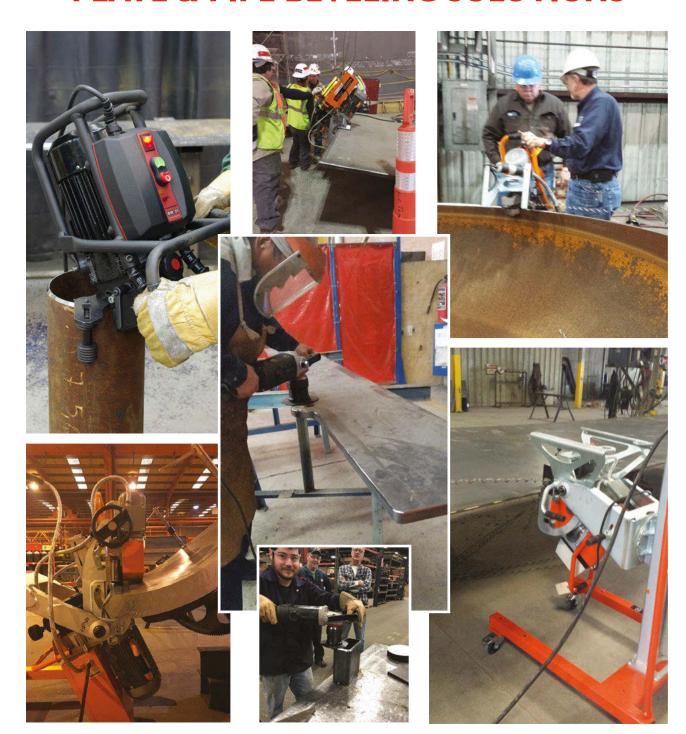
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# **PLATE & PIPE BEVELING SOLUTIONS**



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# PORTABLE BEVELING MACHINE FROM STEELMAX®

## **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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BM16 Technical Specifications				
Person errah	110-120V/50-60Hz or			
Power supply	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 (β) depending	22.5, 30, 37.5, 45, 60, degrees			
on milling head	1 (01) (1 5			
Min. material thickness	1/8" (1.5 mm)			
Min. diameter of countersink	ca I-9/16" (40 mm)			
Beveling with radius	R2, R3, R4, R5 see figure 2			
Dimensions (Lys)A(ys H)	23" × 6.1" × 9.4"			
Dimensions (L x W x H)	(585 x 156 x 238 mm)			
Weight (without milling head)	22 lbs (10 kg)			
Part numbers	SM-BM16 (110-120V/50-60Hz)			
Part numbers	SM-BM16-230 (220-240/50-60Hz)			

Radius Milling Head W/ Depth Setting Tool

Radius Insert R2 (4 Required) Radius Insert R3 (4 Required)

Radius Insert R4 (4 Required)

Radius Insert R5 (4 Required)

Beveling Milling Head 22.5°

Beveling Milling Head 30°

Beveling Milling Head 45°

Beveling Milling Head 60°

Pipe Beveling Attachment

Small Workpiece Machining Table

Beveling Milling Head 37.5°

Radius Edge Milling Depth Setting Tool

Beveling Insert for Steel (5 Required)

Beveling Insert for Aluminum (5 Required) Anti-Abrasion Plate for Aluminum Milling

#### 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 I



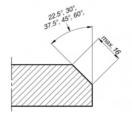


Figure 2







Radius edge milling depth setting tool











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Accessories to be chosen by customer:

SM-GLW-000011

SM-PLY-000360

SM-PLY-000159

SM-PLY-000160 SM-PLY-000161

SM-GLW-000010

SM-GLW-000005

SM-GLW-000009

SM-GLW-000006

SM-GLW-000007

SM-PLY-000294

SM-PLY-000195

SM-NKL-0509-05-00-00-0

SM-PRW-0509-07-00-00-0

SM-ZBD-0509-12-00-00-0

SM-UST-0509-16-00-00-0

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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BM16 03/2017

# PORTABLE BEVELING MACHINE FROM STEELMAX®

### **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**



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



Bevel angles 15°-60°



Top beveling



Plate Facing

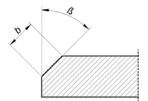
(Optional accessory required)



Pipe beveling 6"-12" (150-300 mm) OD 10"-24" (260-600 mm) OD



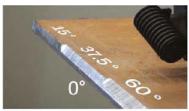
BM20 Plus Technical Specifications		
Power supply	115V/60Hz or 230V/50Hz	
Power	2.41 HP (1.8 kW) for 60 Hz 2.5 HP (1.6 kW) for 50 Hz	
Spindle speed	2740 - 3290 rpm (at 115V) 2780 - 3340 rpm (at 230V)	
Tooling	Two milling heads with 10 square cutting inserts	
Maximum bevel width (b)	13/16" (21 mm) (see figure 1)	
Bevel angle (B)	I5 - 60° (see figure 1); 0° (see facing attachment)	
Weight	45 lbs (20.5 kg)	
Part number	SM-BM20+ (115V/60Hz) SM-BM20+-230 (230V/50Hz)	



ß	15°	30°	45°	60°
Ь	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
(I 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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The tools of innovation.

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## PORTABLE BEVELING MACHINE FROM STEELMAX®

### **BM2I 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** and **BM21-SS** (for use on stainless steel). Inaccurate bevels and poor weld preparation are often the root cause of weld defects and excessive welding costs. Both machines utilize 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. The **BM21-SS**, specifically designed for use on stainless steel, also utilizes a lower speed motor and all stainless contact surfaces to eliminate contamination of the stainless steel work piece.

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

The **BM21** and **BM21-SS** feature 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 and BM21-SS 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

0-60



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



Top beveling





Pipe beveling OD 6 - 12"; option: OD 10 - 23-5/8"



Facing Max 13/16" (21mm)



Vibration

dampers

roduce smoot

operation

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



# PORTABLE BEVELING MACHINE FROM STEELMAX®

BM21 TECHNICAL SPECIFICATIONS		
Power supply	115VAC/60Hz or 230VAC/50Hz	
Power	I.5 HP (I.IkW) Induction Motor	
	BM-21SS: 1600 W (for 50 Hz); 1800 W (for 60 Hz)	
Spindle speed	2820 rpm	
	BM-21SS: 1360-1630 rpm (at 230 V) and 1300-1560 rpm (at 115 V)	
Tooling	Integrated milling head with 10 square TCT inserts	
Beveling angle	0-60° degree continuous angle adjustment	
Max bevel width	13/16" (21 mm)	
Weight	BM21 43 lbs. (20kg)	
	BM21-SS 51 lbs. (23kg)	
Part number	SM-BM21 (115V/60Hz); SM-BM21-230 (230V/50Hz) SM-BM21-SS (115V/60Hz); SM-BM21-SS-230 (230V/50Hz)	







Pipe beveling



Plate beveling



Mono block milling head, with 10 indexable inserts.



Continuous angle adjustment from 0 to 60 degrees.

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



### Enhanced Vibration Dampening



The BM21 incorporates industry leading antivibration 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.

#### **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







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BM 21 03/2016

# **AUTO-FEED BEVELING MACHINE FROM STEELMAX®**

### 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.



Maximum Plate thickness I-3/8" (35 mm) 2-3/8" (70 mm) optional



Bevel width up to I-3/8" (35 mm)



Bevel angle from +60 to -60 degrees



Top beveling



Facing Max 1-3/8" (35 mm)



Bottom beveling



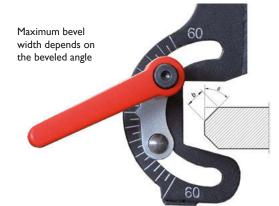
Cladding removal (optional)



# **AUTO-FEED BEVELING MACHINE FROM STEELMAX®**

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

β	0°	30°	45°	60°
b	I-3/8"	1-3/16"	1-1/8"	1-3/16"
	(35 mm)	(30 mm)	(28 mm)	(30 mm)







Milling head SM-GLW-000013

Replacement cutting inserts - 7 required

#### SM-PLY-000282

#### Standard shipping set:

- I. 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









SM-WSP-0518-04-00-00-0 SM-WSP-0518-05-00-00-0

SM-WSP-0518-07-01-00-0

### **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  $0^{\circ}$  to  $-60^{\circ}$ 

SM-WSP-0518-07-01-00-0 12° Angle attachment with height adjustment





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# PLATE/PIPE BEVELING MACHINE FROM STEELMAX®

### **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  $\frac{1}{2}$ " wide on material thickness from  $\frac{1}{8}$ " up to  $\frac{1}{3}$ " 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.









DBM12 Technical Specifications	DBM12 Technical Specifications		
Part Number	SM-DBM12		
Motor Power	400W, 7.5 rpm		
Voltage	480V, 60Hz, 3 Phase		
	0.12"-1.38" (3mm-35mm) for 22.5°,		
Plate Thickness	30° & 37.5° bevel angles		
Fiate HillChiess	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)		
Povol Pango	22.5° - 50° (See accessories below for		
Bevel Range	angle attachments)		
Dimensions	18.5" x 11.6" x 20.6"		
Differisions	(470mm x 294mm x 523mm)		
Weight	66 lbs (30kg)		
Accessories for DBM12			
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		

Bevel Angle Attachment

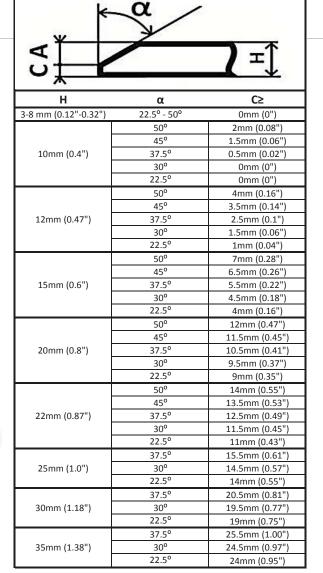


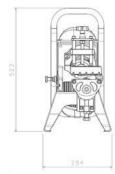




Set of three cutting wheels for DBM12













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# PLATE BEVELING MACHINE FROM STEELMAX®

### **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

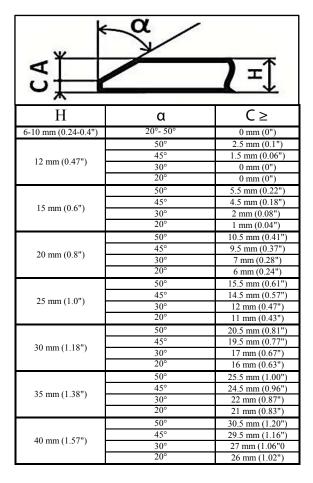








DBM15 Technical Specifications		
Part number	SM-DBM15	
Motor power	2 HP (1.5 KW), 2800 rpm	
Voltage	480V, 60Hz, 3 phase	
Plate thickness	0.23 to 1.57" (6-40 mm)	
Max Bevel Width	9/16" (14 mm)	
Cutting speed	11.5 ft/min (3.5 m/min)	
Adjustable working angle	15 - 50° infinitely variable	
Dimensions	20-7/8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





Rotates 180 degrees for bottom side bevel.

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Infinitely adjustable angle between 15 and 50 degrees

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Extra wide guide rollers for easy alignment to the plate

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Premium coated cutting wheel for longer cutting life

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# PLATE BEVELING MACHINE FROM STEELMAX®

### 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 ▶



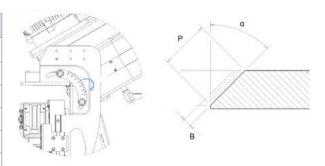






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DBM50 Technical Specifications		
Part number	SM-DBM50	
Milling head motor power	5.36 HP (4000 W)	
Voltage	480V, 60Hz, 3 phase	
2 Auto-feed motors / each	.16 HP (120W)	
Voltage	480V, 60Hz, 3 phase	
Automatic feed speed adjustment with inverter:	6" to 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" × 3-1/16" (200 × 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-101 6mm) above floor with 22" (559 mm) overhang from supports	
Weight (with trolley)	386 lbs (175 kg)	



Bevel an	gle α Max. Bevel Width = P
15 - 60°	infinitely variable
15°	2.44" (62 mm) recommended in 3 steps
20°	2.44" (62 mm) recommended in 4 steps
25°	2.20" (56 mm) recommended in 4 steps
30°	2.05" (52 mm) recommended in 5 steps
35°	2.00" (51 mm) recommended in 5 steps
40°	2.00" (51 mm) recommended in 5 steps
45°	1.97" (50 mm) recommended in 5 steps
50°	2.00" (51 mm) recommended in 5 steps
55°	2.00" (51 mm) recommended in 5 steps
60°	2.05" (52 mm) recommended in 5 steps



Rapid 180° inversion for bottom side bevel





High-speed rotary milling head with replaceable carbide Inserts











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# STATIONARY BEVELING MACHINE FROM STEELMAX®

### SBM20 STATIONARY BEVELING MACHINE

# REDUCE FIT-UP TIME AND IMPROVE WELDING EFFICIENCIES WITH ACCURATE HIGH-OUALITY BEVELS

The Steelmax **SBM20** 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 **SBM20** produces accurate milled weld preparations, improves welding efficiencies 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 the costs of over welding, defect repair and production time.

#### **FEATURES**

- · Variable auto feed permits use on ferrous and non-ferrous materials
- Adjustable bevel angles from 30 to 60 degrees
- High-speed rotary milling head with carbide inserts produces clean milled surface free of thermal distortion and HAZ
- Powerful 3,000 Watt electric motor for continuous operation
- Versatile table top operation permits hand feeding of small plates, square/rectangular tubing, pipe, angle iron and round stock
- Optional table extensions accommodate longer lengths of material
- Produces bevel widths to 1-3/16" (30 mm) at 30 degree angle
- Plate thickness up to 4" (100 mm)







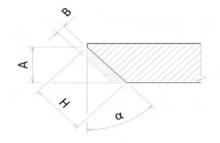


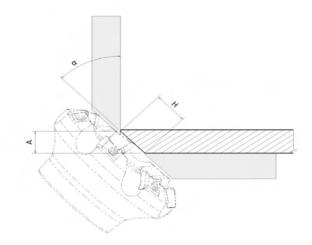
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SBM20 Technical Spe	cifications
Part number	SM-SBM20
Bevel Angle	30 to 60 degree
Max Bevel Width	I-3/16"(30 mm) at 30° angle II/16"(18 mm) at 45° angle 5/8"(15 mm) at 60° angle
Max Plate Length (Standard)	60" (1500 mm)
Max Plate Length (Optional Extension Table)	120" (3000 mm)
Plate Width	I-9/16" to 24" (40-600 mm)
Plate Thickness	1/8" to 4" (3-100 mm)
Round Stock	I-3/16" to 6-5/16" (30-160 mm)
Adjustable working angle	15 - 60° variable
Square/Rectangular Tubing	4" x 4" (100 x100 mm)
Minimum Angle Profile	2" x 2" (50 mm x 50 mm)
Recommended Max Bevel Width Cut Per Pass	
<ul><li>Carbon Steel/Aluminum</li><li>Stainless Steel</li></ul>	I/4" (6 mm) 5/32" (4 mm)
Recommended Max Feed Speed	
<ul> <li>Carbon Steel</li> </ul>	30 in/min. (.8 meters/min.)
<ul> <li>Aluminum</li> </ul>	60 in/min. (1.5 meters/min.)
Stainless Steel	15 in/min. (.4 meters/min.)
Power	480 V, 3 Phases, 50-60 Hz

a	H max	A max
30°	I-3/16" (30 mm)	1.0" (25 mm)
35°	1.0" (26 mm)	13/16" (21 mm)
40°	3/4" (23 mm)	11/16" (17.5 mm)
45°	13/16" (21 mm)	9/16" (14.5 mm)
50°	3/4" (19 mm)	I/2" (I2 mm)
55°	11/16" (17.5 mm)	3/8" (10 mm)
60°	5/8" (16 mm)	5/16" (8 mm)

B ma	ax rpm	S in/min (m/min)
Steel 1/4" (6	mm) 960	31-1/2" (0.8 m)
Stainless 3/16" (4	mm) 550	15-3/4" (0.4 m)
Aluminum I/4" (6	mm) 1200	59" (1.5 m)











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# PORTABLE BEVELING MACHINE FROM STEELMAX®

### **PB5 ID MOUNTED BEVELING MACHINE**

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



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  $\frac{1}{2}$ " (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 grove preparation
- Self-Centering ID Mounted Mandrel









# 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 (11	4mm OD/140mm OD)					

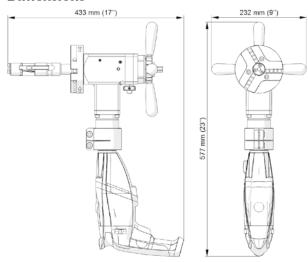
Maximum Allowable Pipe Schedule										
Nominal Pipe Diameter	Ι"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"
Maximum Pipe Schedule	SCH 40S/40/STD	SCH 80/80XS	SCH 160	XXS	SCH 160	SCH 160	SCH 80/80XS	SCH 120	SCH 40S/40/STD*	SCH 40S/40/STD*

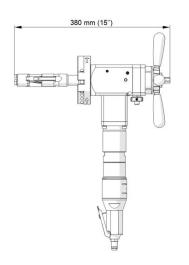
<sup>\*</sup> Requires optional 5 1/2" (140 mm) spindle disk set.

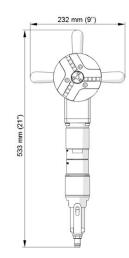
Maximum Allowable Pipe/Tube Wall Thickness							
Dia -/Tish - Cia- Dansa	I" - 1.25" ID	1.25" ID to 4.5" OD	4.5" - 5" OD*	5" - 5.2" OD*	5.2" - 5.5" OD*		
Pipe/Tube Size Range (25 mm to 33mm ID) (32 mm ID to 114 mm)		(32 mm ID to 114 mm OD)	(114 mm to 124 mm OD)	(124 mm to 132 mm OD)	(132 mm to 140 mm OD)		
Maximum Wall Thickness	0.5" (12 mm)	0.5" (12 mm)	0.39" (10 mm)	0.31" (8 mm)	0.24" (6 mm)		

<sup>\*</sup> 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





# PORTABLE BEVELING MACHINE FROM STEELMAX®

#### **Part Number**

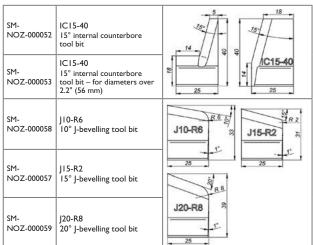
SM- NOZ-000031	F0-30 0° facing tool bit	F0-30 8
SM- NOZ-000032	B30 30° bevelling tool bit*	***************************************
SM- NOZ-000033	B30d 30° bevelling tool bit**	B30 3 B30d
SM- NOZ-000036	B375 37.5° bevelling tool bit*	10 mm
SM- NOZ-000037	B375d 37.5° bevelling tool bit**	B375 B375d
SM- NOZ-000040	B45 45° bevelling tool bit*	5- 5- 5-
SM- NOZ-000041	B45d 45° bevelling tool bit**	B45 8 B45d 8

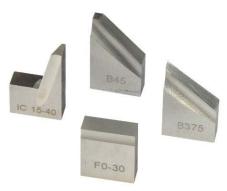
For pipe diameters between 2.2" and 3.26" (56 mm and 83 mm), both long and short beveling tool bits can be used in conjunction with 0 degree facing tool bit.

- $^{*}$  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  $0^\circ$  facing tool bit



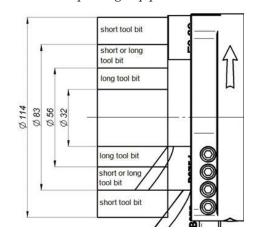
#### Part Number





Wide range of tool bits for various applications.

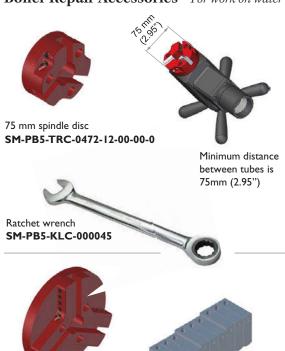
When using 0° facing tool bit in conjunction with beveling tool bit, either long or short beveling tool bit is used depending on pipe diameter.

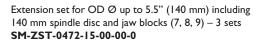


# PB5 PIPE BEVELING MACHINE FROM STEELMAX®

# **Optional Accessories**

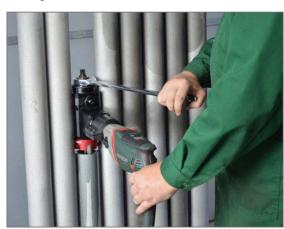
Boiler Repair Accessories - For work on water walls and restricted spaces.







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















For ordering and customer service, or to request detailed product information or demonstration videos, contact:



# PORTABLE BEVELING MACHINE FROM STEELMAX®

### **PBIO 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







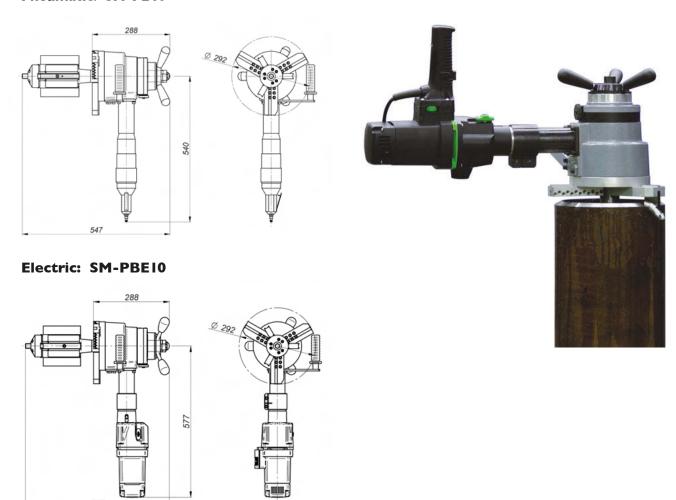
The tools of innovation.

PB10 Technical Specifications				
Pipe machining range	Min I.D. – I.6" (40 mm) Max I.D. – I0-9/16" (269 mm) Wall thickness: up to .80" (20 mm) Minimum Pipe Length: 7-1/2" (190 mm)			
Part number	SM-PB10			
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	SM-PBEI0			
Electric motor	1800W			
Supply	115V/60Hz or 230V/50Hz			
Headstock speed range	14 to 32 rpm			



 $\ensuremath{\mathsf{All}}$  information is subject to change without notice.

#### Pneumatic: SM-PBI0



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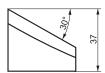
PART NUMBERS & TOOL BITS CODES						
SM-NOZ-000019	30° Beveling tool bit, height 1.5" (37 mm)					
SM-NOZ-000018	30° Beveling tool bit, height 1.7" (44 mm)					
SM-NOZ-000020	37.5° Beveling tool bit, height 1.7" (44 mm)					
SM-NOZ-000015	37.5° Beveling tool bit, height 2.1" (54 mm)					
SM-NOZ-000021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

### Standard shipping set:

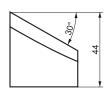
- PB10 (without tool bits)
- · Wooden crate
- · Set of jaws and blocks
- · Set of adjustment tools
- · Coolant container
- · Operator's manual
- Self-centering expandable Mandrel for pipe I.D. Ø 3-5/16 – 10-9/16" (84 – 269 mm)

SM-ZSP-0200-04-00-00-1

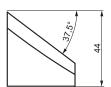
### **Beveling Tool Bits**



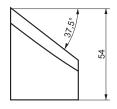
B30/37



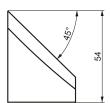
B30/44



B375/44



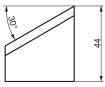
B375/54



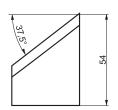
B45/54



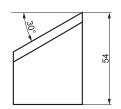
### **Internal Beveling Tool Bits**



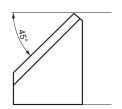
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IB375/54



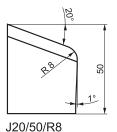
IB30/54

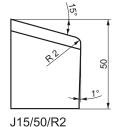


IB45/54

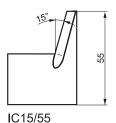
# PORTABLE BEVELING MACHINE FROM STEELMAX®

### **J-Beveling Tool Bits**

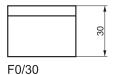




### **ID Chamfer Tool Bit**







Custom made versions of toolbits are available on request.

#### **Additional Equipment:**

SM-PRK-0447-00-00-00-2
Flange facing attachment with cutting capacities 3-9/16" to 20" (90 - 508 mm), delivered in a metal box

SM-PRK-0463-00-00-01
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

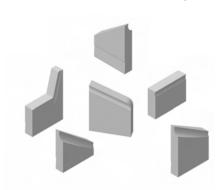
SM-ZSP-0200-05-00-00-2
Self-centering expandable Mandrel for pipe I.D. Ø I-1/2 - 3-3/8" (38 - 86 mm)

Extension set for ID Ø up to 14" (355 mm) includes 3 steel tool holders and jaws 7-12, delivered in metal box

 SM-ZST-0200-12-00-00-0
 Electric motor set 230V

 SM-ZST-0200-12-00-00-1
 Electric motor set 115V US plug

 SM-ZSP-0200-03-00-00-0
 Air Motor Assembly





















For ordering and customer service, or to request detailed product information or demonstration videos, contact:

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# HIGH-SPEED PIPE BEVELING SYSTEM FROM STEELMAX®

### **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 "I" 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







Max bevel width I-3/4"



thickness I/4"



Bevel angle from 0° to 60°



8"-40"



Facing



Pipe OD beveling



Pipe J-groove beveling

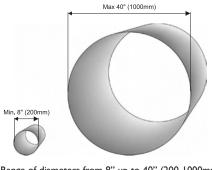


# HIGH-SPEED PIPE BEVELING SYSTEM FROM STEELMAX®

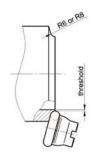
PBM 1000 TECHNICAL SPECIFICATION					
Power supply	I~ 208–230 V, 50/60 Hz 3~ 208–230 V, 50/60 Hz				
External pipe diameter range	8"- 40" (200-1000 mm) pipes longer than 830 mm; 8"- 23-5/8" (200-600 mm) pipes of 15-3/4" - 31-11/16" (400-830 mm) length				
Maximum allowed pipe weight	13,200 lbs. (6000 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	I-3/4" (45 mm)				
Beveling type "J"	YES - option				
"J" type beveling radius	0.24" (6 mm) or 0.31" (8 mm)				

#### **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



Range of diameters from 8" up to 40" (200-1000mm)



R6 & R8 J-groove available with optional milling heads



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





For ordering and customer service, or to request detailed product information or demonstration videos, contact:



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Fax: 303-690-9172



# LIFTING MAGNETS FROM STEELMAX®

### 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









#### **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 lb	load kg	Min th	ickness mm	Max I in	ength mm
SM-ML125	Max Lifter 125	275	125	3/4	20	39	1000
SM-ML250	Max Lifter 250	550	250	3/4	20	59	1500
SM-ML500	Max Lifter 500	1100	500	I	25	78	2000
SM-ML1000	Max Lifter 1000	2200	1000	1-1/2	40	118	3000
SM-ML2000	Max Lifter 2000	4400	2000	2	55	118	3000

Load Characteristic Round Stock									
Part number	Model	Max I lb	oad kg	Min thi	ckness mm	Max in	length mm	Max di in	ameter mm
SM-ML125	Max Lifter 125	110	50	3/8	10	39	1000	12	300
SM-ML250	Max Lifter 250	220	100	3/8	10	59	1500	12	300
SM-ML500	Max Lifter 500	440	200	9/16	15	78	2000	16	400
SM-ML1000	Max Lifter 1000	880	400	I	25	118	3000	18	450
SM-ML2000	Max Lifter 2000	1760	800	1-3/8	35	118	3000	24	600

Technical Data									
Part number	Model	We lb	ight kg	Ler in	ngth mm	Wid in	lth mm	He in	ight mm
SM-ML125	Max Lifter 125	8.1	3.7	4.8	122	3	79	5.6	142
SM-ML250	Max Lifter 250	14.3	6.4	7.4	189	3	79	5.6	142
SM-ML500	Max Lifter 500	33	15	9.8	249	4.2	106	7.4	189
SM-ML1000	Max Lifter 1000	71.6	32.5	13.4	342	5.25	133	8.6	219
SM-ML2000	Max Lifter 2000	167.5	76	18	457	6.5	166	11.5	293

Other sizes and applications available on special order.







For ordering and customer service, or to request detailed product information or demonstration videos, contact:

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## PORTABLE WELDING CARRIAGE

### Li'I 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.



#### 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.



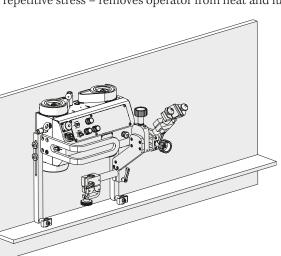
# Li'l RUNNER FROM STEELMAX®

#### **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





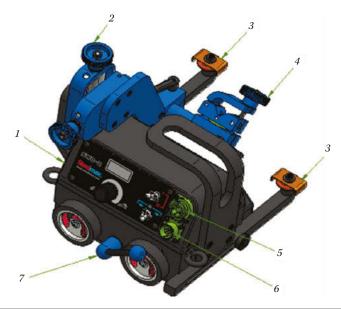
1. Drive unit with control panel

- 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





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



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## PORTABLE WELDING CARRIAGE

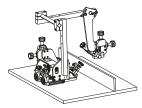
#### **OPTIONAL ACCESSORIES:**

#### 1. **Dual Torch Mount**

enables mounting of second torch for double-sided fillet welding

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

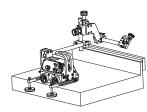




#### 2. Torch Extension Arm

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

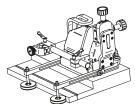




#### 3. Edge Following Guide Arms

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





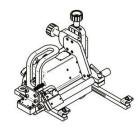
#### 5. Auxiliary Magnet Blocks

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

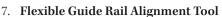






#### 6. Flexible Guide Rail

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



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

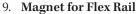
Product Code: SM-UST-0466-53-00-00-0



#### 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



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

 $12. \ \textbf{Low Guide Arms for Li'l Runner}$ 

(set of 2) enables guiding on short profiles and edges

Product Code: SM-PRW-0466-65-00-00-1

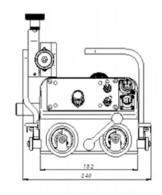
 $13. \ \textbf{High Guide Arms for Li'l Runner}$ 

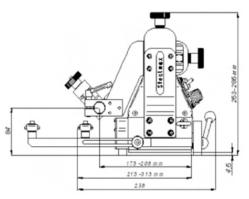
(set of 2)

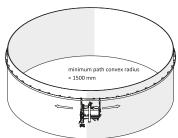
enables guiding on plates and stiffeners with cut outs and holes Product Code: SM-PRW-0466-66-00-00-1

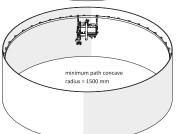
# Li'l RUNNER FROM STEELMAX®

Li'l Runner Technical Specifications					
Part Num	ber	SM-WC-LR (Li'l Runner) SM-WC-LR-HS (High-Speed) SM-WC-LR-DP (Dual-Power)			
Power su	pply	Dual Voltage 120 or 230V			
Welding p	oosition	Vertical/Horizontal			
Minimum	material thickness	5/32" (4 mm)			
Chassis to	material clearance	5/32" (4 mm)			
Travel me	chanism	Friction drive with worm gear reduction			
		Four wheel drive, heat resistant silicone wheels			
Tracking I	method	2 guide rollers			
Pulling po	wer	22 lbs (10 kg) Vertical 33 lbs (15 kg) Horizontal			
Cross slic	de Up-Down	I.4" (35 mm)			
adjustmei	1t: Left-Right	I.4" (35 mm)			
Guide rol	ler adjustment	4" (100 mm)			
	Arc Ignition Switch	Power supply On/Off			
Control	Travel Direction Switch	Start Left, Stop, Start Right			
panel:	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 × 10 × 9.5" (240 × 258 × 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









For ordering and customer service, or to request detailed product information or demonstration videos, contact:





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## PROGRAMMABLE WELDING CARRIAGE FROM STEELMAX®

### **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.



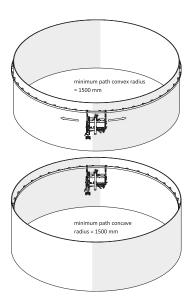




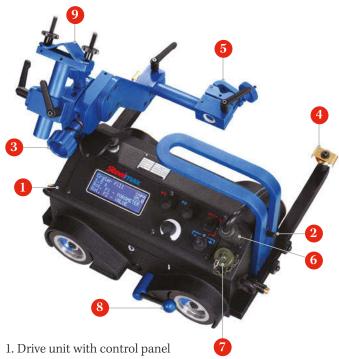
# **ARC RUNNER FROM STEELMAX®**

#### **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







- 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

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#### **OPTIONAL ACCESSORIES:**

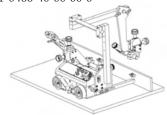
#### 1. Oscillator

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	SM-WC-AR-OSC			

#### 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

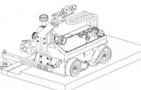




#### 4. Edge Following Guide Arms

enables guiding off an outside edge Product Code: SM-PRW-0476-21-00-00-1

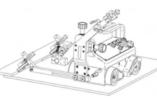




#### 5. Adjustable Guide Arms

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)

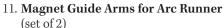
Product Code: SM-PRW-0476-50-01-00-

9. Magnet for Flex Rail (LR and AR) - 10 required



#### 10. Ouick Connect Torch Holder

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



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

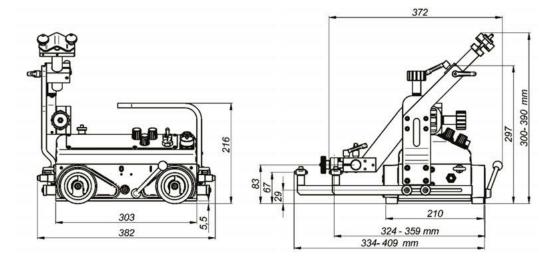
(set of 2)

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®

Part Number		SM-WC-AR or SM-WC-AR-230				
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	Up-Down	I-3/8" (35 mm)				
adjustment	Left-Right	I-3/8" (35 mm)				
Guide roller	adjustment	3" (75 mm)				
	Travel direction switch	program start, direction left / stop / program start, direction right				
Control	Function button FI	Continuous welding, dash, crater fill, backweld				
panel	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)				
эрееч кнор		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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# TRACK CUTTING MACHINE FROM STEELMAX®

### **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





# TORCH RUNNER FROM STEELMAX®







Torch Runner Technical Specifications		
Part Number	SM-WC-TR or SM-WC-TR-230 SM-WC-TR-PLASMA or SM-WC-TR-PLASMA-230	
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") × 7-7/16" (25-13/16") × 7-1/16" 427 mm (473) × 189 mm (655) × 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  $^{\prime\prime}$  (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



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# TRACK CUTTING MACHINE FROM STEELMAX®

#### **ACCESSORIES:**

#### 1. Track Assembly

Track assemblies can interconnect to form various lengths Track specification: length 72  $^{\prime\prime}$  (1800 mm), "V" Groove center-line: 6  $^{\prime\prime}$  (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



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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## TRACK WELDING CARRIAGE FROM STEELMAX®

### **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		SM-WC-RR (with oscillation) SM-WC-RR-WO (without oscillation)		
Power Supply – Dual Voltage		115-230 V / 50-60 Hz		
Power		100 W .13 HP		
Welding	Horizontal	PA (flat), PB (horizontal vertical), PC (horiz.)		
Positions	Vertical	PF (vertical up), PG (vertical down)		
Minimum tracl	nimum 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	Horizontal work	77 lbs (350N)		
Force	Vertical work	33 lbs (150N)		
Torch adjustment range		I-3/8" up-down, left-right (35 mm)		
Horizontal spe	eed	0 – 47-3/8"/min (0 - 120 cm/min)		
Vertical speed		0 – 43-5/16"/min (0–110 cm/min)		
Oscillation typ	e	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

#### 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

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#### **Additional accessories:**

• SM-PRW-0482-15-02-00-0 Track segment of 6.5 ft (2 m)



• SM-DYS-0482-15-01-01-0 Mounting Bracket for Magnet

#### User-friendly control panel











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# MODULAR TRACK WELDING CARRIAGE FROM STEELMAX®

## **RAIL RUNNER II**

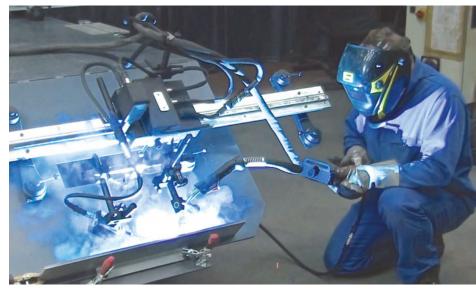
# MODULAR WELDING/CUTTING CARRIAGE WITH INTEGRATED SEAM TRACKING

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







# MODULAR TRACK WELDING CARRIAGE FROM STEELMAX®

R	AIL RUNNER	II Technical Specification		
Voltage		I~ 42V, I I 5V, 230 V, 50–60 Hz		
Power		120 W		
\A/-1-li	Horizontal	PA (flat), PB (horizontal vertical), PC (horizontal)		
Welding positions	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:**

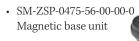
- · Compact, lightweight design
- · Simple, ergonomic remote control pendant with magnetic base and multifunction LED display
- · Quick clamping torch holder mechanism:
  - Standard for torch diameters of 16-22 mm (0.63 0.87")
  - Optional for larger torch diameters up to 35 mm (1.38")
- Simple, precise 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-DYS-0482-15-01-01-0 Mounting Bracket for Magnet



SM-WC-RR-VS





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Motog.			
Notes:			





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