



S14-M 14 Inch
Dry Cut Metal Cutting Miter Saw
OPERATOR'S MANUAL



Steelmax Tools, 801 W. Mineral Ave.

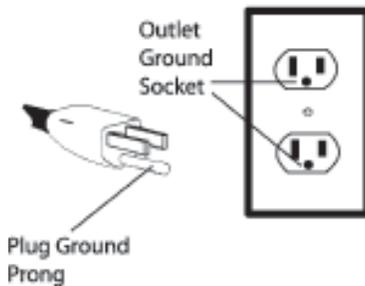
Suite 103, Littleton CO. 80120 Phone: 303-690-9146

14" Dry Metal Cutting Miter Saw

Congratulations on your purchase of a Steelmax brand Dry Metal Cutting Miter Saw. Please complete and mail your product registration card. Doing so will validate your machine's warranty period and ensure prompt service if needed. We sincerely thank you for selecting a product from Steelmax.

Electrical Safety

- Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded.
- Don't expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of



Replace damaged cords immediately. Damaged cords increase the risk of electric shock.

•When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W." These cords are rated for outdoor use and reduce the risk of electric shock.

Note) When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The recommended minimum is a 12 gauge extension cord not exceeding 50 feet.

LIMITED WARRANTY

Steelmax Tools LLC (STEELMAX) will, within twelve (12) months from the original date of purchase, repair or replace any goods found to be defective in materials or workmanship, provided the product warranty registration card has been returned to STEELMAX within thirty (30) days of purchase date (proof of purchase required). This warranty is void if tool is used on materials thicker than those specified under normal use, has been damaged by accident, neglect, improper service, or other causes not arising out of defects in materials or workmanship. This warranty does not apply to machines and/or components which have been altered, changed, or modified in anyway, or subjected to use beyond recommended capacities and specifications. Electrical components are subject to respective manufacturers' warranties. All goods returned defective shall be returned prepaid freight to STEELMAX, which shall be the buyer's sole and exclusive remedy for defective goods. In no event shall STEELMAX be liable for loss or damage resulting directly or indirectly from the use of merchandise or from any other cause. STEELMAX is not liable for any costs incurred on such goods or consequential damages. No officer, employee or agent of STEELMAX is authorized to make oral representations of fitness or to waive any of the foregoing terms of sale and none shall be binding on STEELMAX.

STEELMAX RESERVES THE RIGHT TO MAKE
IMPROVEMENTS AND MODIFICATIONS TO DESIGN WITHOUT PRIOR NOTICE.

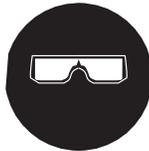
STEELMAX TOOLS LLC

SPECIFIC SAFETY RULES AND SYMBOLS

WARNING!

DO NOT OPERATE MACHINE IF WARNING AND/OR INSTRUCTION LABELS ARE MISSING OR DAMAGED. CONTACT STEELMAX FOR REPLACEMENT LABELS.

- **DANGER!** — Keep hands and body away from and to the side of the blade. Contact with blade will result in serious injury.



EYE PROTECTION
REQUIRED



HEARING PROTECTION
REQUIRED



NEVER PLACE
FINGERS NEAR
CUTTING AREA



LINE VOLTAGE
PRESENT

- **WARNING!** — To reduce the risk of injury, check lower guard. It must close instantly! Keep free hand away from blade at all times during operation. Support and clamp work. Wear eye and hearing protection.

Symbol	Description
V.....	volts
A.....	amperes
Hz.....	hertz
min.....	minutes
~.....	alternating current
no.....	no load speed

1. Only use Steelmax brand approved saw blades. Unauthorized blades may be dangerous!
2. Keep saw blades securely fastened. Check blade flanges for debris before installing any new blade.
3. Do not use dull or broken blades. Check blades often for condition and wear.
4. Check blade cover for proper fit to minimize the risk of flying debris.
5. Beware of ejecting chips. They become HOT both during and after cutting.
6. Always make provisions for safe handling of excess material.
7. Keep saw base free from dirt and other debris.
8. Beware of ejecting drop piece. Thinner slices pose a significant ejection hazard.

To obtain an additional copy of your manual please contact Steelmax at:

Ph. 303-690-9146

Fx. 303-690-9172

www.steelmax.com

Thank you for your purchase. Read this manual carefully before using this product.

I. Features and Applications of This Electric Metal Cutting Saw:

The **S14-M 14" Metal Cutting Miter Saw** is an advanced, upgraded model engineered to deliver improved performance and reliability over earlier-generation metal cutting machines. Designed as a portable, lightweight electric tool, it is powered by a high-efficiency single-phase motor, making it suitable for both shop and field environments.

Engineered for versatility, the S14-M is widely utilized across industries such as mechanical fabrication, transportation, construction, metallurgy, and power generation. Its cutting capabilities make it ideal for processing small to medium-sized metal materials, including round pipe, solid round bar, square tubing, rectangular tubing, and aluminum profiles.

II. Main Technical Parameters :

1. Model: S14-M 14" Miter Saw
2. Rated voltage: 120V~ (230V)
3. Rated frequency: 60Hz (50Hz)
4. Rated current: 15A (2200W)
5. No-load speed: 1450r/min
6. Dimensions: 28 1/4 x 27 1/2 x 27 3/4 (in)
7. Net weight: 72 lbs (32.5 kg)

III. The main structure of this electric metal cutting machine:

- 3.1 The motor is double insulated with class E insulation, and the stator and rotor wires are made of high strength enameled copper round wire.
- 3.2 The power switch uses a reverse self-locking switch, which is convenient, safe and reliable.
- 3.3 The Y.G type flexible power cable complies with the physical properties specified in GB5023.1-2008, while its plug meets the requirements of GB1002-2008. Both components are integrated into a single unit, with the power cable exceeding 2.5 meters in length
- 3.4 The saw blade features a 14-inch alloy blade tip with a maximum safe speed of 3500 rpm.

IV. Safe usage rules:

- 4.1 Before operating the saw, perform a thorough inspection to ensure safe use. Confirm that the tool housing is free of damage, the alloy saw blade guard is intact and securely installed, and the power cord and plug show no signs of wear or defects. After inspection, allow the saw to run at no-load speed for several minutes to verify smooth operation and ensure there are no unusual sounds, vibrations, or obstructions. Only place the tool into service once proper function has been confirmed
- 4.2 Before plugging the saw into a power source, verify that the supply voltage matches the rated voltage indicated on the tool's nameplate. Ensure the power switch is in the OFF position to prevent accidental startup, which may cause injury or equipment damage.
- 4.3 Before moving the machine, always disconnect the power cord from the electrical outlet. Do not attempt to unplug the tool until the saw blade has come to a complete stop. Never lift or carry the machine by the power cord, and do not pull the cord forcefully from the outlet, always grasp and pull the plug instead. Keep

the power cord away from heat sources, oils, sharp edges, and saw blades to prevent damage and reduce the risk of electric shock or fire.

4.4 If unusual sounds, abnormal vibration, or irregular cutting patterns occur during operation, stop the machine immediately and determine the cause. Replace the saw blade if necessary. If you detect smoke or a burning odor, shut down the machine at once and inspect it before further use to prevent hazards such as overheating, friction damage, or electrical faults.

4.5 Do not operate the tool in rain, damp environments, or areas with poor visibility, excessive dust, smoke, or flammable materials. Safe operation requires a clean, dry, and well-lit workspace.

4.6 The alloy-tipped carbide blade is extremely sharp and must be handled with care. When transporting, installing, or removing the blade, avoid contact with the cutting edge to prevent injury and to avoid damaging the blade, which could negatively impact cutting performance.

4.7 During operation, keep the blade free from accidental impacts. Ensure the workpiece is properly secured before cutting. Loose or unstable materials can shift unexpectedly, causing metal fragments to break free and become hazardous projectiles.

4.8 Keep children and unauthorized individuals away from the work area. Observers should remain at a safe distance to avoid exposure to flying debris, sparks, or metal shavings.

4.9 Do not touch freshly cut metal until it has sufficient time to cool. Newly cut materials can retain high temperatures and cause burns.

4.10 Avoid standing directly in line with the saw blade while the machine is operating. Position yourself on the left side of the saw and ensure the movable blade guard is properly adjusted for added protection.

4.11 Operators must always follow proper safety practices. Wear appropriate personal protective equipment (PPE), including a face shield, safety goggles, gloves, helmet, and protective footwear. Clothing should be well-fitted and free of loose items such as ties, jewelry, or dangling accessories. Long hair must be secured and fully contained to prevent entanglement with rotating parts. Operating the machine without the blade guard installed is strictly prohibited.

V. Special safety instructions for the cutting machine:

5.1 To minimize hazards and prevent inhalation of cutting debris and dust (which may cause respiratory disorders), use certified protective masks, safety goggles or face shields, gloves, and protective clothing.

5.2 Depending on the material and requirements, appropriately adjust feeding method and speed. Forcing the speed to increase or decrease may cause severe damage to the saw blade and the machine. Be careful.

5.3 Keep hands and body away from rotating alloy saw blades. Never place hands or feet on the base.

5.4 Maintenance Guidelines for Alloy Saw Blades:

a. Store unused alloy blades in their original packaging to preserve the factory-applied rust prevention. Do not open them until authorized for use.

b. For used blades, after disassembly, they must be returned to their original packaging. Whether sent to a sharpening facility or stored in a warehouse awaiting reuse, vertical stacking is recommended. Avoid placing them in damp environments.

c. When stacking horizontally, avoid excessive height to prevent deformation from prolonged pressure. Never stack bare blades together, as this may cause inter-tooth or blade-to-board friction, leading to tooth damage or even fragmentation.

d. For blades without special anti-rust treatments like electroplating, promptly apply rust preventive oil after use to prevent rust formation from prolonged disuse.

e. If the saw blade is dull or cuts poorly, it should be sharpened. Failure to do so promptly may distort the saw

teeth's original angle, reducing cutting precision and shortening the blade's lifespan.

f. Saw blade grinding should preferably be performed by the original manufacturer. If conditions are inconvenient, professional equipment and grinding services should be sought. Incorrect or improper grinding significantly reduces the service life of saw blades.

5.5 When the alloy saw blade is severely worn or has missing teeth, it should be replaced with a blade that meets the specifications in Table 1.

5.6 Saw blade replacement: Press the brake lock to stop the blade rotation before proceeding (Figure 1).

a. Loosen the cover plate screws, then rotate the movable cover plate clockwise to its free position. Hold the rotor lock plate assembly and rotate the alloy saw blade until it stops. Use a hex key to loosen the hex screws, then remove the hex screws, spring washers, saw blade washers, outer clamp plate, and alloy saw blade.

b. Before installation, inspect the alloy saw blade for cracks, warping, unevenness, or tooth loss. If any of these issues are found, do not use it.

c. Inspect the machine spindle for any runout or significant sagging clearance. During installation, first place the saw blade's inner hole onto the inner clamp plate, then secure the outer clamp plate, washer, and spring washer. Tighten the hex socket screws, then rotate the movable cover plate counterclockwise to the outer cover plate screw. Tighten the outer cover plate screw to complete the metal saw blade replacement. After installation, verify that the saw blade's center hole is firmly fixed to the inner clamp plate. Gently push the saw blade to check for any eccentric movement.

d. The cutting direction indicated by the alloy saw blade arrow must be aligned with the saw table rotation direction. Installation in the opposite direction is strictly prohibited, as incorrect orientation may cause tooth loss.

5.7 After the installation of the saw blade is stable, it should be idled for 30 seconds, and then the cutting work should be started after confirming that everything is normal.

5.8. During installation, the clamping screws for the saw blade must be properly tightened. If they are too loose, the blade may slip during rotation and cutting; if too tight, it could cause internal damage or deformation, which would compromise the cutting performance.

5.9. Regularly remove resin, debris, and other contaminants accumulated on the saw teeth and the side of the saw blade. Continuous buildup of adherent materials increases resistance, leading to high energy consumption (in extreme cases, may cause motor burnout) and poor cutting quality. If the cutting edge is also dulled, it may result in tooth damage.

5.10 Never attempt to move or clamp the workpiece while the saw blade is in operation.

VI. Machine Performance Instructions:

6.1 Start cutting only after the machine reaches maximum speed. Immediately turn off the power if the saw blade stops rotating or the motor emits abnormal noise.

6.2 Use the voltage parameters specified on the machine nameplate correctly.

6.3 Place the machine on a flat, level, and safe surface.

6.4 The cutting dimensions for all materials must not exceed the values specified in Table 2.

6.5 When working with materials approaching specified size limits or soft textures, operate the saw slowly and evenly with moderate force. Adjust the speed appropriately. If excessive force causes the rotation to slow significantly while the material remains uncut, immediately release the handle to disengage the blade. Wait several seconds until the rotation becomes normal before continuing. Never attempt to cut under excessive load or in haste.

6.6 The workpiece is mounted on the base and secured by accessories including positioning stopper,

clamping bracket assembly, and auxiliary stopper.

6.7 Loosen the handle assembly. Press the indexing auxiliary wrench with your thumb to lift the indexer under pressure, releasing the indexing pawl from the indexing scale slot. Hold the handle assembly with four fingers simultaneously to tilt the cutting machine left or right by 0-45 degrees to the desired angle. Release the indexing auxiliary wrench, then engage the indexing pawl into the indexing scale slot to lock the angle. Tighten the handle assembly to perform multi-angle cutting (0-45 degrees) on the workpiece (Figures 4 and 5).

6.8 Cutting workpieces must be securely clamped to prevent hazards from the workpiece's swinging surface. For longer workpieces, the other end may be supported by a spacer block to maintain a horizontal position.

6.9 During cutting operations, the workpiece is secured using the positioning stop plate, clamping bracket assembly, and auxiliary bracket assembly mounted on the base (Figures 6, 7, 8). The clamping bracket assembly is positioned on the aluminum base with two M8 hex socket ball screws and two M6 hex socket set screws. To adjust the clamping bracket assembly vertically, loosen the two M6 set screws. Tightening the M6 set screws secures the assembly in place.

6.10 The cutting saw is mounted on two guide rods within the rotary table assembly and can be positioned at three adjustable locations along these rods. To reposition the saw, rotate the lock-lever wrench counterclockwise, then pull the locking-lever handle outward to disengage the tapered end of the locking rod from its locating hole. Once released, slide the saw along the guide rods to the desired position based on the size of the workpiece. After positioning, release the locking-lever handle to allow the tapered end of the locking rod to re-engage with the appropriate locating hole. Finally, rotate the lock-lever wrench clockwise to secure the saw firmly to the rotary table assembly.

6.11 After 40 hours of operation, inspect the carbon brushes. Replace them when worn to 5-6mm

6.12 To prevent serious damage, do not power on the machine or disassemble it for rewiring before maintenance. All repairs must be performed by authorized service centers.

6.13 Maintenance personnel or operators shall regularly perform tool maintenance, carefully inspect components such as the robotic arm handle, housing, power cord, plug, switch, alloy saw blade, and protective cover. Any potential hazards identified shall be promptly repaired.

6.14 This tool must be delivered to an authorized after-sales service center at least once per quarter for the following services: lubrication, carbon brush inspection and replacement, mechanical inspection and cleaning (including gears, shafts, bearings, and casing), and circuit inspection (including switches, power cords, and motors).

6.15 Clean the machine regularly to remove dust and debris from tool air vents and ensure unobstructed heat dissipation channels. Always use neutral soap and cloth for cleaning, as certain cleaning agents and solvents may damage plastic components and insulation parts. Never use flammable solvents to clean your machine. Avoid liquid rinsing and prevent any liquid from flowing on the machine surface.

VII. If any of the following conditions are detected during operation, immediately shutdown the machine and send it to a certified repair technician for servicing:

7.1 When the transmission component becomes jammed, causing a sharp reduction in rotational speed or complete stoppage

7.2 When abnormal vibration or unusual noise is detected

7.3 When excessive temperature rise or foul odor is observed

7.4 When intense sparks or arcing occur beneath the brush.

7.5 This tool includes a set of 8mm hex wrenches for replacing alloy saw blades, and a dedicated wrench for adjusting the machine's 0-45 degree bevel cutting angle.

7.6 If the wrench is damaged, please purchase the same model of replacement parts from an authorized

after-sales service center.

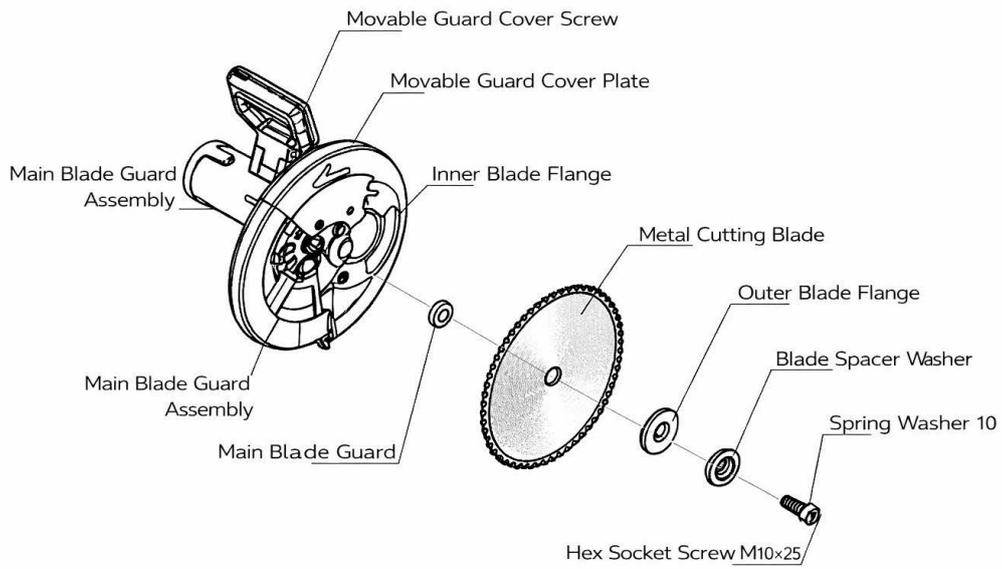
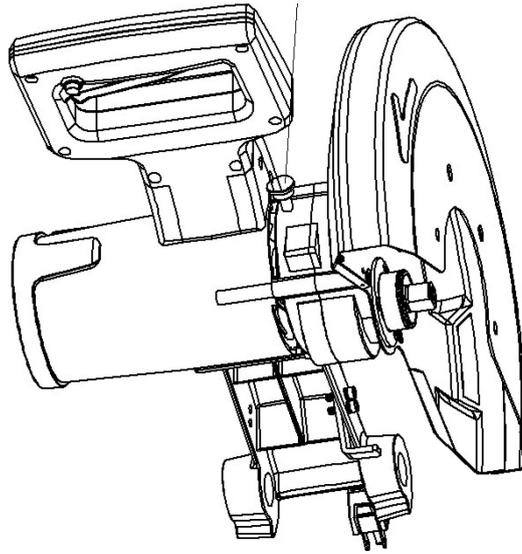
CHART 1

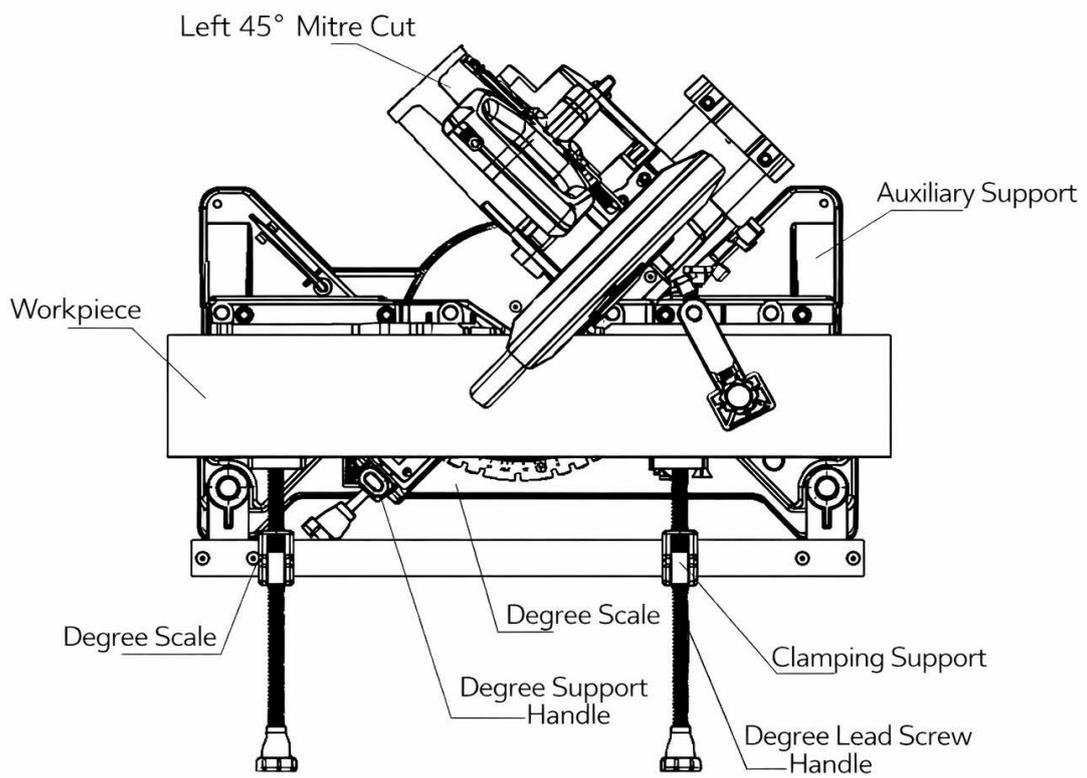
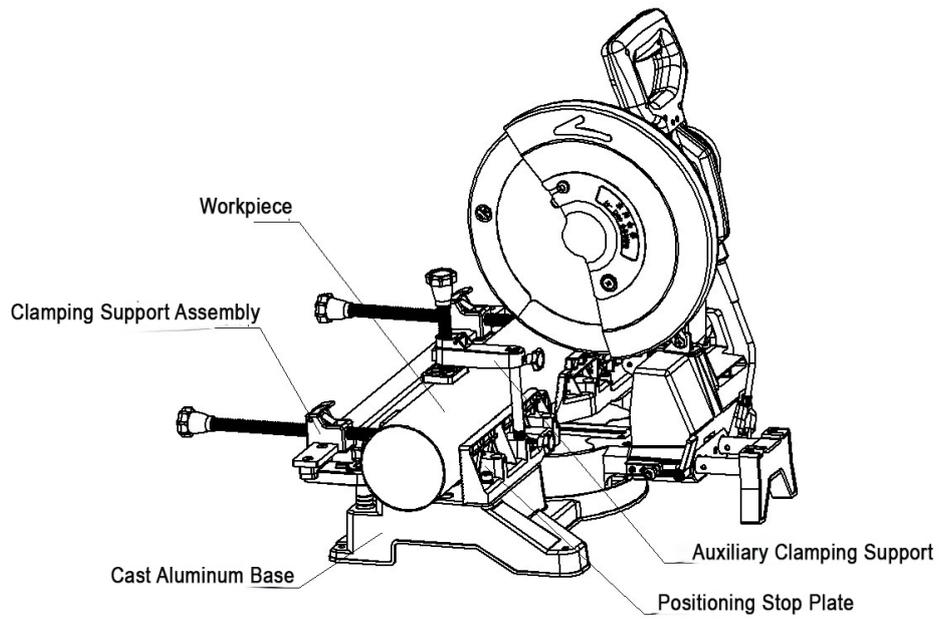
diameter of alloy blade	Safe Speed	Bore diameter	thickness
14 inches 355mm	Max 3500rpm	1 inch 25.4mm	2mm

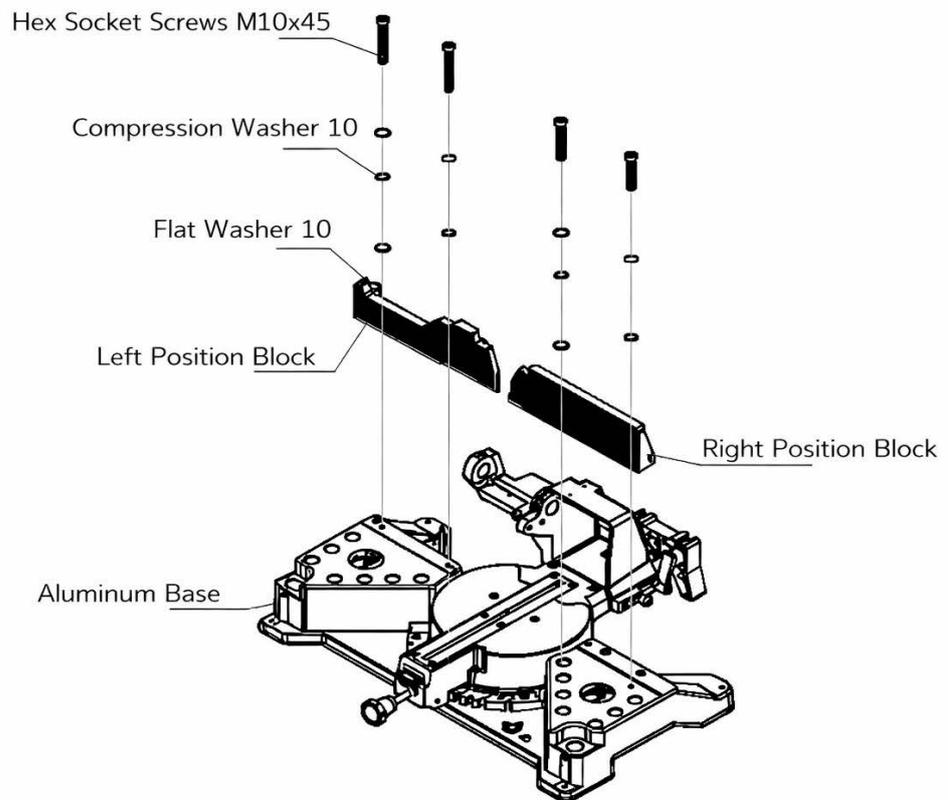
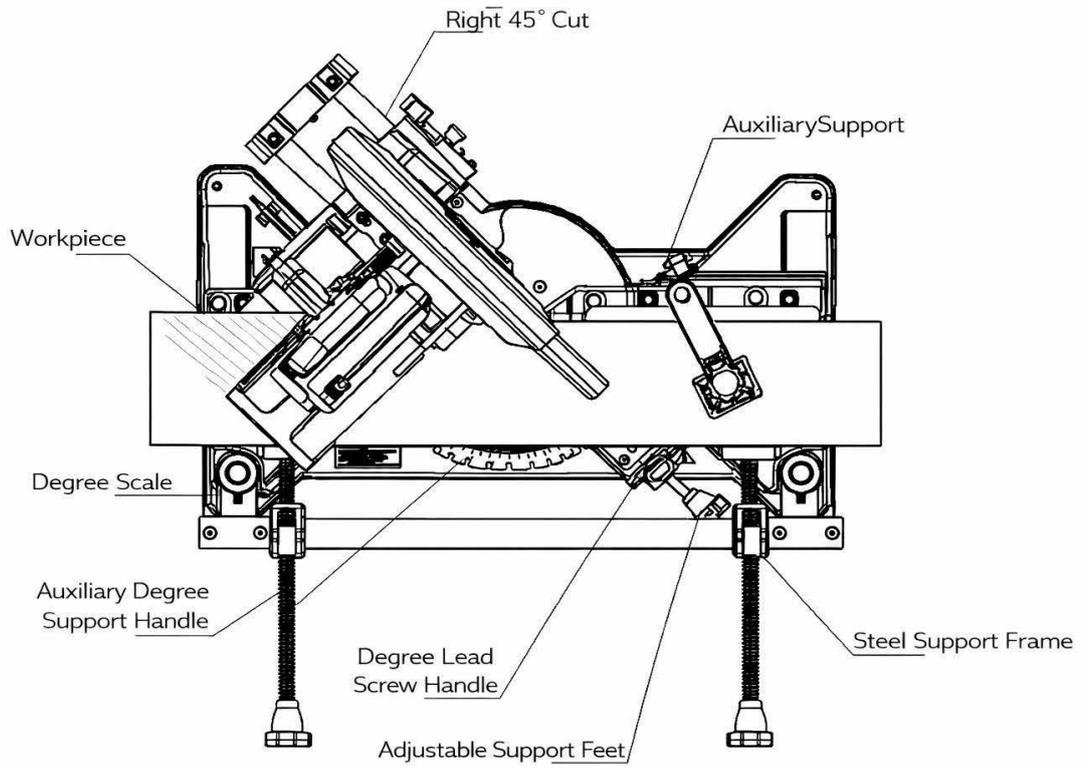
CHART 2

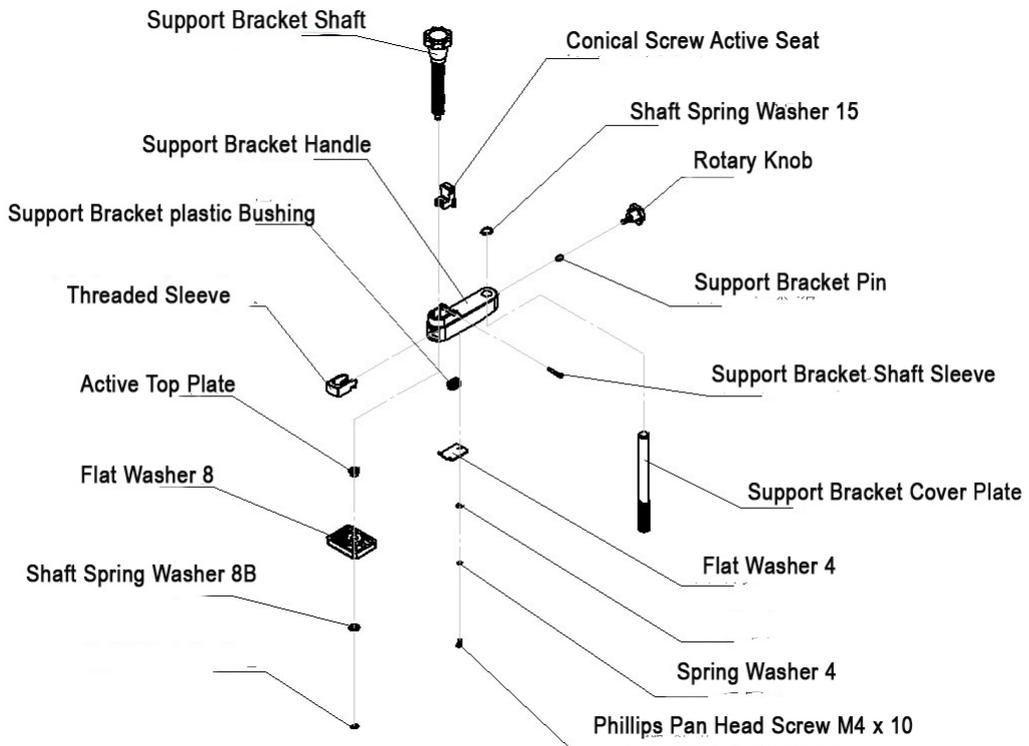
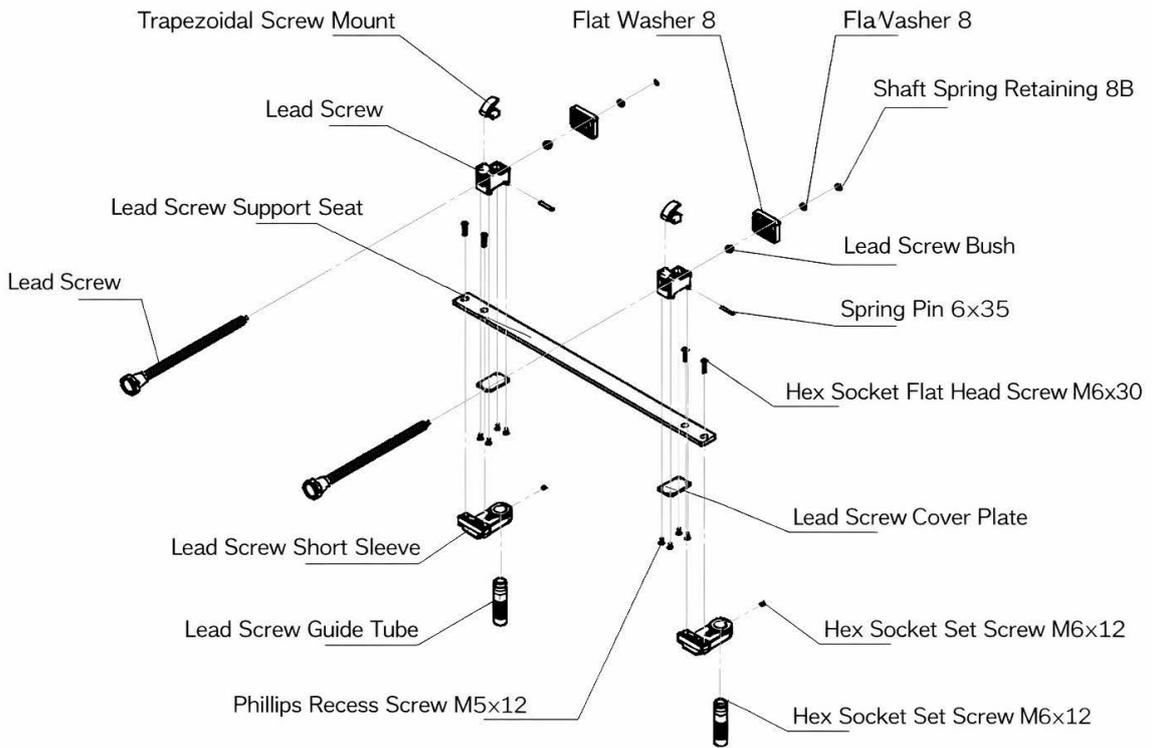
Capability	Round steel pipe	Square tube	Rectangular pipe
90°	φ 135 (mm)	4 3/4" x 4 3/4" 120x120 (mm)	6" x 4 1/3" 150x110 (mm)
45°	φ 130 (mm)	4" x 4 " 100x100 (mm)	4 1/3" x 4 1/3" 110x100 (mm)

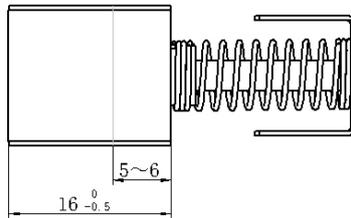
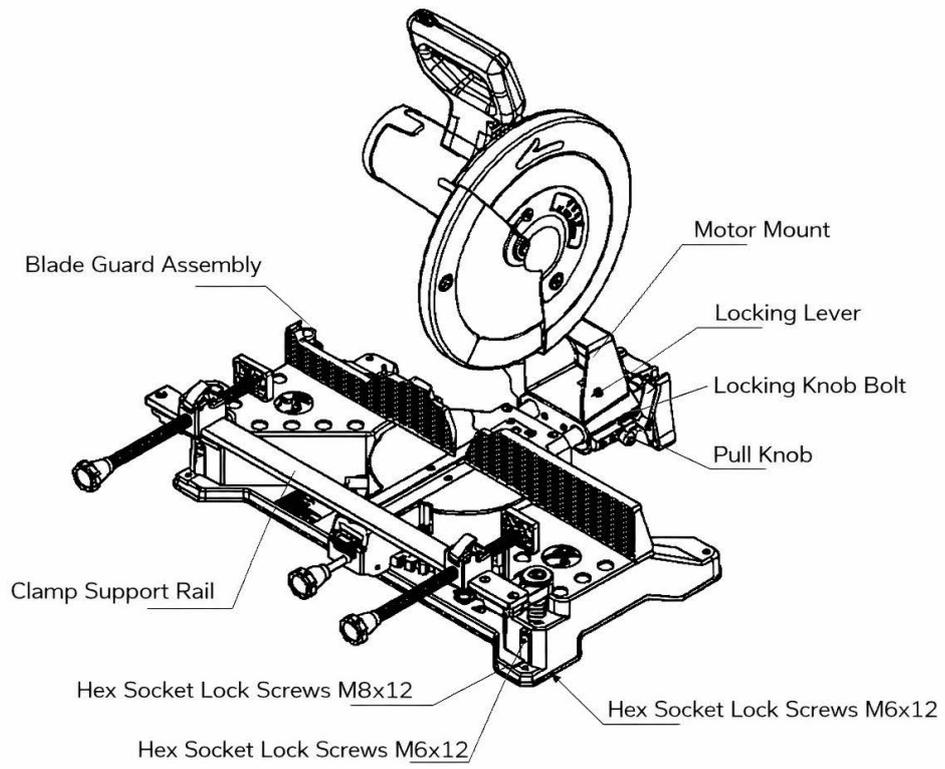
Saw Blade Replacement Brake











ACCESSORIES

Steelmax Recommended Saw Blades

Application	Part #
For cutting mild steel to 1"	SM-BLL-014
For cutting thin steel to 1/4"	SM-BLL-14-TS
For cutting aluminum to 1"	SM-BLL-14-AL
For cutting stainless steel to 1/2"	SM-BLL-14-SS
Cermet Tipped for mild steel	SM-BLL-CT-14-MS
Cermet Tipped for stainless steel	SM-BLL-CT-14-SS

Steelmax Tools LLC.

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Fax 303-690-9172

www.steelmax.com e-mail: sales@steelmax.com

PRODUCT REGISTRATION AND WARRANTY CARD

Thank you for purchasing a Steelmax® product!
Please fill out this form and return promptly so that we may register your purchase.

Model# _____ Serial # _____ Date of Purchase _____

Steelmax Tools LLC

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www.steelmax.com e-mail: sales@steelmax.com

Please detach and retain this top portion for your records.

Fax 303-690-9172

Mr. Mrs. Ms. Miss

First Name

Last Name

Company Name

Street Address

City

State

Zip

Phone Number

Fax Number

E-mail Address

May we contact you by: Mail Fax E-mail Address

Model

Serial#

Date of Purchase

Where did you purchase your Steelmax product from

What are the top two reasons that influenced your purchase of this Steelmax brand product?

Reputation

Value for price

Web site

Safety features

Magazine ad

Availability

Recommendation

Reputation of retailer

Style/Appearance

Quality/Durability

Other

In your opinion, what is the BEST industry publication you regularly read? _____

Is this: A first time purchase? An additional unit? A replacement unit? For which brand? _____

Additional comments: _____

Thank You! We value your answers and input.

Yes, put me on the Steelmax email list for special offers.