

FS050

Hand-held Portable Scarifiers

Parts & User Manual



FS050.3.FlexHD



FS050.3.PN



1-800-653-9311

www.SmithMfg.com

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INTRODUCTION

Congratulations on purchasing the FS050™ from SMITH Mfg. Company.

The SMITH brand FS050 is a fast, rugged and lightweight portable hand-held scarifier designed for high performance edging or removing in hard to reach locations by hand or in the upright caddy that removes faster than conventional diamond discs.

Best for touch-ups, edging, removing in hard to reach areas, walls, ceilings, under tables. Add FS050.C caddy for upright removal. Used by Concrete Resurfacing Contractors, Striping Contractors, DIYers

Exclusive features of this machine:

It's versatile, offering a variety of cutters with a 4 or 6 shaft cutter set-up with extra set of shaft holes, and lightweight with reversible left or right handles to power through high spots, low spots and in very tight areas.

You will obtain years of satisfying service when your machine is properly used and maintained. Please read completely this guide and parts list manual to assure your REMOVAL SUCCESS. If you have any questions about the operation of your machine or would like to order replacement parts, please contact your SMITH Dealer directly, or call SMITH at 1-800-653-9311 or (954) 941-9744 for the name of your local dealer.

REQUIRED SAFETY EQUIPMENT



When using this tool the following safety equipment **MUST** be worn!
If you do not have this
DO NOT USE THE MACHINE



SAFETY GLASSES



SAFETY GLOVES



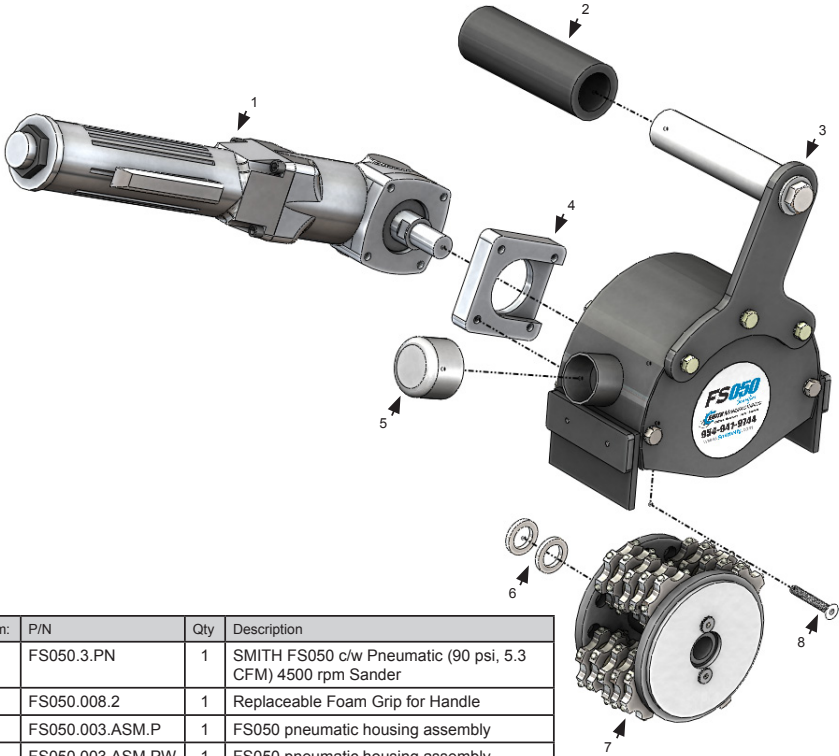
SAFETY MASK

SAFETY GUIDELINES -PNEUMATIC-

- Read all instructions before using the tool. all operators must be fully trained in its use and aware of these safety rules.
- DO NOT exceed the Maximum working pressure of 100psi
- Use ONLY compressed air at the recommended conditions
- If the tool appears to malfunction, remove from use immediately and arrange for service and repair
- If the tool is used with a balancer or other supporting device ensure that it is fixed securely
- Always keep hands away from the working attachment fitted to the tool
- The tool IS NOT electrically insulated. NEVER use tool if there is any chance of it coming into contact with live electricity
- Always when using the tool adopt a firm footing and/or position and grip the tool firmly to be able to counteract any forces that may be generated while using the tool
- Use only the correct spare parts. Do not improvise or make temporary parts
- Do not lock, tape, wire etc the ON/OFF valve in the run position. The trigger/lever must always be free to return to the off position when it is released
- Always shut off the air supply to the tool and depress the trigger/lever to exhaust air from the feed hose before fitting, adjusting or removing the working attachment
- Check hose and fittings regularly for wear, replace if necessary
- Always use a suitable vacuum cleaner or dust extraction unit

YOUR FS050™ HAND HELD SCARIFIER

Please take time to familiarize yourself with the FS050™'s controls, as well as some of the features of your new machine.



Item:	P/N	Qty	Description
1	FS050.3.PN	1	SMITH FS050 c/w Pneumatic (90 psi, 5.3 CFM) 4500 rpm Sander
2	FS050.008.2	1	Replaceable Foam Grip for Handle
3	FS050.003.ASM.P	1	FS050 pneumatic housing assembly
3	FS050.003.ASM.PW	1	FS050 pneumatic housing assembly (welded style)
4	FS150.006	1	Spacer/adaptor
5	FS050.015	1	Vacuum port cap
6	FS050.001.L5A	2	Spacers
7		1	Refer to page 9
8	M5-0.8x35 FHSCS	4	Flat head socket cap screw

NOTE: Item 3 includes item numbers 2, 4, 5, 6, and 8

RECOMMENDATIONS

- Recommended working pressure:
6.3 bar / 90 psi
- Maximum working pressure:
7.0 bar / 100 psi
- Recommended hose bore:
10mm / 3/8"
- Recommended hose length:
10m / 30 ft

ACCESSORIES

- MV300 (110V)
HEPA Vacuum



- FS200 Compact
Scarifier/Grinder



- FS150 Handheld
Scarifier/Grinder

USING THE FS050

AIR SUPPLY: Use clean lubricated air supply that will give a measured air pressure at the tool of **6.3 bar / 90 psi** when the tool is running with the trigger/lever depressed. Use the recommended hose size and length. Do not connect the tool to the air line system without incorporating an easy to reach operate air shut off valve. The air supply should be lubricated. It is strongly recommended that an air filter, regulator, lubricator (FRL) is used as this will supply clean, lubricated air at the correct pressure for the tool. Details of such equipment can be obtained from your supplier/dealer. If such equipment is not used, the tool should be lubricated by shutting off the air supply to the tool and de-pressurizing the line by pressing the trigger on the tool.

Disconnect the air line and pour into intake fitting a teaspoon (5ml) of a suitable pneumatic motor lubricating oil preferably incorporating a rust inhibitor. Reconnect the tool to an air supply and run slowly for a few seconds to allow air to circulate the oil. If tool is used frequently lubricate on a daily basis and also if tool starts to lose power.

WORK STATIONS: The tool should only be used as a hand operated tool. It is recommended that the tool is used when standing on a solid floor. It can be used in other positions but before any such use the operator must be in a secure position having a firm grip and footing and be aware of safety rules to be obeyed when using the grinder.

MAINTENANCE CHECK LIST



Before beginning servicing on any FS050 unit, DISCONNECT FROM AIR SUPPLY SOURCE

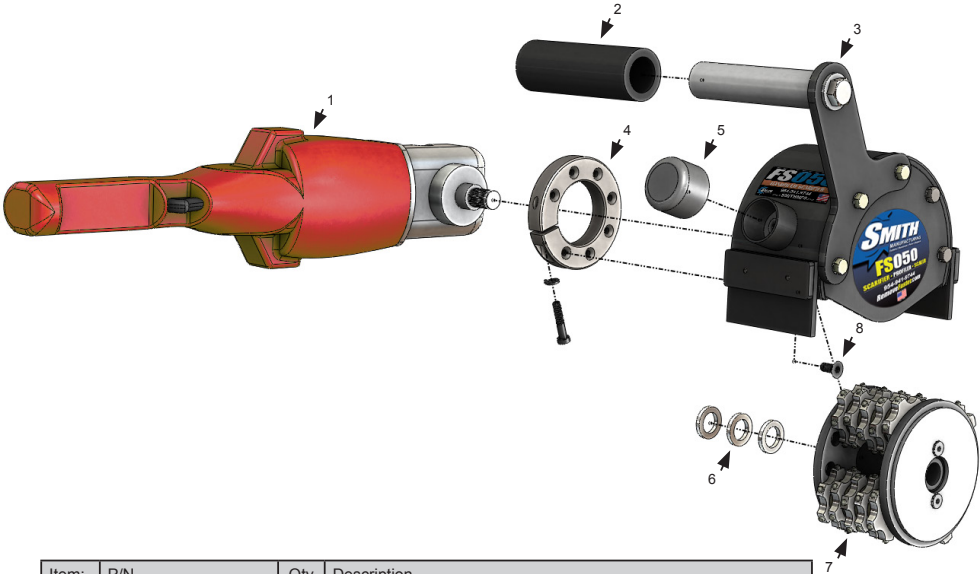
- Check all fasteners and re-tighten, since the machine will vibrate the fasteners loose if they are not secured. Use locktight.
- Clean drum housing regularly to prevent material buildup.
- Inspect drum, and shafts for damage and replace as needed.
- Regularly lubricate grinder with a suitable pneumatic motor lubricating oil. Preferably one that incorporates a rust inhibitor.
- Check hose and fittings regularly for wear or leaks, replace if necessary.
- Check all fasteners and re-tighten, since the machine will vibrate the fasteners loose if they are not secured. Use locktight.

SAFETY GUIDELINES -ELECTRIC-

- Accessories must be rated for at least the speed recommended on the tool warning label. Wheels and other accessories running over rated speed can fly apart and cause injury.
- Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
- NEVER use tool with wood cutting blades or other sawblades. Such blades when used on a polisher frequently kick and cause loss of control leading to personal injury.
- Hold the tool firmly and keeps hands away from rotating parts.
- Make sure the abrasive disc or wool bonnet is not contacting the workpiece before the switch is turned on.
- When sanding metal surfaces, watch out for flying sparks. Hold the tool so that sparks fly away from you and other persons or flammable materials.
- Do not leave the tool running. Operate the tool only when hand-held.
- Do not touch the workpiece immediately after operation; it may be extremely hot and could burn your skin.
- Check that the workpiece is properly supported.
- Pay attention that the wheel continues to rotate after the tool is switched off.
- Ventilate your work area adequately when you perform sanding operations.
- Use of this tool to sand some products, paints and wood could expose user to dust containing hazardous substances. Use appropriate respiratory protection.

YOUR FS050™ HAND HELD SCARIFIER

Please take time to familiarize yourself with the FS050™'s controls, as well as some of the features of your new machine.



Item:	P/N	Qty	Description
1	FS050.3.FlexHD FS050.3.Makita	1	SMITH FS050 c/w Flex HD (10A 110V) 2600 rpm 8" angle Sander SMITH FS050 c/w Makita (10A 110V) 3000 rpm 7" angle Sander
2	FS050.008.2	1	Replaceable Foam Grip for Handle
3	FS050.003.ASM	1	FS050 housing assembly
4	FS150.005 / FS150.007	1	Spacer/adaptor
5	FS050.015	1	Vacuum port cap
6	FS050.001.L5A	3	Spacers
7		1	Refer to pages 9-10
8	FS050.017	8	Flat head socket cap screw

NOTE: Item 3 includes item numbers 2, 4,5,6, and 8

RECOMMENDATIONS

- **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 adaptor 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.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. 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.

USING THE FS050

- **PERSONAL SAFETY:** Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
- Avoid accidental starting. Be sure switch is off before plugging in. Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.
- Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
- Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions. Ordinary eye or sun glasses are NOT eye protection.
- **WORK STATIONS:** Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep bystanders, children, and visitors away while operating a power tool. Distractions can cause you to lose control.

DRUM OPTIONS

A variety of cutters with a 4 or 6 shaft setup are available for the FS050 to suit all your removal needs.

FLAIL-IT

CF1519 - 8 spike extended-tip ultra-premium-life tungsten carbide cutters



Available in:

FINE FINISH	6-SHAFTED	4-SHAFTED
Drum assembly:	5502.6.1519.2F	5502.4.2516.2F
Rebuild kit:	FS050.6.1519.2F.RK	FS050.4.2516.2F.RK

MEDIUM FINISH	6-SHAFTED	4-SHAFTED
Drum assembly:	5502.6.1519.2M	5502.4.2516.2M
Rebuild kit:	FS050.6.1519.2M.RK	FS050.4.2516.2M.RK

STRIP-IT

CF2526 - 6 tooth ultra premium grade "full-width" tungsten carbide cutter



Available in:

FINE FINISH	4-SHAFTED
Drum assembly:	5502.4.2526.2F
Rebuild kit:	FS050.4.2526.2F.RK

MEDIUM FINISH	4-SHAFTED
Drum assembly:	5502.4.2526.2M
Rebuild kit:	5502.4.2526.2M

SCRAPE-IT

CF0411 - 15-edge star, 100% sintered ultra-premium-life tungsten carbide cutter



Available in:

FINE FINISH	6-SHAFTED
Drum assembly:	5502.6.0411.2F
Rebuild kit:	FS050.6.0411.2F.RK

MEDIUM FINISH	6-SHAFTED
Drum assembly:	5502.6.0411.2M
Rebuild kit:	FS050.6.0411.2M.RK

FINISH-IT

HS1043 - 18-edge star, 100% ultra-premium-life hardened steel cutter



Available in:

FINE FINISH	6-SHAFTED
Drum assembly:	5502.6.1043.2F
Rebuild kit:	FS050.6.1043.2F.RK

MEDIUM FINISH	6-SHAFTED
Drum assembly:	5502.6.1043.2M
Rebuild kit:	FS050.6.1043.2M.RK

FS050

The FS050 is heavy duty commercial grade removal attachment connected to a light duty consumer grade right angle electric or pneumatic 3000 RPM polisher/sander in an effort to produce an affordable entry level scarifier for small jobs and detail surface preparation work.

These systems will only operate to the limit of their weakest component. Using the unit as a reciprocating hammer or similar demolition tool will result in the failure of the polisher/sander.

Improper operation will result in repeated replacement of the polisher/sander and unacceptable downtime.

Operational Guidelines:

Before use:

1. Read all manuals and practice safety before during and after operation. Only authorized, experienced and properly trained personnel should operate this equipment.
2. Always wear personal safety equipment such as sturdy non-slip boots, ear protection, dust mask and approved eye protection.
3. Do not operate this equipment in an environment where any explosive gases may be present, or where the risk of fire or explosion may exist.
4. Use an approved dust collection system and incorrect use of the dust collector or breathing dust can result in property damage, personal injury, or death.
5. Never allow the rotating heads to come in contact with the operator or bystander.

During Use:

6. Operate only with approved sanders at a constant maximum speed of 3,000 RPM.
7. Bring unit to operating speed prior to applying to work surface.
8. Remove or prep surface in shallow passes at a maximum of 1/8" per pass (or less), depending upon surface hardness and condition.
9. Allow only the carbide cutters to contact the work surface. Avoid allowing the unit to repeatedly bounce or rebound off the work surface.
10. The rotational speed of the cutting head should remain constant during operation, avoid allowing the motor to bog or slow down due to aggressive action by the operator as this will cause the unit to overheat and place excessive loads on the polisher/sander.

11. Do not operate if any component is loose or the motor appears hot or not operating at peak performance.

After use:

12. Disconnect from power supply prior to servicing this equipment
13. Any warranty issues with the sander/polisher must be handled directly with manufacturer of the sander/polisher. Separate the FS050 from the sander/polisher when handling warranty issues with the manufacturer.
14. For larger scale removal projects or jobs, SMITH recommends moving to one of our commercial grade upright scarifiers for superior removal speeds and less downtime.
15. Questions? Please contact your SMITH Representative at 954-941-9744.



HAZARDOUS DUST WARNING

Dust resulting from use of this machine and cutter tools may include chemicals proven to cause cancer, birth defects and reproductive health issues, including lead from some paints and silica from concrete and masonry. Always operate this machine in a well-ventilated area with a HEPA-filter dust containment vacuum system.

Operators should always wear proper safety equipment, including an approved respirator to filter out fine dust particles. All EPA and OSHA guidelines regarding airborne dust should be followed when operating this machine. Failure to follow these safety protocols may result in serious injury, illness or death.

Limited Equipment Warranty

All statements, technical information and recommendations contained in SMITH's literature are based on tests believed to be reliable, but the accuracy or completeness thereof is not guaranteed and the following is made in lieu of all warranties, expressed or implied. SMITH warrants all equipment or part referenced in this document which is manufactured by SMITH and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser under normal use and maintenance as herein provided. This warranty does not apply to components manufactured by others such as, but not limited to, bearings and engines; such components that may or may not have their own warranties.

With the exception of any special, extended, or limited warranty published by SMITH, SMITH will, for a period of three months (90 days) from the date of sale or up to five hundred (500) hours of use by buyer, whichever shall occur first; repair or replace any part of the equipment determined by SMITH to be defective. This warranty applies only when the equipment or part is installed, operated and maintained in accordance with SMITH's written recommendations.

SMITH's sole obligation for any breach of warranty or breach of contract for defects, deliberate or accidental omissions, shall be limited to repairing, replacing or allowing credit for, at SMITH's option, any part which, under normal and proper use and maintenance, proves defective in material or workmanship within warranty period, provided, however, that notice of any such defect or omission and satisfactory proof thereof is promptly given by buyer to SMITH, and thereafter, such defective part is returned to SMITH with transportation charges prepaid, and SMITH's examination proves such part to have been defective. This warranty does not obligate SMITH to bear any transportation charges or personnel time in connection with the replacement or repair of defective parts. This warranty does not obligate SMITH to bear any expense for travel time or of personnel in connection with any service calls. SMITH will not, in any event, be liable to the user for any consequential damages arising out of this sale for the loss of use, lost profits or revenue, interest, lost goodwill or work stoppage. SMITH shall not be liable for any injury, loss or damage, direct or consequential, arising out of the use or the inability to use the product or for environmental claims. It being understood that SMITH has no means of controlling the products final use; therefore, it shall be buyer's responsibility to determine suitability of product for intended use and buyer assumes all risks and liabilities whatsoever, in connection therewith. In no event shall SMITH be liable for consequential or special damages. Used products are sold on an "as is" basis, and there is no implied warranty of merchantability or of fitness for a particular purpose, unless made in writing by an officer at SMITH's office.

This warranty does not cover, and SMITH shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-SMITH component parts. Nor shall SMITH be liable for malfunction, damage or wear caused by the incompatibility of SMITH equipment with structures, accessories, equipment or materials not supplied by SMITH, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by SMITH. This warranty does not apply in respect to damages to any product or accessory or attachment thereof caused by overloading or other misuse, neglect or accident, nor does this warranty apply to any product or accessory or attachment thereof, which has been repaired or altered in any way which, in the sole judgment of SMITH, affects the performance, stability or general purpose for which it was manufactured. In the manufacture of buyer's equipment, parts may be omitted or equivalent functioning equipment and components may be substituted for the original specified equipment upon the sole judgment and discretion of SMITH.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized SMITH Reseller for verification of the claimed defect. If the claimed defect is verified, SMITH will repair or replace free of charge any defective parts and return of merchandise back to the customer freight collect. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor and transportation.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

SMITH's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

SMITH MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY SMITH.

These items sold, but not manufactured by SMITH (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. SMITH will provide purchaser with reasonable assistance in making any claim for breach of these warranties. In no event will SMITH be liable for indirect, incidental, special or consequential damages resulting from SMITH supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of SMITH, or otherwise.

ADDITIONAL WARRANTY COVERAGE - SMITH does provide extended warranty and wear warranty for products.

Corrections - typographical or clerical errors contained herein are subject to correction by SMITH.

Assignment - buyer shall not assign or transfer this warranty without SMITH's written consent.

Entire agreement and applicable law - the rights and obligations of SMITH and buyer shall be governed by the laws of the state of Florida, U.S.A. In force on date hereof. The provisions hereof are intended by buyer and SMITH as a final expression of their agreement, and are intended also, as a complete and exclusive statement of all terms apply cable to buyer's order. No waiver, modification, or addition to any of the terms hereof shall be binding on SMITH, unless made in writing by an officer at SMITH's office as stated herein. In the event of conflict between buyer's purchase order and the terms hereof, the latter shall control. If any provisions herein are to any extent invalid or unenforceable, the remainder of the warranty shall not be effected thereby and shall be valid and enforceable to the fullest extent permitted by law.

Legal action - buyer shall be responsible for all costs of collection of outstanding indebtedness, including but not limited to attorney's fees and court costs to seller. Buyer shall reimburse seller for any and all litigation expenses seller incurs as a result of an unsuccessful buyer claim. The jurisdiction and venue of the court for any litigation, state or federal, brought by the buyer and/or seller shall be located in venue determined by seller.

Fair labor standards - seller's products are produced in the United States and in conformity with all applicable provisions of the fair labor standards act of 1938 as amended and any regulations and orders of the United States Department of Labor issued thereunder.

All written and visual data contained in this document reflects the most current product information available at the time of this publication. SMITH reserves the right to make changes at any time without notice.

TO ORDER, contact your SMITH distributor or call 1-800-653-9311 to identify the nearest distributor.

SMITH Manufacturing Co, Inc.
1610 South Dixie Highway
Pompano Beach, FL 33060
www.smithmfg.com





Pre-Operation Inspection - Warranty Activation - Machine Registration
 Go to www.smithmfg.com/warranty_activation.php

Thank you for purchasing a SMITH. **This machine was tested and passed inspection prior to shipping.**
 Please complete this form upon receipt of your equipment and prior to use on the job. Failure to do so will void warranty.
 All sections must be completed. Should you have any questions, please add to the comments section below.
 Fax completed form to (954) 545-0348 or email to cutters@smithmfg.com

****Do not contact SMITH for engine/motor problems, only machine warranty issues ****

Motor/Engine Warranty Contacts: Honda: <http://engines.honda.com/dealer-locator/>
 Subaru: <http://robinamerica.com/dealerusacan.aspx>
 Leeson: <http://www.leeson.com/leeson/servicecenter.do?invoke=viewServiceCenterLocator>
 Brook Crompton Motor: <http://www.brookcromptonna.com/contact.html>
 Weg Motors: <http://www.weg.net/us/Contact/Service-Network>

Purchaser Details

Organization _____
 Name _____ Title: _____
 Operators: _____
 Phone: _____ Email: _____
 Address _____
 City _____ State _____ Zip _____

SMITH Machine **FS050** _____ Machine Serial # _____
 Date of Purchase _____ Purchased from _____

Pre-Operation Inspection (Please check all)

1. No parts or components on the machine appear damaged or lost in shipment. [] Yes [] No
2. All bolts, fasteners, hoses are in place and tightly secured, wheels are operational. [] Yes [] No
3. Grease points have been identified for future maintenance requirements and appear lubricated. [] Yes [] No
4. Cutters and Drum/Spindle Assembly are operational and secure on machine. [] Yes [] No
5. Motor has been started and in good working condition. [] Yes [] No
6. All Decals appear in place and securely attached. [] Yes [] No
7. Equipment runs and tested to assure all components are operating correctly. [] Yes [] No
8. Do you have a Wear Parts Kit with an Extra Cutter set in stock? [] Yes [] No
9. Did you join Remove Faster News for tech updates, experience sharing and special offers? [] Yes [] No
10. Comments: _____

Inspector's Signature: _____ Date: _____

Note: To prevent downtime, experienced users stock (1) machine wear parts kit with an extra cutter drum/spindle assembly & (1) cutter drum/spindle rebuild kit after receipt. Do you want to purchase and receive a special offer? [] Yes [] No



SMITH Manufacturing

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