

# 3535

## CORNER PREPARATION & POLISHING TOOL INSTRUCTION MANUAL



 Read Manual Before Operating Machine

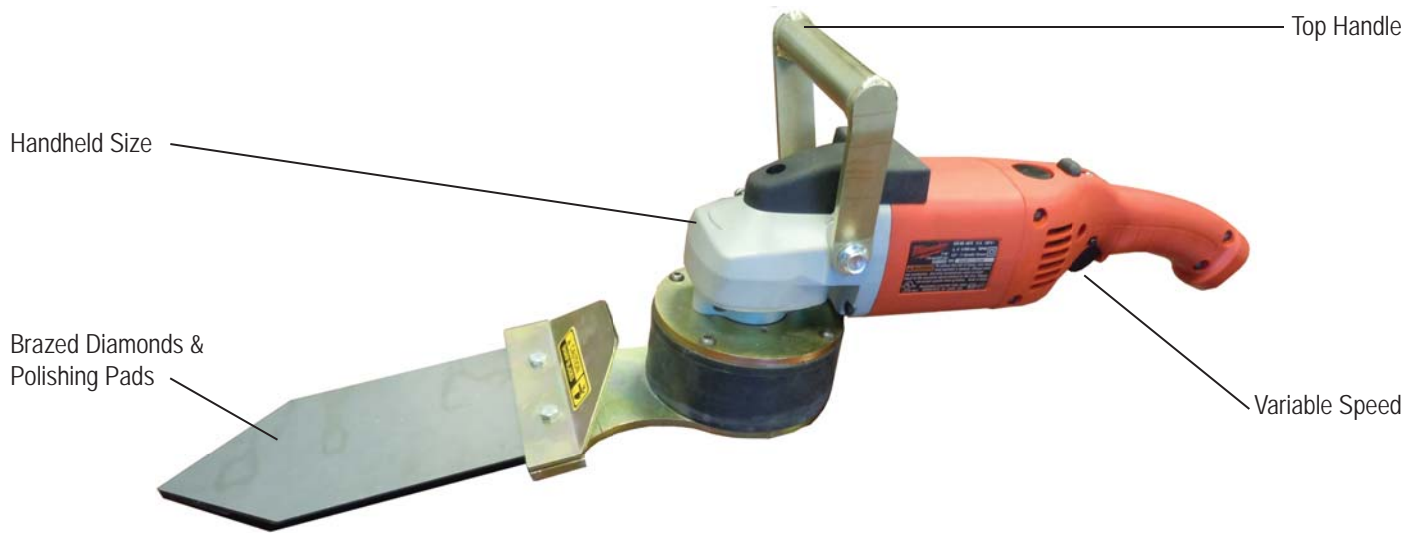


# Table of Contents

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<b>Table of Contents</b> .....	<b>3</b>
<b>Features and Specifications</b> .....	<b>4</b>
<b>Safety</b> .....	<b>5-9</b>
General Rules For Safe Operation .....	5-6
Grinding Equipment Guidelines .....	6
Specific Safety Guidelines .....	6
Grounding .....	8
Extension Cords .....	8
Guidelines For Using Extension Cords.....	8-9
<b>Machine Operation</b> .....	<b>10</b>
<b>Maintenance</b> .....	<b>11</b>
Maintaining Tools .....	11
Cleaning.....	11
Repairs .....	11
Inner Parts Assembly/Disassembly .....	11
<b>Complete Parts List</b> .....	<b>12</b>
<b>Parts Lists and Diagrams</b> .....	<b>13</b>
Tooling Attachment .....	13
<b>Accessories</b> .....	<b>14</b>
Corner Brazed .....	14
Corner Resin.....	14
Polishing Pads .....	14
Brazed Diamonds .....	14
<b>Guarantee</b> .....	<b>15</b>

# Features and Specifications



## FEATURES

**Handheld Size** - allows the ability to work in areas which larger grinders won't.

**Top Handle** - provides comfortable secure grip for working in hard to reach confined spaces.

**Variable Speed** - 0-6,000 variable speed motor powers various tooling options with a oscillating movement.

**Brazed Diamonds and Polishing Pads** - brazed diamonds and polishing pads are available from 16 to 3,000 grit.

## Product Specifications

Length	Height (w/o Handle)	Width	Weight	Speed	Voltage
24"	7"	5"	19 lb	0-6000 RPM	110

## GENERAL RULES FOR SAFE OPERATION

**READ AND SAVE ALL INSTRUCTIONS FOR FUTURE USE.** Before use, ensure operators reads and understand this manual. Read and understand labeling on machine and components. All operators must view the instruction video. Extra copies of the manual and video are available by contacting National Flooring Equipment.

1. **KNOW YOUR EQUIPMENT:** Read this manual carefully to learn equipment applications and limitations, potential hazards associated with this type of equipment. Keep this manual with the equipment it is associated with.
2. **GROUND YOUR EQUIPMENT:** See Grounding Page 8.
3. **AVOID DANGEROUS ENVIRONMENTS:** Do not use in rain, damp or wet locations or in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials). Remove materials or debris that may be ignited by sparks.
4. **KEEP WORK AREA CLEAN AND WELL LIT:** Cluttered, dark work areas invite accidents.
5. **DRESS PROPERLY:** Do not wear loose clothing. These may be caught in moving parts. When working wear gloves and insulated non-skid footwear. Keep hands and gloves away from moving parts.
6. **USE SAFETY EQUIPMENT:** Proper eye protection should be worn at all times. Wear hearing protection during extended use and a dust mask for dusty operations. Hard hats, face shields, safety shoes, etc. should be worn when specified or necessary.
7. **KEEP BYSTANDERS AWAY:** Children and other bystanders should be kept at a safe distance from the work area to avoid distracting the operator and contacting the equipment or extension cord. Operator should be aware of the proximity of bystanders. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge. Equipment is not to be used by children.
8. **PROTECT OTHERS IN THE WORK AREA:** Provide barriers or shields as needed to protect others from debris.
9. **USE PROPER ACCESSORIES:** Using accessories that are not recommended may be hazardous. Be sure accessories are properly installed and maintained. Do not delete a guard or other safety device when installing an accessory or attachment.
10. **CHECK FOR DAMAGED PARTS:** Inspect guards and other parts before use. Check for misalignment, binding of moving parts, improper mounting, broken parts and other conditions that may affect operation. If abnormal noise or vibration occurs, turn off immediately and have the problem corrected before further use. Do not use damaged equipment. Tag damaged equipment "DO NOT USE" until repaired. Missing or damaged parts should be properly repaired or replaced immediately. For all repairs, use only identical National replacement parts.
11. **GUARD AGAINST ELECTRIC SHOCK:** Prevent body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. When making cuts, always check the work area for hidden wires or pipes. Hold your equipment by insulated nonmetal grasping surfaces. Use a Ground Fault Circuit Interrupter (GFCI) to reduce shock hazards.
12. **AVOID ACCIDENTAL STARTING:** Be sure equipment is turned off before plugging in. Do not use a equipment if the power switch does not turn the equipment on and off.
13. **DO NOT FORCE EQUIPMENT:** Equipment will perform best at the rate for which it was designed. Excessive force only causes operator fatigue, increased wear and reduced control.
14. **KEEP HANDS AWAY FROM ALL CUTTING EDGES AND MOVING PARTS.**
15. **WEAR GLOVES WHEN CHANGING PLATES.**
16. **DO NOT ABUSE CORD:** Never unplug by pulling the cord from the outlet. Pull plug rather than cord to reduce the risk of damage. Keep the cord away from heat, oil, sharp objects, cutting edges and moving parts.
17. **DO NOT OVERREACH. MAINTAIN CONTROL:** Keep proper footing and balance at all times. Maintain a firm grip.
18. **STAY ALERT:** Watch what you are doing, and use common sense. Do not use when you are tired, distracted or under the influence of drugs, alcohol or any medication causing decreased control.
19. **STARTING MACHINE:** On/Off switch must be in off position before connecting to power source.
20. **DO NOT DEFEAT OR ALTER A SWITCH OR SAFETY DEVICE.**
21. **UNPLUG EQUIPMENT:** When not in use and before changing accessories or performing recommended maintenance, unplug machine.
22. **MAINTAIN LABELS AND NAMEPLATES:** These carry important information. If unreadable or missing, contact National for a replacement.
23. **MACHINE IS HEAVY, DO NOT DROP.** Ensure proper lifting procedures are followed when transporting.

# Safety

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24. **ALWAYS KEEP THE MOTOR AIR VENT FULLY OPENED.** Do not allow motor air vent to become blocked. Keep motor air vent open to allow the motor to cool.

## GRINDING EQUIPMENT GUIDELINES

1. **DO NOT FORCE GRINDER INTO THE WORK SURFACE:** The machine will work faster, smoother and safer when used at the rate for which it was designed.
2. **BEWARE OF HIDDEN DANGERS IN CONCRETE:** Be aware of hidden obtrusions.
3. **AVOID CONTACT WITH HOT TOOLING AND SHROUD:** Do not touch the tooling and shroud without proper hand protection. The tooling and guard become hot during operation and remain hot after stopping the machine.
4. **CHECK TOOLING FOR DAMAGE:** Do not use a damaged tool. After mounting tooling, rotate by hand to check for proper alignment.
5. **USE CORRECT TOOLING AND ACCESSORIES:** Provide barriers or shields as needed to protect others from debris.
6. **USE PROPER ACCESSORIES:** Do not force to do the job of a heavy-duty grinder. Do not use for improper applications.

## SPECIFIC SAFETY GUIDELINES

**Caution:** Hold tools by insulated gripping surfaces when performing an operation where the 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.

- During machining, of metals in particular, conductive dust can form deposits inside the machine. This can lead to the transfer of electrical energy onto the machine housing. This can mean a temporary danger of electric shock. This is why it is necessary when the machine is running to blow compressed air through the rear ventilation slots of the machine regularly, frequently and thoroughly. Here, the machine must be held firmly.
- It is recommended to use a stationary extraction system and to place a ground fault circuit interrupter (GFCI) downstream.
- If the angle grinder is deactivated by the GFCI circuit interrupter, the angle grinder must be checked and cleaned. Cleaning the motor, see maintenance (Page 16).
- Ensure that sparks produced during work do not constitute a risk to the user or other personnel and are not able to ignite inflammable substances. Endangered areas must be protected with flame-resistant covers. Make sure that fire-risk areas are always provided with suitable fire extinguishers.
- If operating the power tool in damp locations is unavoidable, a Ground Fault Circuit Interrupter must be used to supply the power to you tool. Electrician's rubber gloves and footwear will further enhance your personal safety.
- When using grinding wheel attachments, the guard must always be attached to the tool and positioned for maximum safety, so the least amount of wheel is exposed from the side the tool is being operated.
- Grinding wheels or any other accessory must have a maximum safe operation speed greater than the "no load RPM" marked on the tool's nameplate.
- Always use auxiliary handle for maximum control over torque reaction or kick-back. Operation of the grinder without the side handle could cause loss of control of the grinder.
- Before using a grinder or installing a new wheel, inspect the grinding wheel for chips and cracks. Remove bad wheels immediately. Run the tool at no load for one minute, holding the tool in the direction away from people. Wheels with flaws will normally break apart during this time.
- Carefully handle both the tool and individual grinding wheels to avoid chipping or cracking. Install a new wheel if tool is dropped while grinding. Do not use a wheel that may be damaged. Fragments from a wheel that burst during operation will fly away at great velocity possible striking you or bystanders.
- A damaged or cracked side handle must be replaced. Never operate a machine with a defective side handle.



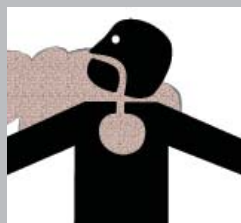
**WARNING:** ALWAYS WEAR RESPIRATOR PROTECTION, APPROPRIATE FOR THE APPLICATION, AS SPECIFIED BY OSHA REGULATIONS AND YOUR EMPLOYER. NEVER OPERATE OR MAINTAIN EQUIPMENT BEFORE READING AND UNDERSTANDING THE INSTRUCTIONS FOR OPERATION AND MAINTENANCE. OBEY ALL SAFETY SIGNS AND INSTRUCTIONS WHILE OPERATING OR MAINTAINING EQUIPMENT.



**WARNING:** EXPOSURE TO DUST MAY CAUSE RESPIRATORY AILMENTS. USE APPROVED NIOSH OR OSHA RESPIRATORS, SAFETY GLASSES OR FACE SHIELDS, GLOVES AND PROTECTIVE CLOTHING. PROVIDE ADEQUATE VENTILATION TO ELIMINATE DUST, OR TO MAINTAIN DUST LEVEL BELOW THE THRESHOLD LIMIT VALUE FOR NUISANCE DUST AS CLASSIFIED BY OSHA.



**WARNING: SILICA DUST WARNING** SCRAPING/GRINDING/CUTTING/DRILLING OF MASONRY, CONCRETE, METAL AND OTHER MATERIALS CAN GENERATE DUST, MISTS AND FUMES CONTAINING CHEMICALS KNOWN TO CAUSE SERIOUS FATAL INJURY OR ILLNESS, SUCH AS RESPIRATORY DISEASE, CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. IF YOU ARE FAMILIAR WITH THE RISKS ASSOCIATED WITH THE PARTICULAR MATERIAL BEING REMOVED OR PREPARED, REVIEW THE MATERIAL SAFETY DATA SHEET AND/OR CONSULT YOUR EMPLOYER, THE MATERIAL MANUFACTURER/SUPPLIER, GOVERNMENTAL AGENCIES SUCH AS OSHA AND NIOSH AND OTHER AUTHORITIES ON HAZARDOUS MATERIALS. CALIFORNIA AND SOME OTHER AUTHORITIES, FOR INSTANCE, HAVE PUBLISHED LISTS OF SUBSTANCES KNOWN TO CAUSE CANCER, REPRODUCTIVE TOXICITY, OR OTHER HARMFUL EFFECTS. CONTROL DUST, MIST AND FUMES AT THE SOURCE WHERE POSSIBLE. IN THIS REGARD USE GOOD WORK PRACTICES AND FOLLOW THE RECOMMENDATIONS OF THE MANUFACTURER/SUPPLIER, OSHA/NIOSH, AND OCCUPATIONAL AND TRADE ASSOCIATIONS. WHEN THE HAZARDS FROM INHALATION OF DUST, MISTS AND FUMES CANNOT BE ELIMINATED, THE OPERATOR AND ANY BYSTANDERS SHOULD ALWAYS WEAR A RESPIRATOR APPROVED BY OSHA/MSHA FOR THE MATERIAL BEING REMOVED OR PREPARED.



# Safety

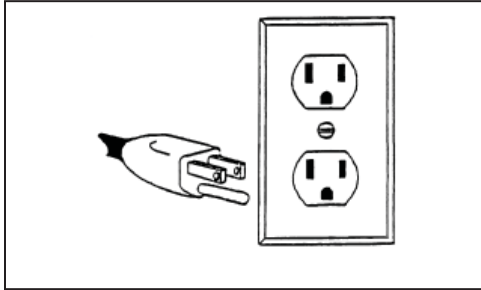


FIG. A



**WARNING:** ELECTRICAL CORDS CAN BE HAZARDOUS. MISUSE CAN RESULT IN FIRE OR DEATH BY ELECTRICAL SHOCK. READ CAREFULLY AND FOLLOW ALL DIRECTIONS.

## GROUNDING

Jobsite receptacles can vary. Check the voltage at different receptacles on the jobsite for a more accurate voltage reading. 15 amp GFI outlets are not recommended.

## GROUNDING TOOLS: TOOLS WITH THREE PRONG PLUGS



**CAUTION:** IMPROPERLY CONNECTING THE GROUNDING WIRE CAN RESULT IN THE RISK OF ELECTRIC SHOCK. CHECK WITH A QUALIFIED ELECTRICIAN IF YOU ARE IN DOUBT AS TO WHETHER THE OUTLET IS PROPERLY GROUNDING. DO NOT MODIFY THE PLUG PROVIDED WITH THE EQUIPMENT. NEVER REMOVE THE GROUNDING PRONG FROM THE PLUG. DO NOT USE THE EQUIPMENT IF THE CORD OR PLUG IS DAMAGED. IF THE PLUG WILL NOT FIT THE OUTLET, HAVE A PROPER OUTLET INSTALLED BY A QUALIFIED ELECTRICIAN.

Equipment marked "Grounding Required" have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet (Figure A). If the equipment should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user; reducing the risk of electric shock.

The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the equipment. The green wire in the cord must be the only wire connected to the equipment's grounding system and must never be attached to an electrically "live" terminal.

The equipment must be plugged into an appropriate outlet, one which is properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like the example in Figure A.

## EXTENSION CORDS

Grounded equipment requires a three wire extension cord. Double insulated equipment can use either a two or three wire extension cord. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a substantial drop in voltage, resulting in loss of power and possible equipment damage.

The smaller the gauge number of the wire, the greater the capacity and larger diameter of the cord. For example, a 2.5 mm 10 gauge cord can carry a higher current than a 2 mm 12 gauge cord. When using more than one extension cord to make up the total length, be sure each cord contains at least the minimum wire size required. If you are using one extension cord for more than one tool, add the nameplate ampere and use the sum to determine the required minimum wire size.

## GUIDELINES FOR USING EXTENSION CORDS

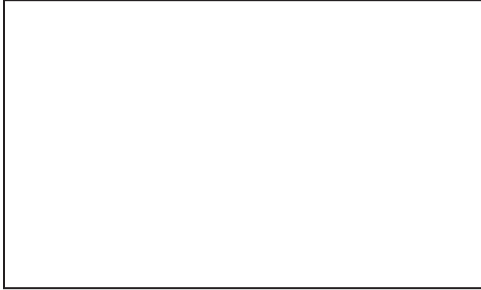
- If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" to indicate that it is acceptable for outdoor use.
- Be sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.
- Protect your extension cords from sharp objects, excessive heat and damp or wet areas.

## GUIDELINES FOR USING EXTENSION CORDS (CONTINUED)

- Keep away from water. Do not use if wet.
- Inspect thoroughly before each use. DO NOT USE IF DAMAGED.
- Make sure equipment is not running before disconnecting cord.
- FULLY INSERT plug into outlet.
- Do not remove, bend or modify any metal prongs or pins of cord.
- Do not use excessive force to make connections.
- Do not connect a three prong plug to a two hole cord.
- Avoid overheating. Uncoil cord and do not cover it with any material.
- Do not walk on cord.
- Do not drive, drag or place objects over cord.
- Use a 2 mm (12 gauge), 110v cord, 15.24 m (50') maximum length with this machine. (Included with purchase.)
- Regularly examine the supply cord for damage, such as cracking or aging. If damage is found, replace the cord before further use.
- Only replace the supply cord with the type specified in the instruction manual.

# Machine Operation

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**FIG. B**

## **BREAKING IN**

After the first half hour (30 minutes) of use, check all screws and fittings for a tight secure fit.

## **ON/OFF SWITCH**

These grinders are equipped with a dead-man switch. Press to start and release to stop. The tool has a safety lock which prevents it from being started accidentally.



**WARNING:** TO REDUCE THE RISK OF INJURY, ALWAYS UNPLUG YOUR TOOL BEFORE PERFORMING ANY MAINTENANCE. NEVER DISASSEMBLE THE TOOL OR TRY TO DO ANY REWIRING ON THE TOOL'S ELECTRICAL SYSTEM.

## MAINTAINING TOOLS

Keep your tool in good repair by adopting a regular maintenance program. Before use, examine the general condition of your tool. Inspect guards, switches, tool cord set and extension cord for damage. Check for loose screws, misalignment, binding of moving parts, improper mounting, broken parts and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, turn the tool off immediately and have the problem corrected before further use. Do not use a damaged tool. Tag damaged tools "NO NOT USE" until repaired (see "Repairs").

Under normal conditions, relubrication is not necessary until the motor brushes need to be replaced. After six months to one year, depending on use, return your tool to the nearest.

National service facility for the following:

- Lubrication
- Mechanical inspection and cleaning (pulleys, spindles, bearings, housing, etc.)
- Electrical inspection (switch, cord, plugs, etc.)
- Testing to assure proper mechanical and electrical operation.

## CLEANING:

Clean dust and debris from vents. Keep the tool handles clean, dry and free of oil or grease. Use only mild soap and a damp cloth to clean your tool since certain cleaning agents and solvents are harmful to plastics and other insulated parts. Some of these include: gasoline, turpentine, lacquer thinner, paint thinner, chlorinated cleaning solvents, ammonia and household detergents containing ammonia. Never use flammable or combustible solvents around tools.

## REPAIRS:

If your tool is damaged, call for a return authorization number and return the entire tool.

- Shipments are not accepted without a return authorization number.
- COD or freight collect shipments will not be accepted.

## INNER PARTS ASSEMBLY/DISASSEMBLY

1. Remove four (4) lower cutting head bolts with a 7/16" wrench.
2. Remove four (4) bottom head bolts with a 7/16" wrench. This will remove the rubber ring.
3. Remove eccentric bearings by pulling off with a bearing puller (See Figure C). Eccentric will be exposed (See Figure D).
4. Remove eccentric by pushing in lock button on side of unit. Turn eccentric until it locks. Turn eccentric with channel lock pliers until it is removed. Eccentric screw and two (2) base plate cap screws will be exposed.
5. Remove two (2) base plate cap screws. Base plate can be removed.
6. Press cutting head bearing out of base plate. Reinstall new bearing by pressing it back in.
7. Reassemble by reversing these procedures.



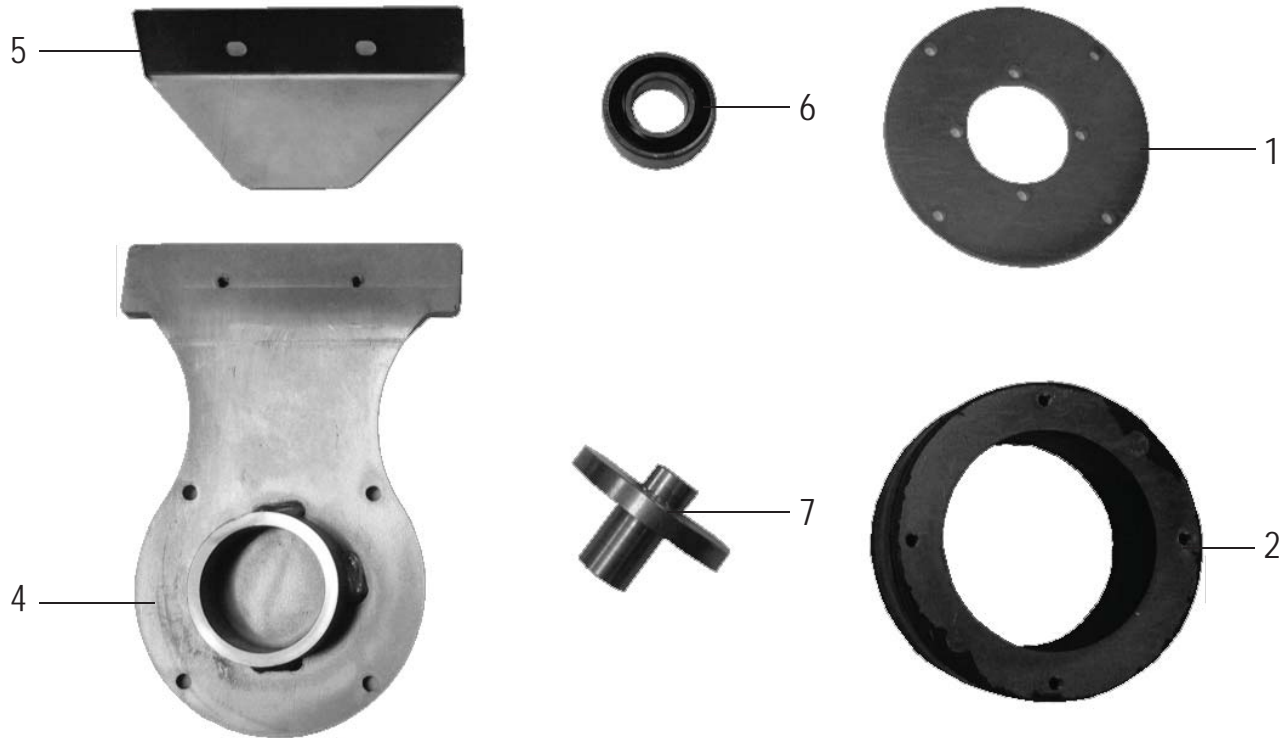
FIG. C



FIG. D

# Complete Parts List

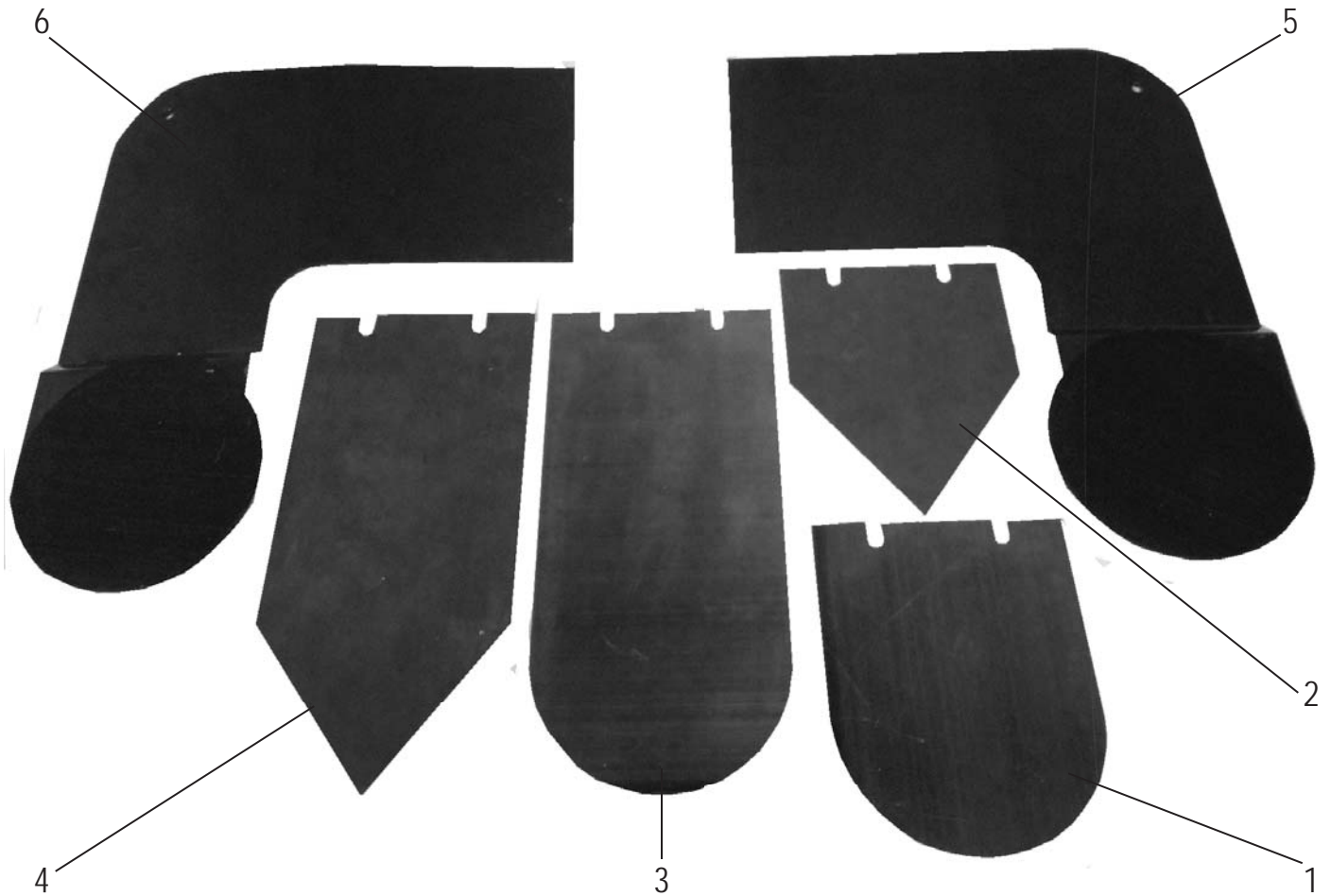
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PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	6300-1	1	7	71231	2
2	6300-2	1	8	73006	4
3	6300-3	1	9	73014	1
4	6300-4	1	10	73019	8
5	6300-5	1	11	73240	1
6	6300-57	1			
				BEARING 25MM ID	
				1/4-20 X 3/4 BUTTON HEAD CAP SCREW	
				1/4-20 X 1/2 HEXHEAD BOLT	
				1/4-20 X 3/4 HEXHEAD BOLT	
				3/8-16 T-BOLT	

# Parts List and Diagrams

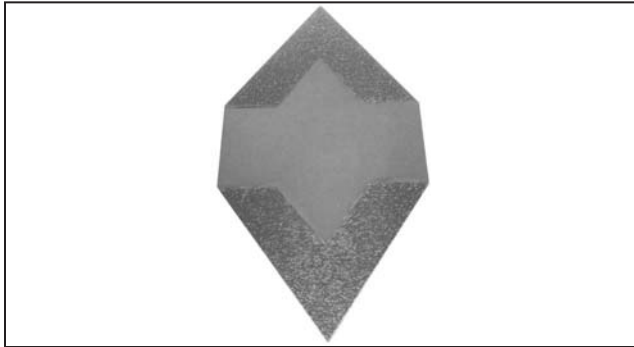
## TOOLING ATTACHMENTS



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY	
1	400012	ROUND 5"	1	400015	TRIANGLE 10"	
2	400013	TRIANGLE 5"	1	5	400016	POST TOOL (LEFT)
3	400014	ROUND 10"	1	6	400026	POST TOOL (RIGHT)

# Accessories

## CORNER BRAZED



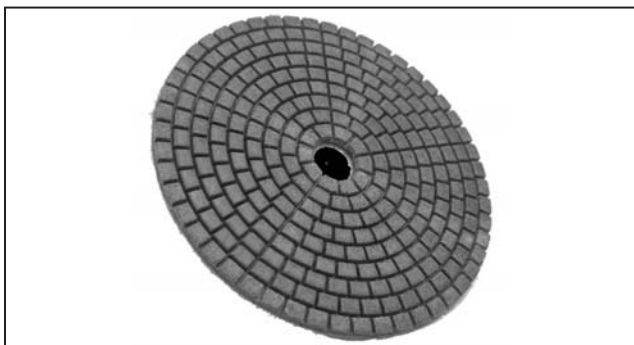
PART#	DESCRIPTION	GRIT
9420-30	CORNER BRAZED	30
9420-50	CORNER BRAZED	50
9420-100	CORNER BRAZED	100

## CORNER RESIN



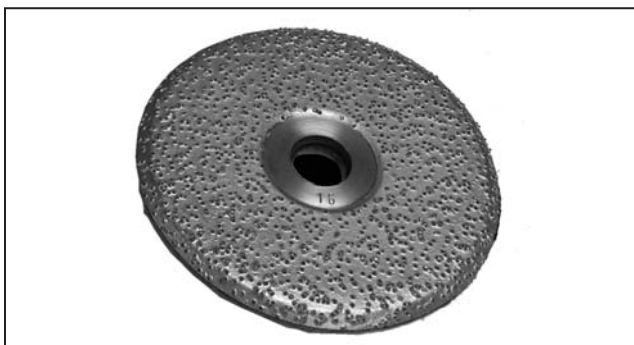
PART#	DESCRIPTION	GRIT
9435-50	CORNER RESIN	50
9435-100	CORNER RESIN	100
9435-200	CORNER RESIN	200
9435-400	CORNER RESIN	400
9435-800	CORNER RESIN	800
9435-1500	CORNER RESIN	1500
9435-3000	CORNER RESIN	3000

## POLISHING PADS



PART#	DESCRIPTION	GRIT
9267-50	POLISHING PADS	50
9267-100	POLISHING PADS	100
9267-200	POLISHING PADS	200
9267-400	POLISHING PADS	400
9267-800	POLISHING PADS	800
9267-1500	POLISHING PADS	1500
9267-3000	POLISHING PADS	3000
9267-BUFF	POLISHING PADS	BUFF

## BRAZED DIAMONDS



PART#	DESCRIPTION	GRIT
9235-16	BRAZED DIAMONDS	16
9235-30	BRAZED DIAMONDS	30
9235-50	BRAZED DIAMONDS	50
9235-100	BRAZED DIAMONDS	100

# Guarantee

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National Flooring Equipment, Inc. (National) warrants to the first consumer/purchaser that this National brand product (**3535 Corner Preparation & Polishing Tool**) when shipped in its original container, will be free from defective workmanship and materials and agrees that it will, at its option, either repair the defect or replace the defective product or part thereof at no charge to the purchaser for parts or labor for the period(s) set forth below.

This warranty does not apply to any appearance items of the product, to the additional excluded items set forth below, or to any product, the exterior of which has been damaged or defaced, which has been subjected to misuse, abnormal service or handling, or which has been altered or modified in design or construction.

In order to enforce the rights under this limited warranty, the purchaser should follow the steps set forth below and provide proof of purchase to National.

The limited warranty described herein is in addition to whatever implied warranties may be granted to purchasers by law. All implied warranties including the warranties of merchantability and fitness for use are limited to the periods from the date of purchase as set forth below. Some states do not allow time limitations on an implied warranty, so the above limitation may not apply to you.

Neither the sales person of the seller, nor any other person, is authorized to make any other warranties other than those described herein, or to extend the duration of any warranties beyond the time period described herein on behalf of National.

The warranties described herein shall be the sole and exclusive warranties granted by National and shall be the sole and exclusive remedy available to the purchaser. Correction of defects in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of National to the purchaser with respect to the product and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall National be liable, or in any way responsible for any damage or defects in the product which were caused by repairs or attempted repairs performed by anyone other than National. Nor shall National be liable, or in any way responsible, for any incidental or consequential, economics or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

## **WARRANTY PERIOD**

The **3535 Corner Preparation & Polishing Tool** is guaranteed to be free of manufacturer defective workmanship and in quality of materials for a period of one year.

Items excluded from warranty coverage, unless found and reported defective immediately upon removal from the original shipping container and before being used by the original purchaser.

A freight damage claim must be filed with the carrier by the purchaser, the shipper cannot file the freight claim.

**TO OBTAIN SERVICE CONTACT NATIONAL FLOORING EQUIPMENT, INC. TOLL FREE AT 800-245-0267 FOR A REPAIR AUTHORIZATION NUMBER. COD FREIGHT RETURNS WILL NOT BE ACCEPTED. FREIGHT COLLECT SHIPMENTS WILL NOT BE ACCEPTED. WARRANTY REPAIRS MUST BE ACCOMPANIED BY DATE OF PURCHASE RECEIPT AND A RETURN/REPAIR AUTHORIZATION NUMBER.**

**RETURN/REPAIR AUTHORIZATION NUMBER:** \_\_\_\_\_

**MACHINE SERIAL NUMBER:** \_\_\_\_\_



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