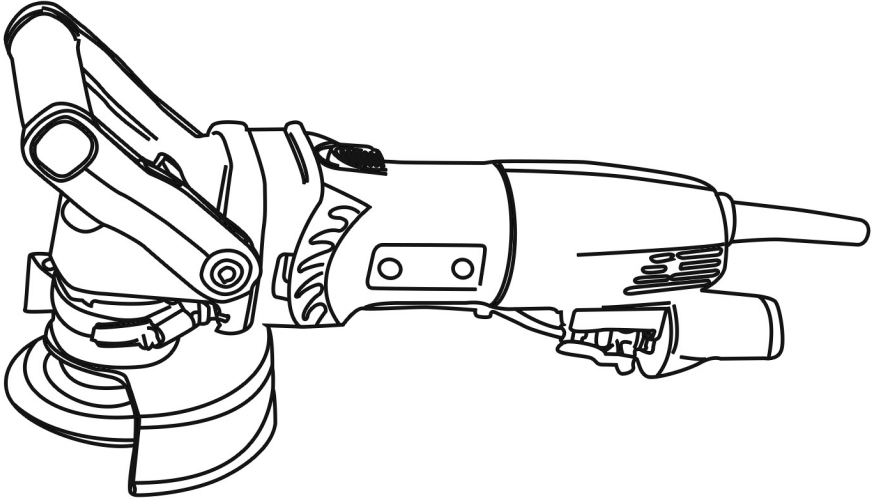




VARIABLE SPEED WET POLISHER

OPERATING MANUAL



VSP5

Voltage: 120V, 60Hz

Amp: 7 Amp

Power: 800 Watts

Speed: 700-3000 RPM

INTRODUCTION

Hardin Wet Polisher is designed and engineered to provide handymen with a pleasant and enjoyable experience which results in efficient productivity. Safety, performance and durability have been given top priority in the design of this polisher to maintain quality standards.

GENERAL SAFETY

Read all safety warnings and instructions. Failure to follow the warnings and/or instructions may result in electrocution, fire hazard and/or serious personal injury. The term POWER TOOL in this manual refers to all corded and cordless power tools.

WORK AREA

- a) Keep the working space well lit, clean and adequate for power tool usage. Inadequate light and clutter work spaces can invite hazards.
- b) Make sure that there aren't any flammable or combustible liquids or gases in the work environment such as lacquer, paint, benzene, thinner, gasoline and adhesive agents. Presence of these materials in the working environment may cause sparks which can result in fire hazard.
- c) Keep children and visitors away from the working area and your power tools and equipment to avoid any accidents.

ELECTRICAL SAFETY

- a) Ensure that outlet is compatible with power tool plug. Do not modify the plug to make it work and never use any adapter plugs with grounded power tools. Compatibility between outlet and plug will minimize the risk of electrocution.
- b) Don't let your body parts get in contact with parts of the power tool or equipment including radiators, pipes, ranges and refrigeration enclosures. If your body is earthed or grounded, the risk of electrocution becomes high.
- c) Never expose power tools to rain or water and never store them in damp areas. Moisture entering your power tool will pose increased risk of electrocution.
- d) Never abuse the electrical cord of the tool. Do not pull it to unplug the tool. Keep cord away from heat, oil, sharp corners and moving parts. Entangled or damaged cords increase the chances of electrocution hazard.
- e) When working outdoors, you may need extension cords to increase your tool's reach. In such situations, only use cords made and marked for outdoor usage.
- f) The grinding machines comes installed with a UL certified GFCI switch. GFCI, Ground Fault Circuit Interrupter, shuts down the grinding machine when there is a power short to prevent electrocution. This GFCI switch has a jump range between 4 to 6 mAmp. If the unit leak current stays within this range the unit is very safe for normal use and will not affect the users. However, you might feel a slight tingling on the metal head of the grinder but cannot be felt on the plastic body or the plastic handle. Therefore, we recommend that rubber glove (similar to what doctors and dentists wear) be worn while using this grinder.
- g) Ensure that your extension cord is in good condition and use the adequate enough cord that can carry the current your polisher will draw. An inadequate cord will cause a drop in in-line voltage which may result in loss of power and overheating.

PERSONAL SAFETY

- a) Always wear a rubber glove to operate this grinder/polisher to prevent electric shock/tingling.
- b) Be on the alert during power tool operation and always know what you are doing. Never use a power tool under the influence of drugs, medication or alcohol. Momentary lack of focus can invite serious hazards when operating power tools.
- c) Always use appropriate personal protective equipment. Use eye protection, hand rubber gloves, dusk mask, non skid safety shoes, hard hat and/or hearing protection when conditions warrant them. This will significantly reduce the risk of personal injury.
- d) Never roam around with the tool plugged in and your finger on the trigger to avoid accidental starts. Switch it off after every use. Before picking up or connecting your tool to a power source, ensure it is turned off.
- e) Make it a habit to check and remove any wrenches or keys from the tool before turning it on. Mounted key or wrench can cause serious damage.
- f) Never try to overreach. Keep your posture comfortable and balanced at all times so you can manage unexpected situations.
- g) Keep loose clothing, body parts and hair away from the parts of the tool. It's recommended to use protective hair covering.
- h) If there are devices provided for dust extraction and collection, make sure they are properly connected and functional. Use of dust collection systems can decrease the risk of dust related hazards.

POWER TOOL SAFETY & CARE

- a) Don't try to extract additional performance from the tool by exerting force. Let the power tool achieve its optimal performance naturally. Always use the power tool that is appropriately powerful and adequate for the job at hand.
- b) Never use the tool if its switch doesn't work. Get it repaired or replaced from an authorized service center. Unreliable switch can prove to be dangerous.
- c) Before storing the tool, making any replacements or periodical maintenance, unplug the tool from the power source. This minimizes the risk of accidental starts.
- d) Power tools that are not in use shall be kept in a safe place where they are not accessible to children. Never allow any person to operate a power tool who is unfamiliar with these instructions. Power tools in the hands of untrained operators are open invitation to accidents.
- e) Check your tool for alignment and binding of moving parts, damaged parts, mounting and any other flaws that might affect the operation of your tool. Maintain your tools with care and repair or replace when necessary.
- f) Always use the power tool and its accessories according to the instructions provided in this manual, nature of your job and working conditions. Using a power tool that's not compatible with any of the aforementioned criteria may result in a hazard.

TECHNICAL SAFETY

- a) All the accessories to be used with this tool must be rated for at least 3000 RPM.
- b) Before operating the tool, always inspect the backing pad and polishing discs and replace the damaged pads/discs if necessary.
- c) When operating the polisher, always wear eye protection.
- d) Never use the polisher with blades that are meant for cutting wood or metal.
- e) Keep your grip firm on the tool at all times.
- f) Keep your body parts away from the moving parts of the polisher to prevent personal injuries.
- g) Ensure that work piece is well supported and stable.
- h) Never touch the work piece right after polishing, it may be extremely hot.
- i) To prevent electrocution, use rubber gloves.
- j) Take care of the tool and do not let water or moisture seep into the motor.
- k) Always use a Ground Fault Circuit Interrupter (GFCI) with this tool.

GUIDELINES BEFORE USE

- a) Make yourself aware about the power tool before using it. Learn how to use it and its limitations along with the potential risks and hazards associated with its use. Always read the instruction manual thoroughly and carefully.
- b) Always use proper eye protection. Regular glasses are only impact resistant; they don't provide adequate level of safety as safety glasses do.
- c) If dust is being produced during operation, wear a dust mask to prevent lung diseases.
- d) During long periods of polishing it is recommended to use ear protection to prevent any hearing loss.
- e) Check your tool cords from time to time and if necessary get them repaired or replaced from an authorized service center.
- f) Before every use, make it a habit of checking the tool for any damages especially parts intended for safety. If necessary repair or replace the damaged parts before continuing the operation. Following this instruction will decrease fire, electrocution and injury hazards.
- g) Keep this instruction manual accessible and make every person read this carefully who intends to use the tool.

SPECIFICATIONS

Model: VSP5

Polishing Disc Diameter: 5" Max

No Load Speed: 700-3000 RPM

Power: 800W

Weight (Net/Gross): 5.7 / 6.4 lbs.

Arbor: 5/8 – 11 thread

DISC CAPACITY

This Hardin Wet Polisher can accommodate disc sizes up to 5 inches (127mm). Don't use discs larger than 5 inches with this tool.

OPERATION

- Don't exert force on the polisher. The weight of the polisher is enough to supply adequate amount of pressure to get the best results. Let the pad and polisher do their work. Exerting extra force will put strain on the motor, wear off the polishing pad quickly and reduce the polishing speed. Additional strain on the motor can cause overheating thus damaging the polisher.
- Never polish a specific area for long periods, otherwise 50 and 100 grit polishing pads will remove more material than you intend to, making the surface uneven.
- Don't apply extra force as it may overheat the motor causing damage to the tool.
- If the motor heats up, switch off the polisher and wait until motor comes to a complete halt. Then remove it from the work piece. Take your hand away from the venting duct, remove the polishing disc and switch it back on and run the polisher free without any load until the motor cools down.

POLISHING PADS SELECTION

Selecting the right polishing pad with correct grit for the task at hand plays an important role in achieving high quality finish. HARDIN Industrial Products has developed polishing pads for the VSP5 model bonded to achieve excellent results when polishing concrete or stone.

Generally, when using diamond polishing pads, coarse grit removes the most material and fine grits produce the best finish. The condition of the surface to be polished determines which grit will do the best job. If the surface is rough, start with a coarse grit and grind until the surface is uniform. Then use medium grit to remove scratches left by the coarser grit.

At last, use finer grits for finishing the surface. Always continue polishing with each grit until the surface is uniform..

PACKAGE INCLUDES

Your polisher packaging includes:

- VSP5 polisher with water supply line (1 meter) and hose adapter
- Water Shroud
- Ground Fault Circuit Interrupter (GFCI)
- Shaft Wrench (2)
- U-Handle (with 2 attachment bolts)
- Side Handle
- Arbor Nuts (2)
- Gearbox Cover
- Owner's Manual

CALIFORNIA PROPOSITION 65

Some dust produced by power polishing, sawing, grinding, drilling, and other construction activities contains chemicals know (to the State of California) to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead, from lead based paints
- Crystalline silica, from bricks and cement and other masonry products
- Arsenic and chromium, from chemically treated lumber

Your risk from these exposures varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well ventilated area and work with approved safety equipment, such as those dust masks that are specifically designed to filter out microscopic particles

SPEED ADJUSTMENT

On the back end of the polisher, there is a dial for speed adjustment. Refer to the speed chart below for settings.

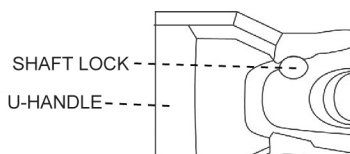
Speed Adjustment vs. RPM

Number Approximate	RPM
1	700
2	1100
3	1600
4	2100
5	2500
6	3000

Don't operate the tool at low speeds under heavy load for extended periods of time. This may cause the motor to overheat posing damage to your tool.

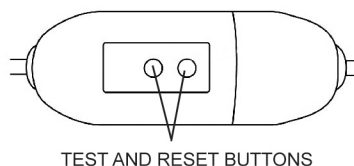
SHAFT LOCK

Situated at the top of the gearbox is the shaft lock pin. Press this pin to stop the shaft from spinning when installing a backing plate or securing arbor nuts. Never press shaft lock pin when polisher is in use, otherwise it may cause damage to the tool and there will be an increased risk of personal injury.



GROUND FAULT CIRCUIT INTERRUPTER (GFCI)

Use this polisher with GFCI only. Prior to every use, test and reset the GFCI and in case of any discrepancies replace it before using the tool. GFCI may reset automatically every time the tool is unplugged from the power source. In that situation, depress the reset button prior to use.



WATER FLOW ADJUSTMENT

The water adjustment lever is located on the underside of the polisher.

U-HANDLE

The polisher ships with U-Handle uninstalled. To install it, unscrew the bolts on each side of gear box cover, put the U-Handle onto the gearbox cover and refasten the bolts.

SIDE HANDLE

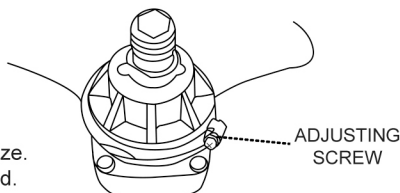
Side handle can be installed on either side.

GEARBOX COVER

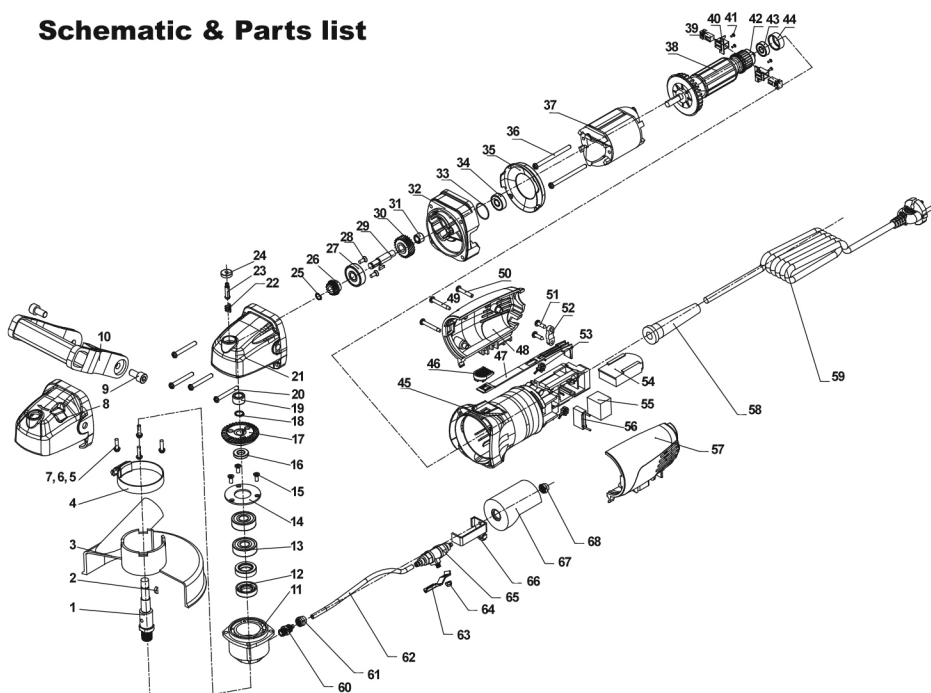
Hardin polisher's plastic gearbox cover is designed to enable the operator to apply pressure directly to the polisher's gearbox without feeling the heat generated by the tool. Before using the tool ensure all handles are securely fastened.

WATER SHROUD

Water shroud can be easily attached and removed using the actuating lever. Slide the shroud over the polisher head with lever in the open position. Use the adjusting screw to open the collar to the correct size. Close the lever to tighten the shroud onto the polisher head.



Schematic & Parts list



S.No.	Description	Qty.	S.No.	Description	Qty.	S.No.	Description	Qty.
1	Output Shaft	1	28	Screw	2	55	Switch	1
2	Woodruff Key	1	29	Axle	1	56	Capacitance	1
3	Splash Guard	1	30	Helical Gear	1	57	Rear Cover(left)	1
4	Collar	1	31	Bearing	1	58	Cable Sleeve	1
5	Screw	4	32	Bearing Retainer	1	59	Cable	1
6	Washer	4	33	O-Ring	1	60	Waterpipe Joint	1
7	Plain Washer	4	34	Bearing	1	61	Nut	1
8	Gear Cap	1	35	Wind Cover	1	62	Waterpipe	1
9	Screw	2	36	Screw	2	63	Adjustment Lever	1
10	Additional Handle	1	37	Stator	1	64	Nut	1
11	Gear Cover	1	38	Rotor	1	65	Faucet	1
12	Oil Seal	2	39	Carbon Brush	2	66	Holder	1
13	Bearing	2	40	Carbon Brush Holder	2	67	Water shield	1
14	Bearing Washer	1	41	Screw	4	68	Nut	1
15	Screw	3	42	Magnet Ring	1			
16	Gear Yube	1	43	Bearing	1			
17	Big Gear	1	44	Bearing Cover	1			
18	Clamp	1	45	Housing	1			
19	Needle Bearing	1	46	Thumb Button	1			
20	Screw	4	47	Switch Lever	1			
21	Gear Case	1	48	Rear Cover(right)	1			
22	Self-lock Spring	1	49	Screw	2			
23	Self-lock Pin	1	50	Screw	1			
24	Self-lock Cap	1	51	Screw	2			
25	Clamp	1	52	Cable Disc	1			
26	Small Gear	1	53	Inductance	2			
27	Bearing	1	54	Speed Controller	1			