AGP®

VACUUM PUMP

VP140

Instruction Manual

CE CB

Power Input (pump only)	200 W
Max. Connected Tool	3300 W (220 V), 1560 W (110 V)
Max. Total Current	16 A
Voltage	220-240 V~ 50-60 Hz, or 110-120 V~ 50-60 Hz (See Machine Nameplate)
Air Flow	30.5 l/min (1.07 cfm)
Max. Vacuum	- 0.9 bar (-13 psi)
Ingress Protection	IPX4
Dimensions	310 x 238 x 250 mm
Net Weight	6.7 kg (14.8 lb)

1. Handle
2. Pressure gauge
3. Quick-Release Fitting
4. Warning buzzer
5. Socket cover
6. Integrated Switching Socket
7. Water Separator
8. Safety reset button
9. On / Off switch
10. Air Hose

Vacuum Tank (optional)
11. Handle
12. Quick-Release Fitting
13. Drain Valve

Vacuum Tank (optional)

GENERAL SAFETY INSTRUCTIONS

WARNING! Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference. The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1) WORK AREA SAFETY

a. Keep work area clean and well lit. Cluttered or dark areas invite accidents.

b. 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.

c. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

d. Never leave the electric power tool unattended. Only leave the machine when the tool in use has come to a complete standstill.

2) ELECTRICAL SAFETY

a. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.
Unmodified plugs and matching outlets will reduce risk of electric shock.

b. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.

c. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

d. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.

e. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

f. If operating a power tool in a damp location is unavoidable, use an earth leakage circuit breaker. Use of an earth leakage circuit breaker reduces the risk of electric shock.

3) PERSONAL SAFETY

a. a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

b. b) Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

c. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power

source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

d. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

e. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.

f. **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.

g. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

h. **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

4) POWER TOOL USE AND CARE

a. **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.

b. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.

d. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.

e. **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.

f. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g. **Use the power tool, accessories and tool bits etc., in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

h. **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

5) SERVICE

Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

Symbols used in this manual

V…….....volts
A…….....amperes
Hz…….....hertz
W…….....watt
~……....alternating current
n_o……..no load speed
min^{-1}…….....revolutions or reciprocation per minute


.....warning of general danger


….with electrical earth


.....read these instructions


.....always wear eye protection


.....always wear a dust mask.


.....always wear hearing protection


.....wear safety-approved hard hat


do not dispose of electric tools, accessories and packaging together with household waste material

TERMINOLOGY USED IN THE MANUAL

1. **Warning: This term means that there is a risk of physical harm or death to the operator or people nearby.**
2. **Caution: This term means that there is a risk of damage to the machine, cutting tool or other equipment.**
3. **Note: These terms offer useful information relating to the operation of the machine or its maintenance.**

SPECIFIC SAFETY RULES

There are certain applications for which this tool was designed. The manufacturer strongly recommends that this tool NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the tool until you have written the manufacturer and have been advised.

INTRODUCTION

This vacuum pump is used in conjunction with a vacuum base for fixing various types of drill stands and other types of drilling machines securely to the work surface. Mechanical expansion anchors are the more common fixing method, but they require a hole to be drilled in the workpiece, so a vacuum base fixing system is an alternative method for cases when a mechanical anchor is not permitted.
The vacuum pump features integrated switching so that power will be cut to the drill motor if the vacuum suction is not sufficient. There is a warning buzzer which alerts the operator to insufficient vacuum conditions before cutting the power.

ELECTRICAL CONNECTION

The network voltage must conform to the voltage indicated on the tool name plate. Under no circumstances should the tool be used when the power supply cable is damaged. A damaged cable must be replaced immediately by an authorized Customer Service Center. Do not try to repair the damaged cable yourself. The use of damaged power cables can lead to an electric shock.

EXTENSION CABLE

If an extension cable is required, it must have a sufficient cross-section so as to prevent an excessive drop in voltage or overheating. An excessive drop in voltage reduces the output and can lead to failure of the motor.

UNPACKING

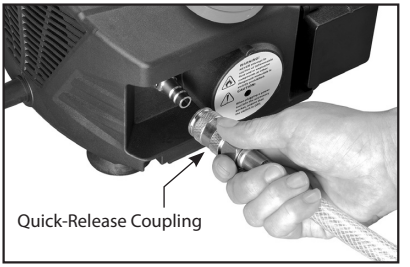
Carefully remove the tool and all loose items from the shipping container.
Retain all packing materials until after you have inspected and satisfactorily operated the machine.

CARTON CONTENTS

1. Vacuum Pump
2. Air hose
3. Instruction manual

TO INSTALL THE AIR HOSE

The supplied air hose is equipped with a quick-release coupling. Push on the coupling and it will snap down. Double check to ensure that the air hose is fully locked onto the vacuum pump and the vacuum base.

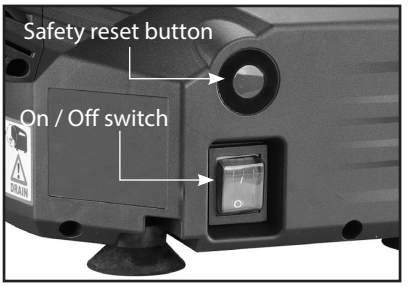


WARNING BUZZER

The tool is equipped with the warning buzzer. It will buzz if the vacuum is under -0.7 bar for safety notice.

STARTING AND STOPPING THE DEVICE

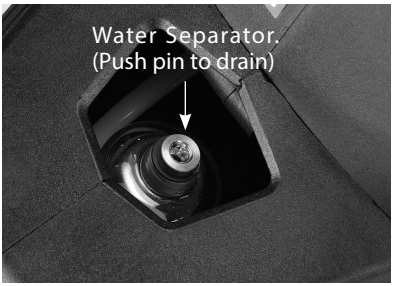
Press the On/Off rocker switch to the ON position turn the machine on.



Press the switch to the OFF position to turn the device off.
Press the Safety Reset Button to energize the connected power tool AFTER sufficient vacuum has been achieved.

HOW TO USE THE TOOL

OPERATION

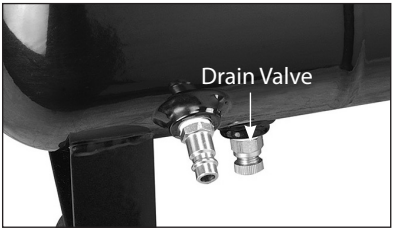


1. Connect the air hose to the vacuum base, position the drill stand, and turn the vacuum pump on. The warning buzzer will continue to sound until the proper level of vacuum is achieved. (This is normal). As soon as -0.7 bar of vacuum is reached, the warning buzzer will stop. If the vacuum unexpectedly decreases below the proper level, the warning buzzer will begin sounding again.
2. If it is desired to interconnect the power of the drill motor to the vacuum signal, plug the drill motor into the integrated switching socket on the vacuum pump. Then, to energize the drill motor, one must then push the safety reset button. (Note that if the specified vacuum has not yet been acheived, or if the vacuum decreases to below -0.7 bar, the power to the drill motor will be deactivated.)
3. Keep the vacuum pump running until the drilling operation is finished.

WARNING: Stop drilling if the warning buzzer sounds.

4. Drain off any accumulated water in the Water Separator by pushing the release pin at the end of each day of operation.

VACUUM TANK (OPTIONAL)



The vacuum pump and base system can be used with the optional Vacuum Tank connected in series. This provides an added measure of safety, as it provides a large additional reserve of vacuum for cases where the power is cut suddenly, or if there is a slight vacuum leak in the base from an imperfect seal. The vacuum tank can continue to provide vacuum for a longer period of time, preventing the vacuum from being lost suddenly, thus enhancing safety.
Regularly drain any water from the tank after use by opening the Drain Valve.

MAINTENANCE

Every 50 hours of operation blow compressed air through the motor while running at no load to clean out accumulated dust. (If operating in especially dusty conditions, perform this operation more often.)

DRAIN OFF WATER

Regularly drain off water accumulated in the Water Separator by pressing pin in the valve on the bottom of the unit.

KEEP TOOL CLEAN

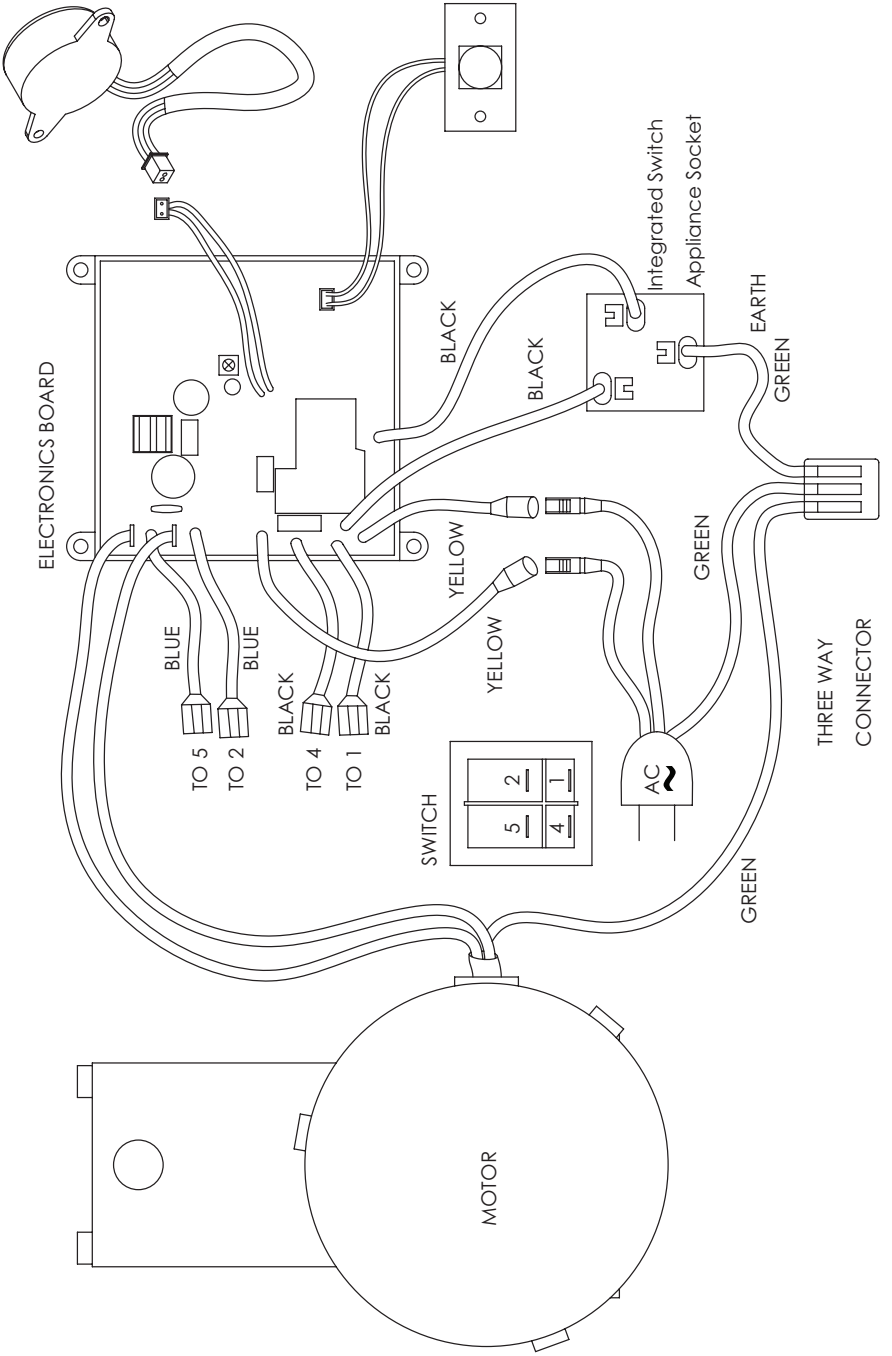
Periodically blow out all air passages with dry compressed air. All plastic parts should be cleaned with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material.

Wear safety glasses while using compressed air.

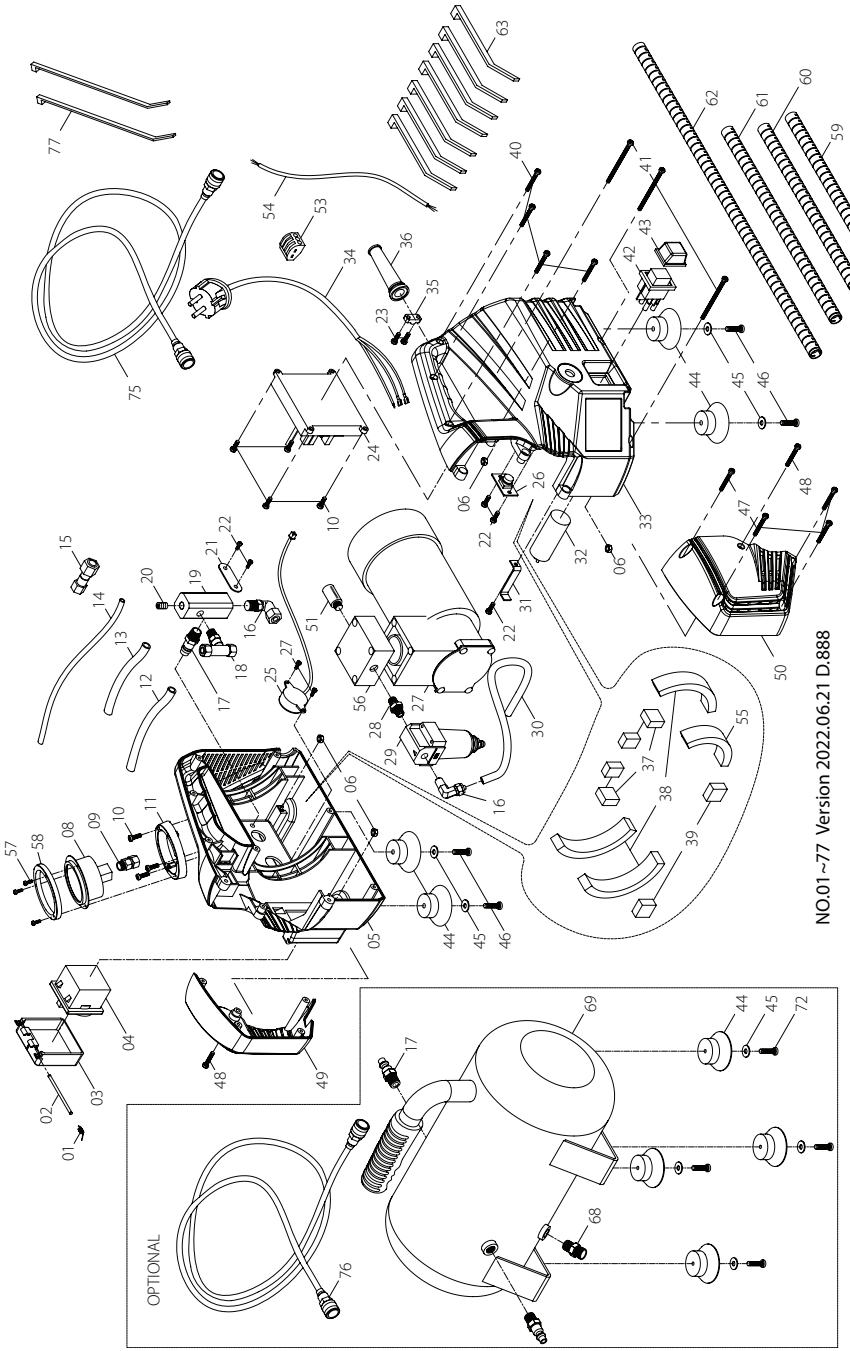
If the replacement of the power supply cord is necessary, this has to be done by the manufacturer or their agent in order to avoid a safety hazard.

WARNING: All repairs must be entrusted to an authorized service center. Incorrectly performed repairs could lead to injury or death.

WIRING


ELECTRONICS BOARD
BLUE
BLUE
BLACK
BLACK
TO 5
TO 2
TO 4
TO 1
SWITCH
5
2
4
1
BLACK
BLACK
YELLOW
YELLOW
Integrated Switch
Appliance Socket
EARTH
GREEN
GREEN
AC
THREE WAY
CONNECTOR
GREEN
MOTOR

EXPLODED VIEW



PARTS LIST

NO.	Parts Name	Q'TY	NO.	Parts Name	Q'TY
1	TORSION SPRING (Ø0.7xØ2.5 xØ3.9x21L)	1	35	CABLE CLIP	1
2	HINGE PIN	1	36	CORD ARMOR	1
3	HINGED COVER	1	37	SEAL(20MM)	4
4	INTEGRATED SWITCHING SOCKET (110V&220V)	1	38	SEAL(120MM)	3
5	MAIN HOUSING-RIGHT	1	39	SEAL(15MM)	2
6	HEX NUT (M5xP0.8)	4	40	PANHEAD TAPPING SCREW (M4x25)	4
7	PANHEAD TAPPING SCREW (M3x8)	2	41	PANHEAD TAPPING SCREW (M4x60)	3
8	AIR PRESSURE GUAGE	1	42	MAGNET SWITCH (110V&220V)	1
9	PUSH LOCK FITTING (PT1/8"xØ6)	1	43	SWITCH BOOT	1
10	PANHEAD TAPPING SCREW (M4x12)	7	44	FOOT PAD	8
11	GUAGE MOUNT	1	45	FLAT WASHER (Ø5.5xØ14x1)	8
12	TUBE (Ø4xØ6x20CM)	1	46	PANHEAD MACHINE SCREW (M5x20xP0.8)	4
13	TUBE (Ø4xØ6x18CM)	1	47	PANHEAD TAPPING SCREW (M4x30)	4
14	TUBE (Ø2.7xØ4x27CM)	1	48	PANHEAD TAPPING SCREW (M4x20)	2
15	UNION FITTING (Ø4xØ6)	1	49	FRONT COVER-RIGHT	1
16	PUSH LOCK FITTING (PT1/4"xØ6)	2	50	FRONT COVER-LEFT	1
17	QUICK RELEASE CONNECTOR MALE	3	51	NOISE SUPPRESSOR	1
18	PUSH LOCK FITTING (Ø6xØ6xPT1/4")	1	53	THREE WIRE PUSH IN CONNECTOR	1
19	MOUNTING PLATE	1	54	EARTH WIRE (Ø3x300MM)	1
20	SOCKET SET SCREW (PT1/4')	1	55	SEAL(100MM)	1
21	MOUNTING PLATE	1	56	INLET AND EXHAUST VALVE SEAT	1
22	PANHEAD TAPPING SCREW (M4x8)	5	57	PANHEAD TAPPING SCREW (M3x15)	3
23	PANHEAD TAPPING SCREW (M4x16)	2	58	PROTECTIVE RING	1
24	ELECTRONICS BOARD (110V&220V)	1	59	spiral harness wrap(21cm)	1
25	BUZZER	1	60	spiral harness wrap(23cm)	1
26	RESET BUTTON (110V&220V)	1	61	spiral harness wrap(28.5cm)	1
27	OIL-LESS VACUUM MOTOR (220V)	1	62	spiral harness wrap(51cm)	1
28	NIPPLE	1	63	ZIP TIE (2.5x100MM)	7
29	WATER FILTER	1	75	AIR HOSE-EUROPEAN TYPE (2.5M)	1
30	TUBE (Ø4xØ6x48CM)	1	77	ZIP TIE (4.7x200MM)	2
31	CAPACITOR BRACKET	1	68	SLUICING VALVE (1/4')	1
32	CAPACITOR (220V)	1	69	VACUUM TANK	1
33	MAIN HOUSING-LEFT	1	72	PANHEAD MACHINE SCREW (M5x15xP0.8)	4
34	POWER SUPPLY CABLE	1	76	AIR HOSE-EUROPEAN TYPE (1M)	1