

## **OPERATOR'S MANUAL**



# COLD FRONT ATOMIZED COOLING FAN MODEL: BCF-3019

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#### **THANK YOU & WARRANTY**

Thank you for your purchase of a machine from Baileigh Industrial Holdings LLC. We hope that you find it productive and useful to you for a long time to come.

**Inspection & Acceptance.** Buyer shall inspect all Goods within ten (10) days after receipt thereof. Buyer's payment shall constitute final acceptance of the Goods and shall act as a waiver of the Buyer's rights to inspect or reject the goods unless otherwise agreed. If Buyer rejects any merchandise, Buyer must first obtain a Returned Goods Authorization ("RGA") number before returning any goods to Seller. Goods returned without an RGA will be refused. Seller will not be responsible for any freight costs, damages to goods, or any other costs or liabilities pertaining to goods returned without a RGA. Seller shall have the right to substitute a conforming tender. Buyer will be responsible for all freight costs to and from Buyer and repackaging costs, if any, if Buyer refuses to accept shipment. If Goods are returned in unsalable condition, Buyer shall be responsible for full value of the Goods. Buyer may not return any special-order Goods. Any Goods returned hereunder shall be subject to a restocking fee equal to 30% of the invoice price.

**Specifications.** Seller may, at its option, make changes in the designs, specifications or components of the Goods to improve the safety of such Goods, or if in Seller's judgment, such changes will be beneficial to their operation or use. Buyer may not make any changes in the specifications for the Goods unless Seller approves of such changes in writing, in which event Seller may impose additional charges to implement such changes.

Limited Warranty. Seller warrants to the original end-user that the Goods manufactured or provided by Seller under this Agreement shall be free of defects in material or workmanship for a period of twelve (12) months from the date of purchase, provided that the Goods are installed, used, and maintained in accordance with any instruction manual or technical guidelines provided by the Seller or supplied with the Goods, if applicable. The original end-user must give written notice to Seller of any suspected defect in the Goods prior to the expiration of the warranty period. The original end-user must also obtain a RGA from Seller prior to returning any Goods to Seller for warranty service under this paragraph. Seller will not accept any responsibility for Goods returned without a RGA. The original end-user shall be responsible for all costs and expenses associated with returning the Goods to Seller for warranty service. In the event of a defect, Seller, at its sole option, shall repair or replace the defective Goods or refund to the original end-user the purchase price for such defective Goods. Goods are not eligible for replacement or return after a period of 10 days from date of receipt. The foregoing warranty is Seller's sole obligation, and the original end-user's exclusive remedy, with regard to any defective Goods. This limited warranty does not apply to: (a) die sets, tooling, and saw blades; (b) periodic or routine maintenance and setup, (c) repair or replacement of the Goods due to normal wear and tear, (d) defects or damage to the Goods resulting from misuse, abuse, neglect, or accidents, (f) defects or damage to the Goods resulting from improper or unauthorized alterations, modifications, or changes; and (f) any Goods that has not been installed and/or maintained in accordance with the instruction manual or technical guidelines provided by Seller.

**EXCLUSION OF OTHER WARRANTIES.** THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. ANY AND ALL OTHER EXPRESS, STATUTORY OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. NO WARRANTY IS MADE WHICH EXTENDS BEYOND THAT WHICH IS EXPRESSLY CONTAINED HEREIN.

Limitation of Liability. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY OTHER PARTY FOR ANY INCIDENTIAL, CONSEQUENTIAL OR SPECIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR DOWN TIME) ARISING FROM OR IN MANNER CONNECTED WITH THE GOODS, ANY BREACH BY SELLER OR ITS AGENTS OF THIS AGREEMENT, OR ANY OTHER CAUSE WHATSOEVER, WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY OF LIABILITY. BUYER'S REMEDY WITH RESPECT TO ANY CLAIM ARISING UNDER THIS AGREEMENT IS STRICTLY LIMITED TO NO MORE THAN THE AMOUNT PAID BY THE BUYER FOR THE GOODS.



**Force Majeure.** Seller shall not be responsible for any delay in the delivery of, or failure to deliver, Goods due to causes beyond Seller's reasonable control including, without limitation, acts of God, acts of war or terrorism, enemy actions, hostilities, strikes, labor difficulties, embargoes, non-delivery or late delivery of materials, parts and equipment or transportation delays not caused by the fault of Seller, delays caused by civil authorities, governmental regulations or orders, fire, lightening, natural disasters or any other cause beyond Seller's reasonable control. In the event of any such delay, performance will be postponed by such length of time as may be reasonably necessary to compensate for the delay.

**Installation.** If Buyer purchases any Goods that require installation, Buyer shall, at its expense, make all arrangements and connections necessary to install and operate the Goods. Buyer shall install the Goods in accordance with any Seller instructions and shall indemnify Seller against any and all damages, demands, suits, causes of action, claims and expenses (including actual attorneys' fees and costs) arising directly or indirectly out of Buyer's failure to properly install the Goods.

**Work By Others; Safety Devices.** Unless agreed to in writing by Seller, Seller has no responsibility for labor or work performed by Buyer or others, of any nature, relating to design, manufacture, fabrication, use, installation or provision of Goods. Buyer is solely responsible for furnishing and requiring its employees and customers to use all safety devices, guards and safe operating procedures required by law and/or as set forth in manuals and instruction sheets furnished by Seller. Buyer is responsible for consulting all operator manuals, ANSI or comparable safety standards, OSHA regulations and other sources of safety standards and regulations applicable to the use and operation of the Goods.

Remedies. Each of the rights and remedies of Seller under this Agreement is cumulative and in addition to any other or further remedies provided under this Agreement or at law or equity.

**Attorney's Fees.** In the event legal action is necessary to recover monies due from Buyer or to enforce any provision of this Agreement, Buyer shall be liable to Seller for all costs and expenses associated therewith, including Seller's actual attorney fees and costs.

**Governing Law/Venue.** This Agreement shall be construed and governed under the laws of the State of Wisconsin, without application of conflict of law principles. Each party agrees that all actions or proceedings arising out of or in connection with this Agreement shall be commenced, tried, and litigated only in the state courts sitting in Manitowoc County, Wisconsin or the U.S. Federal Court for the Eastern District of Wisconsin. Each party waives any right it may have to assert the doctrine of "forum non conveniens" or to object to venue to the extent that any proceeding is brought in accordance with this section. Each party consents to and waives any objection to the exercise of personal jurisdiction over it by courts described in this section. Each party waives to the fullest extent permitted by applicable law the right to a trial by jury.

#### Summary of Return Policy.

- 10 Day acceptance period from date of delivery. Damage claims and order discrepancies will not be accepted
  after this time.
- You must obtain a Baileigh issued RGA number PRIOR to returning any materials.
- Returned materials must be received at Baileigh in new condition and in original packaging.
- Altered items are not eligible for return.
- Buyer is responsible for all shipping charges.
- A 30% re-stocking fee applies to all returns.

Baileigh Industrial Holdings LLC makes every effort to ensure that our posted specifications, images, pricing and product availability are as correct and timely as possible. We apologize for any discrepancies that may occur. Baileigh Industrial Holdings LLC reserves the right to make any and all changes deemed necessary in the course of business including but not limited to pricing, product specifications, quantities, and product availability.

#### For Customer Service & Technical Support:

Please contact one of our knowledgeable Sales and Service team members at: (920) 684-4990 or e-mail us at <a href="mailto:sales@baileigh.com">sales@baileigh.com</a>



#### **INTRODUCTION**

The quality and reliability of the components assembled on a Baileigh Industrial Holdings LLC machine guarantee near perfect functioning, free from problems, even under the most demanding working conditions. However, if a situation arises, refer to the manual first. If a solution cannot be found, contact the distributor where you purchased our product. Make sure you have the serial number and production year of the machine (stamped on the nameplate). For replacement parts refer to the assembly numbers on the parts list drawings.

Our technical staff will do their best to help you get your machine back in working order.

#### In this manual you will find: (when applicable)

- Safety procedures
- Correct installation guidelines
- Description of the functional parts of the machine
- Capacity charts
- Setup and start-up instructions
- Machine operation
- Scheduled maintenance
- Parts lists

#### **GENERAL NOTES**

After receiving your equipment remove the protective container. Do a complete visual inspection, and if damage is noted, **photograph it for insurance claims** and contact your carrier at once, requesting inspection. Also contact Baileigh Industrial Holdings LLC and inform them of the unexpected occurrence. Temporarily suspend installation.

Take necessary precautions while loading / unloading or moving the machine to avoid any injuries.

Your machine is designed and manufactured to work smoothly and efficiently. Following proper maintenance instructions will help ensure this. Try and use original spare parts, whenever possible, and most importantly; **DO NOT** overload the machine or make any modifications.



**Note:** This symbol refers to useful information throughout the manual.





## IMPORTANT PLEASE READ THIS OPERATORS MANUAL CAREFULLY

It contains important safety information, instructions, and necessary operating procedures. The continual observance of these procedures will help increase your production and extend the life of the equipment.

#### **SAFETY INSTRUCTIONS**

#### **LEARN TO RECOGNIZE SAFETY INFORMATION**

This is the safety alert symbol. When you see this symbol on your machine or in this manual, **BE ALERT TO THE POTENTIAL FOR PERSONAL INJURY!** 



Follow recommended precautions and safe operating practices.

#### **UNDERSTAND SIGNAL WORDS**

A signal word – **DANGER**, **WARNING**, or **CAUTION** – is used with the safety alert symbol. **NOTICE**, which is not related to personal injury, is used without a symbol.

**DANGER**: Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING**: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION**: Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

**NOTICE**: Indicates a situation which, if not avoided, could result in property damage.







**NOTICE** 



## SAVE THESE INSTRUCTIONS. Refer to them often and use them to instruct others.



#### **PROTECT EYES**

Wear safety glasses or suitable eye protection when working on or around machinery.





#### **PROTECT AGAINST NOISE**

Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear suitable hearing protective devices such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.





#### **FUMES AND GASES**

The plasma cutting process produces fumes and gases that can be hazardous to your health. If the area is not properly ventilated to remove them, use an air supplied respirator.





#### **DUST HAZARD**

Wear appropriate dust mask. Dust created while using machinery can cause cancer, birth defects, and long-term respiratory damage. Be aware of the dust hazards associated with all types of materials.





**ENTANGLEMENT HAZARD - ROTATING BLADES** 

Contain long hair, **DO NOT** wear jewelry or loose-fitting clothing.







#### **CALIFORNIA PROPOSITION 65**

WARNING: Cancer and Reproductive Harm. www.P65Warnings.ca.gov



#### SAFETY PRECAUTIONS



Metal working can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

Safety equipment such as guards, hold-downs, safety glasses, dust masks and hearing protection can reduce your potential for injury. But even the best guard will not make up for poor judgment, carelessness or inattention. **Always use common sense** and exercise **caution** in the workshop. If a procedure feels dangerous, don't try it.

REMEMBER: Your personal safety is your responsibility.



WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

#### **Dear Valued Customer:**

- All Baileigh machines should be used only for their intended use.
- Baileigh does not recommend or endorse making any modifications or alterations to a
  Baileigh machine. Modifications or alterations to a machine may pose a substantial risk of
  injury to the operator or others and may do substantial damage to the machine.
- Any modifications or alterations to a Baileigh machine will invalidate the machine's warranty.

#### PLEASE ENJOY YOUR BAILEIGH MACHINE! .... PLEASE ENJOY IT SAFELY!

- 1. FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE. Learn the machine's application and limitations as well as the specific hazards.
- 2. Only trained and qualified personnel can operate this machine.



- 3. Make sure guards are in place and in proper working order before operating machinery.
- 4. **Keep work area clean.** Cluttered areas invite injuries.
- 5. **Do not** use this cooling fan for other than its intended use.
- 6. Keep ground or floor around the machine uncluttered and free of scrap material, oil and grease. Wear non-slip footwear.
- 7. Disconnect from power source before performing any maintenance or cleaning.
- 8. **Do not** unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- 9. Have machine serviced only by qualified personnel, using authorized replacement parts.
- 10. **Keep children away**. Children must never be allowed in the area where Cooling Fan is being operated. **DO NOT** let them handle machines, tools, or extension cords.
- 11. Keep visitors a safe distance from the work area.
- 12. **Do not** pull this unit by the power cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Keep cord away from heated surfaces.
- 13. Do not mount this fan to, or suspend it from, a wall or ceiling.
- 14. Do not stack fan units.
- 15. **Do not** allow any object to enter the screen guard and fan area during operation, as it may cause damage to machine and potential injury to bystanders.
- 16. Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- 17. **Do not** obstruct the misting nozzles.
- 18. Unplug machine from outlet when not in use and before servicing.
- 19. **Do not** use this Cooling Fan in flammable or explosive environments, or around hazardous materials.
- 20. **Do not** store the Cooling Fan outdoors. **Do not** allow the cooling fan to freeze.
- 21. **Do not** use this unit with a damaged cord or plug. If the unit is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.
- 22. **Do not** stand on the machine. Serious injury could occur if the machine tips over.
- 23. Use wheel blocks in addition to applying the brake pedal when operating the unit on inclines or uneven terrain.
- 24. **Use eye protection**. Always wear ISO approved protective eye wear when operating machinery. Wear a full-face shield if you are producing metal filings. Eye wear shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1 specification. Use of eye wear which does not comply with ANSI Z87.1 specification could result in severe injury from breakage of eye protection.



- 25. Check for damaged parts. Before using any tool or machine, carefully check any part that appears damaged. Check for alignment and binding of moving parts that may affect proper machine operation.
- 26. **Observe work area conditions**. **DO NOT** use machines or power tools in damp or wet locations. Do not expose to rain. Keep work area well lighted. **DO NOT** use electrically powered tools in the presence of flammable gases or liquids.
- 27. **Store idle equipment**. When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep them out of reach of children.
- 28. **DO NOT operate machine if under the influence of alcohol or drugs**. Read warning labels on prescriptions. If there is any doubt, **DO NOT** operate the machine.
- 29. Turn off power before checking, cleaning, or replacing any parts.
- 30. Be sure **all** equipment is properly installed and grounded according to national, state, and local codes.
- 31. Inspect power and control cables periodically. Replace if damaged or bare wires are exposed. **Bare wiring can kill! DO NOT** touch live electrical components or parts.

#### **TECHNICAL SUPPORT**

Our technical support department can be reached at 920.684.4990 and asking for the support desk for purchased machines. Tech Support handles questions on machine setup, schematics, warranty issues, and individual parts needs: (other than die sets and blades).

For specific application needs or future machine purchases contact the Sales Department at: sales@baileigh.com, Phone: 920.684.4990, or Fax: 920.684.3944.

**Note**: The photos and illustrations used in this manual are representative only and may not depict the actual color, labeling or accessories and may be intended to illustrate technique only.

**Note:** The specifications and dimensions presented here are subject to change without prior notice due to improvements of our products.



### **TECHNICAL SPECIFICATIONS**

Power Supply	1200W, 120VAC, 60Hz, 10A
Overall Dimensions LxWxH	45" x 26.5" x 59.25" (1143 x 673 x 1505mm)
Fan Diameter	30" (762mm)
Fan Speed	3@ 400/800/1100rpm
Fan Motor	0.5hp, 115VAC, 60Hz, 1ph, 6P, 1100/3 rpm, 6.4A Thermally Protected, (CSA, UR)
Air Velocity	22.3 mph (35.9 km/h)
Air Delivery	8462 CFM (14377 m <sup>3</sup> /h)
Noise	77.5db at 5ft (77.5db at 1.5m)
Water Tank Capacity	19 gal. (71.9 L), 10 hrs. operation before refill
Water Pump	25W, 120VAC, 60Hz, Automatic Cutoff via Water Tank Float Switch, (VDE, ETL, CQC)
Air Compressor	330W, 115VAC, 60Hz, 3A, (UR-C/US)
Cooling System	6 Atomizing Nozzles
Cooling Coverage	3000sq/ft (278m²)
Power Cable	SJOOW 3/C, 12AWG, 300V, 10' Length
Auxiliary Dual Receptacle	120VAC, 2.4A Maximum Output, GFCI Protection
Main Enclosure	14ga. Steel, Powder-Coat Finish
Chassis	12ga. Steel, Powder-Coat Finish
Wheels	Aluminum Rims, Rubber Tires Ø12" x W3" (305 x 76mm)
Net Weight	400lbs. (182kg)
Shipping Weight	480lbs. (218kg)
Shipping Dimensions LxWxH	54" x 36" x 60" (1372 x 915 x 1524mm)



#### **UNPACKING AND CHECKING CONTENTS**

Your Baileigh machine is shipped complete. Separate all parts from the packing material and check each item carefully. Make certain all items are accounted for before discarding any packing material.

WARNING: SUFFOCATION HAZARD! Immediately discard any plastic bags and packing materials to eliminate choking and suffocation hazards to children and animals.

If any parts are missing, DO NOT place the machine into service until the missing parts are obtained and installed correctly.

#### **Cleaning**

WARNING: DO NOT USE gasoline or other petroleum products to clean the machine. They have low flash points and can explode or cause fire.

CAUTION: When using cleaning solvents work in a well-ventilated area. Many cleaning solvents are toxic if inhaled.

Your machine may be shipped with a rustproof waxy coating and/or grease on the exposed unpainted metal surfaces. Fully and completely remove this protective coating using a degreaser or solvent cleaner. Moving items will need to be moved along their travel path to allow for cleaning the entire surface. For a more thorough cleaning, some parts will occasionally have to be removed. **DO NOT USE** acetone or brake cleaner as they may damage painted surfaces.

Follow manufacturer's label instructions when using any type of cleaning product. After cleaning, wipe unpainted metal surfaces with a light coating of quality oil or grease for protection.

Important: This waxy coating is **NOT** a lubricant and will cause the machine to stick and lose performance as the coating continues to dry.







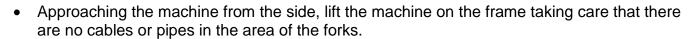


#### TRANSPORTING AND LIFTING

**NOTICE:** Lifting and carrying operations should be carried out by skilled workers, such as a truck operator, crane operator, etc. If a crane is used to lift the machine, attach the lifting chain carefully, making sure the machine is well balanced.

#### Follow these guidelines when lifting with truck or trolley:

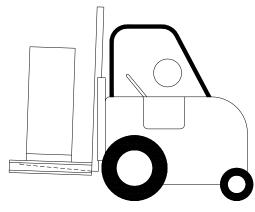
- The lift truck must be able to lift at least 1.5 − 2 times the machines gross weight.
- Make sure the machine is balanced. While transporting, avoid rough or jerky motion, and maintain a safe clearance zone around the transport area.
- Use a forklift with sufficient lifting capacity and forks that are long enough to reach the complete width of the machine.
- Remove the securing bolts that attach the machine to the pallet.



- Move the machine to the required position and lower gently to the floor.
- Level the machine so that all the supporting feet are taking the weight of the machine and no rocking is taking place.

#### Follow these guidelines when lifting crane or hoist:

- Always lift and carry the machine with the lifting lug provided at the top of the machine.
- Use lift equipment such as straps, chains, capable of lifting 1.5 to 2 times the weight of the machine.
- Take proper precautions for handling and lifting.
- Check if the load is properly balanced by lifting it an inch or two.
- Lift the machine, avoiding sudden accelerations or quick changes of direction.
- Locate the machine where it is to be installed, then lower slowly until it touches the floor.





#### INSTALLATION

#### **IMPORTANT:**

Consider the following when looking for a suitable location to place the machine:

- · Overall weight of the machine.
- Clearance from walls and other obstacles.
- Maintain an adequate working area around the machine for safety.
- Have the work area well illuminated with proper lighting.
- Keep the floor free of oil and make sure it is not slippery.
- Remove scrap and waste materials regularly, and make sure the work area is free from obstructing objects. Especially loose items that will be blown by the fan force.
- **LEVELING:** The machine should be sited on a level surface capable of supporting the weight of the fan with a full tank of water. The surface should provide support for all four wheels to prevent wobbling, vibration, and unintended movement.
- **WORKING CLEARANCES:** Take into consideration the size of the material to be processed. Make sure that you allow enough space for you to operate the machine freely.
- **POWER SUPPLY PLACEMENT:** The power supply should be located close enough to the machine so that the power cord is not in an area where it would cause a tripping hazard. Be sure to observe all electrical codes if installing new circuits and/or outlets.

#### **GETTING TO KNOW YOUR MACHINE**

#### **About This Machine**

The BCF-3019 is designed for areas more than 3,000 square feet. Its hydro-pneumatic system atomizes water into very fine particles which evaporate instantly in the high-velocity airstream, reducing the temperature of the expelled air to create an immediate cooling effect.

The absence of conventional pads, and its micro-atomization of the water means lower risk of clogging and less need for maintenance. The low-pressure pump contributes to energy efficiency.

Your machine has been designed and constructed to provide consistent, long-term operation if used in accordance with the instructions set forth in this document.

It is intended and designed to use potable water only!







Item	Description	Function
Α	Brake Bar	Clamps into the tire surface to hold the cooling fan from rolling. One on each rear wheel.
В	Brake Pedal	Press down to lock the brake bars. Lift up to release the brake bars.
С	Service Access Panel	Remove to access the filters and other components for service.
D	Power Cord	Power cord to operate the cooling fan. Shown wrapped onto the cord holder.
Е	Operating Controls	Switches used to power on the fan, water supply, and fan speeds.
F	GFCI Outlet.	Auxiliary outlet used to provide up to 2.4A of power at 115VAC.
G	Cart Handle	Used to push, pull and steer the cooling fan into operating locations.
Н	Lift Lug	Used to lift the cooling fan to upper floors and surfaces. NEVER OPERATE THE COOLING FAN SUSPENDED BY THE LIFT LUG.
ı	Atomizing Mist Nozzle	The six nozzles which atomize the water into very fine particles which evaporate instantly in the high-velocity airstream.
J	Water Tank Filler (on back)	Access to the water tank to fill potable water into the tank to provide the source for the complete cooling.
К	Power Switch (Green Lamp)	The main power On/Off switch. The green led will illuminate when power is connected to the cooling fan. Rocking the switch to the On position will start the fan at the selected speed and provide power to the Cooling switch.
L	Fan Speed Switch	Rocker Selector switch to allow for Low, Med, and Hi fan speeds.
М	Cooling Switch	Turns On the water atomizing system to add the cooling effects of water evaporation to the moving air.





Item	Description	Function
N	Water Filter	Filters the water before combining with the force of the air.
0	Air Filter	Filters the air before combining with the water.





#### **ASSEMBLY AND SET UP**

WARNING: For your own safety, DO NOT connect the machine to the power source until the machine is completely assembled and you read and understand the entire instruction manual.

The cooling fan is shipped with the wheels removed.

- 1. Remove the shipping brackets securing the fan to the pallet.
- 2. Unpack the wheel.
- 3. Using a suitable lifting device connected to the lifting lug, lift the cooling fan high enough to pull the pallet out from under the chassis.
- 4. One at a time, remove the Nylock nut from the axle shaft and slide the wheel onto the axle.
- 5. Carefully tighten the Nylock nut until the wheel is secure but still turns freely. Overtightening will cause the wheel not to turn.
- 6. When all four wheels are installed, lower the cooling fan to the ground and either roll to the desired location or lock the brake so that the cooling fan does not move.
- 7. Inspect the entire machine for any items that may have come loose or may have been damaged in shipping.



#### **ELECTRICAL**

CAUTION: All electrical connections must be done by a qualified electrician in compliance with all local codes and ordinances. Failure to comply may result in serious injury.

WARNING: Make sure the grounding wire (green) is properly connected to avoid electric shock. DO NOT switch the position of the green grounding wire if any electrical plug wires are switched during hookup.

#### **Power Specifications**

Your machine is wired for 120 volts, 60hz alternating current. Before connecting the machine to the power source, make sure the power source is OFF.

Before connecting the power, verify that the available power supply is the same as listed on the machine nameplate. The voltage and frequency range is  $\pm 5\%$  volts and  $\pm 1\%$  hertz.

#### **Considerations**

- Observe local electrical codes when connecting the machine.
- The circuit should be protected with a time delay fuse or circuit breaker with an amperage rating slightly higher than the full load current of machine.
- A separate electrical circuit should be used for your machines. Before connecting the motor
  to the power line, make sure the switch is in the "OFF" position and be sure that the electric
  current is of the same characteristics as indicated on the machine.
- All line connections should make good contact. Running on low voltage will damage the motor.

#### **Grounding Instructions**

WARNING: If the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded, contact a qualified electrician. Failure to comply may cause serious or fatal injury.

- This machine must be grounded. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.
- This machine is equipped with an electric cord having an equipment-grounding conductor.

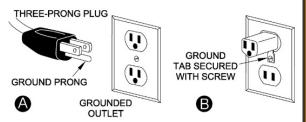


When using a plug (typically customer supplied), it must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify the plug provided (when provided) - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor.

If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal. Repair or replace damaged or worn cord immediately. This machine is for use on a nominal 120V circuit and has a grounded plug that looks like the plug illustrated in sketch (A). A temporary adaptor that looks like the adaptor illustrated in sketch (B) may be used to connect this plug to a 2-pole receptacle as shown in sketch (B) if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet (sketch A) can be installed by a qualified electrician. The green colored rigid

ear, lug, or the like extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by a metal screw. In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code, C22.1.



#### **Extension Cord Safety**

The use of extension cords is discouraged. Try to position machines near the power source. If an extension cord is necessary, make sure it is in good condition. Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug. 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 table shows correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

	Extension Cord Recommended Gauges (AWG)					
		Extension cord length *				
Amps	25 feet	50 feet	75 feet	100 feet	150 feet	200 feet
< 5	16	16	16	14	12	12
5 to 8	16	16	14	12	10	NR
8 to 12	14	14	12	10	NR	NR
12 to 15	12	12	10	10	NR	NR
15 to 20	10	10	10	NR	NR	NR
21 to 30	10	NR	NR	NR	NR	NR

\*based on limiting the line voltage drop to 5V at 150% of the rated amperes. NR = Not Recommended.



#### Power cord connection:

This machine is rated at 120-volt power only and is supplied with a plug designed for use on a circuit with a grounded outlet.

It is recommended that this machine be connected to a dedicated 15-amp circuit with circuit breaker or fuse. Local codes take precedence over recommendations.

- 1. Be sure the power switch on the control panel is in the OFF position.
- 2. Unwrap the power cord and route the cord away from the machine toward the power supply.
  - a. Route the power cord so that it will NOT become entangled in the machine in any way.
  - b. Route the cord to the power supply in a way that does NOT create a trip hazard.
- 3. Connect the power cord to the power supply and check that the power cord has not been damaged during installation.
- 4. When the machine is clear of any obstruction. The main power switch may be turn ON to test the operation. Turn the switch OFF when the machine is not in operation.

#### **OPERATION**

CAUTION: DO NOT power the fan On with the air flow directed toward any person. Loose debris may be blown at them causing injury to eyes or bare skin.

- Make sure tank drain plug is tight (located beneath chassis).
- Unscrew tank cap, fill tank with clean, potable water, and install the cap.
- Pull handle downward from clip, steer unit into position, then return handle to clip.
- Push brake pedal all the way down to lock wheels in place. (Also use wheel blocks if on an
  incline or uneven terrain.) To release brake, place foot below pedal and pull upward. Always
  lock the wheels when the cooling fan is not directly being moved.
- Connect the plug to the power source. Make sure power source matches the electrical specifications of the Cooling Fan. (When not in use, wrap the power cord around the provided holders.)
- Press POWER switch to On position to activate fan. Allow fan to run approximately 30 seconds, then select the FAN SPEED, then press COOLING switch to activate misting feature.
- The COOL switch independently controls the misting system. Turn POWER switch off to stop both fan and misting. Some misting may continue for a few moments during depressurization.



#### **Safeguards**

- The fan motor has a thermal protector, which will automatically open the circuit (shut off machine) if the motor overheats. If this occurs, immediately turn off the switches, wait for unit to cool down, then use switches to restart.
- IMPORTANT: If the switches are left on, the fan will start immediately once unit has cooled down sufficiently.
- A float switch in the tank will shut off the air compressor and water pump if water level falls below threshold. Fill tank to continue operating.

#### **GFCI Test**

- 1. Plug cord into power source. Green light on GFCI receptacle will illuminate.
- 2. Press POWER switch to On position.
- 3. Press TEST button on GFCI. Light will go out and fan will stop working.
- 4. Press RESET button on GFCI. Light will illuminate and fan will restart.
- 5. The GFCI is functioning properly.
- 6. To prevent unauthorized access to GFCI receptacle, close cover and insert padlock (not provided) through lock-out holes.



#### **LUBRICATION AND MAINTENANCE**

WARNING: Make sure the electrical disconnect is <u>OFF</u> before working on the machine.

Maintenance should be performed on a regular basis by qualified personnel.

Always follow proper safety precautions when working on or around any machinery.

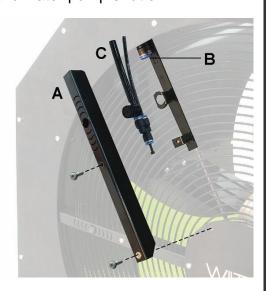
- Check daily for any unsafe conditions and fix immediately.
- Check that all nuts and bolts are properly tightened.
- On a weekly basis clean the machine and the area around it.

#### **General Cleaning**

- Do not use solvents or harsh chemicals on the cooling fan when cleaning.
- Keep air compressor fan housing clear of dust; blow out with compressed air if needed.
- Annually drain and clean water tank. If the cooling fan will not be used for more than a week, drain and clean the water tank. Drain plug is located beneath tank unscrew to remove.
- If cooled air produces musty or stale odor, drain water from tank.
  - Place about half a cup of unscented chlorine bleach into tank and then fill tank with clean water.
  - Operate fan and misting system until air compressor and water pump shut off.
  - Drain any remaining bleach mixture from the tank.
     Refill tank with clean water (no mixture) and operate normally.

**Note**: Undiluted white vinegar may be used instead of bleach.

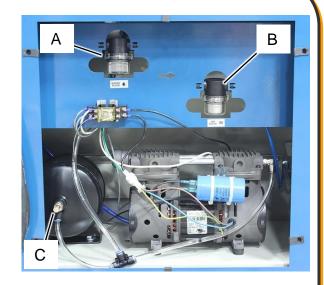
- If an individual nozzle is blocked, remove nozzle bracket cover (A), push blue rings (B) to pull out hoses, and remove entire nozzle assembly (C).
- Soak nozzle assembly in white vinegar. Reinstall nozzle assembly and test.





#### **Cleaning filters**

- 1. Inspect air and water filters annually.
- 2. Remove the service panel to access them.
- 3. The upper left filter (A) is for water, and the lower right filter (B) for air. The Arrow between the filter units shows direction of flow.
- 4. Unscrew cup to remove filter mesh.
- 5. Rinse any debris from mesh with clean water or white vinegar.
- 6. Insert mesh and install cup onto filter body.



#### **Air Pressure Valve**

The (brass) pressure release valve at rear of air tank has been set by the manufacturer for the desired 30 psi and should not require adjustment.

The pressure output valve at the front of the air tank controls the gradual mist when the unit is turned off. It has been set by the manufacturer but can be adjusted by the user if needed.

- Loosen knurled nut (C) and turn knob to change setting.
- Tighten knurled nut to secure setting.

#### **Tips And Recommendations**

- Fill the water tank only with clean water.
- To prevent musty-smelling water, empty the water tank when the unit will not be in use for more than a week.
- To eliminate musty-smelling water, empty the water tank, refill with clean water, and add a few tablespoons of chlorine bleach to the tank.
- If the unit is filled with mineral-rich (hard) water or if nozzles clogging with mineral deposits is a chronic issue, consider using only distilled water or adding a water softening tablet or white vinegar to the water tank.
- Do not insert a pin, needle, or other thin instrument into the nozzle orifice.
- Do not blow compressed air into the nozzle orifice.
- Do not operate the unit on an incline.



#### **TROUBLESHOOTING**

WARNING: Make sure the electrical disconnect is <u>OFF</u> before working on the machine.

Before any troubleshooting, make sure to first complete the following:

- Ensure that there is plenty of clean water in the water tank and the unit is on level ground.
- Clean both the air and water filters by unscrewing the clear bowl and washing the filter element with clean water.
- Plug the unit directly into a dedicated 120V 15A power source. Do not use an extension cords and make sure that no other devices are connected to the circuit.
- Press the "TEST" button on the onboard accessory outlet, then press the "RESET" button. A green light should illuminate on the outlet.
- When turning the unit on, let the fan run for at least 10 seconds before turning the mist on.

Problem	Possible Cause	Solution	
		Plug unit directly into outlet (no extension cords).	
	Insufficient power.	Remove all electrical devices sharing the same circuit.	
Irregular or pulsing mist		Try a different power outlet.	
from all nozzles.	Mist and fan turned on at the same time.	Turn the unit off. Turn the fan on and wait 10 seconds. Turn the mist on.	
	Air filter is clogged.	Clean the air filter.	
	Nozzle is clogged.	Remove the nozzle from the fan. Soak the nozzle in white vinegar or a diluted solution of CLR. Reinstall the nozzle.	
Irregular or no mist from a single nozzle.	Water leak.	While the unit is running, check for a water leak around the nozzle assembly. Secure any loose connections.  While the unit is running, check for a water leak from the inside of the front face panel. If a leak is found, unplug the unit, remove the front face plate, and secure any loose connections.	



	Water filter is clogged.	Clean the water filter.
No mist from most or all nozzles.	Water leak.	While the unit is running, check for a water leak underneath the unit. If a leak is found, unplug the unit, remove any necessary panels, and secure any loose connections.
	Water pump is faulty.	Replace the water pump.
	Failed tubing connection.	While the unit is running, track the source of the leak. Unplug the unit, remove any necessary panels, and secure any loose connections.
Water leak.	Split tubing.	While the unit is running, track the source of the leak. Unplug the unit, remove any necessary panels, and remove and replace faulty tubing.
	Poor seal around drain cap.	Remove the drain cap and drain all water from the water tank. Apply thread tape to the threads of the drain cap. Screw the cap back into the bottom of the tank and firmly tighten by hand.
	Poor seal around shutoff switch or tank outlet fitting.	Remove the drain cap and drain all water from the water tank. Remove the water tank from the unit. Remove the affected component from the water tank and apply thread tape to the threads. Reinstall the component. Reinstall the water tank.
Split or cracked tubing.	Deteriorating tube material.	Remove and replace faulty tubing.



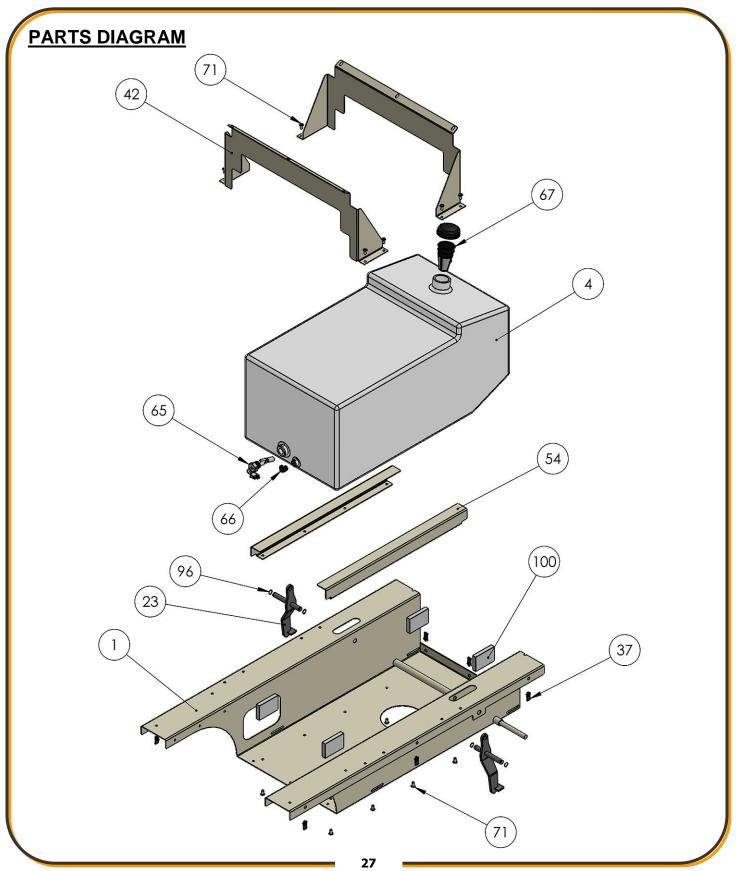
Problem	Possible Cause	Solution*
	No incoming current.	Check connections at plug or circuit panel.
	GFCI on machine has tripped.	Push RESET on GFCI receptacle.
	Low voltage.	Check power line for proper voltage.
Fan motor will not start.	Open circuit in motor or loose connection.	Inspect switch and motor for loose or open connections.
	Faulty start switch.	Inspect and replace switch if needed.
	Faulty start capacitor.	Replace capacitor.
	Faulty motor.	Inspect and replace motor if needed.
	Too many machines on shared circuit.	Connect unit to dedicated circuit.
	GFCI on machine has tripped.	Push RESET on GFCI receptacle.
Fan motor will not start: Fuse blows or circuit breaker trips.	Short circuit in line cord or plug.	Inspect cord or plug for damaged insulation and shorted wires.
	Short circuit in motor or loose connections.	Inspect all connections on motor for loose or shorted terminals or worn insulation.
	Incorrect fuse or circuit breaker in power line.	Install correct fuse or circuit breaker at power source.
Motor overheats.	Motor overloaded.	Allow to cool, then restart.
Thermal protector trips	Incorrect fuse or circuit breaker in power line.	Install correct fuse or circuit breaker at power source.
frequently.	Fan used for extended periods of time, motor overheats.	Allow to cool, then restart.
	Loud noise or vibrations	Loud noise or vibrations
	coming from machine.	coming from machine.
Loud noise or vibrations coming from machine.	Loose fasteners. Inspect machine and tighten all fasteners.	Loose fasteners. Inspect machine and tighten all fasteners.
	Fan is loose or imbalanced. Inspect and tighten/repair.	Fan is loose or imbalanced. Inspect and tighten/repair.
Not cooling, or unsatisfactory misting	Tank empty, float switch activated.	Fill with clean water.
effect.	Water filter clogged.	Clean out filter.



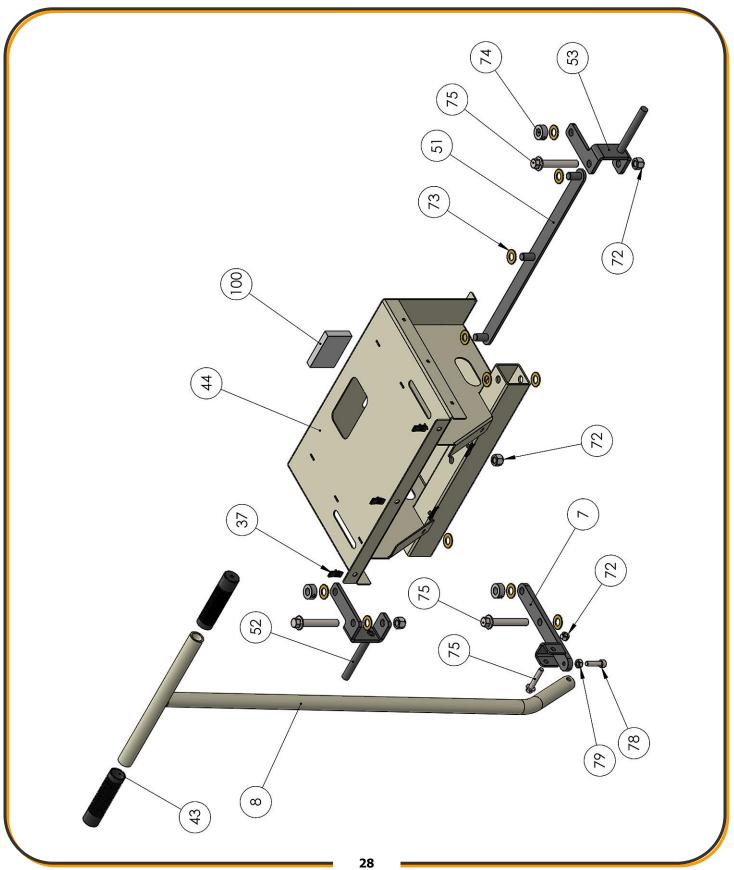
	Nozzles obstructed.	Clean nozzles with weak acid solution, such as white vinegar. Inspect water system and hoses for impurities and blockages. Use clean water.
	Leak in water system.	Locate source of leak, replace seals.
	Water pump defective.	Inspect and replace if needed.
	Cooling switch defective.	Inspect and replace if needed.
	Insufficient startup power provided to air compressor.	Turn fan on first and allow it to reach full speed, then turn on Cooling.
	Diminished air flow.	Run only fan for a short time, then turn on Cooling switch.
	Clogged air filter.	Clean out air filter.
Poor atomization of water, large droplets or nozzles streaming water.	Nozzles or air hoses obstructed.	Clean nozzles with weak acid solution, such as white vinegar. Inspect air system and hoses for blockages. Use clean water.
	Cooling used for extended periods of time, air compressor overheats.	Allow to cool, then restart.
	Unstable power source, causing compressor to shut off while fan and water remain running.	Use stable power source.

<sup>\*</sup>IMPORTANT: Some remedies may require a qualified electrician.

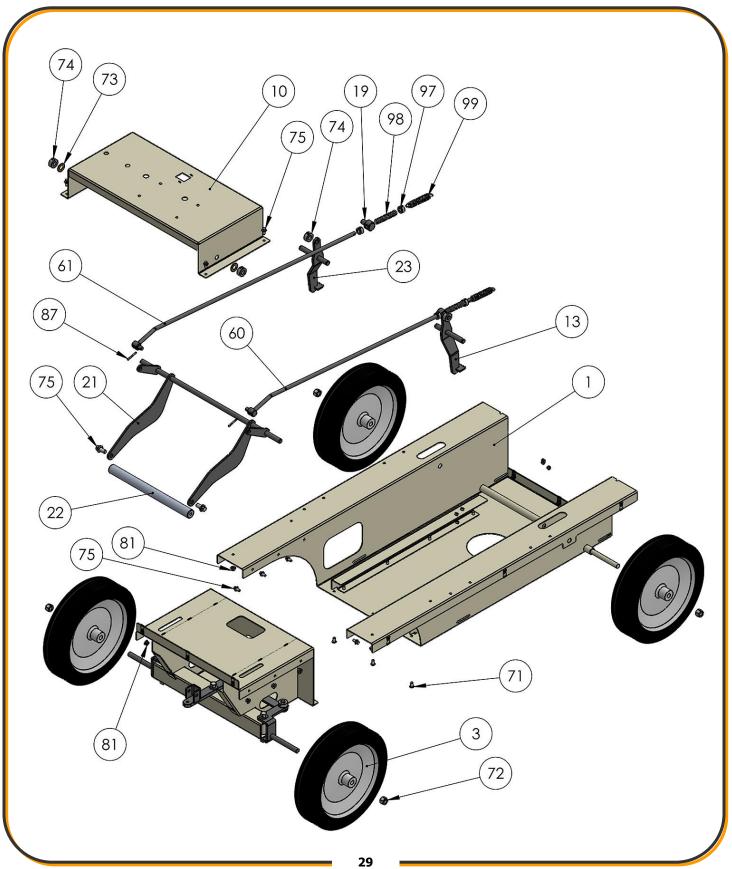




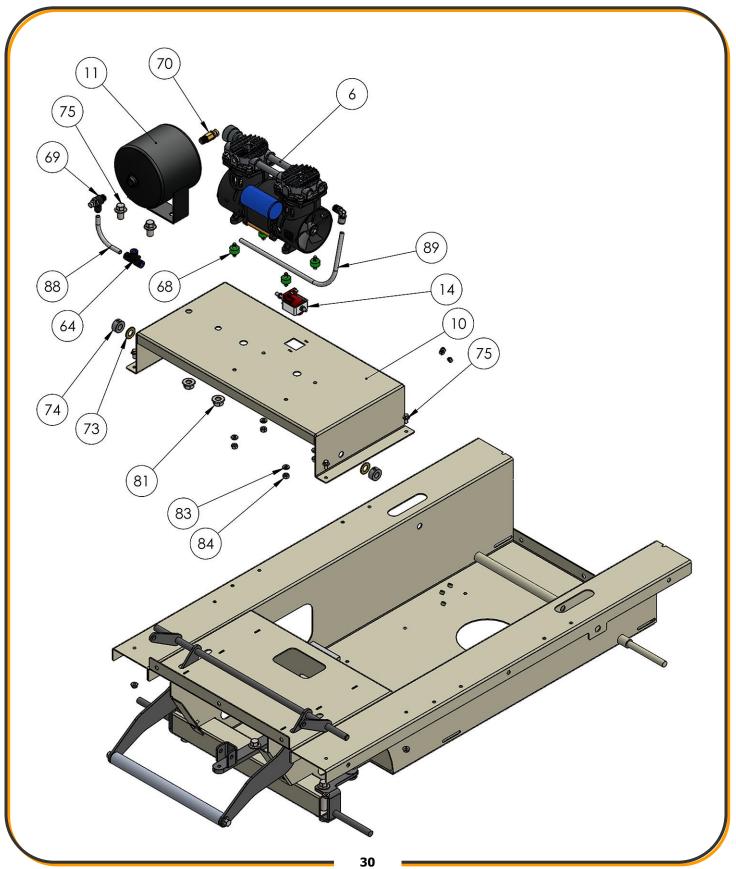




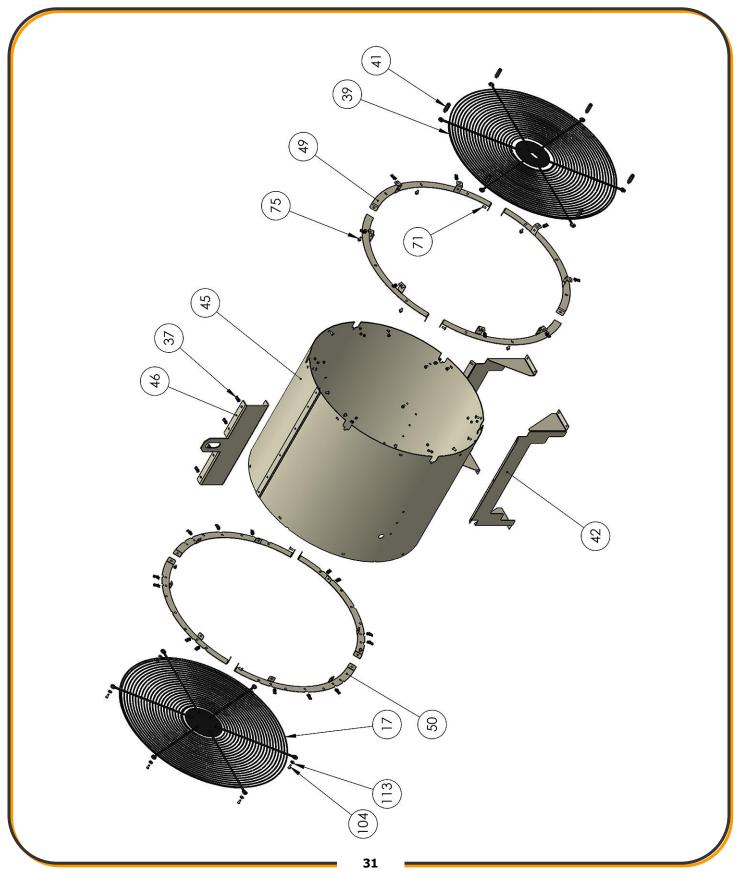




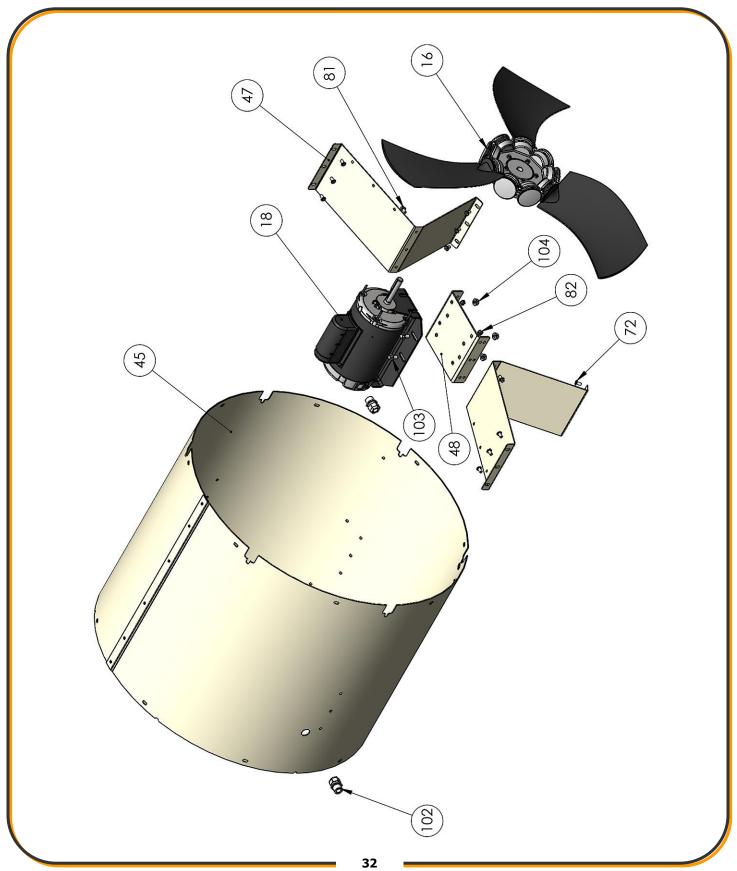




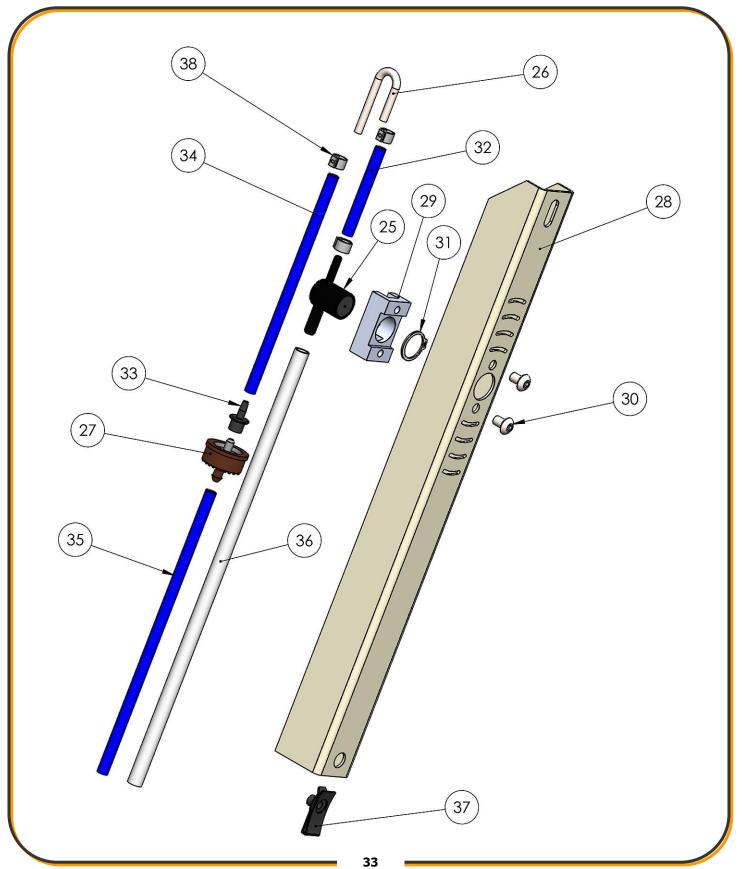




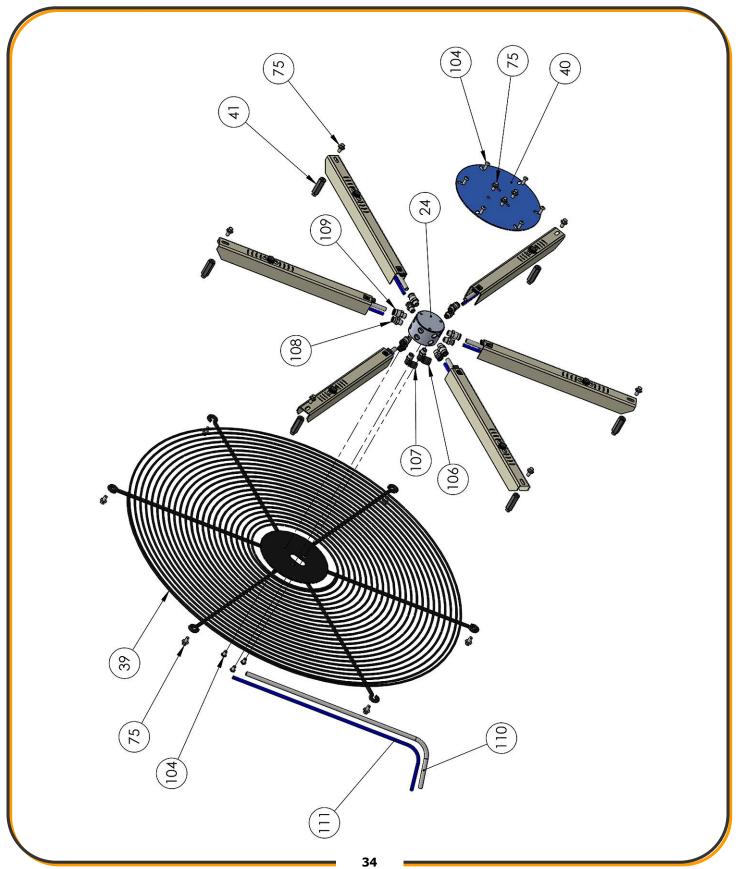




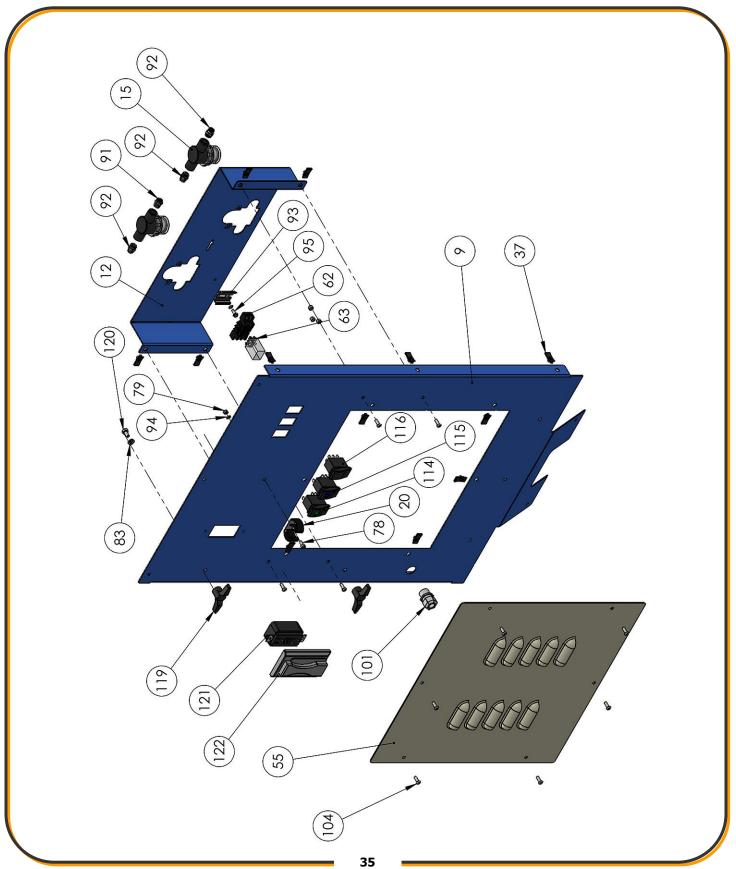




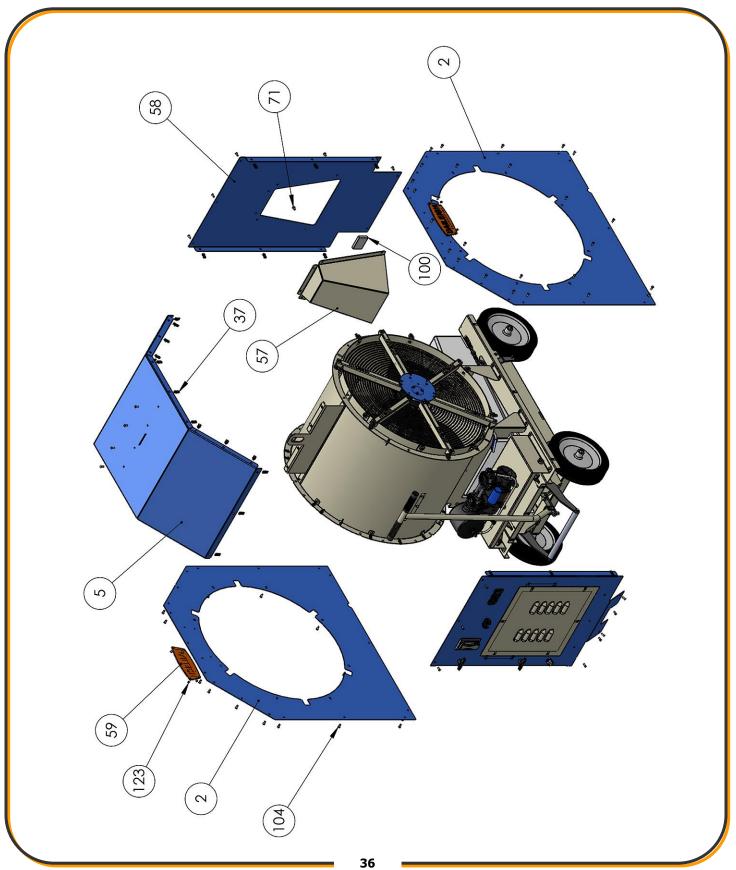














#### Parts List

Item	Part Number	Description	Qty.
1	CFF-5001	Chassis Assembly	1
2	CFF-6006	Front Cover	2
3	PP-2128	12" Wheel	4
4	PP-2113	Water Tank	1
5	CFF-6011	Top Cover	1
6	PP-2110	Air Compressor	1
7	CFF-5004	Steering Lever Assembly	1
8	CFF-5005	Pull Handle	1
9	CFF-6017	Front Cover	1
10	CFF-6018	Pump Shelf	1
11	PP-2115	Air Tank	1
12	CFF-6019	Filter Mtg. Plate	1
13	CFF-5008	Tire Brake Assembly Rh	1
14	PP-2111	Water Pump	1
15	PP-2129	Filter Housing	2
16	PP-2109	Fan Blade Assembly	1
17	PP-2126	Fan Guard Rear	1
18	PP-2108	3-Speed Motor	1
19	CFF-7004	Brake Trunnion	2
20	PP-2127	Steering Handle Clip	1
21	CFF-5007	Brake Pedal Assembly	1
22	CFF-7006	Brake Bar	1
23	CFF-5006	Tire Brake Assembly LH	1
24	CFF-7009	Manifold	1
25	PP-2130	Misting Nozzle	6
26	CFF-7010	S.S. Nozzle Tube	6
27	PP-2160	Water Regulator	6
28	CFF-6026	Nozzle Cover	6
29	CFF-6033	Nozzle Mount	6
104	BSM-0282	M5 X 0.8 X 16 BHCS (S.S.)	107
31	BSM-0091	15mm Ext. Ret. Ring	6
32	PP-2140	Nozzle to U 6mm X 2.0 Blue Hose	6
33	PP-2161	Regulator Barb Adaptor	6



Item	Part Number	Description	Qty.
34	PP-2140	Regulator to U 6mm X 5.0 Blue Hose	6
35	PP-2140	Regulator to Manifold 6mm X 7.0 Blue Hose	6
36	PP-2141	Nozzle to Manifold 8mm X 10.25 Clear Hose	6
37	PP-0280	M5 X 0.8 Fold Over Nut	93
38	PP-2173	6mm Crimp Clamp	18
39	PP-2172	Fan Guard Front	1
40	CFF-6025	Manifold Cover	1
41	CFF-7011	Spray Guard Spacer	6
42	CFF-6034	Lower Drum Support	2
43	PP-0060	Grip	2
44	CFF-5002	Wheel Housing Assembly	1
45	CFF-6027	Drum	1
46	CFF-6031	Drum Top Support	1
47	CFF-6029	Motor Brace	2
48	CFF-6030-V2	Motor Mtg. Plate	1
49	CFF-6032	Drum Ring Front	4
50	CFF-6028	Drum Ring	4
51	CFF-5009	Steering Linkage	1
52	CFF-5010	LH Steering Knuckle Assembly	1
53	CFF-5011	RH Steering Knuckle Assembly	1
54	CFF-6038	Tank Riser	2
55	CFF-6022	Access Panel	1
56	CFF-6039	Shipping Bracket	4
57	CFF-6040	Fill Cover	1
58	CFF-6010	End Plate	1
59	PP-1912	9" Logo Plate	2
60	CFF-5012	Brake Link RH	1
61	CFF-5013	Brake Link LH	1
62	PP-2120	Relay Socket	1
63	PP-2119	Relay	1
64	PP-2131	8mm Tee Fitting	1
65	PP-2114	Float Switch	1
66	PP-2169	1/4NPT 6mm Swivel Elbow	1
67	PP-2149	Water Tank Strainer	1
68	PP-2112	Isolation Stud	4



Item	Part Number	Description	Qty.
69	PP-2148	Air Flow Valve	1
70	PP-2116	Air Pressure Regulator	1
71	PP-2104	.25 Rivet	73
72	BSM-0161	M8 X 1.25 Nylock Nut	8
73	PP-0055	0.5 ID X 1.0 OD X .0625 THK	13
74	PP-1357	1/2 Set Screw Collar	7
75	BSM-0045	M6 X 1.0 X 14 Hex Flange	43
78	BSM-0115	M5 X 0.8 X 12 SHCS	2
79	BSM-0131	M5 X 0.8 Nut	2
81	BSM-0242	M8 X 1.25 FLG Nut	22
83	BS-0072	1/4 Lock Washer	6
84	BS-0155	1/4-20 Hex Nut	4
87	PP-2158	.125 X 1 Cotter Pin	2
88	PP-2141	Air Tank to Tee 7" Clear Hose	1
89	PP-2141	Compressor to Tee 8mm X 15" Clear Hose	1
90	PP-2168	8mm X .25NPT Elbow Swivel	1
91	PP-2163	6mm X .25NPT Straight Push Connect	1
92	PP-2164	8mm X .25NPT Straight Push Connect	3
93	PP-0029	1.50 Din Rail	1
94	BSM-0197	M5 Star Washer	2
95	BS-0109	#10 X .25 Self Tapper	1
96	BS-0165	.5" Ext. Retaining Ring	4
97	PP-2101	.375 Set Screw Collar	4
98	PP-2139	.563 X 3.0 Compression Spring	2
99	PP-2162	.64 X 4 Extension Spring	2
100	PP-2159	.5 X 2.0 X 3.0 Foam	6
101	PP-0023	Cord Grip	3
105	BS-0249	.125 NPT Plug	1
106	PP-2146	8mm X .125NPT Swivel Elbow	1
107	PP-2145	6mm X .125NPT Swivel Elbow	1
108	PP-2163	6mm X 1/8NPT Straight Push Connect	6
109	PP-2164	8mm X 1/8NPT Straight Push Connect	6
110	PP-2141	Manifold to Filter 8mm X 33" Clear Hose	1
111	PP-2140	Manifold to Filter 6mm X 39" Blue Hose	1
113	BSM-0287	M5 Fender Washer	6



Item	Part Number	Description	Qty.
114	PP-2123	Green Rocker Switch	1
115	PP-2124	Blue Rocker Switch	1
116	PP-2155	3-Position Rocker Switch	1
119	PP-2125	Cord Wrap Knob	2
120	BS-0036	1/4-20 X .50 HHCS	2
121	PP-2121	GFCI Receptacle	1
122	PP-2122	Receptacle Cover	1
123	PP-0487	M800 Guard Rivets	8



## **NOTES**



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