

# **PowerJet**

**PRESSURE CLEANING SYSTEMS**

## **OWNER'S MANUAL**

*Industrial Hot Water Electric Driven Natural Gas  
and Propane Fired*



1-877-765-9211 • [service@powerjetpressure.com](mailto:service@powerjetpressure.com) • [www.powerjetpressure.com](http://www.powerjetpressure.com)

*More than just a name...IT'S THE POWER YOU NEED*

# PowerJet Pressure Cleaning Systems

**1-877-765-9211**

**This manual contains operational information that is specific for  
the gas fired, electric driven models.**

**Read the following instructions carefully before attempting to assemble,  
install, operate or service this pressure washer. Failure to comply with these  
instructions could result in personal injury and/or property damage.**

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## **IMPORTANT SAFETY INFORMATION**

The safe operation of our pressure washing systems is the **FIRST** priority of PowerJet. This will only be achieved by following the operation and maintenance instructions as explained in this manual and all other enclosed manuals.

This manual contains essential information regarding the safety hazards, operations, and maintenance associated with this machine. The manual should always remain with the machine, including if it is resold.

**ALL CAUTIONS AND SAFETY WARNINGS MUST BE FOLLOWED TO AVOID INJURY OR DAMAGE TO EQUIPMENT.**

**THIS EQUIPMENT IS TO BE USED ONLY BY TRAINED OPERATORS AND MUST ALWAYS BE ATTENDED DURING OPERATION.**



**WARNING:** To reduce the risk of injury, read operating instructions carefully before using.

1. Read the instructions in this manual carefully before attempting to assemble, install, operate or service this pressure washer. Failure to comply with the instructions could result in personal injury and/or property damage.



**WARNING:** Use protective eyewear and clothing when operating equipment in order to avoid personal injuries.



**WARNING:** This machine exceeds 85db. Appropriate ear protection must be worn.



**WARNING:** Risk of explosion. Operate only where open flame or torch is permitted.

**WARNING:** Flammable liquids can create fumes which can ignite, causing property damage or severe injury.

2. Be thoroughly familiar with all controls and know how to stop the machine in the event of an emergency.



**WARNING: Dangerous Gases**

3. If you smell gas, shut off the gas supply to the appliance, extinguish any open flame, and test all joints with a soap solution. If the odor persists, call your gas supplier immediately.



**WARNING: Keep water spray away from electrical wiring.**

4. All electrically powered equipment must be grounded at all times to prevent fatal electric shocks. Do not spray water on or near electrical components. Do not touch electrical components while standing in water or when hands are wet. Always make sure machine is disconnected from power source before servicing. Ensure machine is plugged into a ground fault interrupter.



**WARNING: Risk of asphyxiation. Use this product only in a well-ventilated area.**

5. Use equipment in a well-ventilated area to avoid carbon monoxide poisoning or death. This machine must never be connected to a Type B gas vent.



**WARNING: Risk of injection or severe injury to persons. Keep clear of nozzle spray.**

6. High pressure spray can cause serious injuries. Never point pressurized spray at any person or animal. Handle the spray assembly with care.



**WARNING: Risk of injury. Hot surfaces can cause burns.**



**WARNING: Hot discharge fluid. Do not touch or direct discharge stream at persons.**



**WARNING:** Trigger gun kicks back. Hold with both hands.

7. Hold firmly to the gun and wand during start up and operation of the machine. Do not attempt to make adjustments while the trigger gun is in operation.

8. Make sure all quick coupler fittings are properly secured before operating pressure washer.



**WARNING:** Risk of injury from falls when using ladder.

9. Do not overreach or stand on anything unstable. Keep a good balance and make sure to keep a steady footing at all times.



**WARNING:** Protect from freezing.

10. It is important to keep your machine from freezing in order to keep it in its best working condition. Failure to protect your machine from freezing may cause damage to the machine and personal injuries may occur as a result.



**WARNING:** High Voltage

11. For machines with an electric motor or 120v burner – **THE MACHINE MUST BE ELECTRICALLY GROUNDED.** Must be connected to a GFCI (Ground Fault Circuit Interrupter). All Service Must be done with the machine disconnected from the supply circuit.

12. Belt guard is integrated into shroud, revealing moving parts when opened. **DO NOT OPERATE MACHINE WHEN SHROUD IS OPEN.**

13. Protect high pressure hoses from sharp objects and vehicles. Inspect condition of hoses prior to use, or serious injury could occur.

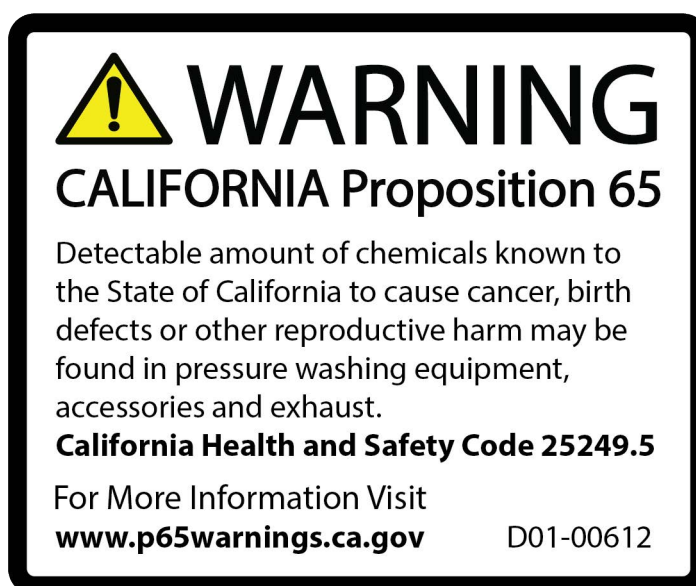
14. Do not pass acids or other caustic or abrasive fluids through the pump.

**15. Never run pump dry of water or oil or let the pump run with the trigger released for more than 2 minutes.**

**16. Do not attempt to operate this machine if fatigued or under the influence of alcohol, prescription medications, or drugs.**

**17. Some of the maintenance procedures involved in this machine require a certified technician (these steps are indicated throughout this manual). Do not attempt to perform these repairs if you are not qualified.**

**If you need further explanation of any of the information in this manual, suspend any activity involving the equipment and call our toll free number for assistance, 1-877-765-9211.**



## **MODEL SPECIFICATIONS**

<b>Industrial Hot Water Electric – Natural Gas and Propane Fired</b>						
<b>MODEL</b>	<b>GPM</b>	<b>PSI</b>	<b>BTU</b>	<b>DRIVE</b>	<b>HP</b>	<b>VOLTAGE</b>
PJN2015-1	2	1500	195,000	DIRECT	2	120V-1PH
PJN3524E-1	3.5	2400	290,000	DIRECT	5	220V-1PH
PJN3530E-1	3.5	3000	290,000	DIRECT	7.5	220V-1PH
PJN4002F-1	4	2000	390,000	FLANGE/COUPLING	5	220V-1PH
PJN4002-1	4	2000	390,000	BELT	5	220V-1PH
PJN4002F-3	4	2000	390,000	FLANGE/COUPLING	5	208/440/575 V-3PH
PJN4002-3	4	2000	390,000	BELT	5	208/440/575 V-3PH
PJN4003F-1	4	3000	390,000	FLANGE/COUPLING	7.5	220V-1PH
PJN4003-1	4	3000	390,000	BELT	7.5	220V-1PH
PJN4003F-3	4	3000	390,000	FLANGE/COUPLING	7.5	208/440/575 V-3PH
PJN4003-3	4	3000	390,000	BELT	7.5	208/440/575 V-3PH
PJN5003-1	5	3000	390,000	BELT	10	220V-1PH
PJN5003-3	5	3000	390,000	BELT	10	208/440/575V-3PH
PJN5003-HT-1	5	3000	510,000	BELT	10	220V-1PH
PJN5003-HT-3	5	3000	510,000	BELT	10	208/440/575 V-3PH
PJN4004F-1	4	4000	390,000	FLANGE/COUPLING	10	220V-1PH
PJN4004-3	4	4000	390,000	BELT	10	208/440/575 V-3PH
PJN8002-1	8	2000	720,000	BELT	10	220V-1PH
PJN6036-3	6	3600	560,000	BELT	15	208/440/575 V-3PH
PJN8003-3	8	3000	720,000	BELT	15	208/440/575 V-3PH
PJN8036-3	8	3600	720,000	BELT	20	208/440/575 V-3PH
PJN1030-3	10	3000	940,000	BELT	20	208/440/575 V-3PH
PJN1225-3	12	2500	940,000	BELT	20	208/440/575 V-3PH
PJN5005-3	5	5000	510,000	BELT	20	208/440/575 V-3PH
PJN4006-3	4	6000	390,000	BELT	20	208/440/575 V-3PH
PJN4007-3	4	7000	390,000	BELT	20	208/440/575 V-3PH
PJN8008-3	8	8000	720,000	BELT	50	440/575 V-3PH

**\*If you have purchased a propane fired system, the model number will start with “PJP” rather than “PJN”.**

# **PowerJet Pressure Cleaning Systems**

## **1-877-765-9211**

### **INTRODUCTION**

Thank you for selecting a quality PowerJet product. We are pleased to have you included among the many satisfied owners of PowerJet cleaning machines. Years of engineering have gone into the development of these fine products and only top quality components and materials are used throughout. Each machine is carefully tested and inspected before leaving our plant to ensure years of dependable performance.

To continue to receive satisfactory performance, remember that this machine represents a substantial investment on your part, and if properly cared for and maintained, it will return this investment many times over. As with all mechanical equipment, your machine requires proper operation and maintenance as outlined in this manual for maximum trouble free life.

This manual has been prepared under the direction of our engineering and service technicians. Their experience in designing, manufacturing, installing and servicing our equipment from our company's inception is condensed in this manual. They know what information the user needs in order to get the optimum performance from their pressure washer. Please read carefully.

This manual contains information that will be specific for your pressure washer as well as similar models.

Carefully review any additional manuals that have been included with your system, and follow ALL ADDITIONAL OPERATING INSTRUCTIONS AND SAFETY NOTICES. They are specific for the quality components that have been used to manufacture your machine and are an integral part of the operating and maintenance procedures.

The management & staff at PowerJet are proud of the equipment that we design and manufacture and we thank you for making us your #1 choice in pressure washers. If you have any questions please do not hesitate to call us at 1-877-765-9211.

Our goal is that you will be satisfied with the performance, quality, and service you receive from PowerJet and that if you need to replace this machine in years to come, you will give us the opportunity to continue supplying equipment to your company.

**PLEASE READ MANUALS CAREFULLY BEFORE USING MACHINE. EXAMINE MACHINE AND CRATE CAREFULLY FOR SHIPPING DAMAGE OR MISSING**

**PARTS. REPORT PROMPTLY ANY SHORTAGES OR DAMAGES TO FREIGHT CARRIER OR DEALER AND TO POWERJET TO PURSUE A CLAIM.**

## **OPERATING INSTRUCTIONS**

**1. Perform pre-start maintenance** inspection on all applicable systems prior to operating machine. This is essential for the safe, effective, and efficient operation. You will get optimum performance from your system **ONLY** if these instructions and inspections are followed. Any indication that the pressure washing system was not operated and maintained according to these instructions may cancel the manufacturers' warranty.

**Location** – See Installation Instructions in the included Water Heater Manual.

**Controls** – Make sure all controls are turned to off position.

**Pump – Oil level** - Level the pressure washer. Be sure oil level in pump is correct on dip stick. If the level is low, add the correct oil to the proper level. **USE ONLY SAE 30 W NON-DETERGENT OIL OR HYDRAULIC 68. DO NOT OVER FILL.**

**Visually inspect all electrical components to assure they are in good condition, showing no signs of exposure, breakage or splicing.**

**Visually inspect all hoses, nozzles and guns to assure they are in good condition. If replacements are necessary they must be rated to withstand machine's maximum operating pressure and temperature.**

**2. Attach high-pressure hose** to hot water outlet quick connector. Attach the other end of high pressure hose (with quick coupler) to spray gun. Ensure that quick disconnect connections are tightly locked together. Apply a sharp pull on hose to confirm they are secured.

**Attach wand nozzle** specific to task requirements (i.e. chemical or pressure wash).

[Quick Coupling Operation – Pull back sleeve end and insert male end into nozzle quick coupler, release sleeve and confirm connection by pulling on nozzle].

**3. Attach water source** to water inlet located in front of float tank. The water source must be attached with a good quality standard garden type hose (1/2" minimum is required). Connect male fitting into female pump inlet fitting. Make sure that the inlet screen/filter is intact and fitted correctly. Turn on water source. **WATER MUST BE IN SUFFICIENT SUPPLY AND PRESSURE MUST BE BETWEEN 20 –60 PSI TO ENSURE PROPER AND SAFE OPERATION.** Specific attention should be given if using a well water supply. Ensure water is flowing from end nozzle with the trigger gun pulled. Deplete system of all air.

4. **Start electric motor and switch on burner.** PUMP and BURNER switches are located on electrical box. For Manual Stop/Start: Turn BURNER switch to 'PUMP', adjust the burner thermostat to desired temperature, then turn BURNER switch to 'BURNER'.

For Auto Stop/Start: Turn PUMP switch to 'ON', adjust burner thermostat to desired temperature, then turn BURNER switch to 'ON'.

### 5. Burner operation

Be sure water is flowing through water heater coil before turning on burner switch. Turn thermostat to desired temperature. Burner will ignite and remain in operation as long as there is sufficient water flow to satisfy pressure switch and outlet temperature is below the thermostat set point.

IF YOU EXPERIENCE IGNITION FAILURE, DO NOT ATTEMPT TO RESTART BURNER! EXCESS FUEL AND VAPORS MAY HAVE ACCUMULATED, AND THE CHAMBER MAY BE HOT. THE UNIT MUST COOL DOWN BEFORE RESTART CAN BE ATTEMPTED.

### Warning: Condensation on Coil

When cold water is being pumped through heater coil, and burner is firing, condensation may form at times on coil and drip down into the burner compartment. This can be particularly noticeable on cold, humid days giving the false appearance of a leaking coil. A leaking coil or system will be evident if the pump keeps cycling with the wand off. Pump head pressure should read '0'.

**WARNING: All electrically powered units must be provided with suitable overload and overcurrent protection in accordance with the Canadian Electrical Code part 1. Confirm the GFCI (Ground Fault Circuit Interrupter) is in good working order (press the test button and reset).**

6. **Pressure adjustment** - The pressure regulator (unloader) is located on pump (see pump assembly diagram). It controls pressure being generated by the pressure washer. This regulator may be adjusted to desired pressure by turning the adjustment knob. Turning the adjustment knob clockwise will increase the pressure. **NEVER OPERATE SYSTEM AT A HIGHER PSI THAN THE MAXIMUM RATING.** This machine has been adjusted to operate at a specific maximum pressure as per machine specifications. Pressure may be reduced for lighter use by turning the Pressure Regulator/Unloader counter clockwise. If continuing to turn the unloader clockwise does not increase the pressure, then this implies the maximum has been reached for the system. Any further turning of the unloader will cause the pressure to spike when the wand trigger is released, resulting in possible damage to the machine. To avoid this effect, loosen the unloader (counter-clockwise) until the pressure just starts to drop (see pump head pressure gauge) and until it no longer exceeds the maximum pressure rating for the machine.

7. **You are now ready to start the cleaning operation** - Pull trigger on pressure wand assembly to start cleaning. To stop the pressurized water, release the trigger. **DO NOT LEAVE UNIT RUNNING WHEN NOT IN USE.**

8. **To stop Operation** – turn BURNER switch to ‘OFF’. Allow motor to continue running. Pull gun trigger to allow water to run through coil for approximately 2 minutes prior to completely shutting off system. This process will allow coil to cool down. After the cooling period is complete, turn off motor and pump by turning PUMP switch to ‘OFF’. Squeeze and release trigger for the second time in order to relieve pump system of pressure.

9. **Prior to storage** – Inspect the pressure washer for any damage or required maintenance. Do not expose machine to temperatures below freezing (0°C/32°F).

10. **Warning** – If unit is left running while not in use, pump damage will occur. Do not leave unit running while not in use!

## **CHEMICAL APPLICATION**

### **Downstream Chemical Injection: Standard (Direct Drive Units) High Pressure Soap (Belt and Flange Driven Units)**

**NOTE: Do not remove back flow preventer as chemical may flow back into potable water source. For standard chemical injection, ensure the black nozzle is properly fitted at the end of the wand. The chemical injector will not function if this nozzle is not fitted.**

1. Chemical preparation – Select detergent/chemical that best suits your cleaning task. Prepare dilution according to the manufacturer’s instructions. The volume of chemical being used may be adjusted at valve located on the chemical injector. Note: for EK Pumps, the volume is preset and cannot be adjusted.
2. Insert the intake hose, located on the chemical injector at the pump, into the chemical being used.
3. Fit black nozzle on the standard wand, or for the dual wand, turn adjustment knob on, and adjust for required flow rate. For high pressure soap systems, the black nozzle is not needed; use one of the other wand nozzles.
4. To apply chemical, engage trigger on pressure wand assembly. Turn chemical injector’s nipple to adjust flow. For the high pressure soap systems, open ball valve and engage trigger.
5. Chemical can now be applied through pressure wand assembly. It will take 5 – 15 seconds for chemical to travel to spray nozzle. The volume of chemical being used may be adjusted at the chemical injector.
6. For best results apply chemical from bottom to top, and allow for proper penetration time prior to rinsing. Do not allow chemical to dry. Rinse from bottom to top and then top to bottom.

## **GENERAL MAINTENANCE**

### **Burner Maintenance**

Repair of the burner is to be done by authorized and trained burner professionals only. See the included hot water heater manual for more information.

### **Water Condition**

Use a softener on your water system if local water is known to be high in mineral content. The advantages of soft water are very beneficial: prevents scale buildup in heater coil, cleans better with considerably less detergent, prevents streaking on painted surfaces and glass when rinsing.

### **Descaling Heater Coil**

Descaling of the heater coil is to be done by authorized and trained burner professionals only. See the included water heater manual for more information.

## **MAINTENANCE CHECKLIST**

### **Daily**

1. Check pump oil for proper level and adjust accordingly.
2. Check pump for oil and/or water leaks.
3. Inspect and clean inlet filters.

### **Weekly**

1. Examine all fittings, components, hoses, connections, and nozzles for damages, loose parts, or leaks. – Replace accordingly—

### **Recommendation for Oil Changes and Component Replacement**

1. Change the oil in the pump after the first 50 hours and every 500 hours after the initial oil change. Use SAE 30 W Non-Detergent for GP Pumps and Hydraulic 68 for EK pumps.
2. Change all other components on the pump as needed.

## **GLOSSARY OF TERMS**

**AUTO START/STOP** – Unit will automatically start when the trigger is pulled, and it will stop the motor on time delay after the trigger has been released in order to prevent the pump from bypassing and overheating.

**PSI** – Pounds per square inch. Pressure washers are designed and rated to operate at a specific PSI. Operating at pressures exceeding the maximum rating could result in damage to the unit and/or SEVERE PERSONAL INJURY.

**GPM** – Gallons per minute. The orifice on the pressure wand assembly has been selected to deliver up to the maximum GPM for your machine.

**PRESSURE WAND ASSEMBLY** – This refers to the gun, wand, and nozzle.

**PUMP** – The pump moves the water through the system and delivers it to the pressure wand assembly.

**UNLOADER VALVE** – Is a valve located at the head of the pump for unloading water back into the bypass when the trigger gun is shut off. It also reduces the load on pump when gun is off.

**OIL, PUMP** – The oil used within the pump to lubricate its operation. It is important to use only SAE 30 W Non Detergent (GP Pump) or Hydraulic 68 (EK Pump) in the pump.

**BURNER** – The burner heats the water in hot water pressure washers. It is located under the coil.

**BACK FLOW PREVENTER** – Device to prevent flow backwards into potable water supply.

**MAXIMUM WORKING PRESSURE** - The water heater coils are designed to operate safely at normal working pressures. Each machine is equipped with a safety pressure relief valve which prevents over pressurization of the high pressure system. It is an important safety device and must not be tampered with in any way.

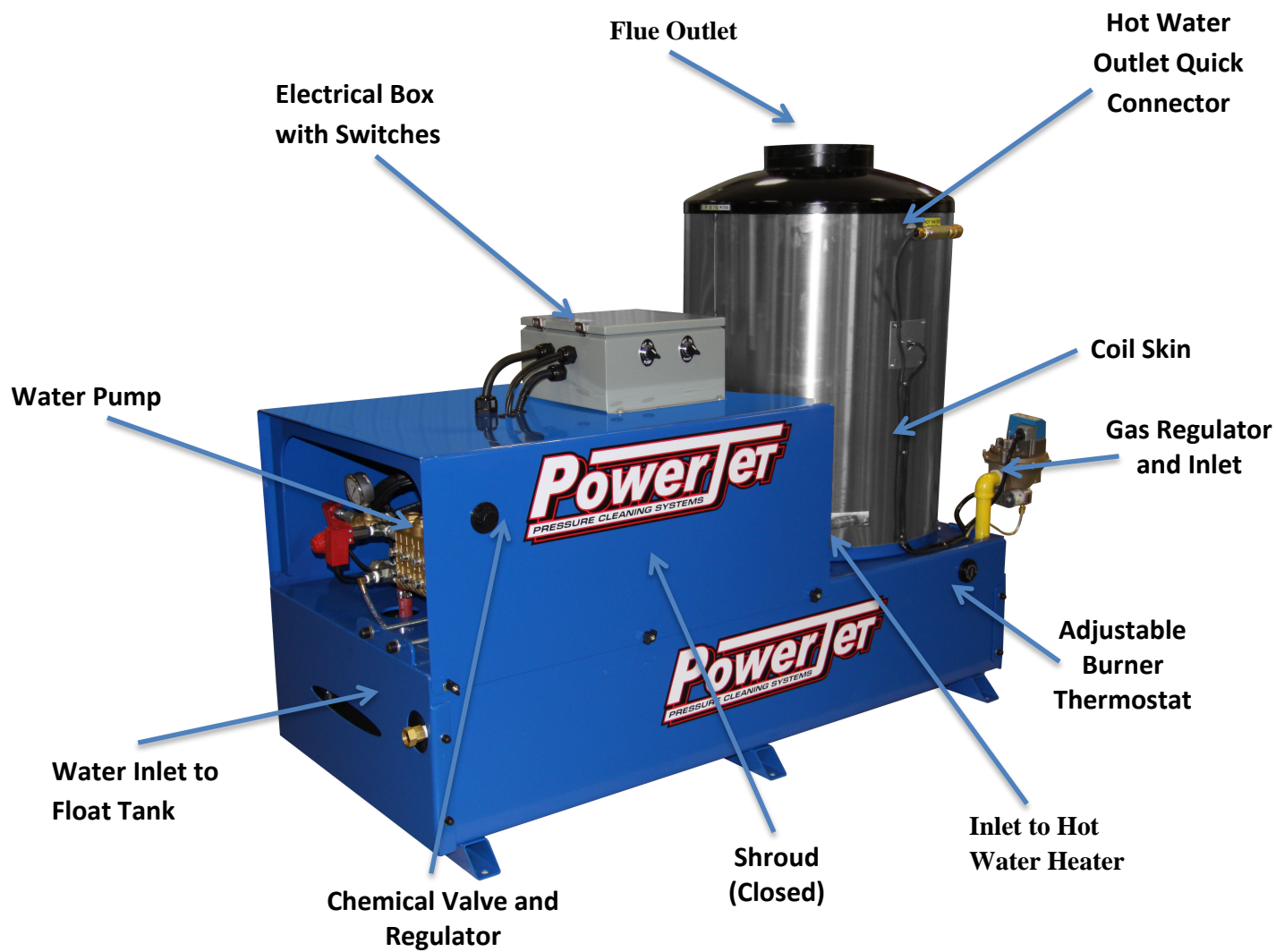
**TEMPERATURE CONTROL** - The water heater is equipped with a temperature control which shuts down the burner in the event of excessive outlet temperature caused by insufficient water flow through the heater coil.

**PRESSURE SWITCH** - A high pressure switch is used to control the burner. It is part of the burner control system (see pump assembly diagram).

**FLOW SWITCH** - A flow switch is installed on the outlet of the water pump and will shut off the pump and motor in the absence of water flow as well as turning it back on when flow is detected (by squeezing the wand trigger).

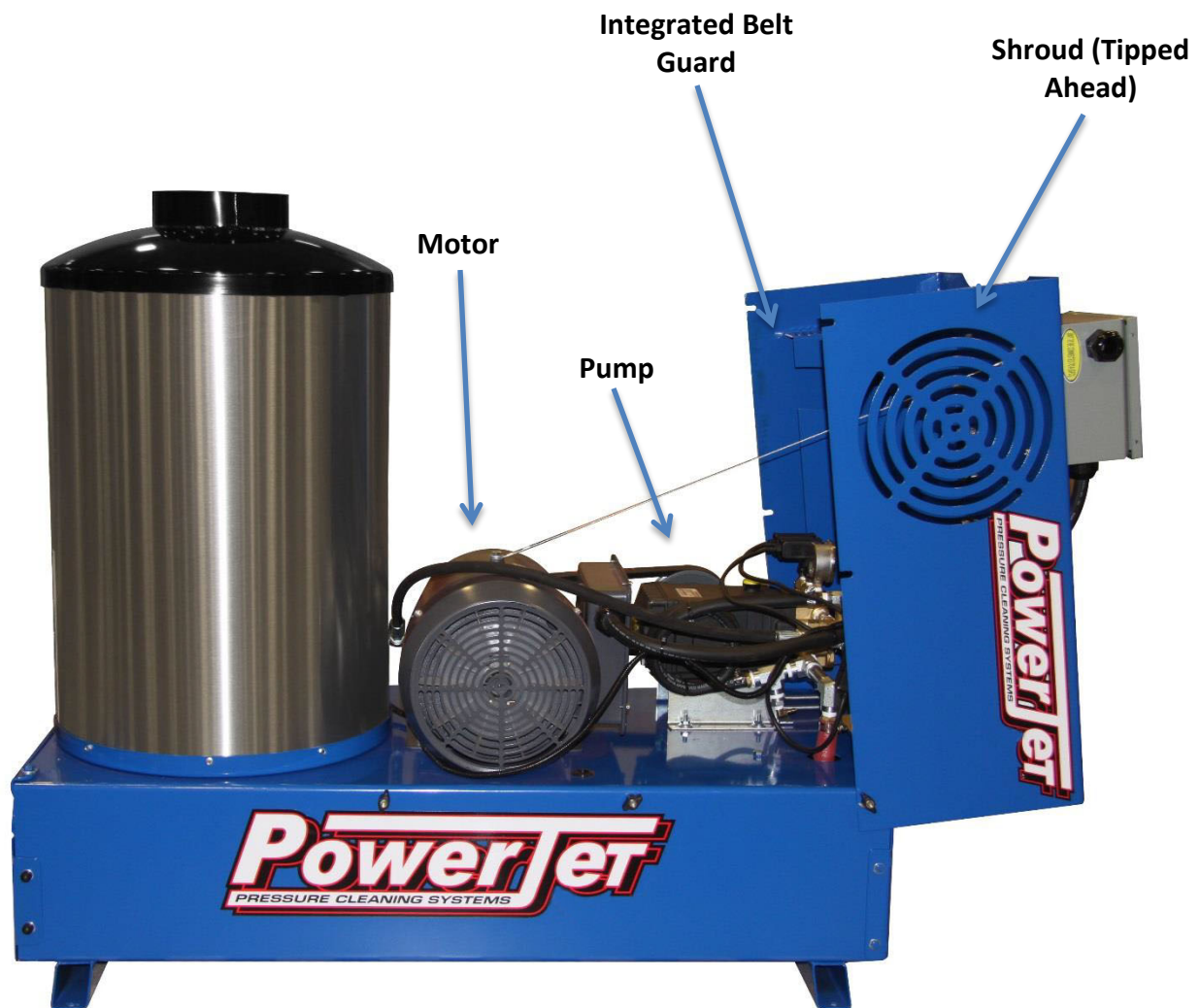
## COMPONENT IDENTIFICATION

### Closed Shroud:

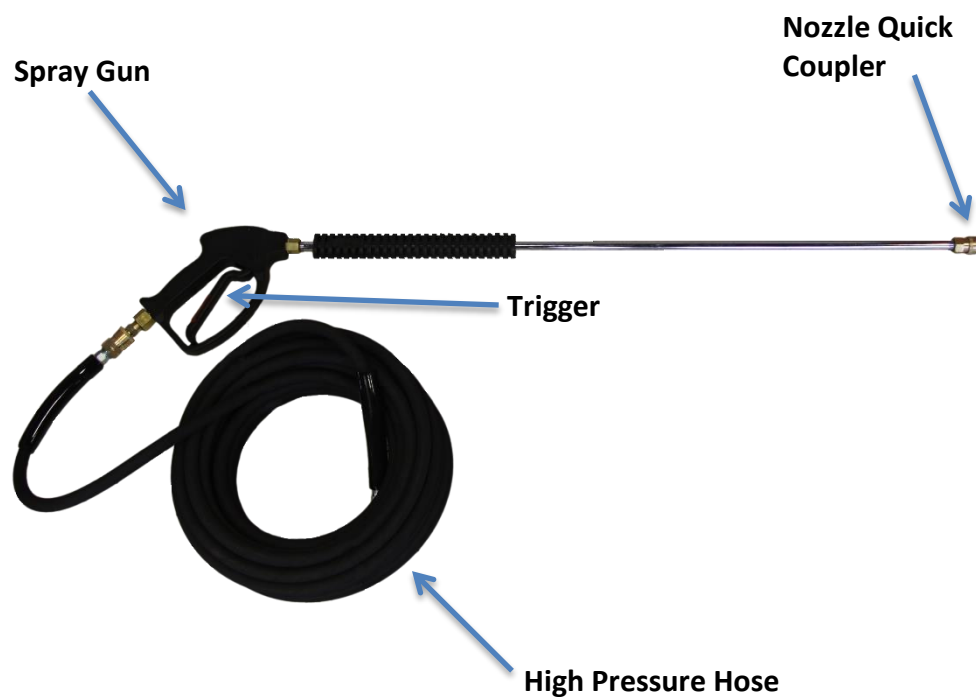


**PUMP & BURNER  
Switches**

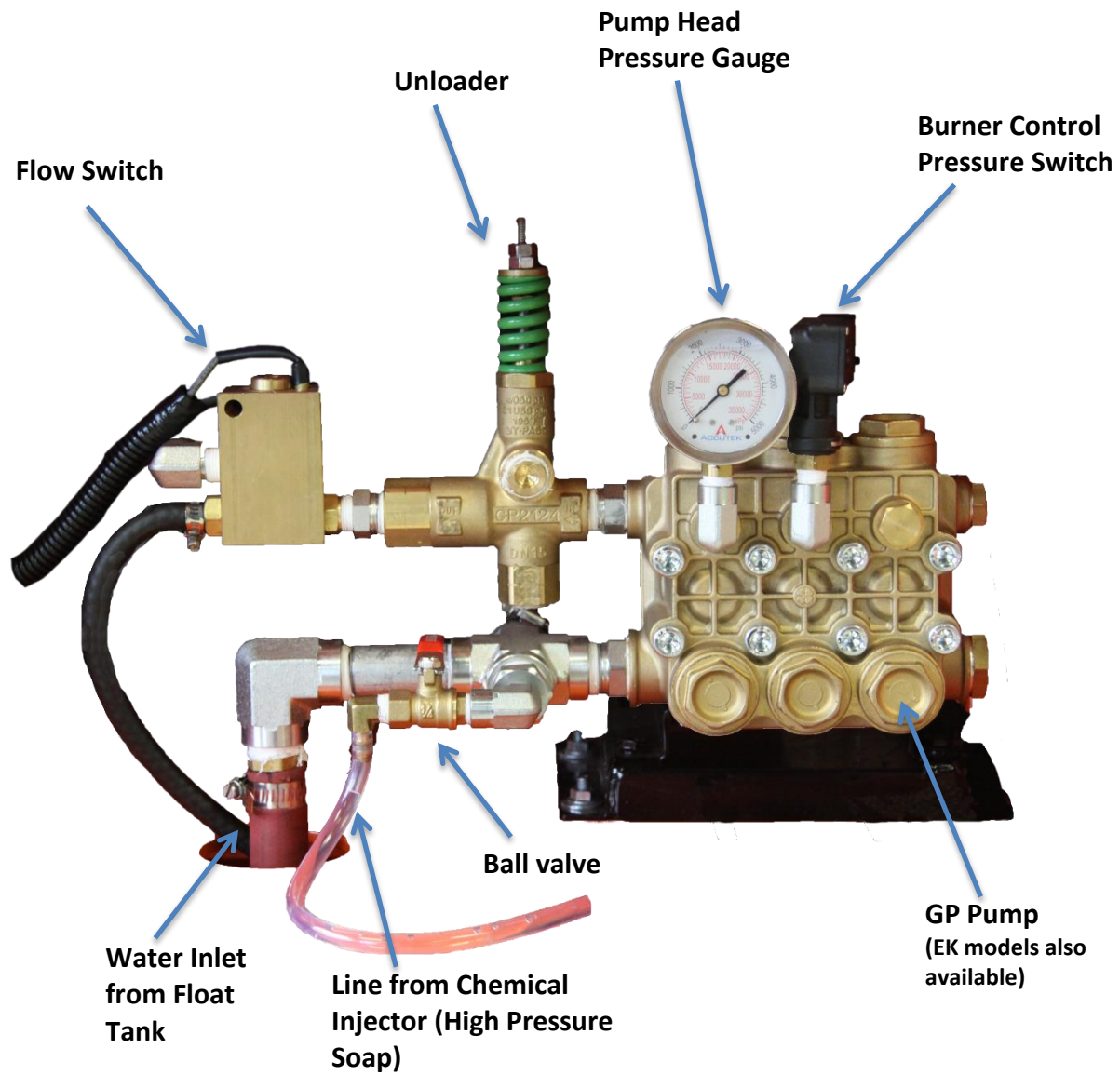
## Open Shroud:



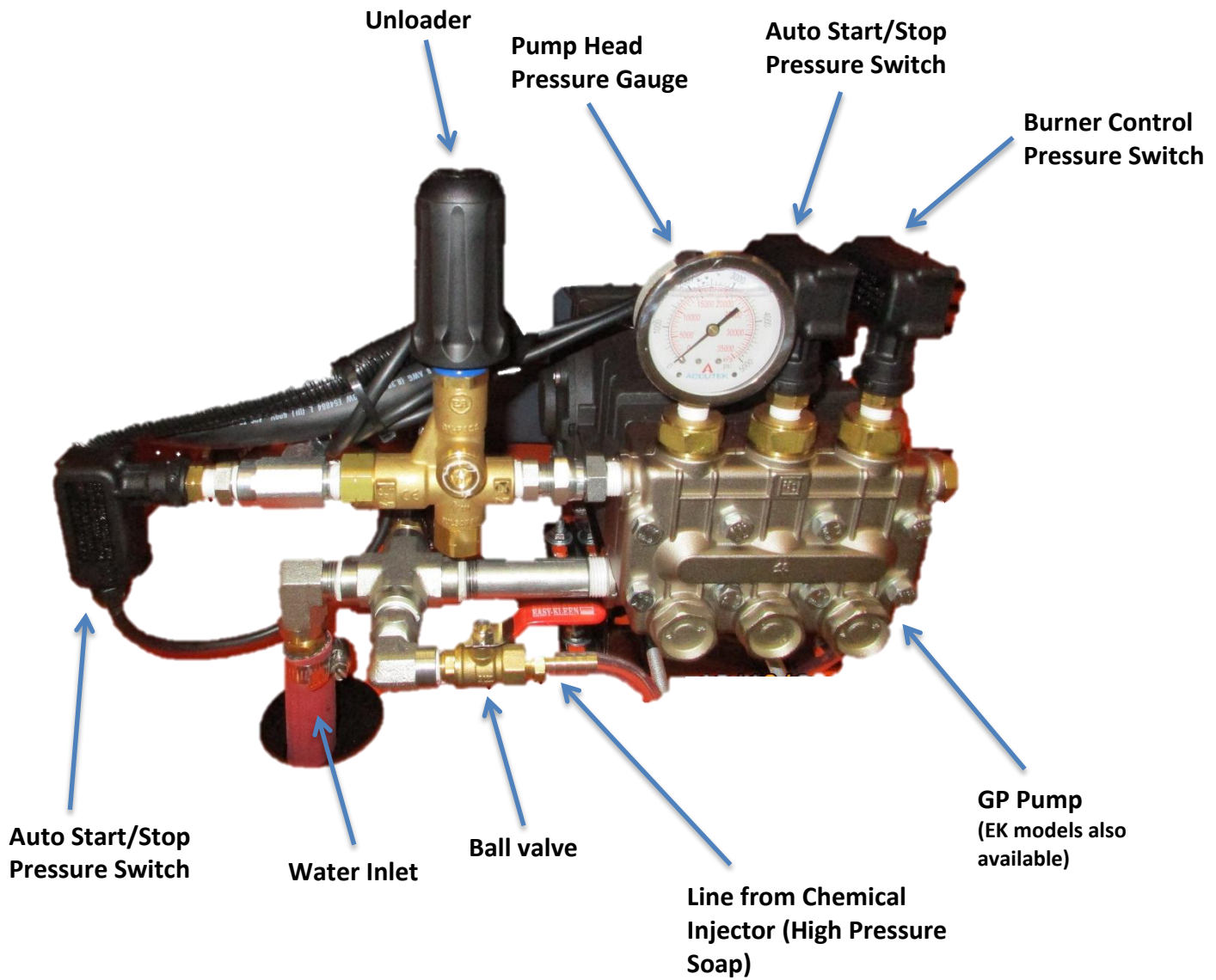
## Pressure Wand Assembly:



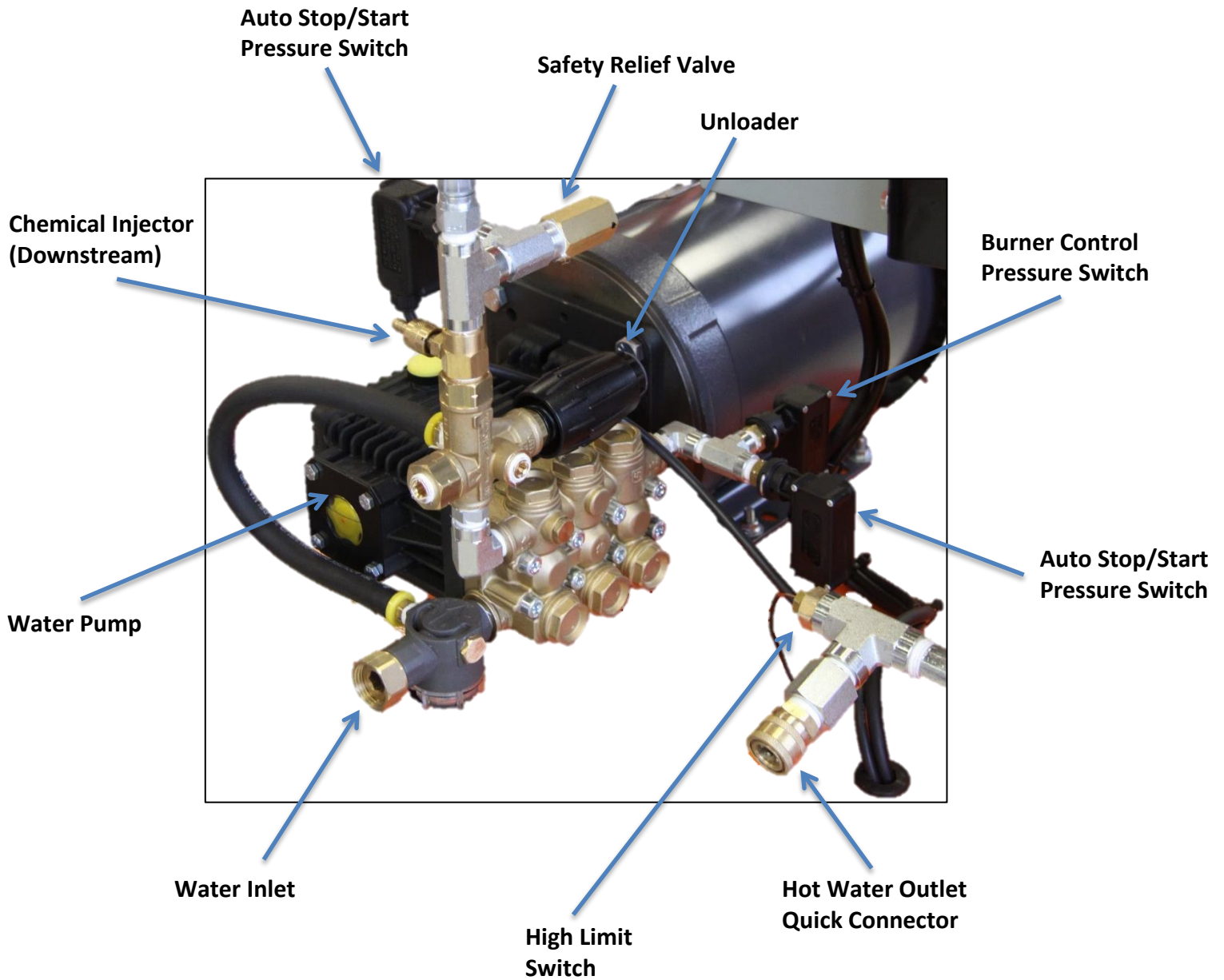
## Flow Activated Pump Assembly:



## Pressure Switch Pump Assembly:



## Direct Driven Pressure Switch Pump Assembly:



## **QUICK DIAGNOSTICS AND SOLUTIONS GUIDE**

<b>PUMP</b>		<b>TYPE OF OIL</b>
<b>EK Pump</b>		<b>Hydraulic 68 (650ml)</b>
<b>GP Pump</b>		<b>30W SAE Non-Detergent</b>
<b>PROBLEM</b>	<b>POSSIBLE CAUSES</b>	<b>SOLUTIONS</b>
<b>PRESSURE</b>		
<b>No pressure or Very low pressure</b>	<b>Metal in oil</b>	<ul style="list-style-type: none"> <li>- Examine oil in pump to see if there is metal in the oil.</li> <li>- If you find traces or pieces of metal, your pump has damaged components.</li> </ul>
	<b>Dirt in water</b>	<ul style="list-style-type: none"> <li>- Verify if there is dirt in nozzle tip or in valves in the pump.</li> <li>- If nozzle is plugged, clean it or replace it.</li> <li>- If valves in pump are clogged, clean valves.</li> <li>- If the valves in pump are damaged or pitted, replace valves.</li> </ul>
	<b>Wrong nozzle size</b>	- Make sure you have the right nozzle size. The black nozzle will drop pressure in order to use chemical injector and is only for soap or chemical. If you are not using soap, use a different color.
<b>Pressure too high</b>	<b>Wrong nozzle size</b>	- Make sure you have the right nozzle size.
	<b>Unloader adjusted improperly or damaged</b>	<ul style="list-style-type: none"> <li>- Check pressure of pump with a pressure gauge and adjust to desired pressure.</li> <li>- If you cannot reduce pressure, replace unloader.</li> </ul>

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
<b>BURNER</b>		
<b>No hot water</b>	<b>Damaged thermostat</b>	<ul style="list-style-type: none"> <li>- Make sure thermostat is connected properly.</li> <li>- If burner fan does not come on when you turn the thermostat dial, replace thermostat.</li> </ul>
	<b>Damaged pressure switch</b>	<ul style="list-style-type: none"> <li>- Make sure the pressure switch is connected properly to burner unit. Take cover off pressure switch by unscrewing the 4 screws on the front part of the switch (switch is located on pump). Without touching the contacts that conduct current, push on the little button found on the micro switch (button is located directly above the part that attaches directly into pump).</li> <li>- If burner comes on, replace pressure switch.</li> <li>- If burner does not come on, make sure there is current going through switch (consult a professional for this if you do not know how to do this properly as you can get severely injured by the electrical current connected to your machine). If current properly flows through pressure switch to burner, check ignitor.</li> </ul>



## *Manufacturer's Warranty*



Thank you for your purchase of a PowerJet pressure cleaning system.

All original equipment are warrantied for a specific period and on the conditions set forth, that the product is free from defect in materials and workmanship as follows:



WARRANTY TIME LINE		DESCRIPTION	FROM PURCHASE
Electric Motors	1 Phase		18 Months
	3 Phase		24 Months
	For warranty of these items, manufacturer needs to be contacted		
Oil Burners	Ignitors, Fuel Solenoid, Burner Motor, Fuel Assembly, Drive Shaft, Electrodes, Blower, Wheel Fuel Pump		1 Year for Parts
Propane/Natural Gas Burners	Burner Rings, Gas Valves, Gas Valve Control Board		1 Year
Fitting	All Fittings, Brass, Stainless Steel, Steel, Etc.		30 Days
Heating Coils	*Damage due to neglect, freezing or hardwater is not covered		5 years - limited
Gas Motors	Must contact Honda/Kohler for Warranty		
Lifan Motor	Contact PowerJet for Warranty		1 Year (for commercial use)
Frames	Contact PowerJet for Warranty *Paint is not covered under the manufacturer's warranty due to aggressive environment or natural wear.		7 Years
Plastic Tanks	Water or Fuel		1 Year
Accessories /Wear Items	Unloader, Regulating Valves, Safety Valves, Jetter Valves, Check Valves, Foot Valves, Pulsation Dampeners, Trigger Guns, Rotary Nozzles, Chemical Injectors, Hose (Jetter Hose Not Included), Hose Reels, Sandblast Kits, Surface Cleaner, Water Broom, Water Strainer, Belts, Ball Valves, Swivels, Balanced Relief Valves, Accumulator Lances		90 Days
Electrical Components	Switches, Time Over Loads, Contactors, Transformer, Thermostat, Vacuum Switches, Flow and Pressure Switches, Relays, Primary Controls		90 Days
Non-Warranty Items	Fuel Filters, Nozzles, O- Rings, Thermo Relief Valves (Pump Seals, Valves, Plungers)		
ANY PARTS NOT LISTED ABOVE PLEASE CALL FOR WARRANTY INFO.			

PUMP WARRANTY TIME LINE		DESCRIPTION	FROM PURCHASE
Cat Pumps	Direct Drive Pumps		2 Years
	Car Wash Pumps (Including all models used in Car Wash or Portable Fresh Water Pressure Cleaning applications)		5 Years
	All other pumps not listed above		1 Year
Giant Pumps	Pressure Washer and Self- Serve Car Wash Applications		5 Years
	All other Giant Pumps, Industrial and Consumer Pumps		1 Year
	Lifetime on Manifolds due to Manufacture defects		
AR Pumps	Plunger Pumps		5 Years
	Axial Pumps		1 Year
	AR Accessories		90 Days
General Pumps	Manifolds		5 Years
	Pressure Washer Pumps		5 Years
EK Pumps	Manifolds		5 Years
	Pumps		1 Year
	Accessories		90 Days
Hawk Pumps	Manifolds		5 Years
	Pressure Washer Pumps		5 Years
Manufacturer does not cover wet end of Pump Seals, Valves, and Plungers			

**NOTE: ANY MODIFICATIONS OR MANIPULATIONS OF PARTS VOIDS WARRANTY.**

**What is a Limited Warranty?**

Warranty is a written guarantee by the manufacturer of a product, promising to repair or replace parts which have a defect in material or workmanship. "Limited" means that the Warranty is for a specified period of time, and has certain other restrictions. Parts will be warranted for the time periods specified in this published warranty. Any exceptions must be approved by PowerJet service / warranty department.

**Warranty Start Date**

The warranty coverage begins on the date of original purchase and applies to the original components only.

**Right to Inspect**

PowerJet and its service centers reserve the right to inspect the customer's PowerJet products to determine if a defect in materials or workmanship exists prior to the commencement of any covered repair. It is the customer's responsibility to contact the PowerJet authorized service center and make the arrangements for inspection and/or repair.

**Limitations Of Liability**

PowerJet liability for special, incidental, or consequential damages is expressly disclaimed. In no event shall PowerJet's liability exceed the purchase price of the product in question. PowerJet makes every effort to ensure that all illustrations and specifications are correct, however, these do not imply a warranty that the product is merchantable or fit for a particular purpose, or that the product will actually conform to the illustrations or specifications. Our obligation under this warranty is expressly limited at our option to the replacement or repair at our manufacturer location, if such part or parts at inspection shall disclose to have been defective. PowerJet does not authorize any other party, to make any representation or promise on behalf of PowerJet or to modify the terms, conditions, or limitations in any way. It is the buyer's responsibility to ensure that the installation and use of PowerJet products conform to local codes. While PowerJet attempts to ensure that its products meet national codes, it cannot be responsible for how the customer chooses to use or install the product. **THE WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY.**

**Customer Responsibility**

It is the customer's responsibility to maintain the equipment in accordance with the instructions provided in the manual provided at the time of purchase. PowerJet recommends that you keep records and receipts; you may be asked to prove that the maintenance instructions have been followed. It is also the customer's responsibility to operate the equipment in a safe manner, and for the use for which it was designed. If a defect in materials or workmanship occurs, it is the customer's responsibility to cease operating the equipment until repairs are made. Damage which occurs from continued operation after a defect is identified may not be covered by this warranty. Your authorized service center should be contacted immediately so that repairs can be made in a timely manner.

**Repair at an Authorized Service Center**

To obtain warranty service under the terms and conditions of the PowerJet Limited Warranty, you must deliver portable equipment to an authorized PowerJet service center. For stationary models or instances when delivery is not possible, the customer should make arrangements for a service call from the service center. At the time of repair, you must provide proof of purchase. PowerJet recommends that the service center from whom the machine was purchased be contacted for the warranty repair. If that is inconvenient, any authorized PowerJet service center may complete the repairs. If the service center is requested to complete repairs at the customer's location, please note that the service center may charge for pickup & delivery, or for travel time and mileage. These charges are not covered under the PowerJet Limited Warranty and are the customer's responsibility.

**Changes in this Policy**

PowerJet reserves the right to make any changes to an PowerJet product at any time without incurring any obligation with respect to any product previously, ordered, sold, or shipped.

**Service Parts Warranty**

Service parts are warranted for 90 days from date of purchase. However, if the part is installed on a unit which has more than 90 days remaining on the original warranty, the part is covered according to the chart on the previous page.

**Warranty Repairs**

Repairs covered under the conditions of this warranty must be performed by an authorized PowerJet service center. Warranty claims must first contact PowerJet's Service Department to be issued a preauthorized repair number (PARN). You will need a copy of your invoice and the equipment serial number.

If new parts are needed, they will be invoiced to you as normal. Defective parts are to be sent to us **PREPAID** for warranty consideration. If a part is found to be defective, a credit will be issued to cover the costs of parts. All work is to be performed at the manufacturer's place of business when returned **PREPAID**. This warranty will not cover labor if warranty work is conducted at the customer's place of business. Road service will be charged at the normal rate in these situations.

**Installations, Including OEM**

PowerJet equipment/components are occasionally installed on mobile equipment. PowerJet is in NO WAY responsible or do they warranty/ guarantee that the equipment/components will withstand the customer's application or installation requirement. OEM or Installer are responsible for securing the equipment.

**Note:** Due to original equipment manufacturer's requirements, PowerJet is not permitted to perform warranty repairs or claims for electrical motors, gas, or diesel engines. Please contact PowerJet service department for a local warranty representative.

**Warranty Does Not Cover:**

- The warranty time frame never restarts and is always based on original purchase date, even if parts are issued on warranty.
- Warranty freight cost will be covered by PowerJet for the first 30 days of sale of the machine due to manufacture defect or workmanship.
- Neglect of the periodic maintenance as specified in the owner's manual.
- Improper repair or maintenance.
- Operating methods other than those indicated in the owner's manual.
- The use of non-genuine PowerJet parts or accessories other than those approved by PowerJet.
- Exposure of chemical agents, such as: Sea Water, Sea Breeze, Salt, or other environmental phenomena.
- Collision, fuel contamination or deterioration, neglect, unauthorized alteration or misuse.
- Warranty does not cover travel or time if a service call is needed.
- Warranty does not apply when pump or accessory is altered or used in excess of recommended speeds, pressure, temperatures, or handling fluids not suitable for pump or accessory material.
- Construction warranty does not apply to normal wear.
- Warranty does not apply to normal wear (such as but not limited to seals, packing valves, plungers and sealing O-Rings), freight damage, freezing damage or damage caused by parts or accessories not supplied by PowerJet.
- After 30 days freight will become chargeable.
- Warranty covers In-House Labour and Parts if manufacture defect is repaired at an PowerJet approved Service Center.

**Warranty Does Not Cover Defects Caused By:**

- Improper or negligent operation or installation, accident, abuse, misuse, neglect, unauthorized modifications, including, but not limited to, the failure of the customer to comply with recommended product maintenance schedules.
- Improper repair
- Neglected maintenance/incorrect operation (specified in the Owner/Operator's Manual)
- Unapproved devices or attachments
- Water sediments, rust corrosion, thermal expansion, scale deposits or a contaminated water supply or use of chemicals not approved or recommended by PowerJet.
- Improper voltage, sudden voltage spikes or power transients in the electrical supply
- Usage which is contrary to the intended purpose of the equipment
- Natural calamities or disasters including, but not limited to, floods, fires, wind, freezing\*, earthquakes, tornados, etc.

**Shipping Claims**

**Freight Damage** – is defined by product arriving with observable damage to package and/or product.

- 1.1 Freight damages **MUST** be reported immediately
- 1.2 Damaged packaging must be photographed immediately for records
- 1.3 If freight company is arranged by dealer, then it is incumbent on them to contact their own freight company and file a claim directly with them. If freight was arranged by PowerJet, then contact PowerJet with the following information (regardless of receipt or refusal of shipment).
  - 1.4.1 Purchase order of product
  - 1.4.2 Pictures of damage
  - 1.4.3 List of products affected
    - 1.4.3.1 Model Number of Product
    - 1.4.3.2 Serial Number of Product

**Hidden Damage** - is defined by product arriving and the package having no visible signs of damage. Upon opening the packing damage is noted on the product.

- 2.1 Hidden damage **MUST** be reported immediately.
- 2.2 Hidden damage claims cannot be reported on items received more than 6 months prior.
- 2.3 When hidden damage is discovered, contact PowerJet with the following information.
  - 2.3.1 Purchase Order of product
  - 2.3.2 Pictures of damage
  - 2.3.3 Model number of product
  - 2.3.4 Serial Number of product

**Missing Part Claims**

1. Items missing from Purchase Order **MUST** be reported immediately.
  - 1a. When missing products are noticed, contact PowerJet with the following information
    - i. Purchase Order of product
    - ii. Model number of products that are believed to be missing from shipment

**PowerJet will advise on course of action to remedy situation.**
2. Items missing from inside box of product
  - 2a. When missing products are noticed, contact PowerJet with the following information
    - i. Purchase Order of product
    - ii. Model and Serial number of products
    - iii. Items missing from package

*PowerJet will advise on course of action to remedy situation.*

## **NATURAL GAS INSTALLATION - VENTING**

**VENTING DANGER: DO NOT** run machine indoors or in an enclosed area without proper ventilation, as exhaust fumes may be hazardous to your health.

**DANGER: DO NOT** operate machine in areas where flammable vapors (gasoline, solvents, etc.) may be present, as this machine may ignite the vapors.

**CAUTION:** All venting must be in accordance with applicable federal and state / provincial laws, and local ordinances. This machine is not to be connected to a type B gas vent.

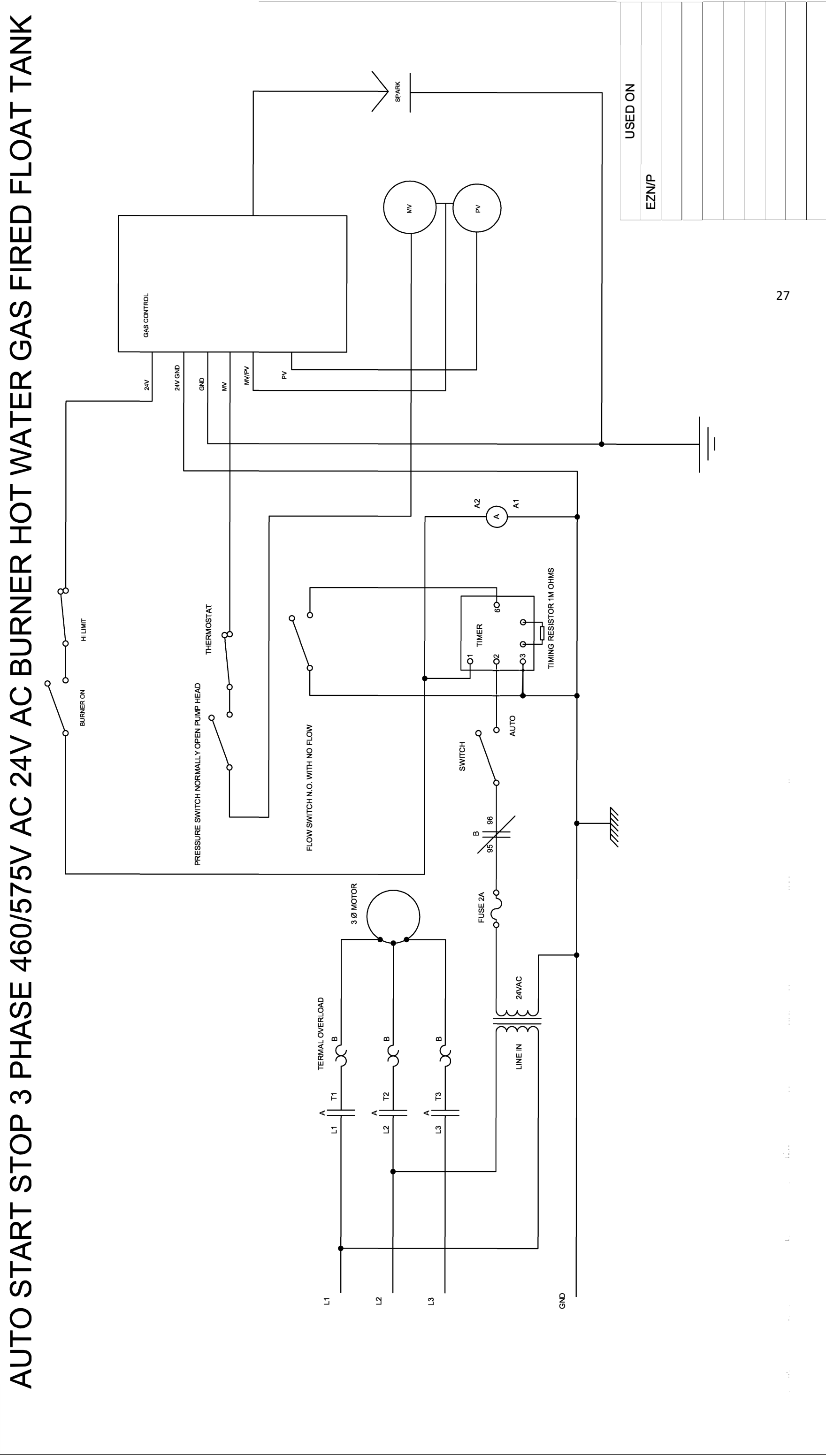
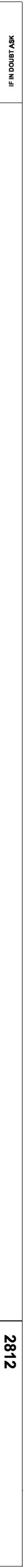
### ***Consult local heating contractors:***

If the pressure washer is to be used in an enclosed area, a flue must be installed to vent burner exhaust to the outside atmosphere. Be sure the flue is the same size as the burner exhaust vent on the pressure washer lid. Poor draft will cause the pressure washer to soot and not operate properly.

When selecting the location for installation, beware of poorly ventilated locations or areas where exhaust fans may cause an insufficient supply of oxygen. Proper combustion can only be obtained when there is a sufficient supply of oxygen available for the amount of fuel being burned. If it is necessary to install the machine in a poorly ventilated area, outside fresh air may have to be piped to the burner and a fan installed to bring sufficient air into the machine. Locate the pressure washer so that the flue will be as straight as possible and protrude through the roof at a proper height and location to provide adequate draft. This oil fired pressure washer must have a draft regulator installed in the flue (available from most heating contractors). A draft regulator will permit proper upward flow of exhaust flue gases.

Easy-Kleen natural and LP gas series pressure washers that incorporate a natural draft burner assembly designed to heat water that comes from the pressure washer pump require a draft diverter and vent pipe for exhausting to the outside. Gas fired machines are to be vented through the ceiling using straight pipe or 45° elbows. Easy Kleen Discourages the use of any 90° venting elbows which restrict air flow through the burner causing poor burner conditions. If this machine is going to be installed to a 90° or extended exhaust vent run length which may restrict air flow it is recommended that a contractor install a power vent. When a contractor has found it impossible to vent through the ceiling then power venting can be calculated to help eliminate exhaust restriction on this natural draft machine.

This draft inducer (power vent) must be installed by a licensed contractor who can calculate size, operation connections, and associated dampeners. Easy-Kleen is not a licensed contractor and as such we are unable to make recommendations for suitable make and model of power vents. It is important that the licensed contractor consult local building codes.

[illegible]

