

Intended Use

The NorthStar 4000 PSI Surface Cleaners are used for the high-pressure cleaning needs of driveways, concrete floors, parking lots, roofs, warehouses, boat ramps, garage floors, boat decks, and other flat surfaces. The benefits of using these products are clear: effective, shorter working times, enormous energy savings and a long useful life due to the high industrial quality.

Technical Specifications

#49429 - 20" Cleaner

Property	Specification
Bearing	Sealed
Maximum Flow	8.0 GPM
Rated Pressure	4000 PSI
Minimum Pressure	1000 PSI
Deck Diameter	20"
Inlet	3/8" NPT-F
Nozzle	925020M (2)
Maximum Temperature	180° F
Ship Weight	19.0 lbs

#49430 - 22" Cleaner

Property	Specification
Bearing	Grease Zerkl
Maximum Flow	8.0 GPM
Rated Pressure	4000 PSI
Minimum Pressure	1000 PSI
Deck Diameter	22"
Inlet	3/8" NPT-F
Nozzle	925020M (2)
Maximum Temperature	180° F
Ship Weight	28.0 lbs

Important Safety Information

▲WARNING

- Read and understand all instructions. Failure to follow all instructions may result in serious injury or property damage.
- The warnings, cautions, and instructions in this manual cannot cover all possible conditions or situations that could occur. Exercise common sense and caution when using this surface cleaner. Always be aware of the environment and ensure that the surface cleaner is used in a safe and responsible manner.
- Do not allow persons to operate or assemble the surface cleaner until they have read this manual and have developed a thorough understanding of how it works.
- Do not modify this surface cleaner in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the product. There are specific applications for which the product was designed.
- Use the right tool for the job. DO NOT attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. It will do the job better and more safely at the capacity for which it was intended. DO NOT use this equipment for a purpose for which it was not intended.
- Industrial or commercial applications must follow OSHA requirements.

▲WARNING

WORK AREA SAFETY

- Inspect the work area before each use. Keep work area clean, dry, free of clutter, and well lit. Cluttered, wet, or dark work areas can result in injury. Using the surface cleaner in confined work areas may put you dangerously close to other cutting tools and rotating parts.
- Do not use the surface cleaner where there is a risk of causing a fire or an explosion, e.g., in the presence of flammable liquids, gases, or dust. The product can create sparks, which may ignite the flammable liquids, gases, or dust.
- Do not allow the product to come into contact with an electrical source. The surface cleaner is not insulated and contact will cause electrical shock.
- Keep children and bystanders away from the work area while operating the surface cleaner. Do not allow children to handle the product.
- Be aware of all power lines, electrical circuits, water pipes, and other mechanical hazards in your work area. Some of these hazards may be hidden from your view and may cause personal injury and/or property damage if contacted.

▲ WARNING

PERSONAL SAFETY

- Stay alert, watch what you are doing, and use common sense when operating the surface cleaner. Do not use the surface cleaner while you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the surface cleaner may result in serious personal injury.
- Dress properly. Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts. Air vents on the surface cleaner often cover moving parts and should be avoided.
- Wear the proper personal protective equipment when necessary. Use ANSI Z87.1 compliant safety goggles (not safety glasses) with side shields, or when needed, a face shield. Use a dust mask in dusty work conditions. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate. This applies to all persons in the work area.
- Do not overreach. Keep proper footing and balance at all times.
- Remove keys or wrenches before connecting the surface cleaner to an air supply, power supply, or turning on the tool. A wrench or key that is left attached to a rotating part of the tool may cause personal injury.
- Secure the work with clamps or a vise instead of your hand when practical. This safety precaution allows for proper tool operation using both hands.

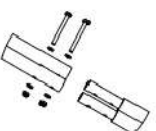
Specific Operation Warnings

▲ WARNING

- DO NOT exceed the rated PSI capacity.
- Keep body parts clear of nozzle heads and away from the skirt while operating the machine.
- DO NOT lift the surface cleaner from the surface or point nozzle heads at people while operating.
- Wear the proper safety gear including ANSI Z87.1 approved safety glasses.
- Use only on hard level surfaces.
- No alterations should be made to this product.
- Only attachments and/or adapters supplied by the manufacturer shall be used.
- Not for use by or around children.

Assembly

1. Bolt the two halves of the handle together with the two M6 x 60mm bolts, nylon nuts, and four washers.



2. Connect the handle to the brackets on the deck with the two 55mm pins and rings.
3. Apply thread sealant to the hose's male threads and connect the hose to the swivel on the deck.
4. Again, using thread sealant, attach the in-line filler to the inlet of the gun.

Before Each Use

- Check for damaged parts before each use. Carefully check that the surface cleaner will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the surface cleaner with a damaged part.

Operating Instructions

▲ WARNING

- Do not leave the cleaner unattended when it is pressurized.
- Do not turn the cleaner over when it is pressurized and connected to an operating pressure washer. Avoid high-pressure spraying water that could cause serious personal injury.
- Do not allow the machine to remain stationary on soft, porous surfaces, like wood.
- Striking any raised obstacle during operation will damage the machine. If contact does occur and results in vibration when operating machine, STOP using the machine and replace the spray bar. Continued operation could result in serious injury or damage to the machine.

1. Connect the inlet filler (D40014 on cleaner #49429; D40015 on #49430) to the FSC gun inlet.



2. Connect the cleaner to a non-operating pressure washer.

3. Turn the water on and open the valve. Open the trigger gun for flow of water through the nozzles. The nozzles must have flowing spray. If not, remove the tips, clean them, and reassemble the nozzles making sure that the groove of the nozzle is parallel to the spray bar. Use thread sealant when reinstalling the nozzles.
4. Start the pressure washer. The surface cleaner is ready for operation.
5. Walk slowly behind the machine, cleaning as you go. If striping occurs, slow down your pace.
6. Periodically check the weep hole on the bottom of the swivel. Water will seep slowly; if water shoots out, stop and replace the seals. The swivel assembly can then be rebuilt.
7. For maximum effectiveness, keep the spray tips clean. If the machine vibrates, stop and clean the spray tips.

After Each Use

- Inspect the cleaner after each use. Clean it and prepare it for the next use.
- Clean out any dirt or foreign material from under the housing and casters. Use a cloth or sponge to wash the surface cleaner and rinse with tap water.
 - Check for loose parts and any damages.

When storing the cleaner for an extended time, it's best to drain as much water from the unit as possible. Disconnect the cleaner from the pump and stand the handle upright. Clamp the gun trigger open and let the water run out. Shop air can also be used in the gun inlet to force out the water.

Store the unit in a dry, secure place out of the reach of children. Inspect the cleaner for good working condition prior to storage and before re-use.

Troubleshooting

▲WARNING

- Do not turn the cleaner over when it is pressurized by connection to an operating pressure washer to avoid high-pressure spraying water that could cause serious personal injury.

If the surface cleaner's rotating arm is not spinning, ensure that the cleaner is not pressurized then tilt it upward so you can see the underside of the deck. If a nozzle is not spraying, it's plugged and needs to be cleaned. The best way to unplug a plug is to remove the nozzle (9/16" wrench) and tap it on a hard surface (being careful not to damage the threads). It may be necessary to unplug the nozzle by running a thin wire through the tip.

Seal the threads before replacing the nozzle. Teflon tape can often clog a nozzle so be sure tape does not get into the nozzle flow path. A light duty liquid or paste thread sealant is the best way to seal the threads (photo).



Replacement Parts

- For replacement parts and technical questions, please call Customer Service at **1-800-222-5381**.
- Not all product components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts in the assembly sequence.
- When ordering parts, the following will be required: model number, serial number/lot date code, description, and reference number.
- The distributor reserves the rights to make design changes and/or improvements to product lines and manuals without notice.