

## Warranty and Service

Please Read This Before Installing Or Operating Pump. This information is provided for **SAFETY and to PREVENT EQUIPMENT PROBLEMS**. To help recognize this information, observe the following symbols:



**IMPORTANT!** Warns about hazards that can result in personal injury or indicates factors concerned with assembly, installation, operation, or maintenance which could result in damage to the machine or equipment if ignored.

**CAUTION !** Warns about hazards that can or will cause minor personal injury or property damage if ignored. Used with symbols below.

**WARNING !** Warns about hazards that can or will cause serious personal injury, death, or major property damage if ignored. Used with symbols below.



*Hazardous fluids can cause fire or explosions, burns or death could result.*



*Extremely hot - Severe burns can occur on contact.*



*Biohazard can cause serious personal injury.*



*Hazardous fluids can Hazardous pressure, eruptions or explosions could cause personal injury or property damage.*



*Rotating machinery Amputation or severe laceration can result.*



*Hazardous voltage can shock, burn or cause death.*

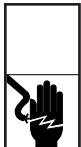


*Toxic Fumes - Breathing can cause nausea, fainting or death.*



*Eye protection required*

Only qualified personnel should install, operate and repair pump. Any wiring of pumps should be performed by a qualified electrician.



**WARNING !** - To reduce risk of electrical shock, pumps and control panels must be properly grounded in accordance with the National Electric Code (NEC) or the Canadian Electrical Code (CEC) and all applicable state, province, local codes and ordinances.



**WARNING!** - To reduce risk of electrical shock, always disconnect the pump from the power source before handling or servicing. Lock out power and tag.



**WARNING!** Operation against a closed discharge valve will cause premature bearing and seal failure on any pump, and on end suction and self priming pump the heat build may cause the generation of steam with resulting dangerous pressures. It is recommended that a high case temperature switch or pressure relief valve be installed on the pump body.



**CAUTION !** Never operate a pump with a plug-in type power cord without a ground fault circuit interrupter.



**CAUTION!** Pumps build up heat and pressure during operation-allow time for pumps to cool before handling or servicing.



**WARNING!** - **DO NOT** pump hazardous materials (flammable, caustic, etc.) unless the pump is specifically designed and designated to handle them.



Do not block or restrict discharge hose, as discharge hose may whip under pressure.



**WARNING!** - **DO NOT** wear loose clothing that may become entangled in the impeller or other moving parts.



**WARNING!** - Keep clear of suction and discharge openings. **DO NOT** insert fingers in pump with power connected.



Always wear eye protection when working on pumps.

Make sure lifting handles are securely fastened each time before lifting. **DO NOT** operate pump without safety devices in place. Always replace safety devices that have been removed during service or repair. Secure the pump in its operating position so it can not tip over, fall or slide.

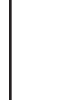
**DO NOT** exceed manufacturers recommendation for maximum performance, as this could cause the motor to overheat.

**DO NOT** remove cord and strain relief. Do not connect conduit to pump.



**WARNING!** Cable should be protected at all times to avoid punctures, cut, bruises and abrasions - inspect frequently. Never handle connected power cords with wet hands.

**WARNING!** To reduce risk of electrical shock, all wiring and junction connections should be made per the NEC or CEC and applicable state or province and local codes. Requirements may vary depending on usage and location.



**WARNING!** Submersible Pumps are not approved for use in swimming pools, recreational water installations, decorative fountains or any installation where human contact with the pumped fluid is common.



**WARNING!** Products Returned Must Be Cleaned, Sanitized, Or Decontaminated As Necessary Prior To Shipment, To Insure That Employees Will Not Be Exposed To Health Hazards In Handling Said Material. All Applicable Laws And Regulations Shall Apply.



Bronze/brass and bronze/brass fitted pumps may contain lead levels higher than considered safe for potable water systems. Lead is known to cause cancer and birth defects or other reproductive harm. Various government agencies have determined that leaded copper alloys should not be used in potable water applications. For non-leaded copper alloy materials of construction, please contact factory.



**IMPORTANT!** - Crane Pumps & Systems, Inc. is not responsible for losses, injury, or death resulting from a failure to observe these safety precautions, misuse or abuse of pumps or equipment.

APPLIES TO ALL PRODUCTS EXCEPT SH, XSH, AND SITHE CHOPPER PRODUCTS

BARNES®

BARNES®  
PRESSURE PS SYSTEMS

CROWN

burks®

WEINMAN®

DEMING®

PROSSER®

## Limited 24 Month Warranty

Crane Pumps & Systems warrants that products of our manufacture will be free of defects in material and workmanship under normal use and service for twenty-four (24) months after manufacture date, when installed and maintained in accordance with our instructions. This warranty gives you specific legal rights, and there may also be other rights which vary from state to state. In the event the product is covered by the Federal Consumer Product Warranties Law (1) the duration of any implied warranties associated with the product by virtue of said law is limited to the same duration as stated herein, (2) this warranty is a LIMITED WARRANTY, and (3) no claims of any nature whatsoever shall be made against us, until the ultimate consumer, his successor, or assigns, notifies us in writing of the defect, and delivers the product and/or defective part(s) freight prepaid to our factory or nearest authorized service station. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply. **THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY AND ALL WARRANTIES WITH RESPECT TO ANY PRODUCT SHALL BE TO REPLACE OR REPAIR AT OUR ELECTION, F.O.B. POINT OF MANUFACTURE OR AUTHORIZED REPAIR STATION, SUCH PRODUCTS AND/OR PARTS AS PROVEN DEFECTIVE. THERE SHALL BE NO FURTHER LIABILITY, WHETHER BASED ON WARRANTY, NEGLIGENCE OR OTHERWISE.** Unless expressly stated otherwise, guarantees in the nature of performance specifications furnished in addition to the foregoing material and workmanship warranties on a product manufactured by us, if any, are subject to laboratory tests corrected for field performance. Any additional guarantees, in the nature of performance specifications must be in writing and such writing must be signed by our authorized representative. Due to inaccuracies in field testing if a conflict arises between the results of field testing conducted by or for user, and laboratory tests corrected for field performance, the latter shall control. **RECOMMENDATIONS FOR SPECIAL APPLICATIONS OR THOSE RESULTING FROM SYSTEMS ANALYSES AND EVALUATIONS WE CONDUCT WILL BE BASED ON OUR BEST AVAILABLE EXPERIENCE AND PUBLISHED INDUSTRY INFORMATION. SUCH RECOMMENDATIONS DO NOT CONSTITUTE A WARRANTY OF SATISFACTORY PERFORMANCE AND NO SUCH WARRANTY IS GIVEN.**

This warranty shall not apply when damage is caused by (a) improper installation, (b) improper voltage (c) lightning (d) excessive sand or other abrasive material (e) scale or corrosion build-up due to excessive chemical content. Any modification of the original equipment will also void the warranty. We will not be responsible for loss, damage or labor cost due to interruption of service caused by defective parts. Neither will we accept charges incurred by others without our prior written approval.

This warranty is void if our inspection reveals the product was used in a manner inconsistent with normal industry practice and/or our specific recommendations. The purchaser is responsible for communication of all necessary information regarding the application and use of the product. **UNDER NO CIRCUMSTANCES WILL WE BE RESPONSIBLE FOR ANY OTHER DIRECT OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO TRAVEL EXPENSES, RENTED EQUIPMENT, OUTSIDE CONTRACTOR FEES, UNAUTHORIZED REPAIR SHOP EXPENSES, LOST PROFITS, LOST INCOME, LABOR CHARGES, DELAYS IN PRODUCTION, IDLE PRODUCTION, WHICH DAMAGES ARE CAUSED BY ANY DEFECTS IN MATERIAL AND/OR WORKMANSHIP AND/OR DAMAGE OR DELAYS IN SHIPMENT. THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

No rights extended under this warranty shall be assigned to any other person, whether by operation of law or otherwise, without our prior written approval.

**CRANE**®

PUMPS & SYSTEMS

A Crane Co. Company

420 Third Street  
Piqua, Ohio 45356  
(937) 778-8947  
Fax (937) 773-7157  
www.cranepumps.com

83 West Drive  
Brampton, Ont. Canada L6T 2J6  
(905) 457-6223  
Fax (905) 457-2650

APPLIES TO ALL SH, XSH, AND SITHE CHOPPER PRODUCTS

# BARNES®

## Limited 5 Year Warranty

### Municipal Wastewater

Crane Pumps & Systems offers a Commercial Warranty covering parts and labor on its pumps to this original end purchaser, when used in permanent installations in compliance with requirements of the Barnes Catalog and Technical Manual specifications for pumping municipal wastewater or similar abrasive free, non corrosive liquids against defects in workmanship and material for the period as defined below.

In the event that the pump is provided with moisture and/or temperature sensors, these must be in use in order to validate this warranty. Barnes SH series Non-Clogs, SE series Non-Clogs, Wet End of XSE series Non-Clogs (Motor has a one (1) year warranty and is the sole responsibility of Reliance Electric), Effluent and Sump pump models are Warranted for sixty (60) months (or 10,000 hours of operation) from the date of manufacture from Crane Pumps & Systems to the End Purchaser as follows: Crane Pumps & Systems will pay the following share of the cost of replacement parts and labor provided the pump, with cable attached, is returned prepaid to an Authorized Service Station as decided by Crane Pumps & Systems and its Municipal Market Distributor.

	Warranty Period *		
Time After Manufacture (months):	0 - 18	19 -39	40 -60
Run Time (hours):	0 - 3,000	3,001 - 6,500	6,501 - 10,000
Warranty:	100%	50%	25%

\* Time After Manufacture (months) or Run Time (hours) shall be determined by an Authorized Service Station and/or current copy of maintenance. If run time documentation cannot be produced then date of manufacture prevails.

Start-up reports and electrical system schematics (including Bills-of-Material) may be required to support any Warranty claims. This Warranty shall not apply to any product or part of product which has been subject to misuses, negligence, accident, operation outside of our published hydraulic curve parameters, used in a manner contrary to printed Instructions, or damaged due to a defective power supply, improper electrical protection, excessive abrasive wear or faulty installation or repair. **THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY AND ALL WARRANTIES WITH RESPECT TO ANY PRODUCT SHALL BE TO REPLACE OR REPAIR AT OUR ELECTION, F.O.B. POINT OF MANUFACTURE OR AUTHORIZED REPAIR STATION, SUCH PRODUCTS AND/OR PARTS AS PROVEN DEFECTIVE. THERE SHALL BE NO FURTHER LIABILITY, WHETHER BASED ON WARRANTY, NEGLIGENCE OR OTHERWISE.**

Crane Pumps & Systems neither assumes nor authorizes any person or company to assume for it, any other obligation in correction with the sale of its equipment. Any enlargement or modification of this Warranty by a Representative or other Selling Agent shall become HIS or HER exclusive responsibility.

**UNDER NO CIRCUMSTANCES WILL WE BE RESPONSIBLE FOR ANY OTHER DIRECT OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO TRAVEL EXPENSES, RENTED EQUIPMENT, OUTSIDE CONTRACTOR FEES, UNAUTHORIZED REPAIR SHOP EXPENSES, LOST PROFITS, LOST INCOME, LABOR CHARGES, DELAYS IN PRODUCTION, IDLE PRODUCTION, WHICH DAMAGES ARE CAUSED BY ANY DEFECTS IN MATERIAL AND/OR WORKMANSHIP AND/OR DAMAGE OR DELAYS IN SHIPMENT. THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

The following information must be completed to validate warranty. (Certain data will be provided before order placement and additional data following shipment).

Pump Model/Serial #: \_\_\_\_\_ Job Name: \_\_\_\_\_  
Sales Order #: \_\_\_\_\_ Date: \_\_\_\_\_

Factory Authorized Signature: \_\_\_\_\_ Title: \_\_\_\_\_



A Crane Co. Company

### PUMPS & SYSTEMS

420 Third Street  
Piqua, Ohio 45356  
Phone: (937) 778-8947  
Fax: (937) 773-7157  
www.cranepumps.com

83 West Drive, Bramton  
Ontario, Canada L6T 2J6  
Phone: (905) 457-6223  
Fax: (905) 457-2650

## Warranty and Service

The XSE Submersible Pump **Motor** is manufactured by Reliance Electric Co. and must be serviced and repaired at the Crane Pumps & Systems Inc. manufacturing facilities in Piqua, Ohio or sent to a Reliance Service shop.

**Reliance Customer Solution Center**  
**Phone: 864-297-4800**

## Warranty and Service

Barnes® Pumps, Inc. pumps are manufactured for efficient performance following long inoperative periods in storage. For best results, pumps should be retained in storage, as factory assembled, in a dry atmosphere with constant temperatures.

DEFINITIONS: a.) Long Term - any length of time exceeding six (6) months, but not more than twenty-four (24) months.  
b.) Temperature Controlled Storage Area- a roofed over walled enclosure that provides protection from the elements (rain, snow, wind blown dust, etc.), and whose temperature can be maintained between the limits of +40°F and +120°F.

PUMP: If extended high humidity is expected to be a problem, all exposed parts should be inspected before storage and all surfaces that have the paint scratched, damaged or worn should be recoated with an air dry enamel paint. All surfaces should then be sprayed with a rust-inhibiting oil. Pumps should be stored in a temperature controlled storage area with the pump in its original shipping container. If it is required that the pump be installed and tested before the long term storage begins, such installation will be allowed provided:

1. The pump is not installed under water for more than one (1) month (for submersible Pumps only),
2. Immediately upon satisfactory completion of the test, the pump is removed, thoroughly dried, repacked in the original shipping container, and placed in a temperature controlled storage area.

Every 30 days the impeller should be rotated to assure free rotation, and the pump should be inspected for oil leakage or damage to the seal.

PANEL: Insert moisture absorbing packets into the control panel and shut door tightly. Return the panel to the carton and wrap tightly in plastic covering. Reinspect and dry out moisture absorbing packets every two months. Repack as listed above.

START-UP: When removing the pump from storage and prior to putting the pump into service, the cord conduit grommet nuts should be tightened with a wrench. The pump impeller should be rotated by hand and then operated in water for a few minutes, after which the oil should be checked for level and to ascertain whether shaft seals need servicing. The stator should be checked for moisture and direction of rotation should be checked. All connections in the panel should be checked and tightened.

**Warranty and Service**

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