



1000 Series Engineered Bypass Chambers

General Instructions

SOR® engineered bypass chambers are robustly designed and manufactured to handle challenging applications. With almost forty years of experience in the level measurement industry, SOR provides only the highest quality products, guaranteed to provide reliable and safe performance throughout the long life of the chamber.

NOTE: If you suspect that a product is defective, complete the online RMA Request Form at sorinc.com, contact the factory or the SOR Representative in your area for a return authorization number (RMA). This product should only be installed by trained and competent personnel.



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Design and specifications are subject to change without notice.

For latest revision, go to sorinc.com

Before Installation

1. Prior to installation, carefully unpack the unit, inspecting for any signs of shipping damage.
NOTE: If the chamber or any pressure containing accessories are damaged, DO NOT INSTALL INTO THE PROCESS. Installation of a damaged unit could result in severe bodily harm and/or equipment damage. Contact your local sales representative or SOR personnel for potential return/repair information.
2. Double check that the included pieces match the items on the packing slip.
DO NOT dispose of packaging until all components have been inspected.
3. Ensure process limitations and area classifications, located on the nameplate, are suitable for the application. See 1000 Series Engineered Chamber Catalog 1884.
4. Verify critical dimensions are suitable for installation.

Installation

In general, SOR chambers are shipped completely assembled and ready for installation. See product specific documentation for specific installation instructions regarding mechanical or visual indication equipment.

In addition to these instructions, follow all relevant regulations/standards and accident prevention policies.

Chamber Installation

1. Gather all required tools prior to beginning installation, including, but not limited to:
 - Gaskets
 - Studs/Nuts
 - Wrench/Torque Wrench
 - Thread sealant
 - Welding equipment
 - Pipe fittings/components
 - Personnel protective equipment

CAUTION: FAILURE TO DO THE FOLLOWING ACTIVITIES MAY RESULT IN LEAKS, UNIT FAILURE, AND/OR PERSONNEL INJURY. BEFORE INSTALLATION ENSURE:



- **All materials are rated for use at or above the pressures and temperatures listed on the nameplate.**
- **All materials subject to contact with process media, including gasket(s), are chemically compatible.**
- **Any weld material is suitable for use with both primary and bypass chamber material(s).**

2. Close all vent(s), drain(s), and isolation valve(s) attached to the unit.
3. Stand the unit upright, while ensuring that no bowing is allowed on longer units, and line up process connections to the primary chamber connections.

4. Connect the chamber process connections to primary chamber connections, installing additional equipment as necessary. Ensure all flange connections are vertically level if the unit is side mounted or horizontally level for top/bottom mounts.

NOTE: Users are responsible for providing structural support for bypass chambers. Longer length chambers may require the use of support brackets or other structure in addition to the process connections.

5. Slowly increase system pressure, checking thoroughly for signs of misalignment or leaks.



CAUTION: Do not open isolation valves quickly. A sudden change in pressure may cause damage to internal components.

Spare Parts

A variety of spare parts are available for SOR chambers and accessories. Please consult the factory regarding your specific unit for availability, parts and pricing.

Preventative Maintenance

If the application is dirty, contains solids, or may cause material buildup within the chamber, routine preventative maintenance/cleaning may be required. Chambers should be cleaned and inspected based on the application and end user standards.

In addition to these instructions, follow all relevant regulations/standards and accident prevention policies.

To remove the chamber from service:

1. Gather all required tools/equipment prior to beginning removal, including, but not limited to:
 - a. Wrench/Torque Wrench
 - b. Vapor collection equipment
 - c. Liquid collection equipment
2. Close off isolation valves and/or process connections from the main chamber to prevent liquid from entering the bypass chamber.



CAUTION: If the application exceeds safe handling temperatures ensure the unit has cooled to a safe level prior to continuing.

3. Attach proper equipment to vent and drain the bypass chamber.



CAUTION: Equipment used to vent and drain the bypass chamber must be chemically compatible with the process media.

4. Remove the chamber from service and perform cleaning/maintenance as necessary.

NOTE: Process connection and head gaskets should not be reused after performing maintenance. Replace these items at or prior to reinstallation.

Troubleshooting

Chamber design is rarely the root cause of mechanical issues. For specific troubleshooting instructions, please consult product specific documentation.

Service Policy

In order to expedite the repair or replacement of returned goods, the following information must be provided:

- Serial Number and complete Model Number
- Installation site
- Customer Purchase Order Number
- Reason for return
- A Material Safety Data Sheet must be provided for any chamber that has been in service

If the returned goods are defective as defined in the warranty, and returned within the warranty period, SOR will promptly repair or replace the returned goods at our option, without cost to the customer.

If the returned goods are returned after the warranty period, or without a warranty claim, the customer must approve the repair or replacement.

All shipments returned to the factory will be prepaid by the customer. All product warranty shipments shall be prepaid by the factory.

Limited Warranty

SOR® agrees to repair or replace any switch found to be defective in material or workmanship within five years from date of shipment. The warranty is valid only if the switch was installed in accordance with published factory installation instructions, operated within the design limitations stated on the nameplate, and returned to the factory for inspection, freight prepaid, within the warranty period. No claim for labor or consequential damages will be allowed.