

# **Style 731-G**Suction Diffuser

### IMPORTANT INSTALLATION INFORMATION

### **A WARNING**



- Read and understand all installation instructions before attempting to install any Victaulic piping products.
- · Wear hardhat, safety glasses, and foot protection.

Failure to follow these instructions could result in serious personal injury, property damage, and/or product damage.

# **!** CAUTION

 To ensure maximum gasket life for the intended service, make sure the suction diffuser is installed with the correct gasket grade.

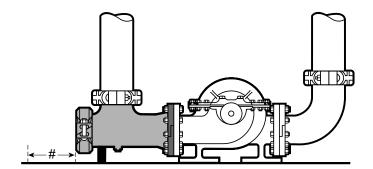
Failure to follow this instruction could result in property damage, joint leakage, and/or joint failure.

The following procedures are a guide for the proper installation of Victualic Style 731-G Suction Diffusers. NOTE: Maximum service life is dependent upon proper gasket selection and installation.

### **ASSEMBLY CLEARANCE**

- Select a location for the Style 731-G Suction Diffuser that provides the necessary clearance for removing the strainer. NOTE: The Style 731-G is shipped fully assembled.
- The recommended access requirements are listed in the following table. \*NOTE: These recommended clearances are equal to the minimum clearance, plus 2" (51 mm).





#### \*Recommended Clearance Required for Removal of Suction Diffuser Strainer

#Recommended Minimum Clearance Required to Remove Diffuser Basket Actual Inches/Actual mm								
Inlet Size	Clearance	Recommended Support Leg Pipe Diameter †	Inlet Size	Clearance	Recommended Support Leg Pipe Diameter †			
3 88,9	9.00 230	11⁄4	8 219,1	15.00 381	2			
4 114,3	11.00 279	11⁄4	267,4	457	2			
139,7	305	2	10 273,0	18.00 457	2			
5 141,3	12.00 305	2	318,5	533	2			
165,1	300	2	12 323,9	21.00 533	2			
6 168,3	13.00 330	2	14 355,6	23.00 584	2			
216,3	381	2	16 406,4	27.00 686	2			

<sup>†</sup> Based on Schedule 40 pipe diameter.

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Victaulic Company of America	Victaulic Company of Canada	Victaulic Europe	Victaulic America Latina	Victaulic Asia Pacific
Phone: 1-800-PICK-VIC (1-800-742-5842)	Phone: 416-675-5575	Phone:32-9-381-1500	Phone: 610-559-3300	Phone: 65-235-3035
Fax: 610-250-8817	Fax: 416-675-5565	Fax: 32-9-380-4438	Fax: 610-559-3608	Fax: 65-235-0535
e-mail:pickvic@victaulic.com	e-mail: viccanada@victaulic.com	e-mail: viceuro@victaulic.be	e-mail: vical@victaulic.com	e-mail: vicap@victaulic.com

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### **INSTALLATION**

# **Installing the Support Leg**

# **A** CAUTION

Make sure the suction diffuser and pump are supported properly.
Failure to do so could result in damage to the suction diffuser and pump.



- 1. To prevent strain on the pump, a support leg and foot are required (not supplied by Victaulic). Bosses are provided on the suction diffuser to allow for mounting in any of three positions.
- 2. The length of the leg will be determined by the conditions of each installation. The support leg can be made of Schedule 40 pipe (refer to the chart on page 1 for the proper diameter).
- 3. Use an adjustable support foot for final height adjustment. There is a potential for damage if the suction diffuser and pump are not supported properly.

# **Bolting the Flange**



The installation of flanged-model suction diffusers requires a criss-cross pattern when tightening the bolts to obtain proper gasket seating (NOTE: Victaulic does not supply the flange gasket).

# **Installing the Coupling**



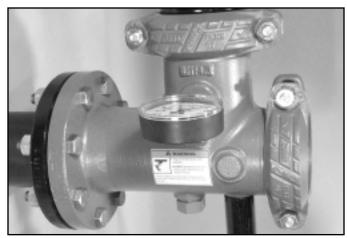
For the installation of grooved pipe couplings, refer to the Victaulic Field Assembly and Installation Pocket Handbook (I-100) for complete instructions.

# **Installing the Pressure Gauge**



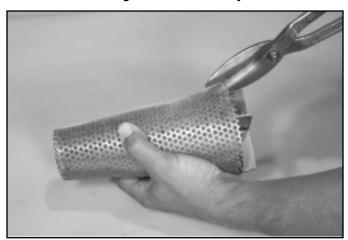
Victaulic recommends that a pressure gauge be installed in one of the ½ inch NPT tapped holes located on either side of the inlet. This pressure gauge will help determine the differential pressure across the pump.

# **During Initial System Startup**



During initial startup, observe all gauges, and check joints for leaks. Resolve any problems, and restart the system to double-check all previous work.

# **After Initial System Startup**



Each Victaulic Series 731-G Suction Diffuser contains a fine, mesh sleeve that is attached to the permanent diffuser basket. After initial system startup, follow the steps under the "Servicing" section on this page to remove the diffuser basket. Cut off the fine, mesh sleeve, attached to the diffuser basket, and discard. **NOTE:** Watch for sharp points on this sleeve.

### **SERVICING**

### **A WARNING**



- · Plug or end cap may be under pressure.
- Make sure the system temperature is below 100°F (38°C) before servicing.
- ALWAYS depressurize and drain piping system before removing plug or end cap.

Failure to follow these instructions could result in serious personal injury and/or property damage.



1. Make sure the system is completely depressurized, and allow the system temperature to fall below  $100^{\circ}F$  (38°C). Remove the drain tap, as shown above, to drain the suction diffuser.

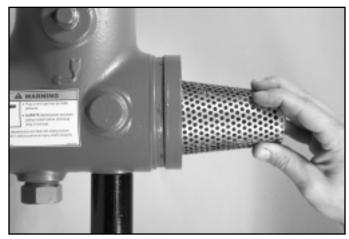
### **A WARNING**

Larger-size end caps are heavy. Use proper support/lifting devices to remove the end cap safely.

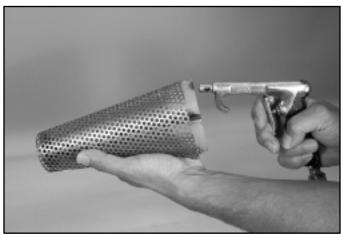
Failure to follow this instruction could result in serious personal injury.



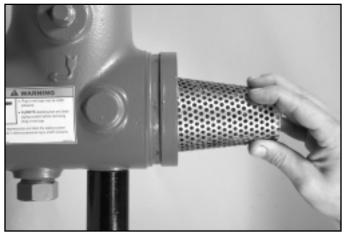
2. Remove the coupling, end cap, and gasket. Check the gasket for damage. If the gasket is torn or worn, replace it with a new, Victaulic-supplied gasket of the same grade.



3. Remove the diffuser basket. Inspect the veins on the diffuser basket for damage. If any veins are loose or damaged, replace the diffuser basket.



4. Remove dirt and debris from the diffuser basket.



 $5.\ \mbox{Re-install}$  the diffuser basket, making sure it seats properly in the body.



6. Lubricate the gasket with Victaulic lubricant. Install the gasket and end cap onto the suction diffuser. **NOTE:** Make sure the end cap engages properly with the end of the diffuser basket. Do not force the end cap into position.

6a. Re-install the coupling, and tighten the nuts alternately and evenly until metal-to-metal contact occurs at the angle bolt pads. **NOTE:** The offset of the bolt pads must be equal at each housing segment. Refer to the Victaulic Field Assembly and Installation Pocket Handbook (I-100) for complete instructions.