



## CASH VALVE™ TYPE C776 PRESSURE RELIEF VALVES FOR CRYOGENIC SERVICE INSTALLATION AND OPERATING INSTRUCTIONS

Before installation, these instructions must be carefully read and understood.

### WARNING

*Failure to follow these instructions or to properly install and maintain this equipment could result in an explosion, fire and/or chemical contamination causing property damage and personal injury or death.*

*Cash Valve relief valves must be installed, operated and maintained in accordance with federal, state and local codes, rules and regulations and Emerson Process Management Regulator Technologies, Inc. instructions.*

*If a leak develops or if the outlet continually vents gas, service to the unit may be required. Failure to correct trouble could result in a hazardous condition. Only a qualified person must install or service the unit.*

*Installation, operation and maintenance procedures performed by unqualified personnel may result in improper adjustment and unsafe operation. Either condition may result in equipment damage or personal injury. Use qualified personnel when installing, operating, and maintaining the Type C776 Relief Valve.*

### CALIFORNIA PROPOSITION 65 WARNING

*This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).*

### INTRODUCTION

#### Scope of the Manual

This manual provides instructions for the handling, installation, operation and maintenance for the Type C776 Relief Valve.

### PRE-INSTALLATION

#### Verification of Model and Service Media/ Capacity/Temperature/Pressure Limits

(Reference attached Model Description/Guide.) Verify the Model Number on the tag against the Model Number of the order. Verify the Service Media, Capacity, and Temperature and Pressure Limits of the valve against the application.

Please note the marked capacity is based on Standard Temperature and Pressure conditions and is valid only for the service media noted on the catalog order guide. Adjustments to the capacity must be performed for different temperatures or service media, and are the responsibility of the end user to determine.

### HANDLING

This pressure relief valve is designed to protect equipment from overpressure. The valve should be handled with care, not subjected to heavy shock loads, and protected to prevent contamination from getting inside. It should be installed correctly per A.S.M.E. Boiler & Pressure Vessel Code requirements, where applicable. Failure to do so could result in property damage or serious injury to personnel. When hoisting the valve into position for installation, care should be exercised so that lifting straps do not compromise the integrity of the valve.



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## INSTALLATION AND OPERATING INSTRUCTIONS

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### INSTALLATION

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Always wear proper safety equipment, including safety glasses and ear protection.

1. Mount the valve in a vertical position so that the valve body is self-draining. If a body drain port is provided, make sure it is open when required by the ASME code. Do not plug any bonnet vent openings. The inlet piping should be as short as possible, with no elbows, and equal to or greater than the size of the pressure relief valve inlet connection. This will help to limit the inlet pressure drop to 3% or less when the valve is relieving.
2. When discharge piping is connected to valve outlet, make sure it is self-draining if a body drain port is not used. The valve should not be connected to any discharge pipe that contains pressure before the valve opens or to any pipe where the pressure build-up is greater than 10% of the set pressure when the valve is open and relieving. Discharge piping, other than a short tailpipe, must be supported.
3. For threaded valves, to prevent sealing compound from entering and damaging the valve, apply a small amount of pipe thread sealing compound to external threads only. Do not put any sealing compound on the first thread or on any internal threads. To do so may cause the sealing compound to enter the valve and cause seat leakage. Do not use the valve body or bonnet for installing the valve in threaded connections. Use the wrench flats provided to tighten the valve to the connecting pipe. Torque valve enough to ensure a pressure-tight seal and do not overtighten. To do so may cause valve leakage.
4. Do not paint, lubricate or allow contaminants to enter or cover the interior or any working parts of the valve.

### OPERATIONS

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1. Maintain a system operating pressure at least 5 psig or 10% below the set pressure of the valve, whichever is greater. Operating too close to the valve set pressure will cause seat leakage and will shorten the time between valve maintenance.
2. Do not use the safety valve as a control valve to regulate system operating pressure. Excessive operation will cause the seat to leak and will require more frequent valve maintenance.

### MAINTENANCE

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Maintenance should be performed on a regular basis. An initial inspection interval of 12 months is recommended. Depending on the service conditions and the condition of the valve, the inspection interval may be decreased or increased. Use only Cash Valve parts for repair. Depending on the local jurisdictional requirements where the valve is installed, repairs may have to be made by a repair facility holding a VR stamp.

### WARNING

*Removal of the seal wires or any attempt to adjust, repair or modify this product by non-VR Certified personnel voids the product guarantee and may cause serious damage to equipment, personal injury, and death. Emerson is not liable for any damage resulting from misuse or misapplication of its products.*

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