MEH225

Hydrostatic Relief Valve Instruction Manual

!WARNING!

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

Use of the Marshall Excelsior Co. MEH225 Hydrostatic Relief Valve is intended for, but not limited to, propane-based applications. For alternate liquefied compressed gas applications, contact MEC for material and seal compatibilities.

Never stand directly in front of, or look directly into, the MEH225 when the system is pressurized. The relief valve could suddenly "pop" open blowing gas, dirt and other debris into your face and eyes.

Install, operate and maintain Marshall Excelsior Co. Equipment in accordance with federal, state and local codes and these instructions. The installation in most states must also comply with NFPA #58, ANSI K61.1, and DOT standards.

Only personnel trained in the proper procedures, codes, standards, and regulations of the LP Gas industry should install and service this equipment.

WARNING: These products contain a chemical known to the state of California to cause cancer and birth defects or reproductive harm

Scope of the Manual

This manual covers instructions for the MEH225 hydrostatic relief valve for liquid propane applications. Typical installation of hydrostatic relief valves includes ASME tanks, DOT cylinders and piping applications.

Introduction

The MEH225 Hydrostatic Relief Valve prevents the rupture of a hose or line when excessive pressure from trapped liquid propane occurs with closed shutoff valves on both ends of a hose or line. Exposure of the closed system to fire or radiant heat could also cause this excess pressure.

Features

- 1/4" NPT connection
- Brass body with a rubber seal and a plastic dust cap
- Start to Discharge (STD) Pressure ratings ±5%, see Table

Part Number	Pressure Rating
MEH225	440 psi
MEH225/350	350 psi
MEH225/400	400 psi

Marshall Excelsior Company
1506 George Brown Drive Marshall, MI 49068
Phone (269) 789-6700 Fax (269) 781-8340
www.marshallexcelsior.com

MEH225

Hydrostatic Relief Valve Instruction Manual

!WARNING!

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

Use of the Marshall Excelsior Co. MEH225 Hydrostatic Relief Valve is intended for, but not limited to, propane-based applications. For alternate liquefied compressed gas applications, contact MEC for material and seal compatibilities.

Never stand directly in front of, or look directly into, the MEH225 when the system is pressurized. The relief valve could suddenly "pop" open blowing gas, dirt and other debris into your face and eyes.

Install, operate and maintain Marshall Excelsior Co. Equipment in accordance with federal, state and local codes and these instructions. The installation in most states must also comply with NFPA #58, ANSI K61.1, and DOT standards.

Only personnel trained in the proper procedures, codes, standards, and regulations of the LP Gas industry should install and service this equipment.

WARNING: These products contain a chemical known to the state of California to cause cancer and birth defects or reproductive harm

Scope of the Manual

This manual covers instructions for the MEH225 hydrostatic relief valve for liquid propane applications. Typical installation of hydrostatic relief valves includes ASME tanks, DOT cylinders and piping applications.

Introduction

The MEH225 Hydrostatic Relief Valve prevents the rupture of a hose or line when excessive pressure from trapped liquid propane occurs with closed shutoff valves on both ends of a hose or line. Exposure of the closed system to fire or radiant heat could also cause this excess pressure.

Features

- 1/4" NPT connection
- Brass body with a rubber seal and a plastic dust cap
- Pressure ratings ±5%, see Table

Part Number	Pressure Rating
MEH225	440 psi
MEH225/350	350 psi
MEH225/400	400 psi

Marshall Excelsior Company
1506 George Brown Drive Marshall, MI 49068
Phone (269) 789-6700 Fax (269) 781-8340
www.marshallexcelsior.com

Form #417 MEH225 IOM REV D 2/21/18

Installation

!WARNING!

Hydrostatic relief valves are required on liquid propane lines, to provide relief protection between two shutoff valves. Install ALL hydrostatic relief valves with direct contact to the liquid space.

Install the valve so that pressure relief will be unobstructed. Be certain that any discharge from the valve will not impinge on the container, adjacent containers or any source of ignition.

Apply Loctite #565 or equivalent threat sealant, install the valve to hand tight then wrench-tighten an additional 1-2 turns or to 15 ft-lb of torque. Do not overtighten, as this may cause the valve body to distort and prevent motion of internal components.

This valve requires a dust cap. Keep the provided dust cap in place; an out-of-place cap may indicate the valve operated due to an over-pressure situation.

Protect relief valves on motor fuel applications as specified by DOT, NFPA #58, and other applicable laws, codes and standards.

Operation

The MEH225 relief valve is held closed by spring force seating the seal against the orifice (see Figure 1). When line pressure exceeds the spring force, the seal lifts away from the orifice allowing gas to discharge into open air.

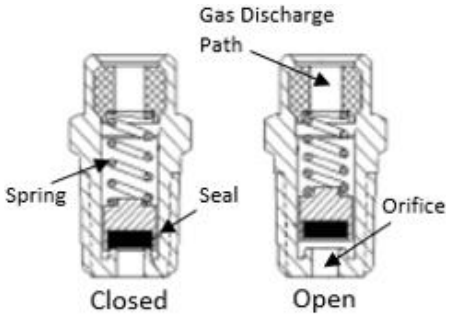

Figure 1

Initial discharge may be small, producing only seepage and a light "hissing" sound. As discharge pressure and volume increase, a "popping" condition or a continuous "hissing or roaring" sound will occur.

When the line pressure decreases enough, the spring force closes the seal back against the orifice stopping further discharge.

!WARNING!

Any valve that has discharged beyond seepage or weeping, has caused spring compression that may weaken the spring over time. This may cause subsequent discharges at lower pressures. In such an event, MEC recommends that the relief valve be re-evaluated for proper STD in accordance with this instruction manual. Typical seepage or weeping does not require re-evaluation for continued service in accordance to MEC recommendations.

Maintenance and Replacement

Some relief valve installations require periodic testing or replacement, such as those required by DOT, NFPA #58 and ANSI K61.1. Regularly inspect all relief valves for visible damage, dirt, corrosion, missing raincaps, paint inside the discharge path, tampering, etc. Immediately re-test or replace the valve if any of the above noted conditions is evident or questionable.

The discharge path must be kept free of dirt, water and foreign mater that can lodge against or otherwise damage the seal. Such conditions can prevent valve operation. Replace valves when this occurs.

NEVER attempt field repair or alteration of a relief valve. The manufacturer precisely sets relief valves to the correct start-to-discharge setting.

MEC recommends replacement of relief valves within 10 years of installation, due the seal being subject to normal deterioration. Earlier replacement is appropriate under severe service conditions.

Installation

!WARNING!

Hydrostatic relief valves are required on liquid propane lines, to provide relief protection between two shutoff valves. Install ALL hydrostatic relief valves with direct contact to the liquid space.

Install the valve so that pressure relief will be unobstructed. Be certain that any discharge from the valve will not impinge on the container, adjacent containers or any source of ignition.

Apply Loctite #565 or equivalent threat sealant, install the valve to hand tight then wrench-tighten an additional 1-2 turns or to 15 ft-lb of torque. Do not overtighten, as this may cause the valve body to distort and prevent motion of internal components.

This valve requires a dust cap. Keep the provided dust cap in place; an out-of-place cap may indicate the valve operated due to an over-pressure situation.

Protect relief valves on motor fuel applications as specified by DOT, NFPA #58, and other applicable laws, codes and standards.

Operation

The MEH225 relief valve is held closed by spring force seating the seal against the orifice (see Figure 1). When line pressure exceeds the spring force, the seal lifts away from the orifice allowing gas to discharge into open air.

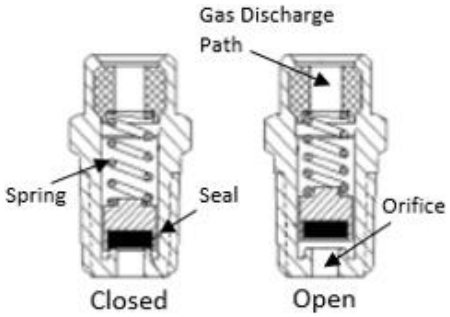

Figure 1

Initial discharge may be small, producing only seepage and a light "hissing" sound. As discharge pressure and volume increase, a "popping" condition or a continuous "hissing or roaring" sound will occur.

When the line pressure decreases enough, the spring force closes the seal back against the orifice stopping further discharge.

!WARNING!

Any valve that has discharged beyond seepage or weeping, has caused spring compression that may weaken the spring over time. This may cause subsequent discharges at lower pressures. In such an event, MEC recommends that the relief valve be re-evaluated for proper STD in accordance with this instruction manual. Typical seepage or weeping does not require re-evaluation for continued service in accordance to MEC recommendations.

Maintenance and Replacement

Some relief valve installations require periodic testing or replacement, such as those required by DOT, NFPA #58 and ANSI K61.1. Regularly inspect all relief valves for visible damage, dirt, corrosion, missing raincaps, paint inside the discharge path, tampering, etc. Immediately re-test or replace the valve if any of the above noted conditions is evident or questionable.

The discharge path must be kept free of dirt, water and foreign mater that can lodge against or otherwise damage the seal. Such conditions can prevent valve operation. Replace valves when this occurs.

NEVER attempt field repair or alteration of a relief valve. The manufacturer precisely sets relief valves to the correct start-to-discharge setting.

MEC recommends replacement of relief valves within 10 years of installation, due the seal being subject to normal deterioration. Earlier replacement is appropriate under severe service conditions.

The contents of this publication are for informational purposes only. While every effort has been made to ensure accuracy, these contents are not to be construed as warranties or guarantees, expressed or implied, regarding the products or services described herein or for their use or applicability. Marshall Excelsior Co. reserves the right to modify or improve the designs or specifications of such products at any time without notice. The MEC™ logo is the trademark of Marshall Excelsior Co.