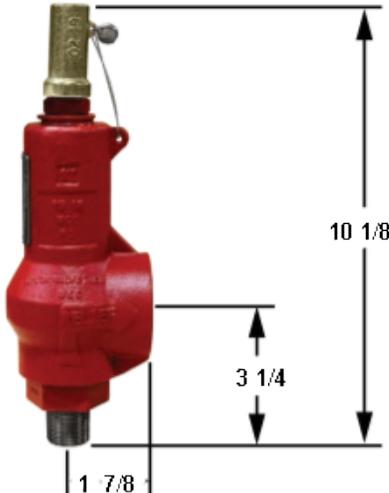


# Model 05740

# Safety Relief Valve

1	Valve Series	Taylor Model 8250 Soft Seat	
2	Valve Body Size	1 Inch	
3	Certifying Fluid	Air	
4	Set Pressure	1000 PSI	
5	Stamped Capacity	3810 SCFM	
	Orifice Diameter	0.52 Inches	
	Orifice Area	0.212 Square Inches	
6	Spring Pressure Range	701-1100 PSI	
7	Inlet & Outlet	3/4" MNPT x 1" FNPT	
8	Design Temperature	70 °F	
9	Body, Inlet & Internal Material	Carbon Steel	
10	Top Style / Options	Closed Top	
11	Elastomer Materials	Viton	
12	ASME CODE	UVNB	
13	Certs/Reports	Assembly Test Report	
*Additional charges may apply			

## Installation

The safety relief valve should always be installed on a tank or piping run in a vertical position with the outlet pointing in a horizontal direction. When threading the valve into the inlet piping, always use a wrench on the relief valve body.

One of the most common causes of early failure of relief valves is dirt trapped on the valve seat. Welding slag and/or piping Teflon tape are among the most common items that cause difficulty. It is recommended that all piping and tank systems be cleaned prior to installation of the relief valve.

A relief valve mounted on a tank should be connected with the minimum amount of piping between the tank and the valve. Further, all piping used must be equal or larger than the inlet pipe size of the relief valve, never smaller. Any restriction of the inlet to a relief valve may cause usual valve chatter or relief capacities below the design ratings of the valve which could result in serious or catastrophic damage. Outlet piping from the relief valve should be less than four (4) feet in length and never of a pipe size smaller than the outlet pipe size of the relief valve. Long runs of small diameter pipe on the outlet side of a relief valve could create a serious hazard to life and property.

Extreme caution is required in the design of outlet piping if installed outdoors where the liquids, if present, could form and ice block in the piping of the relief valve body in below freezing weather. Discharge lines must be weather capped and drained to prevent any liquid collection in the relief valve body or outlet piping. If these precautions are not taken, serious damage and injury could result.

Additionally, important installation factors are contained in the following excerpt from para. UG-135 Section VIII of the ASME Boiler Code:

## UG-135 Installation

(a) Pressure relief devices intended for relief of compressible fluids shall be connected to the vessel in the vapor space above any contained liquid or to piping connected to the vapor space in the vessel which is to be protected. Pressure relief devices intended for relief of liquids shall be connected below the liquid level.

Alternative connection locations are permitted, depending on the potential vessel overpressure scenarios and the type of relief device selected, provided the requirements of UG-125(a)(2) and UG-125(c) are met.

(b)(1) The opening through all pipe, fittings, and nonreclosing pressure relief devices (if installed) between a pressure vessel and its pressure relief valve shall have at least the area of the pressure relief valve inlet. The characteristics of this upstream system shall be such that the pressure drop will not reduce the relieving capacity below that required or adversely affect the proper operation of the pressure relief valve.

(2) The opening in the vessel wall shall be designed to provide unobstructed flow between the vessel and its pressure relief device (see Appendix M).

(c) When two or more required pressure relief devices are placed on one connection, the inlet internal cross-sectional area of this connection shall be either sized to avoid restricting flow to the pressure relief devices or made at least equal to the combined inlet areas of the safety devices connected to it.

The flow characteristics of the upstream system shall satisfy the requirements of (b) above. (See Appendix M).

(d) There shall be no intervening stop valves between the vessel and its pressure relief device or devices, or between the pressure relief device or devices and the point of discharge, except:

(1) When the stop valves are so constructed or positively controlled that the closing of the maximum number of block valves possible at one time will not reduce the pressure relieving capacity provided by the unaffected pressure relief devices below the required relieving capacity: or

(2) under conditions set forth in Appendix M.

(e) The pressure relief devices on all vessels shall be so installed that their proper functioning will not be hindered by the nature of the vessel's contents.

(f) Discharge lines from pressure relief devices shall be designed to facilitate drainage or shall be fitted with drains to prevent liquid from lodging in the discharge side of the pressure relief device, and such lines shall lead to a safe place of discharge. The size of the discharge lines shall be such that any pressure that may exist or develop will not reduce the relieving capacity of the pressure relief devices below that required to properly protect the vessel, or adversely affect the proper operation of the pressure relief devices. (See UG-136(a)(8) and Appendix M).

## Maintenance

An ASME coded safety relief valve is factory set with precise pressure gauges and tanks to plus or minus 3% of the stamped set pressure (or plus or minus (2) psi when set below seventy (70) psi). The valve setting is wired closed and lead sealed. It is recommended that any maintenance work required on the valve to be performed by Taylor Valve Technology or a commercial valve repair shop holding a VR Stamp issued by the National Board of Boiler and Pressure Vessel Inspectors of Columbus, Ohio.

Normally, an annual cleaning of internal parts, seats and inlet port is desirable along with resetting, testing and resealing the valve. The seat on the Taylor Valve Technology relief valve is threaded and is easily replaced. The seat and o-ring seals on the inlet sub-assembly are normally replaced when the seat is replaced. Taylor Valve Technology manufactured parts may be used for all repairs or serious malfunction is likely to occur.

The pressure setting of the relief valve should never be reset by more than 10% of the set pressure originally stamped on the tag. This new set pressure should be marked on a new tag affixed to the valve by the valve repair company changing the setting.

**If there are further questions concerning repair, please contact Taylor Valve Technology Sales/Service at (800)654-4196 or (405)787-0145.**



**WARNING:** This product might contain a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm.

For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



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