

Purpose:

The primary function of an expansion chamber is to protect liquid chemical feed lines from bursting due to overpressure. By rupturing a pre-set disc, the chemical is allowed to expand into the tank, lowering the pressure and creating a safe environment. Every section of liquid pipeline that could be sealed between two valves must be fitted with an expansion chamber set. Expansion chamber assemblies are available for chlorine, sulfur dioxide and ammonia chemical lines.

Included:

- Rupture disc and holder
- Diaphragm protected pressure gauge/switch
- Expansion chamber
- Piping and fittings



Specifications:

Piping is made from 1" schedule 80 seamless carbon steel pipe, A-106, Grade B. Fittings are made from 3000 pound forged carbon steel, A-105.

Rupture disc holder shall be of flanged type, or union type (*pictured*) upon customer request and shall have a rupture disc set to 400 psig at 72 °F. All rupture disc and holders shall be ASME certified.

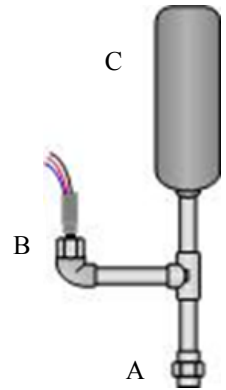
Expansion chamber shall be DOT3AA2015 certified and shall have a volume at least 20% of the overall pipe volume it is protecting.

A diaphragm protected pressure switch shall be installed above the rupture disc for remote indication of a burst disc. This switch shall be factory set at 40 psig (2.75 barg).

Expansion Chamber Assembly for Liquid Chlorine/Sulfur Dioxide Piping

Model: EXP- _____ - _____ - _____ - IS

A B C



Position	Feature	Description
A. Rupture disc and Holder	1	RDH-100 1" NPT union type holder with RD-400 Silver rupture disc (400 psig @ 72°F), vacuum support, ASME certified.
	2	RDH-100 1" NPT union type holder with RD-338 Silver rupture disc (338 psig @ 72°F), non-fragmenting disc, vacuum support. ASME certified.
	3	RDH-200 1" NPT flanged holder with RD-300 Tantalum rupture disc (300 psig @ 72°F), non-fragmenting, can handle vacuum, ASME certified.
B. Pressure Switch	1	PSL-UECL2-EW Pressure switch with Tantalum diaphragm protector, 1 adjustable switch 25-65 psig range and overpressure rated to 600 psig, proof pressure 1000 psig.
	2	DPGS-A-EW 3.5" pressure gauge (0-600 psi) with 0-100 psi adjustable pressure switch. 2000 psi proof pressure, 9500 psi burst. Tantalum diaphragm protector.
	3	DPGS-V12-EW Digital pressure gauge with switch. 0-600psig.
C. Expansion Chamber	1	CHM-660 Expansion chamber 660 in ³ Volume. 3/4" NPT inlet.
	2	CHM-995 Expansion Chamber 995 in ³ volume. 3/4" NPT inlet.

Other Configurations Available Upon Request. Contact Hydro Instruments For More Information.