



CHAMCO

Your Challenges
Our Solutions

PUMPING AND COMPRESSION EQUIPMENT



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4859



A. R. Thomson Group

#3 7621 Edgar Industrial Drive
 Red Deer, AB T4P 3R2
 TEL: 403-341-4511 FAX: 403-341-4243

AFFIDAVIT OF TEST CERTIFICATE

ALL HOSE ASSEMBLED HAVE BEEN HYDROSTATIC TESTED TO 1.5 TIMES THE ALLOWABLE
 MAWP AS STATED ON THE ATTACHED CRN TAG ON COMPLETED ASSEMBLY

<u>SIZE</u>	<u>QUANTITY</u>	<u>OAL</u>	<u>DESCRIPTION</u>	<u>MAWP/ TEST</u>
2"	4	12"	7AL hose 304 Braided	576/774
			316L SS 2x8 800 Nipples	

Sales Order: 249851 Work Order: 40796001

Certified and Signed By: [Signature]

Date: 04/26/07



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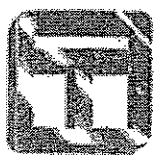
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Taylor Valve Technology

Installation and Maintenance Instructions

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 inlet connection hex, never 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 more 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 an 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.

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

UG-135 Installation

(a) Safety, safety relief and pilot operated pressure relief valves, and nonreclosing pressure relief devices 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.

(b) The opening through all pipe and fittings between a pressure vessel and its pressure-relieving device shall have at least the area of the pressure-relieving device inlet, and the flow 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-relieving device. The opening in the vessel wall shall be designed to provide direct and unobstructed flow between the vessel and its pressure-relieving device.

(c) When two or more required pressure-relieving devices are placed on one connection, the inlet internal cross

it, and the flow characteristics of the upstream system shall satisfy the requirements of (b).

(d) Liquid relief valves shall be connected below the normal liquid level.

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

(1) When these 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 relieving devices below the required relieving capacity, or

(2) under conditions set forth in Appendix M.

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

(g) Discharge lines from pressure relieving safety devices shall be designed to facilitate drainage or shall be fitted with drains to prevent liquid from lodging in the discharge side of the safety 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 relieving devices below that required to properly protect the vessel. (See UG-136 (a) (2) 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. The valve setting is wired closed and lead sealed. It is recommended that any maintenance work required on the valve 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" are normally replaced when the seat is replaced. Taylor Valve Technology manufactured parts must 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.



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Elite Stainless Steel Series Pressure Gauges (Liquid Filled)

WGI Elite series brass pressure gauges have a 304 stainless steel case for use in harsh or corrosive environments, liquid filled for significant cushioning and pulsation dampening which reduces pointer flutter and internal damage. Industries suited for include oil and gas equipment, refineries, hydraulic equipment, agricultural equipment pressure washers, pumps, compressors and process systems.

Specifications

Case Material

304 stainless steel, top nitrile vent plug with valve and lens seal

Fill Fluid

Silicone

Lens Material

Acrylic & safety glass (ranges over 5000psi)

Dial

White aluminum with black and red lettering

Pointer

Black aluminum

Accuracy

Elite 150/250 $\pm 2\%$ -1%-2% ASME B40.1 Grade A

Elite 400 $\pm 1\%$ full scale ASME B40.1 Grade A

Tube & Socket

316L stainless steel

Temperature Limits

-60°C to 60°C ambient and medium

Pressure Ranges

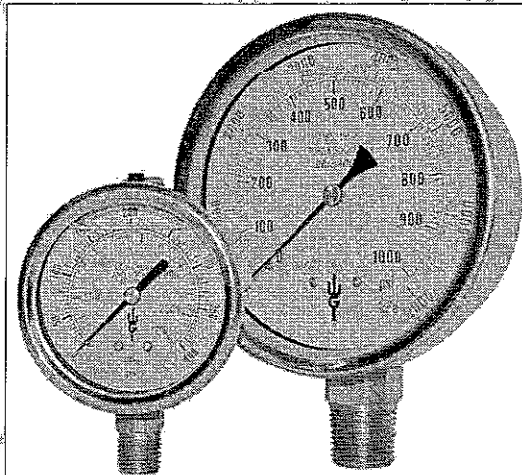
-30" Hg. Vacuum to 15,000 psi/kpa

Sizes

1½", 2½" & 4"

Canadian Registration Number (CRN)

CSA-OF5299:25



Elite 250 & Elite 400

Connection	Elite 150 1/8" CBM	Elite 250 1/4" BTM	Elite 250 1/4" CBU	Elite 400 1/4" BTM	Elite 400 1/4" CBU	Elite 400 1/2" BTM
Pressure Range	1½" Dial	2½" Dial	2½" Dial	4" Dial	4" Dial	4" Dial
30" Hg Vac	n/s	WJ7805P	WJ7405P	WH10705P	WH10805P	WH10905P
30" Hg. x 30 psi	n/s	WJ7812P	WJ7412P	WH10712P	WH10812P	WH10912P
30" Hg. x 60 psi	n/s	WJ7814P	WJ7414P	WH10714P	WH10814P	WH10914P
30" Hg. x 150 psi	n/s	WJ7818P	WJ7418P	WH10718P	WH10818P	WH10918P
30" Hg. x 300 psi	n/s	WJ7824P	WJ7424P	WH10724P	WH10824P	WH10924P
0-15 psi / kpa	n/s	WJ7840P	WJ7440P	WH10740P	WH10840P	WH10940P
0-30 psi / kpa	WJ1042P	WJ7842P	WJ7442P	WH10742P	WH10842P	WH10942P
0-60 psi / kpa	WJ1046P	WJ7846P	WJ7446P	WH10746P	WH10846P	WH10946P
0-100 psi / kpa	WJ1048P	WJ7848P	WJ7448P	WH10748P	WH10848P	WH10948P
0-160 psi / kpa	WJ1052P	WJ7852P	WJ7452P	WH10752P	WH10852P	WH10952P
0-200 psi / kpa	WJ1054P	WJ7854P	WJ7454P	WH10754P	WH10854P	WH10954P
0-300 psi / kpa	WJ1058P	WJ7858P	WJ7458P	WH10758P	WH10858P	WH10958P
0-400 psi / kpa	n/s	WJ7860P	WJ7460P	WH10760P	WH10860P	WH10960P
0-600 psi / kpa	n/s	WJ7864P	WJ7464P	WH10764P	WH10864P	WH10964P
0-1000 psi / kpa	n/s	WJ7872P	WJ7472P	WH10772P	WH10872P	WH10972P
0-1500 psi / kpa	n/s	WJ7874P	WJ7474P	WH10774P	WH10874P	WH10974P
0-2000 psi / kpa	n/s	WJ7876P	WJ7476P	WH10776P	WH10876P	WH10976P
0-3000 psi / kpa	n/s	WJ7878P	WJ7478P	WH10778P	WH10878P	WH10978P
0-5000 psi / kpa	n/s	WJ7882P	WJ7482P	WH10782P	WH10882P	WH10982P
0-6000 psi / kpa	n/s	WJ7884P	WJ7484P	WH10784P	WH10884P	WH10984P
0-7500 psi / kpa	n/s	WJ7886P	WJ7486P	WH10786P	WH10886P	WH10986P
0-10000 psi / kpa	n/s	WJ7890P	WJ7490P	WH10790P	WH10890P	WH10990P
0-15000 psi / kpa	n/s	WJ7892P	WJ7492P	WH10792P	WH10892P	WH10992P
List Price	\$150.00	\$70.00	\$80.00	\$130.00	\$206.65	\$130.00
See Discount Line	5	6	6	7	7	7



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Apollo 62-100 Series

Stainless Steel Ball-Cone® Check Valve

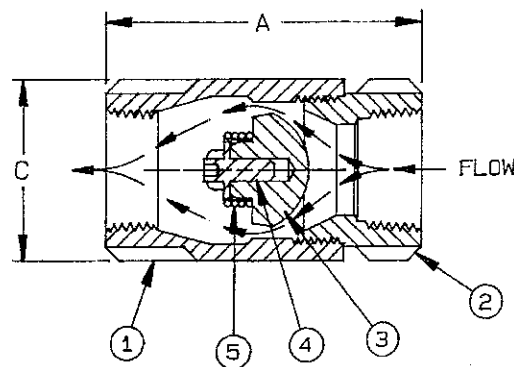
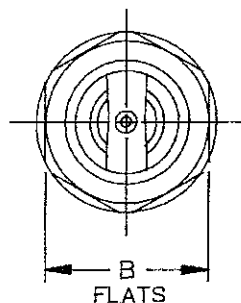
NPT Threaded 1/4" through 2" 400 psig WOG, Cold Non-Shock 125 psig Saturated Steam

FEATURES

- U.S. Patent #4,172,465
- No radial alignment necessary
- Tight shutoff
- Optional light spring available (62-12X-Series)
- Ball-Cone check is spring-loaded for fast seating action
- Straight through stream lined for minimum change in velocity
- Investment cast body

STANDARD MATERIAL LIST

1 Body	ASTM A351-CF8M	4. Guide	ASTM A276-316
2 Tail Piece	ASTM A276-316 (1/4" to 1")	5. Spring	AISI 316 SS
3 Ball Check	ASTM A351-CF8M (1-1/4" to 2")		
	RPTFE		



NUMBERING SYSTEM		SPECIALS	
TYPE	SIZE		
2 - STAINLESS STEEL	1 - 1/4"	01 - STANDARD VALVE	
CHECK	2 - 3/8"	E05 - 5 POUND OPENING PRESSURE	
1 - BALL CONE	6 - 1-1/4"	E10 - 10 POUND OPENING PRESSURE	
0 - REPAIR KIT	3 - 1/2"	17 - SATIN CHROME PLATED	
SPRING TYPE	7 - 1-1/2"	57 - OXYGEN CLEANED	
0 - 5 CRACKING PRESSURE	4 - 3/4"		
2 - 2 CRACKING PRESSURE	8 - 2"		

1/4" to 1" Sizes Only

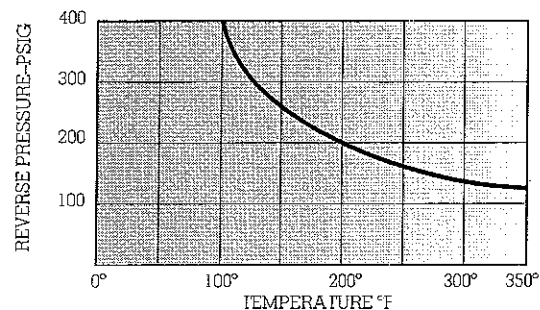
Dimensional Specifications

Number	Size	A	B	C	Wt/100
62-101-01	1/4"	2.06	1.12	1.12	38
62-102-01	3/8"	2.12	1.12	1.12	38
62-103-01	1/2"	2.31	1.12	1.12	38
62-104-01	3/4"	2.87	1.37	1.50	75
62-105-01	1"	3.50	1.75	1.93	145
62-106-01	1-1/4"	4.18	2.12	2.37	237
62-107-01	1-1/2"	4.93	2.50	2.81	381
62-108-01	2"	6.00	3.00	3.68	636

NOTE: NOT ALL COMBINATIONS AVAILABLE. CONTACT CUSTOMER SERVICE FOR VERIFICATION

NOTE: Not recommended for use with reciprocating pumps and similar applications with repetitious vibrations. Upstream flow disturbances which create turbulence may result in rapid wear and premature valve failures. It is recommended that a minimum of 10 diameters of straight pipe be provided between the check valve inlet and any upstream flow disturbance such as pumps, control valves, elbows, etc. It is also recommended that a minimum of 2 diameters of straight pipe be allowed downstream of the valve outlet. Low flow rates may also cause high frequency vibrations.

RPTFE BALL CONE CHECK





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