



# FIGURE 790 CRYOTREE™ ASSEMBLY

SIZES ¾" to 1½"

PRESSURES to 400 PSIG at 400°F

- Dual safety relief systems engineered for maximum safety and reliability
- Easy system installation
- Includes high capacity safety relief valves, full flow diverting valve, rupture discs, bleed valves, and related piping assembled
- Standardized components
- Low maintenance
- Eliminates the need to shut down and evacuate the tank for service
- Minimizes pressure drop in system
- Medical level O<sub>2</sub> cleaning in conformance with CGA G-4.1
- Sealed in 6 mil poly bags to eliminate contamination prior to installation
- Handle indicates flow direction

## APPLICATIONS DATA

- On stationary cryogenic storage tanks to isolate safety relief valves and rupture discs in the event they need to be serviced

## APPLICABLE CODES

- CGA S-1.2 and S-1.3.
- ASME Sec.VIII
- API 527
- AD -Merkblatt A2
- ANSI B31.E, B16.34

Our CryoTree™ assemblies are manufactured for use on stationary cryogenic storage tanks to isolate safety relief valves and rupture discs in the event they need to be serviced. Utilizing this system eliminates the need to shut down and evacuate the tank for service. This modular assembly provides for just a single connection to the internal tank piping.

## MODELS

- 790 - Bronze CryoTree™

## ORDERING CODE

MODEL NUMBER (Must be 3 Digits)	VALVE SIZE (Inches)	ORIFICE (Inches)	TOP PORT (Inches)	BOTTOM PORT (Inches)	SIDE PORT (Inches)	MATERIAL	—	SRV OUTLET	SRV ORIFICE	SET PRESSURE
example: 790	G	F	D	E	B	B	—	E	B	250
790-CryoTree™	D - ¾ E - 1 G - 1½	F-Full	D - ¾ E - 1 F - 1¼ G - 1½	A - ¼ B - ⅜ C - ½ D - ¾ E - 1	A - ¼ B - ⅜ C - ½ D - ¾ E - 1	B-Bronze w/316 Stem	—	D - ¾ E - 1 F - 1¼ G - 1½ H - 2	A B C D E	Set Pressure

# FIGURE 790 CRYOTREE™ ASSEMBLY SPECIFICATION

The valve shall be utilized for applications that requires full flow manifolds. The valve shall have 180 degrees of operation. The valve shall contain two safety relief valves, two rupture discs and two bleed valves. The handle shall indicate the direction of flow. The stem shall be blow out proof and contain V-ring packing material. The valve shall be cleaned to CGA G-4.1.

## MATERIALS

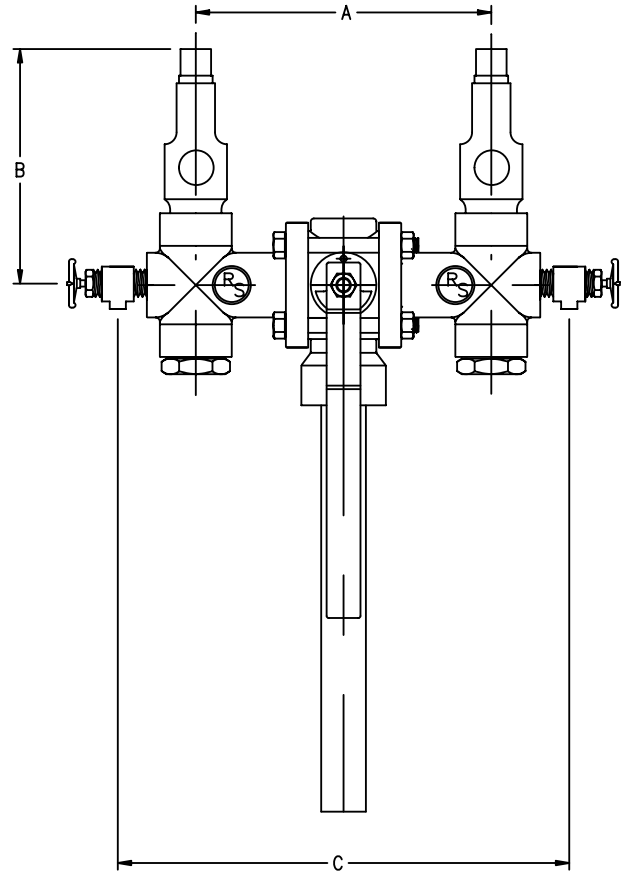
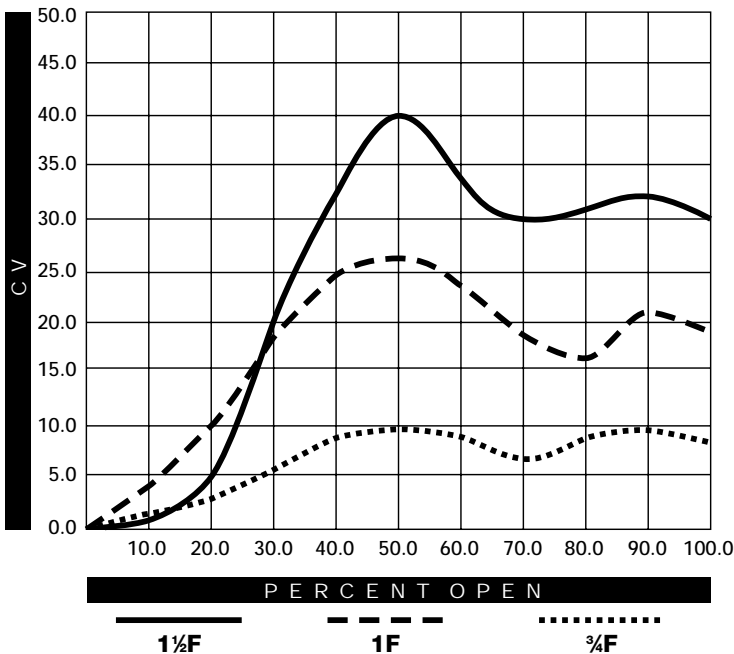
Body .....Bronze B62  
End Plate .....Bronze B62  
Ball .....Bronze  
Stem .....316SS

High Flow Diverter Valve C<sub>V</sub> Values\*

Size (inches)	Safety Relief Valve Outlet		Rupture Disc Outlet	
	C <sub>v</sub> @ mid position (90°)	C <sub>v</sub> @ full open (180°)	C <sub>v</sub> @ mid position (90°)	C <sub>v</sub> @ full open (180°)
¾F	9.2	8.2	10.7	8.1
1F	25.3	18.3	16.4	14.0
1½F	40.0	30.4	23.8	22.2

Flows may vary slightly due to outlet connection sizes.

High Flow Diverter Valve C<sub>V</sub> Graph



DIMENSIONS inches (mm)

SIZE	A	B	C
¾F (20)	5.9 (149.9)	22.5 (571.5)	14.8 (375.9)
1F (25)	8.7 (221.0)	25.7 (652.8)	16.5 (419.1)
1½F (40)	9.9 (251.5)	27.3 (693.4)	18.3 (464.8)

Dimensions for reference only.