



57V SERIES

Cryogenic Headers and Hoses

The CONCOA 57V cryogenic headers and hoses are designed to work with the CONCOA 577 CryoWiz cryogenic switchover system to provide a complete cryogenic solution for continuous liquid nitrogen supply. The 57V cryogenic headers are constructed from vacuum-insulated rigid pipe. Multi-layer insulation and getter materials are employed to maintain a high thermal efficiency for low heat leak. The annular space is evacuated at a pressure of 1×10^{-6} mm Hg under 250°F (121°C) heat and is tested with a helium mass spectrometer with 1×10^{-9} cc/sec sensitivity. The headers come as simplex for one side or duplex for both sides in either standard 18" (458mm) or compact 10" (254mm) on center spacing. Custom designs and custom downstream vacuum-jacketed pipelines are also available. The 57V series uses vacuum-jacketed flexible hoses with CGA 295 swivel end connections for easy installation and leak tight seals.



Cross section of vacuum-jacketed hose shown

Features

- 1x10⁻⁶mm Hg Annular Vacuum**
Low heat transfer
- Multi-layer Insulation**
Prevents radiant and convective heat transfer
- 1x10⁻⁹ scc/sec Helium Leak Tested**
Guaranteed performance
- Rigid 304 Stainless Steel Pipe**
Rugged construction
- Active Getters**
Extended service life
- SV-9 Pump Out Port**
Continued serviceability

Materials

- Header**
- Outer Pipe**
2" (51mm) 304 stainless steel
- Inner Tubing**
1/2" (13mm)
.035 wall
304 stainless steel
- Fittings**
316L stainless steel barstock
- Hose**
- Outer Braid**
304 stainless steel
- Inner Braid**
316L stainless steel
- Inner Core**
304 stainless steel

Specifications

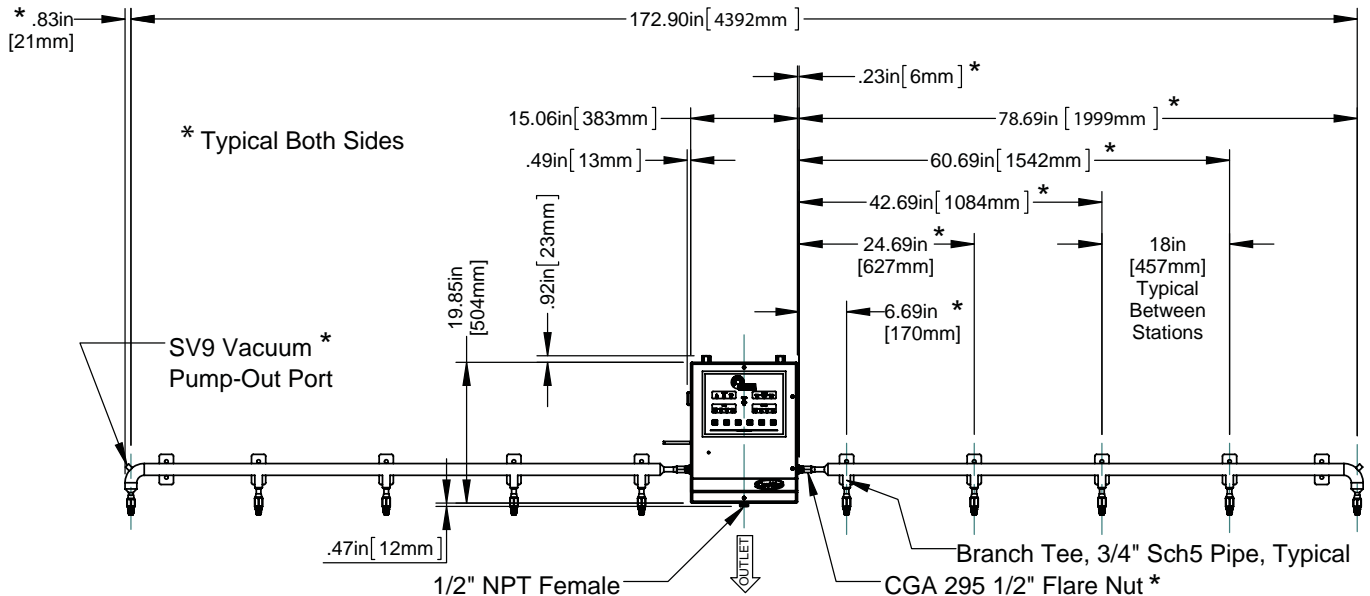
- Maximum Pressure (Header)**
150 PSIG (10 BAR)
- Maximum Pressure (Hoses)**
1200 PSIG (82.8 BAR) standard
- Heat Leak**
0.32 BTU per hour per foot (1.1 J per hour per mm)

Cryogenic Systems



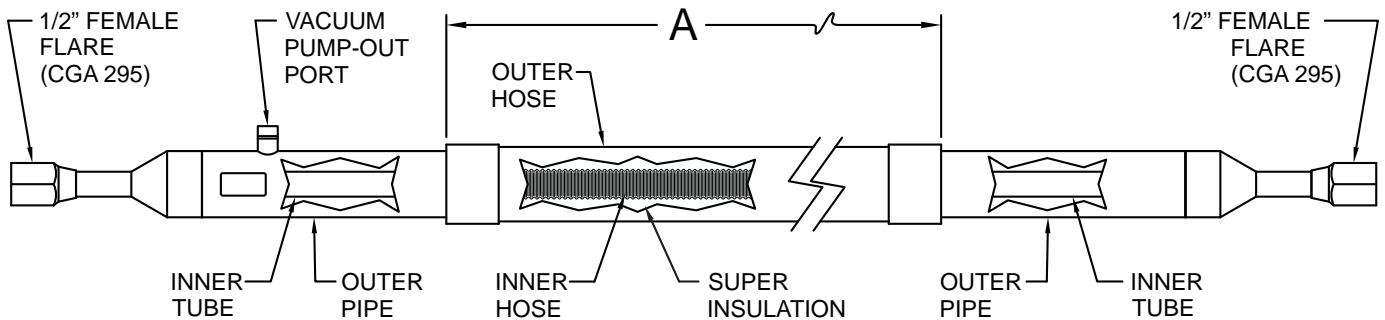
Installation Dimensions

CryoWiz with 57V Header System



DISTRIBUTION SYSTEMS

57V Cryogenic Hose



Ordering Information

57V	A	B	C	D
Series 57V	Orientation	Stations	Hose Style	Outlet Connection
	1: Standard Left side 18" (457 mm) spacing	2: 2 Stations	1: No hose (1/2" FPT port on header)	1: CGA 295 female
	2: Standard Duplex Left and Right 18" (457mm) spacing	3: 3 Stations	2: No hose (CGA 295 male port on header)	
	3: Compact Left side 10" (254 mm) spacing	4: 4 Stations	3: 36" (900mm) vacuum jacket	
	4: Compact Duplex Left and Right 10" (254mm) spacing	5: 5 Stations	4: 48" (1200mm) vacuum jacket	
	5: Standard Right side 18" (457 mm) spacing		5: 72" (1800mm) vacuum jacket	
	6: Compact Right side 10" (254 mm) spacing			

Options and Hoses

Option	Order Number	Description
Vent Manifold Kit	52L series	Wall-mounted manifold designed to equalize liquid cylinder head pressure
Vacuum-Jacketed Hoses	551 2000	36" (900mm) Vacuum-jacketed cryogenic hose
	551 2001	48" (1200mm) Vacuum-jacketed cryogenic hose
	551 2002	75" (1900mm) Vacuum-jacketed cryogenic hose