



# 57V

## 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  $1 \times 10^{-6}$  mm Hg under 250°F (121.1°C) heat and is tested with a helium mass spectrometer with  $1 \times 10^{-9}$  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

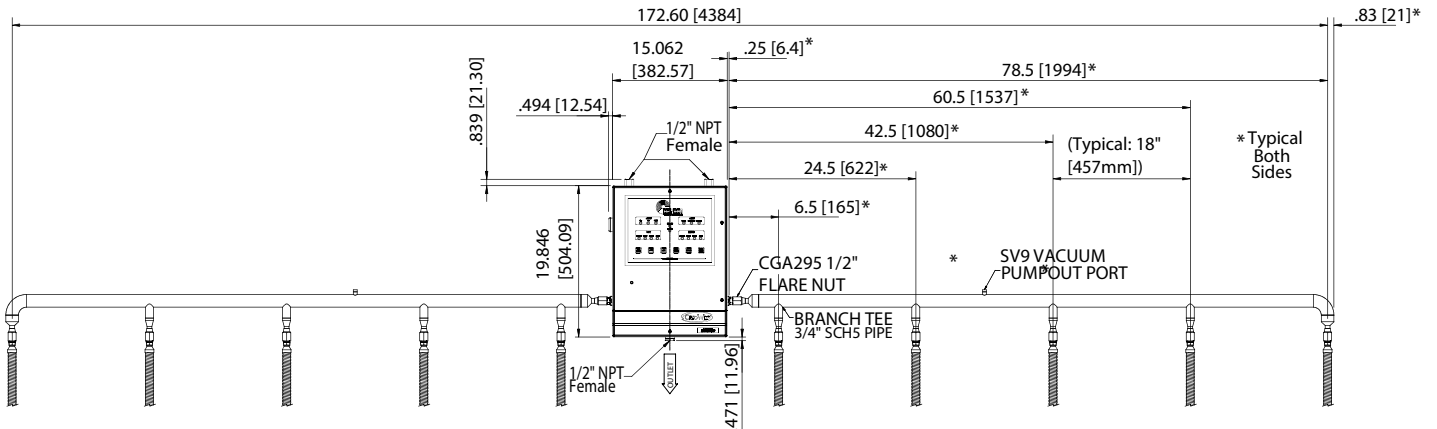
Features	Materials	Specifications
<p><b>1x10<sup>-6</sup>mm Hg Annular Vacuum</b> Low heat transfer</p> <p><b>Multi-layer Insulation</b> Prevents radiant and convective heat transfer</p> <p><b>1x10<sup>-9</sup> cc/sec Helium Leak Tested</b> Guaranteed performance</p> <p><b>Rigid 304 Stainless Steel Pipe</b> Rugged construction</p> <p><b>Active Getters</b> Extended service life</p> <p><b>SV-9 Pump Out Port</b> Continued serviceability</p>	<p><b>Header</b></p> <p><b>Outer Pipe</b> 1 1/4" (37.75mm) 304 stainless steel</p> <p><b>Inner Tubing</b> 1/2" (12.7mm) .035 wall 304 stainless steel</p> <p><b>Fittings</b> 316L stainless steel barstock</p> <p><b>Hose</b></p> <p><b>Outer Braid</b> 304 stainless steel</p> <p><b>Inner Braid</b> 316L stainless steel</p> <p><b>Inner Core</b> 304 stainless steel</p>	<p><b>MAWP (Header)</b> 150 PSIG (10 BAR)</p> <p><b>MAWP (Hoses)</b> 115 PSIG (7.9 BAR) standard</p> <p><b>Heat Leak</b> 0.89 BTU per hour per foot (3.1 J per hour per mm)</p>

# Cryogenic Systems

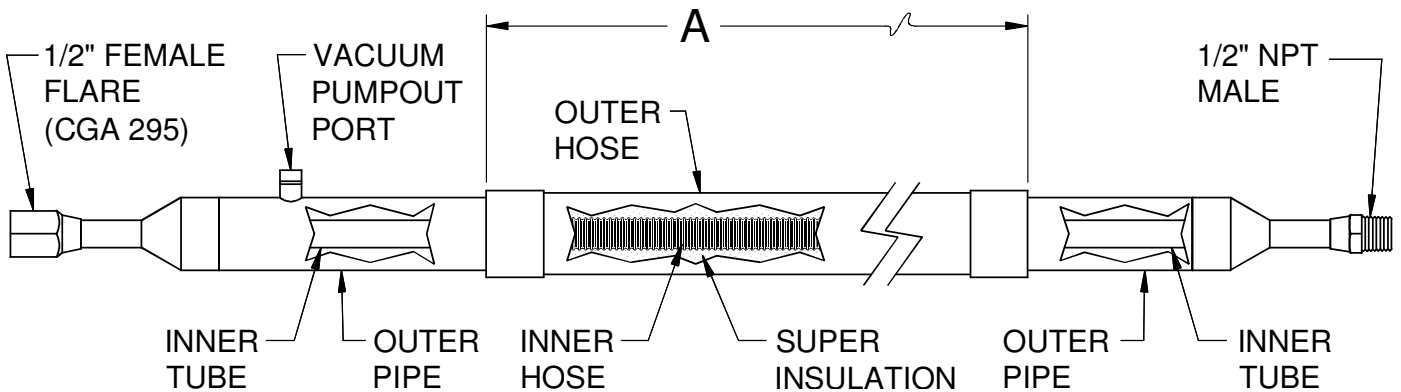


## Installation Dimensions

### CryoWiz with 57V Header System



### 57V Cryogenic Hose



## Ordering Information

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

## 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