

551 Series Vacuum-Jacketed Hoses



The 551 Series Vacuum-Jacketed Hose is a sturdy cryogenic transfer line designed to work with the 577 CryoWiz™ cryogenic switchover system and 57V Series cryogenic header to provide a complete cryogenic solution for continuous liquid nitrogen supply. Because liquid nitrogen has an extremely low boiling point, an increase in temperature can cause it to boil off and evaporate quickly. The combination of vacuum-jacket and insulation reduces heat transfer and helps maintain the low temperature of the cryogen. CONCOA offers the 551 Series semi-flexible vacuum-jacketed hose with a braided outer jacket for connection from the primary liquid cylinder source to the CryoWiz™ cryogenic switchover system. For connection from the CryoWiz™ to application distribution, the 551 Series ultra-flexible vacuum-jacketed hose, with an unbraided inner core for added flexibility, provides optimal transfer functionality for point-of-use applications. CONCOA 551 Series VJ hoses are available in longer lengths based on customer specifications and specific needs.



5512000 inlet with plug and chain shown

Typical Applications

- Cryopreservation Systems
- Environmental Chambers
- Controlled Rate Freezers
- Subambient Gas Chromatography
- LN₂ Storage Freezers

5512000 cross section shown

Features

Multi-layer Insulation prevents radiant and convective heat transfer

CGA 295 Female Flare Ends allow secure, leak free connections for efficient transfer of cryogenic liquid

Pump Out Port maintains the vacuum and minimizes liquid nitrogen loss

Low Helium Leak Rate of 10⁻⁹ scc/sec ensures safety and reliability over extended periods

Materials and Specifications

Inner Core: 316L stainless steel

End Fittings: 1/2 in female flare swivel (CGA 295), 316L stainless steel

Evacuation Port: SV-9

Helium Leak Integrity: 1x10⁻⁹ scc/sec

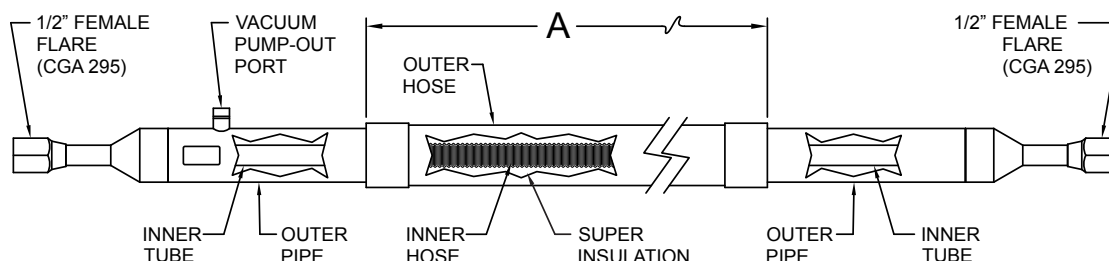
Plug and Chain: Brass (5512000 - 5512025 only)

Conformances: Cleaned for oxygen service

551 Series Vacuum-Jacketed Hoses



Installation Dimensions



Ordering Information

Part No.	Description	Max Working Pressure
551 2000	3 ft (0.9 m) Semi-flexible Vacuum-jacketed Cryogenic Hose featuring 1/2 in Stainless Steel Braided Inner Core; 1.25 in ID (1.7 in OD) Stainless Steel Braided Outer Jacket; and CGA 295 Male Plug and Chain on Inlet	1200 PSIG (80 BAR)
551 2001	4 ft (1.8 m) Semi-flexible Vacuum-jacketed Cryogenic Hose featuring 1/2 in Stainless Steel Braided Inner Core; 1.25 in ID (1.7 in OD) Stainless Steel Braided Outer Jacket; and CGA 295 Male Plug and Chain on Inlet	1200 PSIG (80 BAR)
551 2002	6 ft (1.2 m) Semi-flexible Vacuum-jacketed Cryogenic Hose featuring 1/2 in Stainless Steel Braided Inner Core; 1.25 in ID (1.7 in OD) Stainless Steel Braided Outer Jacket; and CGA 295 Male Plug and Chain on Inlet	1200 PSIG (80 BAR)
551 2005	5 ft (1.5 m) Semi-flexible Vacuum-jacketed Cryogenic Hose featuring 1/2 in Stainless Steel Braided Inner Core; 1.25 in ID (1.7 in OD) Stainless Steel Braided Outer Jacket; and CGA 295 Male Plug and Chain on Inlet	1200 PSIG (80 BAR)
551 2015	15 ft (4.5 m) Semi-flexible Vacuum-jacketed Cryogenic Hose featuring 1/2 in Stainless Steel Braided Inner Core; 1.25 in ID (1.7 in OD) Stainless Steel Braided Outer Jacket; and CGA 295 Male Plug and Chain on Inlet	1200 PSIG (80 BAR)
551 2020	20 ft (6.1 m) Semi-flexible Vacuum-jacketed Cryogenic Hose featuring 1/2 in Stainless Steel Braided Inner Core; 1.25 in ID (1.7 in OD) Stainless Steel Braided Outer Jacket; and CGA 295 Male Plug and Chain on Inlet	1200 PSIG (80 BAR)
551 2025	25 ft (7.6 m) Semi-flexible Vacuum-jacketed Cryogenic Hose featuring 1/2 in Stainless Steel Braided Inner Core; 1.25 in ID (1.7 in OD) Stainless Steel Braided Outer Jacket; and CGA 295 Male Plug and Chain on Inlet	1200 PSIG (80 BAR)
551 2200-01-036	3 ft (0.9 m) Ultra-flexible Vacuum-insulated Cryogenic Transfer Hose featuring 3/8 in ID Stainless Steel Unbraided Inner Core and 1.4 in OD Stainless Steel Braided Outer Jacket	160 PSIG (11 BAR)
551 2200-01-048	4 ft (1.2 m) Ultra-flexible Vacuum-insulated Cryogenic Transfer Hose featuring 3/8 in ID Stainless Steel Unbraided Inner Core and 1.4 in OD Stainless Steel Braided Outer Jacket	160 PSIG (11 BAR)
551 2200-01-060	5 ft (1.5 m) Ultra-flexible Vacuum-insulated Cryogenic Transfer Hose featuring 3/8 in ID Stainless Steel Unbraided Inner Core and 1.4 in OD Stainless Steel Braided Outer Jacket	160 PSIG (11 BAR)
551 2200-01-072	6 ft (1.8 m) Ultra-flexible Vacuum-insulated Cryogenic Transfer Hose featuring 3/8 in ID Stainless Steel Unbraided Inner Core and 1.4 in OD Stainless Steel Braided Outer Jacket	160 PSIG (11 BAR)
551 2200-01-096	8 ft (2.4 m) Ultra-flexible Vacuum-insulated Cryogenic Transfer Hose featuring 3/8 in ID Stainless Steel Unbraided Inner Core and 1.4 in OD Stainless Steel Braided Outer Jacket	160 PSIG (11 BAR)
551 2200-01-120	10 ft (3.0 m) Ultra-flexible Vacuum-insulated Cryogenic Transfer Hose featuring 3/8 in ID Stainless Steel Unbraided Inner Core and 1.4 in OD Stainless Steel Braided Outer Jacket	160 PSIG (11 BAR)
551 2200-01-144	12 ft (3.7 m) Ultra-flexible Vacuum-insulated Cryogenic Transfer Hose featuring 3/8 in ID Stainless Steel Unbraided Inner Core and 1.4 in OD Stainless Steel Braided Outer Jacket	160 PSIG (11 BAR)

Related Options

Part No.	Description
5500760	Brass Adapter, 1/2 in MNPT x CGA 295
5500763	Stainless Steel Phase Separator, 3/8 in FNPT x 2 in Long
5500764	Stainless Steel 90° Elbow Hose Adapter, CGA 295 x CGA 295
5500765	Brass Separator, 3/8 in MNPT x CGA 295
5500768	Brass Connector CGA 295 Male x Male
5513000-01-295	Stainless Steel Swivel Connection, 8 MNPT x CGA 295 Female
5513001-01-295	Extended Stem Cryogenic Globe Valve, Brass CGA 295 Male Fixed Connection x Stainless Steel CGA 295 Female Swivel Connection
5513003-01-295	Swivel Tee Freezer Accessory, CGA 295 Brass Male Fixed Connection x CGA 295 Stainless Steel Female Swivel Connection
52L series	Wall-mounted Vent Manifold Kit Designed to Equalize Liquid Cylinder Head Pressure