

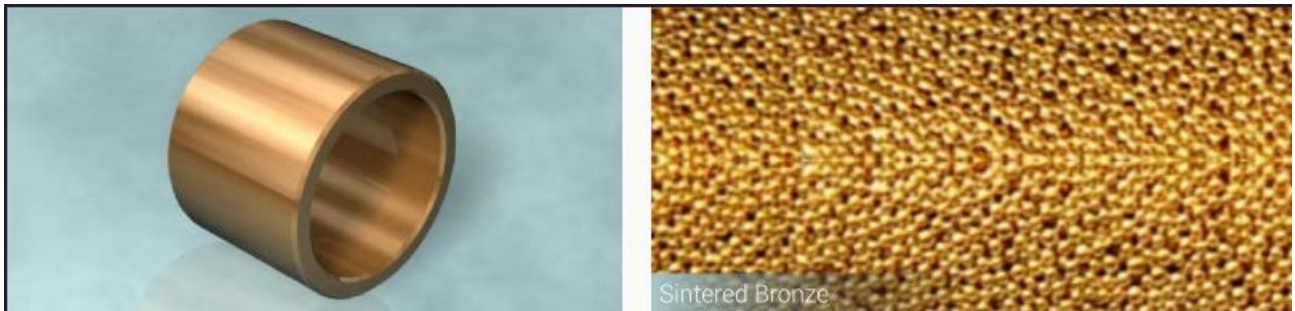
April, 2025

TECHNICAL PRODUCT BULLETIN TB-2025-04-01 Rev A

Subject: PHASE SEPARATORS – TECHNICAL INFORMATION

Phase separators are designed to divide the incoming two-phase flow from a pressurized cryogen source into separate liquid & gas streams. The gas stream is vented to the atmosphere while the single-phase liquid is dispensed to your equipment. Single-phase liquid is a more effective working fluid and is safer and easier to work with than a two-phase flow.

Phase separators are made of sintered bronze.



Sintered bronze parts are rigid, temperature resistant high-strength parts formed through the process of sintering, or powder metallurgy. Bronze is an ideal material choice for sintering; it is a non-ferrous metal commonly used as a conductive material and its porosity allows lubricants, air and liquids to pass through it.

The process of powder metallurgy has three basic steps. First, bronze or bronze alloy is made into a powdered form. The metallic powder is then poured into a die or mold cavity and compacted under great pressure in order to adhere the particles. This occurs at room temperature. The metal part is then inserted into a furnace where the extreme heat fuses the metal particles together to form a rigid, high strength and porous component. This part of the process is called sintering. Required fittings &/or adapters are added during sintering.

 1-855-750-8191

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IC Biomedical's cryogenic phase separators are available in three (3) sizes:

	Model	Description	Item No.
	80 (Large) ^{1,2}	2-3/4" Length x 1-3/8" OD, 3/8" FNPT Inlet	1193-8C80
	82 (Medium) ^{1,3}	1-1/4" Length x 1" OD, 3/8" FNPT Inlet	1193-8C82
	83 (Small)	1-1/4" Length x 1/2" OD, 1/8" FNPT Inlet	1193-8C83

¹ Suitable for use on transfer hoses with CGA 295 x 3/8" MNPT connectors

² Standard with Liquid Withdrawal Device D050-8C03

³ Suitable for use with Liquid Withdrawal Device D050-8C03

Note: Adapter 7355-4712 can be used to adapt a transfer hose with CGA295 connectors on both ends to connect to Model 80 & 82 phase separators.

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