



FCS 2001

FINNED CRYOGENIC SAMPLER

January 14, 2008

FCS-2001

Cryogenic Sampler for the Collection and Transport of Sample Cryogenic Liquids for Laboratory Analysis

The Cv Finned Cryogenic Sampler is designed to take representative samples of most liquid cryogens which include LOX, LN₂, Argon and convert them to a high pressure gas in a form suitable for storage and transport to an appropriate laboratory for infra-red spectroscopic analysis.

Also available is the model FCS2001-LH, a specially configured sampler permitting the taking of Liquid Hydrogen samples.

The Cv International Finned Cryogenic Sampler consists of four basic subassemblies:

The Finned Double-Cup Sampler - This all stainless steel, machined and welded assembly contains the threaded-on double cups, a Burst Plug providing overpressure protection and a Charging Valve to trap the liquid sample once the system is cooled down. The finned design of this sampler provides improved vaporization (heat transfer) characteristics so as to enable 10-12 minute average sample time.

Storage and Handling Case - Is a deep-drawn aluminum case designed to hold and position the Sampler and Cylinder while sampling and vaporizing as well as securing the sampler for storing and transporting. Included in the case is a replaceable insulation liner which aids in rapid Sampler cool down.

Sample Cylinder Assembly - Is a one litre stainless steel, DOT-rated, 1800 psig gas cylinder with a special Sample Cylinder Valve assembly. The Sample valve is a stainless steel raising stem plug type providing a bubble-tight, long time seal at storage pressures of 1600-1800 psig and a leakproof stem seal operation for the critical, cryogenic vaporization mode.





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Accessories - Standard accessories are include with the FCS Sampler System. These include: two 6-foot stainless steel, braided, flexible hose assemblies, each having a 1/2" stainless steel female AN nut hose ends. Necessary ordnance couplings are furnished to permit tank hookup. One sample cylinder interconnect port adaptor. Spares kit with assortment of face seals and silicone O-rings for routine valve or sampler maintenance and a full mil-spec Technical Operating manual.

All hardware to US standards and no special tools required.

FCS Specifications

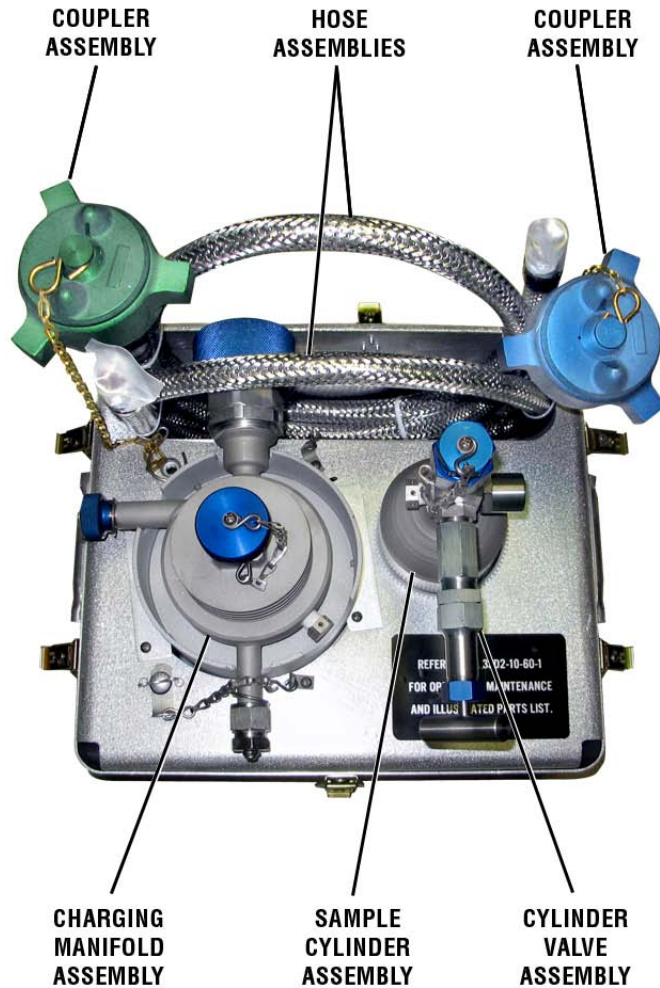
LENGTH	15.0 inches
HEIGHT	16.5 inches
WIDTH	13.6 inches
WIDTH (Overall)	24.5 inches
WEIGHT (Overall)	49 lbs.

Sample Cylinder Specifications

WEIGHT	11.0 lbs. (included in above)
CYLINDER CAPACITY	4.5 scf
CYLINDER PRESSURE	1800 psig
DOT approved for transport	

FCS CONFIGURATION:

All parts in contact with cryogen are stainless steel, seals are TFE and storage case is aluminum.



Finned Cryogenic Sampler:

Model: FCS 2001
Part Number: 600646
NSN: 6695-01-101-5691YD

Sample Cylinder:

Model: FCS Sample Cylinder
Part Number: 600210
NSN: 3655-01-059-8222