



DATE: March 25, 1988  
REV : May 31, 1988

### ACCEPTANCE RATIONALE

**DESIGN:** Review of assembly documents and Specification Material Document (SMD) MC276-0020, has provided design data points to be complied with for acceptance rationale.

Design data points:

Operational envelope (proof/burst pressure of 480/1280 psig) is to exceed the expected use envelope of 0 to 320 psig at 2500 lbs/hr full flow operation - Freon 21. Manual engagement and closure of disconnects with assurances of positive locking feature of 30 lbs locking force required to engage. Side loading forces of 200 inch-pounds are within the structural envelope.

**TEST:**

PRE-OPERATIONAL: Per operations instructions:  
Pressure test to system operating pressures with GHe, GN<sub>2</sub>:  
Prior to Freon 21 coolant loop servicing with Freon 21.

|                          |   |                    |
|--------------------------|---|--------------------|
| GO70-582436 -2234        | : | 320 psig GN2 check |
| GO70-582437 -4223, -1233 | : | 380 psig GN2 check |
| GO70-582438 -4223        | : | 760 psig GN2 check |
| GO70-582446 -2224        | : | 320 psig GN2 check |
| GO70-582447 -4223        | : | 380 psig GN2 check |
| GO70-582448 -2224        | : | 320 psig GN2 check |

**INSPECTION:**

PRE-INSTALLATION VERIFICATION: Per MC276-0020 (5.1 - 5.1.5) Acceptance Test: Examination of product, The AHC, the AHC cap the GHC, and the GHC cap shall each be carefully examined to determine conformance to the requirements of this specification. Particular attention shall be given to weight, workmanship, finish, dimensions, construction, identification, marking, traceability level, and to the use of certified materials and processes.

AGE LIFE INSPECTIONS: Per OMI S6013, the assembly is inspected annually (V6F22) for compliance to the material and assembly specifications.

PRE-OPERATIONAL: Per OMI V3537: Components are inspected for cleanliness per MA0110-311, level 300 by visual inspection of bagging and sealing of interface ports and/or research of applicable TAIR books prior to each use.

**OPERATION:**

Manual attachment and monitored filling insure a secure connection by personnel.

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ACCEPTANCE RATIONALE CONTINUED

**DETECTION:**

Visual detection of freon 21 discharge.

**CORRECTION:**

Isolation and replacement.

**FAILURE HISTORY:**

Review of PRACA Data Base has provided failure history on item MC-276-0020 in the ECLSS Operations.

EICN: S70-0790-03-021-0013

QD would not mate/demate properly.  
P/N MC276-0020-2234.  
S/N 11362-A1Q77117.