NAME P/N QTY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
FLOW RESTRICTOR, ITEM 113B SV7700873-14 (1)	2/1R	113BFM02: High gas flow rate. CAUSE: Erosion, rotated adjusting screw.	END ITEM: Maximum O2 flow rate to the suit may exceed 7.5 lbs/hr. GFE INTERFACE: Fails to limit maximum flow rate to 7.5 lbs/hr following a failed open regulator. Relief valve (item 148) cannot limit suit pressure to 5.7 psi at flows above 7.5 lbs/hr. MISSION: None for single failure. Possible suit overpressurization with double failure (failed open regulator). CREW/VEHICLE: None for single failure. Possible loss of crewman with failed open item 113B or 113E.	A. Design - The variable orifice plug is made from Monel Alloy K-500 per spec. QQ-N-286 Class A. The orifice insert is fabricated of Monel alloy 400 per spec. QQ-N-281. Both materials are compatible with high pressure oxygen and not subject to erosion in that environment. The inlet to the orifice is protected by 25 micron filters. The adjusting screw is prevented from rotating in either direction by safety wiring in two directions. In addition, a Tef-F locking plug is used which provides resistance to rotation by providing a running torque resistance. B. Test - Component Acceptance Test (Vendor) - The vendor tests the maximum flow capacity of the flow restrictor at 1035-1040 psi. The maximum flow rate shall be less than 7.5 lb/hr. PDA Test - SEMU-60-010 contains a test of the flow restrictor. With the bottles pressurized to 850-950 psia the orifice is required to maintain a maximum flow of 5.5-6.70 lbs/hr oxygen. An eroded or overflowing orifice would fail this test. To prevent the orifice from becoming contaminated, all rig lines and test fixtures are cleaned to #85150 EMSRA. Certification Test - PDA testing of each production unit verifies the items proper performance. No Class I engineering changes have been incorporated since this configuration was certified. C. Inspection - Details are 100% inspected per drawing dimensions and surface finish characteristics. Details are manufactured from material with certified physical and chemical properties. A trial assembly is run before final assembly. D. Failure History - None.

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	2/1R	113BFM02:		

E. Ground Turnaround -
None.

F. Operational Use -
Crew Response -
PreEVA: No response, single failure undetectable by crew or ground.
EVA: No response, single failure undetectable by crew or ground.
Training - Standard EMU training covers this failure mode.
Operational Considerations -
Flight rules define go/no go criteria related to EMU suit pressure regulation.
EVA checklist and EDF procedures verify hardware integrity and operational status prior to EVA. Real Time Data system allows ground monitoring of EMU systems.