Specific Technical Requirements
STR-6

Date: 27.04.2001

Constant Pressure Oxygen and Pressurised Air Supply

1 Definition

The Constant Pressure Oxygen and Pressurised Air Supplies shall provide a constant outlet pressure between 3 and 6 bar at a flow rate of 5 to 90 L/min NTPD at inlet pressure between 15 and 127 bar.

2 Requirements and Acceptable Means of Compliance

Standards set forth in JAR 25, Change 14
SAE Aerospace Standard AS 1046, Rev. B
SAE Minimum General Standards for Oxygen Systems AS 861
RTCA DO-160D Environmental Conditions and Test Procedures for Airborne Equipment

Requirements	Headline	MOC
JAR 25.1301	Function and installation	-
JAR 25.1301 (a)	Intended Function	**MC4**
JAR 25.1301 (b)	Labelling	**MC0**
JAR 25.1301 (c)	Installation limitations	**MC0**
JAR 25.1301 (d)	Proper function	**MC4**
JAR 25.1441	Oxygen equipment and supply	-
JAR 25.1441 (a)	Cross reference t JAR 25.1443 to 25.1453	**MC0**
JAR 25.1441 (b)	Free of hazards	**MC1**
JAR 25.1441 (c)	Means to determine quantity	**MC0**
JAR 25.1441 (d)	Flow rates above 40000 ft	**MC0**
JAR 25.1443	Minimum mass flow of supplemental oxygen	-
JAR 25.1443 (a)	Continuos flow equipment for flight crew members	**MC0**
JAR 25.1443 (b)	Demand flow equipment for flight crew members	**MC0**
JAR 25.1443 (c)	Supplemental oxygen for passengers and cabin attendants	**MC0**
JAR 25.1443 (c)(1)	10000 ft to 18500 ft	**MC4**
JAR 25.1443 (c)(2)	18500 ft to 40000 ft	**MC4**
JAR 25.1443 (d)	First aid oxygen	**MC0**
JAR 25.1443 (e)	Portable oxygen	**MC0**
JAR 25.1453	Protection of oxygen equipment from rupture	-
JAR 25.1453 (a)	Sufficient Strength	**MC4** **MC1**
JAR 25.1453 (b)	Requirements for sources and pipelines	**MC0**
JAR 25.1453 (b)(1)	Protection from unsafe temperatures	**MC0**
JAR 25.1453 (b)(2)	Location with minimised probability of hazard in crash landing conditions.	**MC0**

Requirements	Headline	MOC
AS 1046, .2.1.1	Gas Gas	**MC0**
AS 1046, 1, 2	Allgemeines Scope and Purpose	**MC0**
AS 1046, 4.1	Einzelforderungen Detail Requirements	**MC0**
AS 1046, 4.2	Druckgasbehälter Cylinder	**MC0**
AS 1046, 4.2.1	Fülldruck Filling Pressure	**MC0**
AS 1046, 4.2.2	Größe und Form Size and Shape	**MC0**
AS 1046, 4.2.3	Fassungsvermögen Capacity	**MC0**
AS 1046, 4.2.4	Benutzungsdauer Duration	**N/A**
AS 1046, 4.2.5	Farbe Colour	**MC0**
AS 1046, 4.2.5	Kennzeichnung Marking	**MC0**
AS 1046, 4.3	Regler Regulator	**MC0**
AS 1046, 4.3.2, 4.3.2.1	Absperrventil ON-OFF Valve	**MC0**
AS 1046, 4.3.3	Ventil, Konstruktion und Materialien Valve design, Construction and Materials	**MC1**
AS 1046, 4.3.4	Ventilmechanismus Valve Control	**MC4**
AS 1046, 4.3.4	Inhaltsanzeiger Cylinder Contents Indicator	**MC0**
AS 1046, 4.3.6	Hochdruck-Sicherheitsventil High Pressure Safety Device	**MC4** **MC1**
AS 1046, 4.3.7	Niederdruck-Sicherheitsventil Low Pressure Relief Device	**MC4**
AS 1046, 4.3.8	Auslaßanschluß Outlet Connection	**MC0**
AS 1046, 4.3.9	Füllstutzen Filler Fitting	**MC0**
AS 1046, 4.5	Bänderung Harness	**MC0**
AS 1046, 5	Umgebungsbedingte Forderungen Quality Assurance Provisions	**MC0**
AS 1046, 5.1.1	Musterprüfung / Qualifikation Qualification Testing	**MC0**
AS 1046, 5.1.2	Stückprüfung Acceptance Testing	**MC0**
AS 1046, 5.2, 5.3	Prüfbedingungen Test Conditions	**MC0**

Requirements	Headline	MOC
AS 1046, 5.3.1	Sichtprüfung Visual Inspection	**MC0**
AS 1046, 5.3.1	Einbaumaße Dimensions	**MC0**
AS 1046, 5.3.2	Dichtprüfung Leakage Testing	**-**
AS 1046, 5.3.3	Funktionsprüfungen Functional Tests	**-**
AS 1046, 5.3.4	Einsatz-Temperaturen High and Low Temperature Testing	**MC4**
AS 1046, 5.3.4	Einsatz-Temperaturen Operational Temperatures	**-**
AS 1046, 5.3.5	Lager-Temperaturen High and Low Temperature Exposure Testing	**MC4**
AS 1046, 5.3.5	Lager-Temperaturen Storage Temperatures	**-**
AS 1046, 5.3.6	Vibration und Schock Endurance and Vibration Testing	**MC4**
AS 1046, 5.3.6	Vibration und Schock Vibration and Shock	**MC4**
AS 1046, 5.3.7	Salzsprühtest Salt Spray	**MC0**
AS 1046, 5.3.7	Schimmelprüfung Fungus	**MC0**
AS 1046, 5.3.7	Sand- und Staubprüfung Sand and Dust	**MC0**
AS 1046, 6.1	Typenschild Identification	**MC0**
AS 1046, 6.3	Transport und Lagerung Transport and Storage	**MC0**
AS 861, 3.1.1	Werkstoffe Materials	**MC1**
AS 861, 3.1.1.1	Schutzüberzüge Finish	**MC4**
AS 861, 3.1.2	Fertigungsstand Workmanship	**MC0**
AS 861, 3.1.3	Konstruktion Construction	**-**
AS 861, 4.1	Konstruktion, Menschliche Faktoren Human factors	**MC0**
AS 861, 4.2	Konstruktion, Lärmpegel Acoustical Noise Levels	**MC0**
AS 861, 4.3	Konstruktion, Abnahmeprüfungen Qualification Tests	**MC0**
AS 861, 4.4	Konstruktion, Forderungen für starke Beanspruchung Strength Requirements	**MC0**
AS 861, 4.5	Konstruktion, Handhabung Handling Resistance	**MC0**

Requirements	Headline	MOC
RTCA DO-160D	Environmental Conditions and Test Procedures for Airborne Equipment	-
RTCA DO-160D Sect. 4	Temperature / Altitude	**MC4**
RTCA DO-160D Sect. 5	Temperature Variation	**MC0**
RTCA DO-160D Sect. 6	Humidity	**MC4**
RTCA DO-160D Sect. 7	Operational Shocks and Crash Safety	**MC4**
RTCA DO-160D Sect. 8	Vibration	**MC4**
RTCA DO-160D Sect. 9	Explosive Environment	**MC0**
RTCA DO-160D Sect. 10	Water Proofness	**MC0**
RTCA DO-160D Sect. 11	Fluids Susceptibility	**MC0**
RTCA DO-160D Sect. 12	Sand and Dust	**MC0**
RTCA DO-160D Sect. 13	Fungus	**MC0**
RTCA DO-160D Sect. 14	Salt Spray	**MC0**
RTCA DO-160D Sect. 15	Magnetic Effect	**MC0**
RTCA DO-160D Sect. 16	Power Input	**MC0**
RTCA DO-160D Sect. 17	Voltage Spike	**MC0**
RTCA DO-160D Sect. 18	Audio Frequency conducted Susceptibility	**MC0**
RTCA DO-160D Sect. 19	Induced Signal Susceptibility	**MC0**
RTCA DO-160D Sect. 20	Radio Frequency Susceptibility	**MC0**
RTCA DO-160D Sect. 20	Lightning Direct Effects	**MC0**
RTCA DO-160D Sect. 21	Radio Frequency Emission	**MC0**
RTCA DO-160D Sect. 22	Lightning Induced Transient Susceptibility	**MC0**
RTCA DO-160D Sect. 24	Icing	**MC0**
RTCA DO-160D Sect. 25	Electrostatic Discharge	**MC0**

Acceptable means but not the only means of compliance are given in the applicable JAR 25 ACJ´s.