

AIRCRAFT LIFE SUPPORT

ISO 9001 & AS9100 Certified
MIL-STD-810 Qualified
CAGE CODE 19062



AIRCRAFT LIFE SUPPORT LOX CONVERTERS

LOX CONVERTERS

LOX Converters are currently being or have been used on many of the Department of Defense aircraft, including the A-7, A-10, F-4, F-5, F-15, F-16, F-18, F-111, F-117, T-2, T-38, A-6, EA-6B, E-2C, S3, C-5, C-17, C-130, C-141, KC-135, HC-130 and the B-52 aircraft.

- Safe, lightweight and compact
- Internally mounted capacitance probe
- Stainless steel construction
- High vacuum insulation



5 LITER LOX REMOVABLE

P/N 10C-0020-9 (MB-5A)
NSN 1660-00-327-7048
MIL-DTL-19328



5 LITER LOX FIXED

P/N 10C-0021-5 (GCU-12A/A)
NSN 1660-00-148-9239
MIL-DTL-25666/4



7 LITER LOX CONVERTER REMOVABLE

P/N 10C-0059-7



10 LITER LOX CONVERTER REMOVABLE

P/N 10C-0016-16 (GCU-24A/A)
NSN 1660-01-179-4064
MIL-DTL-19803



10 LITER LOX CONVERTER FIXED

P/N 10C-0005-11 (GCU-2 A/A)
NSN 1660-00-078-8227
MIL-DTL-25666/1



10 LITER LOX READY TO INSTALL (RTI) REMOVABLE

P/N 10C-0045-10, -11, -12

P/N	10C-0020-9	10C-0021-5	10C-0059-7	10C-0016-16	10C-0005-11	10C-0045-10, -11, -12
CAPACITY	5 LITERS (REMOVABLE)	5 LITERS (FIXED)	7 LITERS (REMOVABLE)	10 LITERS (REMOVABLE)	10 LITERS (FIXED)	RTI (REMOVABLE)
W"x L"x H"	12.4 x 15 x 9.5	11.7 x 12.8 x 9.3	7.3 x 29	12.4 x 15 x 12.5	12.8 x 12.9 x 12.7	16 x 18.5 x 18.5
WEIGHT, FULL	28 LBS	25 LBS	39 LBS	45 LBS	38 LBS	75 LBS
WEIGHT, EMPTY	15 LBS MAX	12 LBS MAX	21 LBS	20 LBS MAX	20 LBS MAX	50 LBS
TOTAL GASEOUS VOLUME	4,300 LITERS	4,300 LITERS	6,020 LITERS	8,600 LITERS	8,600 LITERS	8,600 LITERS
OPERATING PRESSURE	75-120 PSIG	75-120 PSIG	75-120 PSIG	75-120 PSIG	75-120 PSIG	75-120 PSIG
MAX FLOW RATE	72 LPM	72 LPM	50 LPM	72 LPM	72 LPM	100 LPM
OPERATING TEMPERATURE	-65° F TO 260° F	-65° F TO 260° F	-20° F TO 120° F	-65° F TO 260° F	-65° F TO 260° F	-65° F TO 260° F
MOUNTING	BASE PLATE WITH A SINGLE WING NUT FOR EASY REMOVAL	FOUR (4) MOUNTING BOLTS	TWO (2) QUICK RELEASE BAND CLAMPS	BASE PLATE WITH A SINGLE WING NUT FOR EASY REMOVAL	FOUR (4) MOUNTING BOLTS	ENCLOSURE: FOUR (4) AIRCRAFT SEAT TRACK FITTINGS; 10 LITER: BASE PLATE WITH A SINGLE WING NUT
REQUIRED POWER INDICATOR	—	—	5 TO 28 VDC, 200MA REMOTE MOUNTED INDICATOR	—	—	—
FILL CONNECTION	CRU-50/A MIL-PRF-25961 COMBO VALVE	M533656-6	CRU-50/A FILL VALVE	CRU-50/A FILL VALVE	3/8" ANPT INTERNAL	CRU-50/A FILL VALVE
PLUMBING CONNECTIONS	TWO (2) QUICK DISCONNECT	FIVE (5)	ONE (1) QUICK DISCONNECT	TWO (2) QUICK DISCONNECT	FIVE (5)	TWO (2)
ELECTRICAL CONNECTIONS	TWO (2) QUICK DISCONNECT	TWO (2) QUICK DISCONNECT	ONE (1) QUICK DISCONNECT	TWO (2) QUICK DISCONNECT	TWO (2) QUICK DISCONNECT	TWO (2) QUICK DISCONNECT PLUS POWER CONNECTION

AIRCRAFT LIFE SUPPORT LOX CONVERTERS



25 LITER LOX CONVERTER FIXED

P/N 10C-0001-26 (GCU-17/A)
NSN 1660-00-122-8101
MIL-DTL-25666/5

P/N 10C-0002-25 (ME-3)
NSN 1660-00-915-9673
MIL-DTL-25666/7



75 LITER LOX CONVERTER FIXED

P/N 10C-0012-75 (GCU-20/A)
NSN 1660-00-079-4359
MIL-DTL-25666/6

P/N	10C-0001-26	10C-0012-75
CAPACITY	25 LITERS (FIXED)	75 LITERS (FIXED)
W"x L"x H"	19.8 x 19.3 x 17.5	23.5 x 23.5 x 24
WEIGHT, FULL	96 LBS	275 LBS
WEIGHT, EMPTY	33 LBS	85 LBS
TOTAL GASEOUS VOLUME	21,500 LITERS	64,500 LITERS
OPERATING PRESSURE	300-380 PSIG	300-380 PSIG
MAX FLOW RATE	150 LPM	400 LPM
OPERATING TEMPERATURE	-65° F TO 260° F	-65° F TO 260° F
MOUNTING	THREE (3) MOUNTING BOLTS	FOUR (4) MOUNTING BOLTS
PLUMBING CONNECTIONS	FIVE (5)	FIVE (5)
ELECTRICAL CONNECTIONS	TWO (2) QUICK DISCONNECT	TWO (2) QUICK DISCONNECT



AIRCRAFT LIFE SUPPORT GAS CYLINDERS



LOW PRESSURE CYLINDERS

P/N 80C-0008 SERIES

Low Pressure Cylinders operate at pressures of 500 PSIG or less and can be used as oxygen reserve tanks, walk-around bottles, plenum tanks or in a variety of other applications.

- Fabricated of stainless steel
- Available in other sizes and pressures
- Single or Double port cylinders available
- Constructed per MIL-DTL-5886



HIGH PRESSURE CYLINDERS

P/N 80C-0002, P/N 80C-0003, P/N 80C-0006 SERIES

High Pressure Cylinders operate at pressures ranging from 1800 to 2100 PSIG. A range of sizes and configurations are available, some designed and tested to Military Specifications.

	ESSEX PART NUMBER	MIL PART NUMBER	MIN. INTERNAL VOLUME (CUBIC INCHES)	NOMINAL OPERATING PRESSURE (PSIG)	MAX. WEIGHT (POUNDS)	MAX. LENGTH (INCHES)	MAX. DIAMETER (INCHES)	PORTS PER SAE AS71051
LOW PRESSURE	80C-0008-1	M5886-1	280	450	3.75	14.50	5.750	ONE 1/4" ANPT
	80C-0008-2	M5886-2	280	450	3.75	15.00	5.750	TWO 1/4" ANPT
	80C-0008-3	M5886-3	500	450	5.75	23.00	5.750	TWO 1/4" ANPT
	80C-0008-4	M5886-4	1000	450	10.00	18.00	10.125	TWO 1/4" ANPT
	80C-0008-6	M5886-6	2100	450	18.00	24.50	12.562	TWO 1/4" ANPT
HIGH PRESSURE	80C-0002-1	MS26545A4C205AW	205	2100	10.17	24.250	3.703	ONE 1/2" ANPT
	80C-0003-1	MS2654A3X0096W	96	1800	5.90	13.375	3.703	ONE 1/2" ANPT
	80C-0003-2	MS26545A4X0096W	96	2100	5.90	13.375	3.703	ONE 1/2" ANPT

GROUND SUPPORT EQUIPMENT

ISO 9001 & AS9100 Certified
MIL-STD-810 Qualified
CAGE CODE 19062



GROUND SUPPORT EQUIPMENT LOX CARTS

50 GALLON LOX CART

P/N 50C-0014-1 (DARK GREEN) | NSN 3655-01-066-6214 | TMU-27/M
P/N 50C-0014-5 (WHITE) | NSN 3655-01-456-0123

The 50 Gallon LOX Cart is a mobile liquid oxygen storage tank assembly that allows for maximum reliability and portability with minimal maintenance. The 50 Gallon LOX Cart can be used with any LOX converter that uses a CRU-50/A fill connection, including all Essex LOX Converters, BMOS, BMOS-FS, MMOS, NPTLOX and PTLOX. Meets and/or exceeds functional and environmental requirements of MIL-PRF-38170. Tested to MIL-STD-810 and conforms to mobility requirements of SAE-A58090 (MIL-M-8090, Type II, Group A equipment).

CAPACITY	50 GALLONS
W"x L"x H"	54 x 85 x 39
WEIGHT, FULL	1160 LBS
WEIGHT, EMPTY	685 LBS
SYSTEM INTERNAL PRESSURE	0-65 PSIG
DELIVERY/OUTLET PRESSURE	20-65 PSIG
OPERATING TEMPERATURE	-65° F TO 125° F
FILL CONNECTION	INSULATED TRANSFER HOSE (WILL WORK WITH ANY PORTABLE LOX DEVICE HAVING A STANDARD CRU-50 FILL CONNECTION)
OUTLET PORT	CRU-59/E FILL VALVE ON TEN (10) FOOT HOSE
TRANSPORTATION	STANDARD LUNETTE EYE WITH THREE (3) WHEELS (RETRACTABLE FRONT WHEEL), MANUAL PARKING BRAKE, LIFT/TIE DOWN RINGS





500 GALLON LOX TRAILER

P/N 50C-0115-1 (LOX) | NSN 3655-01-626-3554

P/N 50C-0115-2 (LIN) | NSN 3655-01-626-3553

The 500 Gallon LOX Trailer is a mobile liquid oxygen storage tank assembly.

The 500 Gallon LOX Trailer can be used with all Essex LOX Converters, BMOS, BMOS-FS, MMOS, NPTLOX, PTLOX and 50 Gallon LOX Carts.

A 500 Gallon LIN Trailer for the transport and storage of liquid nitrogen is also available.

- ASME certified tank builder
- Trailer Mounted and Forklift Compatible
- Unit is Qualified to Air Force PD13WRGRVEA05
- Tested to MIL-STD-810

CAPACITY	500 GALLONS
DIMENSIONS (W" x L" x H")	84 x 136 x 96
OVERALL CUBE	633 FT ³
FULL WEIGHT	9500 LBS w/ LOX 8000 LBS w/ LIN
EMPTY WEIGHT	4500 LBS
SYSTEM INTERNAL PRESSURE	0-65 PSIG
LOX DELIVERY/OUTLET PRESSURE	30-50 PSIG
OPERATING TEMPERATURE	-40°F TO +140°F
STORAGE TEMPERATURE	-60°F TO +160°F
OUTLET PORTS	10' SERVICING HOSE PER MIL-H-27301 WITH SERVICING COUPLING FOR LOX PER 8991174 OR LIN PER 8991172 ADDITIONAL 10' SERVICING HOSE PER MIL-PRF-83772 WITH THE MATING SERVICING COUPLING AND CRU-59/E FILL VALVE. TRAILER PER SAE AS8090, TYPE II, GROUP C WITH LUNETTE COUPLER PER A-A 52464, TYPE II
TRANSPORTING	TIE-DOWN PROVISIONS PER MIL-HDBK-1791 & USAF 4887796 LIFTING RINGS FOR CRANE COMPATIBILITY FORKLIFT TUBES FOR FORKLIFT COMPATIBILITY



GROUND SUPPORT EQUIPMENT ACCESSORIES



LOX PERSONAL PROTECTION EQUIPMENT

P/N 50C-0107-0903-1, -2, -3, -4 (Kits include Gloves, Apron, & Face Shield)
 P/N 50C-0107-0900-1, -2, -3, -4 (Cryogenic Elbow Length Gloves)
 P/N 50C-0107-0902 (Cryogenic Apron 42" Long)
 P/N 50C-0107-0901 (Face Shield)

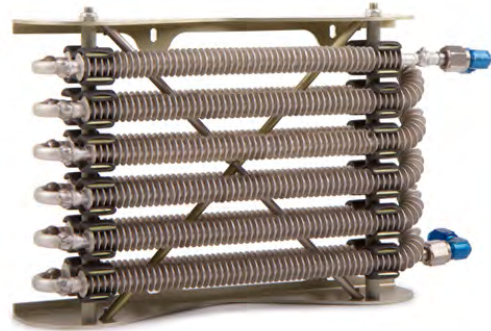
Personal Protection Equipment (PPE) must be worn when filling, draining or purging LOX or other cryogenic devices. The extreme cold of the liquid can freeze unprotected skin cause severe frostbite. Essex offers face shields, cryogenic aprons and cryogenic gloves available separately or in kits in various sizes.

Actual items may vary slightly in appearance from those pictured.

LOX HEAT EXCHANGER

P/N 50C-0007 | NSN 1660-01-042-3234

LOX Heat Exchanger warms incoming gaseous or liquid oxygen within 20 degrees of the ambient temperature prior to delivery to a pilot, aircraft crew or medical patient for breathing. A variety of sizes and configurations are available.



LOX FILL HARNESS KIT

P/N 50C-0097-10
 P/N 50C-0097-15

LOX Fill Harness Kit connects a Liquid Oxygen Cylinder (VGL) with a LOX converter or system for filling. The kit includes a relief valve, manual vent valve, CRU-59 LOX filler valve and hose assembly in either a 10' or 15' length.

W"x L"x H"	23 x 18.5 x 7
WEIGHT	15 LBS
RELIEF VALVE SETTING	400 PSIG
SUPPLY CONNECTION	CRU-59/E FILL VALVE

PURGE KIT

P/N 50C-0068-2

The Purge Kit, coupled with an adequate supply of gas, removes moisture from cryogenic vessels, system lines, valves and their components. Can be used with pure gaseous nitrogen, oxygen or air. Adapters and hoses can be designed to fit specific applications upon request.

W"x L"x H"	18.5 x 14 x 7
WEIGHT	18 LBS
SAFETY BURST DISC PRESSURE	150 ± 10 PSIG
INLET FLOW & PRESSURE	100 LPM AT 55 PSIG
HEATER OUTLET TEMPERATURE	250° F ± 20 ° F
OPERATING POWER	110 VOLTS AC, 60 HZ, SINGLE PHASE
OUTLET CONNECTION	CRU-59/E OR ALOX
SUPPLY CONNECTION	37 DEGREE FLARE FITTING





HIGH PRESSURE FILL KIT

P/N 50C-0110-1 | NSN 3655-01-614-1496

High Pressure Fill Kit connects the OGL with a high pressure oxygen compressor to fill high pressure cylinders with 93% USP oxygen. The kit includes a 20' low pressure oxygen hose and a 4' high pressure braided hose with a relief valve, manual vent valve and pressure gauge. The high pressure oxygen compressor is not included. Items are packaged in a protective storage case.

W"x L"x H"	18.5 x 14 x 7
WEIGHT	12 LBS
RELIEF VALVE SETTING	75 PSIG
SAFETY BURST DISC PRESSURE	150 ± 10 PSIG
INLET AND FLOW PRESSURE	0 ± 25 PSIG
ACCESSORIES INCLUDED	ONE (1) 20' MEDICAL HOSE ONE (1) 4' HIGH PRESSURE HOSE ASSEMBLY ONE (1) CGA 540 CONNECTION ONE (1) CGA 870 YOKE CONNECTION

BACKPACK MEDICAL OXYGEN SYSTEM FILLING STATION HOSE KIT

P/N 50C-0116-1

BMOS-FS Hose Kit connects the MMOS to the BMOS-FS for refilling. The kit includes a relief valve, burst disc, CRU-50 LOX filler valve and CRU-59 LOX filler valve attached to a 4' cryogenic transfer hose. Items are packaged in a protective storage case.

W"x L"x H"	18.5 x 14 x 7
WEIGHT	13 LBS
RELIEF VALVE SETTING	75 PSIG
SAFETY BURST DISC PRESSURE	150 ± 10 PSIG
OUTLET CONNECTION	CRU-59/E FILL VALVE ON 4' HOSE
SUPPLY CONNECTION	CRU-50/A FILL FITTING



MISCELLANEOUS ACCESSORIES

10' Cryogenic Hose 50/500 Gallon LOX Carts	P/N 50C-0084-10 P/N 50C-0014-0170 MIL-PRF-83772
15' Cryogenic Hose 50/500 Gallon LOX Carts	P/N 50C-0084-15 P/N 50C-0014-0500 MIL-PRF-83772
Drain Tank	P/N 50C-0009-2
Portable Efficiency Meter	P/N 50C-0016-2
Portable Quantity Gauging System	P/N 50C-0022-1
LOX Purge Fitting	P/N 50C-0014-0111
LIN Purge Fitting	P/N 50C-0014-0250
Supply Quick Disconnect	P/N 528000-7
Vent Quick Disconnect	P/N 256000-7