

Don't miss out on our upcoming Service Schools!

CAIRE Service School Trainings and Webinars 2023

CAIRE offers In-person and Virtual Service Schools covering both LOX and Concentrator lines.

Each class is a comprehensive program that focuses on the technical and service aspects of the CAIRE family products. Class time is divided between lecture and hands-on workshops. The seminars will help the student develop a better understanding of how liquid oxygen equipment or concentrators work, how to identify the symptoms and causes of potential problems and how to use the technical information that is available in the Technical Manuals. Registration for CAIRE's Service Schools is mandatory. Registration forms must be received two weeks prior to the start of the class in order to guarantee availability and materials.

Table 1 - Details of upcoming training.

Туре	Language	Location	Training Dates	Registration by	Training Type
Conc USA	English	Ball Ground, GA USA	06-08 Febuary-23	13-January	In person
LOX USA	English	Ball Ground, GA USA	09 February 23	13-January	In person
LOX Germany	German	Langenfeld, Germany	15-February-23	01-February	In person
LOX France	French	Toulouse, France	14-March-23	28-February	In person
Conc France	French	Toulouse, France	15-16 March-23	01-March	In person
LOX Italy	Italian	Padova, Italy	23 March-23	10-March	In person
Conc Germany	German	Langenfeld, Germany	04-06 April-23	21-March	In person
LOX LATAM	Spanish	Latin America	18-April-23	04-April	Remote**
Conc LATAM	Spanish	Latin America	19-20 April-23	05-April	Remote**
Conc USA	English	Ball Ground, GA USA	08-10 May-23	14-April	In person
LOX USA	English	Ball Ground, GA USA	11 May-23	15-April	In person
LOX Germany	German	Langenfeld, Germany	24-May-23	10-May	In person
Conc Italy	Italian	Padova, Italy	06-07 June-23	23-May	In person
LOX Spain	Spanish	Barcelona, Spain	20-June-23	06-June	In person
Conc Spain	Spanish	Barcelona, Spain	21-22 June-23	07-June	In person
Conc USA	English	Ball Ground, GA USA	21-23 August-23	28-July	In person
LOX USA	English	Ball Ground, GA USA	24 August-23	29-July	In person
LOX Germany	German	Langenfeld, Germany	23-August-23	09-August	In person
Conc Germany	German	Langenfeld, Germany	12-14 September-23	29-August	In person
LOX France	French	Toulouse, France	19-September-23	05-September	In person
Conc France	French	Toulouse, France	20-21 September-23	20-September	In person
LOX Italy	Italian	Padova, Italy	11-October-23	27-September	In person
LOX LATAM	Spanish	Latin America	17-October-23	03-October	Remote**



Conc LATAM	Spanish	Latin America	18-19 October-23	04-October	Remote**
LOX Germany	German	Langenfeld, Germany	08-November-23	25-October	In person
Conc USA	English	Ball Ground, GA USA	13-15 November-23	30-October	In person
LOX USA	English	Ball Ground, GA USA	16 November-23	30-October	In person

^{*}We reserve the right to cancel training seminars at short notice. Customers should ensure that they take necessary precautions to ensure costs are covered in case of cancellation.

Concentrator Service School Topics include:

- Concentrator hazards and safety precautions
- Principles of pressure, flow, and saturation
- Functions of the major components of a portable/stationary concentrator
- Theory of operation
- Set up and use of test equipment
- Troubleshooting, repair and performance verification/testing procedures

LOX Service School Topics include:

- Liquid oxygen (LOX) hazards and safety precautions
- Principles of pressure, flow and liquid oxygen saturation
- Functions of the major components of a liquid oxygen system
- HELiOS™ system theory of operation
- Reservoir and portable filling procedures
- Set up and use of test equipment

Please submit your registration forms no later than the dates in Table 1 above. If you are interested in the service schools mentioned above, and it is past the registration date, please reach out to the registration emails below.

To register for Service School, please email:

<u>Techservice.global@caireinc.com</u> for USA Training or <u>jim.gibson@caireinc.com</u> for European/LATAM Training.

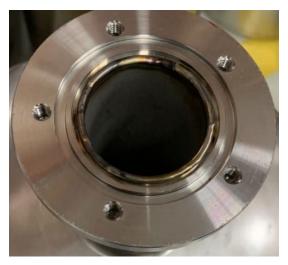
^{**} Training will be in the form of a Webinar.



PRODUCT UPDATES

Liberator® 20, 30, 37 and 45 models updated neck tube

CAIRE® would like to notify our valued customers that as part of our drive for continuous product improvements, we will change the design used for the neck tube on the above model Liberator liquid oxygen equipment. The previous bellows neck tube assembly design will be replaced by a more robust all stainless steel tube design. See Figure 1. below for details.





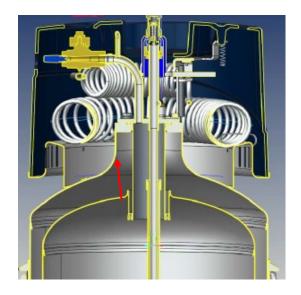
New style steel tube design

Old style bellows neck tube design

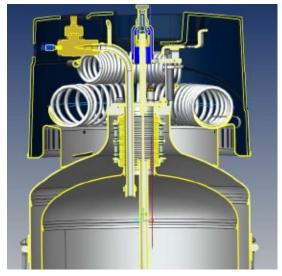
Figure 1.

As part of this design change, the manifold assembly will no longer require the extended vent tube and ullage will be controlled by the length of the neck tube. See Figure 2. below for details.





Section View robust all stainless steel tube design without extended vent tube



Section View bellows neck tube assembly with extended vent tube

Figure 2.

Customers who fit a service Dewar with the solid neck tube can still use the older manifold and do not need to upgrade the manifold assembly. New style manifolds without the extended vent tube cannot be used on older model Dewars fitted with the bellow neck tubes. Part numbers for the various types of manifolds are shown below in table 1.

Equipment Type	Manifold Old	Manifold New
Liberator 20	15096375	21497852
Liberator 30	15096164	21497851
Liberator 37	15096130	21497850
Liberator 45	15096113	21497841

Table 1. – Manifold Part Numbers

Note:- This design change will not affect Liberator 60 models.

For further information please contact the Technical Service Team or refer to Service bulletin 21498112.



Helpful Hints & FAQs

LOX Transfill Adapter Quick Disconnect Valve (QDV) Service Replacement

When replacing the posi-lock QDV (PN 10679176) on a liquid oxygen (LOX) transfill adapter, there is a seal to avoid leaks inside of the threaded end. This seal can be discarded as the new QDV service replacement (PN 20803813) comes with a replacement seal. The new QDV should be tightened to 40 ft-lb. and the transfill adapter should be tested for leaks after installation.



Posi-lock QDV and seal.

Travel Power Adapter

Portable concentrator power supplies are rated for universal voltages but require various power cords depending on the location. Using the Travel Power Adapter will keep you from having to carry different cords for the country you are visiting.





Document Update

We advise our valued customers to monitor and check that they are using the most recent revision of any documents for the model of equipment they have. Below lists any documents that were released/updated during November 2022.

• ML-CONC0199-10 Rev A FreeStyle Comfort Backpack Quick Start Guide JAPAN

Med Tips Distribution!

The CAIRE team is asking all current subscribers to CAIRE's Med Tips Newsletter to register in order to continue receiving this monthly communication.

Please click this link - http://go.pardot.com/l/710913/2022-01-17/2pgcj9 - and provide us with your current information. Thank you and we appreciate your support.

CONTACT: For technical questions or concerns, contact Technical Service:

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Please consult the applicable product instructions for use for product indications, contraindications, warnings, precautions, and detailed safety information.

Service Bulletin



PN 21498112A

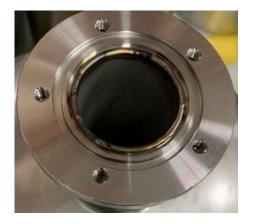
RELEASE DATE: November 11, 2022

MODEL: Liberator® 20, 30, 37 and 45 models

ISSUE: Change of design, Neck Tube.

NOTES: CAIRE® would like to notify our valued customers that as part of our drive for

continuous product improvements, we will change the design used for the neck tube on the above model Liberator Liquid Oxygen equipment's. The previous bellows neck tube assembly design will be replaced by a more robust all stainless steel tube design. See Figure 1. below for details.





New style steel tube design

Old style bellows neck tube design

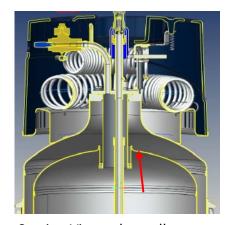
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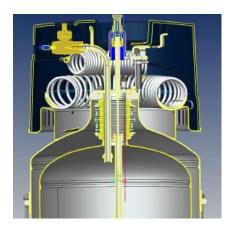
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Service Bulletin





Section View robust all stainless steel tube design without extended vent tube



Section View bellows neck tube assembly with extended vent tube

Figure 2.

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