



lifecycle
Biotechnologies



User Manual

CHEM+NECT™

Usage

Overview

This document provides operation and usage instructions for three types of Lifecycle container interfaces.

This includes the 6L and under bags and containers, the 20L bags, and the three sizes of drums, 50, 100, and 200L.

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6L and under bags


There are currently 6 sizes of bags (containers) that utilize a common set of fitments and connectors. The bag sizes are:

1L
2L
4L
5L
6L
5L Acetal

Each bag will come with an installed fitment that will mate with the connector shown below. For this family of containers, there are seven accessory connectors identified in the table below.

Table 1. 6L and under bag accessories.

Catalog Number	Description	Picture
66901	Quick Disconnect 1/16"	
66902	Quick Connect with 1/4" ID Tubing and Clamp	
66903	Quick Connect with 1/4" ID (5.25") Tubing and Clamp	
66910	Quick Connect with 1/16" ID x 4" Tubing; 2 Bag Adapter	
66962	CHEM+NECT™ Quick Connect with 1/16" x 3' FEP Tubing	

66964	CHEM+NECT™ 1/4" CPC Quick Connect with nut and ferrule	
56901	Quick-Connect with 1/4" ID Tubing and Clamp	

The 6L CHEM+NECT™ bag systems involve the following connector sets, bag fitment connections, and the external process connectors. The bag fitment connections are a part of the product bag.



Figure 1. Bag fitment connections.

The external connectors are your connection to your process input.



Figure 2. External process connectors.

To operate the CHEM+NECT™ system with the 6L and under bags, the following steps are taken.

First prepare the external connector and tubing. These must be in the final operation configured state. This includes the tubing and connection to the process connection. Once the CHEM+NECT™ connection is made the bag contents are able to freely flow through the connection.

Prepare the bag for connection by removing the blue cap from the connector.



Figure 3. Bag with protective blue cap on fitment.

Once the protective blue cap is removed, the bag fitment is now exposed, and connection to the process connection must immediately proceed.



Figure 4. Bag with blue cap removed from fitment.

Now the process connector can be taken in one hand and firmly pressed onto the bag fitment. Hold both sides of the connection firmly and press until the connector snaps onto the bag fitment. There will be a click indicating that the connector is completely snapped onto the bag fitment.



To remove the connector, press the locking tab into the connector, firmly grasp both sides of the connection and pull apart.

20L Bags

The 20L bag line consists of 20L bags along with matching connector accessories. Each bag is designed with a fitment, and the accessories are built up with the matching connector. The following table identifies the 20L bag connector accessories that are available

Table 2. 20L bag connector accessories.

Catalog Number	Description	Picture
46901	Bag sample line	
46983	Spout	
46986	Bag to Quick Connect Conversion	

This following will describe the operation of the 20L bag with the matching connector.

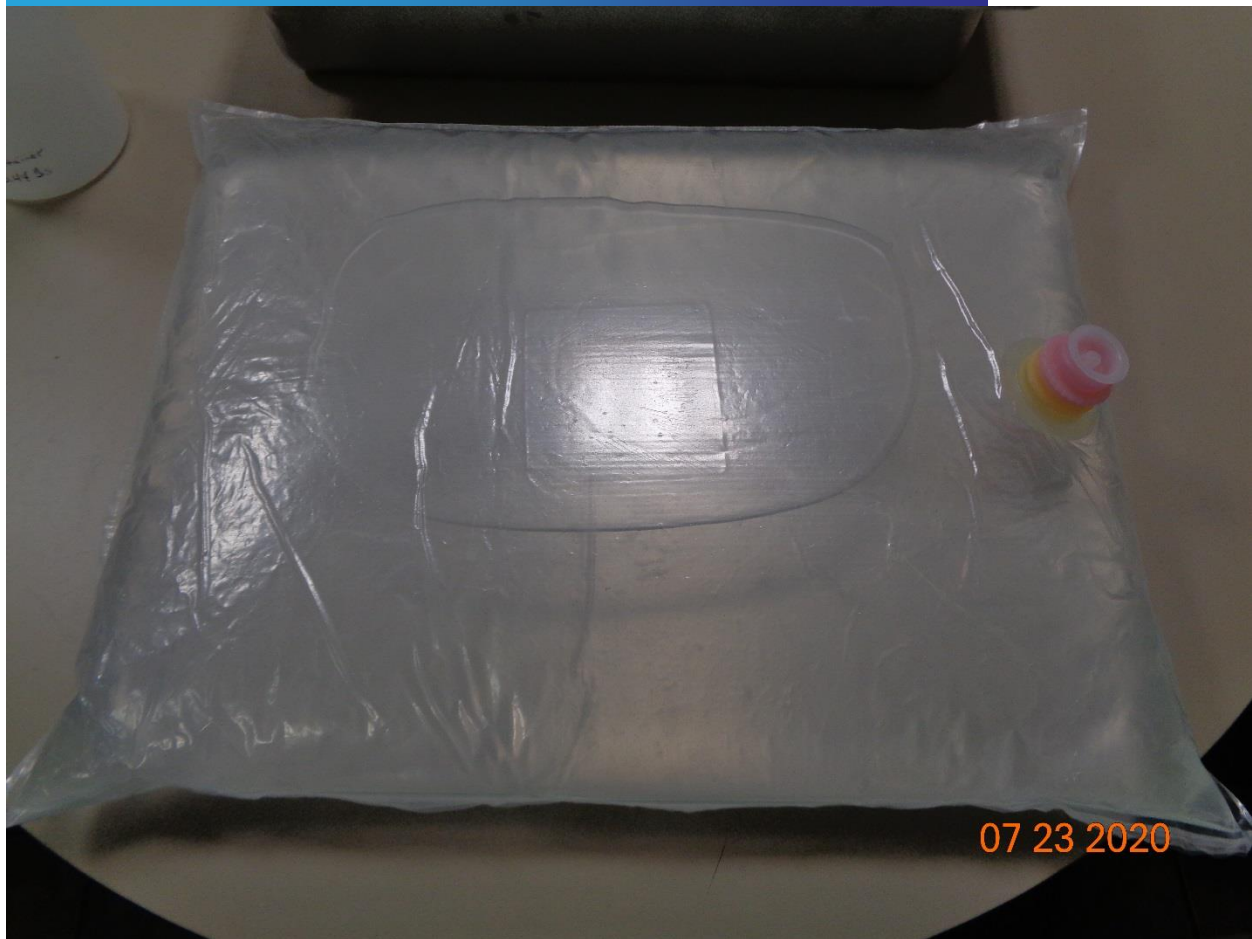


Figure 5. 20L bag filled with water.

As shown in the picture, the 20L bag includes a fitment installed on the bag. It includes a yellow connector that is installed on the bag and is not removeable. Then there is a pink check valve that prevents any contents from flowing without the proper connector installed. Finally, there is a clear protective cap.



Figure 6. 20L bag fitment

To operate the bag, first remove the clear protective cap



Figure 7. Protective cap removed.

When the protective cap is removed. Bring the connector to the bag and have your tubing connection already set prior to installing the connector on the bag fitment. Once the connector is installed, the contents are then free to flow from the bag through the connector.



Figure 8. Bag connector prepared and ready to install.

Next grasp the connector and place on top of the pink check valve. Slowly twist clockwise to install the connector on the bag fitment.



Figure 9. Installing the bag connector.

Keep turning the bag connector until there is a slight click and the connector is fully turned onto the fitment. It will appear as shown in the following photo.



Figure 10. Fully installed connector on bag fitment.

Drums

There are currently 3 sizes of drums (with bags) that utilize a common set of fitments and connectors. The drum(bag) sizes are:

50L
100L
200L

Each bag will come with an installed fitment that will mate with the connector shown below. For this family of containers, there are multiple accessory connectors identified in the table below.

Table 3. 6L and under bag accessories.

Catalog Number	Description	Picture
56915	Male Bulkhead with $\frac{3}{8}$ " ID Reducer	
56934	Portable Peristaltic Pump with 9' x $\frac{3}{8}$ " Tubing Assembly	
56936	9' x $\frac{3}{8}$ " Tubing Assembly for Portable Peristaltic Pump	
56936A	9' x $\frac{3}{8}$ " Tubing Assembly for Portable Peristaltic Pump (Autoclaved)	
56937	9' x $\frac{3}{8}$ " Tubing Assembly with Sanitary Fitting for Portable Peristaltic Pump	
56938	25' x $\frac{3}{8}$ " ID Tubing Assembly with $\frac{1}{2}$ " Mini Sanitary Fittings	
56955	12' x $\frac{3}{8}$ " Tubing Assembly for Portable Peristaltic Pump	

When utilizing a 50L, 100L or 200L drum system, this will involve a bag that has a tubing installed to the bag, along with a fitment connector at the end of the tubing. This is the connector that will be utilized to interface with your process.

The connectors will appear as follows



Figure 11. Bag fitment connection at end of tubing.



Figure 12. External process connector.

When you are preparing to make the connection, be sure that your external process connector is fully interface to your process equipment. Once the connection is made, the bag contents are free to flow past the connection.

The bag connector will have a protective covering on that must be removed just prior to making the connection to your process.



Figure 13. Bag fitment connection with protective covering.

There are two ways to connect the bag and accessory connectors. First, simply grasp each connector as shown below.



Figure 14. Grasp connectors in preparation to press together.

Then press together until the ridged region shown in the figure below is completely inserted into the mating connector. There will be a “click” as they lock together. Again, as this is shown in the figure below.



Press firmly until this area disappears into the bag connector

Figure 15. Press connectors together until they click together.

Gently tug the connectors to make sure they are connected and do not pull apart.

They can also be connected using the interlock tab as described below.

Once the protective covering is removed, grasp the bag connector and firmly press down on the interlock tab.

While holding the locking tab down grasp the process connector and firmly insert into the bag connector.



Figure 16. Preparing the bag connector to receive the process connector.

Once the process connector is fully seated into the bag connector, release the locking tab. Gently tug on the process connector to verify that it is locked in place.



Figure 17. Inserting the process connector into the bag connector.



Figure 18. Process connector fully inserted into bag connector.

After verifying the bag connection, proceed with your normal processing operation.