

Overview

Rapid expansion of the biopharmaceutical industry and technology innovation have brought unexpected challenges to the workforce training. With the distinct digital transformation in the industry, e-training has become a promising solution to fulfill the soaring training demand and plays a more critical role in the blended approach. The Accelerator e-training center provides a digital training and continuous learning platform that can be accessed 24/7, by a large number of users, to accommodate the training need.

Digital training platforms bring the advantages of accessibility to unlimited users, consistent content across multiple sites, easy to update content, and much more. However, they can lack personal interactions and communication, which are important factors for training effectiveness. How to format and deliver the training content on the digital platform is critical to achieve the desired training effectiveness.

On our platform, there are different formats of training content such as instructional videos, key process steps and check list, training courses, and knowledge checks. The training content is designed to be an easy-to-follow learning process in a visual format, as interactive as possible, to help engage learners to ensure training effectiveness and knowledge retention.

In the fast-growing biopharmaceutical industry, it is not only new employees who require appropriate training to meet current good manufacturing practice (cGMP) requirements, established employees also need re-training and continuous learning on the innovated technologies and methods. Skill gaps have been observed and challenges are faced by many companies. Insufficient training of employees in manufacturing operations can have a detrimental impact on manufacturing capacity and compliance, and time to market.

On the Accelerator e-training center, the training content is always up-to-date with new technologies and regulatory requirements. The visual format and interactive training content allows learners to conduct self-training and continuous learning at their own pace. Once completed, the training and qualification records are automatically saved and are traceable on the platform for cGMP compliance.



The dashboard of the Accelerator e-training center

Features and Benefits

Features

Education in digital mode
Anytime access
Regularly updated content
Graphically enhanced short instructional videos with key steps highlighted
Content in 6 languages
Key process steps for each mediabook
Check list for mediabooks
Knowledge checks
Interactive training courses on technologies
Standardized training content on the platform
Generate and download certificates
Platform is designed as a multi-tenant cloud architecture

Benefits

Scalable training capacity
Learning at an individual pace
Continuous learning and develop expertise <ul style="list-style-type: none"> – Easy to follow content and more accessible – Dos and Don'ts highlighted – Universal icons and graphics drive attention to critical actions
Overcome language barrier
Serve as the starting point of standard operating procedures (SOP) preparation
Avoid human errors during the process
Evaluate training effectiveness and knowledge retention
Increase learner's engagement
Ensure consistency across sites
Training records for cGMP compliance
Customer information security

Contents

Mediabooks



On the Accelerator e-training center, the mediabooks cover a wide range of Pall technologies, from upstream process bioreactors and mixers to downstream purification, final formulation and filling systems. The mediabooks contain three different types of content: instructional videos, key process steps, and check lists. The content is available in 6 languages – English, German, French, Japanese, Chinese, and Spanish – for global users. They are a useful resource for initial classroom or virtual training. Most importantly, the trainees can always refer back to them for reinforcement when needed.

Instructional Videos

The complex process operations are translated into a series of short instructional videos, each lasting an average of five minutes. They demonstrate, step-by-step, how to operate a piece of equipment or a process. The critical steps are highlighted in the videos with images and simple text instead of audio to overcome the language barrier. The visual format helps to achieve better learner engagement and increase information retention.



Instructional videos in the Allegro™ STR 50 bioreactor mediabook


Key Process Steps

For each mediabook the key process steps can be printed and the document can serve as a starting material for SOP preparation.

English

A0. Bioreactor STR50 Overview1/1

Allegro™ STR 50 Single-Use Bioreactor




THIS LIBRARY OF MEDIABOOKS CONTAINS INFORMATION THAT IS SUBJECT TO DUAL-USE EXPORT REGULATIONS. AS SUCH, USERS ARE NOT AUTHORIZED TO SHARE IT UNLESS THEY ARE IN COMPLIANCE WITH THE APPLICABLE EXPORT REGULATIONS.

More...


Print the current Mediabook (PDF)

Print all the Mediabooks (PDF)


Allegro™ STR 50 bioreactor




1. Allegro STR 50 bioreactor overview




2. Biocontainer support



3. Controller



4. Human machine interface



5. Allegro STR 50 biocontainer

Print key process steps from the Allegro STR 50 bioreactor mediabook


Check Lists

For selective mediabooks, such as single-use system handling recommendations and the Allegro STR stirred tank bioreactors, check lists of critical actions are available to be downloaded. The operators can use them to check each step during the procedure, helping to minimize human errors.

English

Allegro™ STR 50 Single-Use Bioreactor

Allegro™ STR 50 Single-Use Bioreactor



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More...

Check List STR 50.pdf

PALLPALL CORPORATION

Check List

Pall Allegro™ STR 50 Single-Use Bioreactor

Document type

Check List

Document number

Effective date

2021.04.21

Revision

001

Page

1 of 12

User: _____

Role: _____

Location: _____

Date: _____

Product Name: _____


Reference Number: _____

Lot Number: _____

Quantity: _____


Expiry Date: _____

General precautions applicable for each step




If the goods fail at any step, stop the checking process and escalate according to local procedures.

1. TCU Set Up

Step	Action	Visual Reference	Purpose	Status
1.1	Check TCU set up		To have a controlled temperature during whole process	<input type="checkbox"/>

2. Calibration of Devices

Step	Action	Visual Reference	Purpose	Status
2.1	Check devices are calibrated		To ensure measured values are accurate	<input type="checkbox"/>

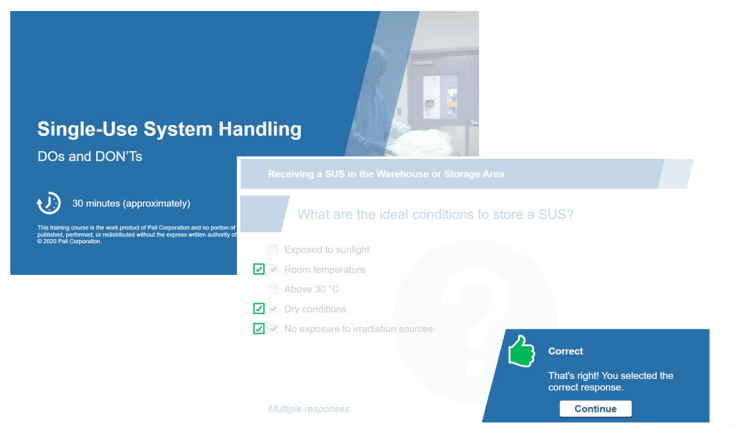
Print check list from the Allegro STR 50 bioreactor mediabook

3

Training Courses



The training courses convey basic principles of the technologies such as bioreactors and filter integrity testing. The training course on single-use system handling explains the general guidelines and “Do's and Don'ts”. Knowing the theory behind it enables the learners to gain a deeper understanding of the process and operation. In addition, training courses on regulatory guidelines in the bioprocessing area are also available; such as extractables and leachables, particulates guidelines, sterilization processes, etc. Each training course takes about 30 to 40 minutes, with interactive questions on the critical points.

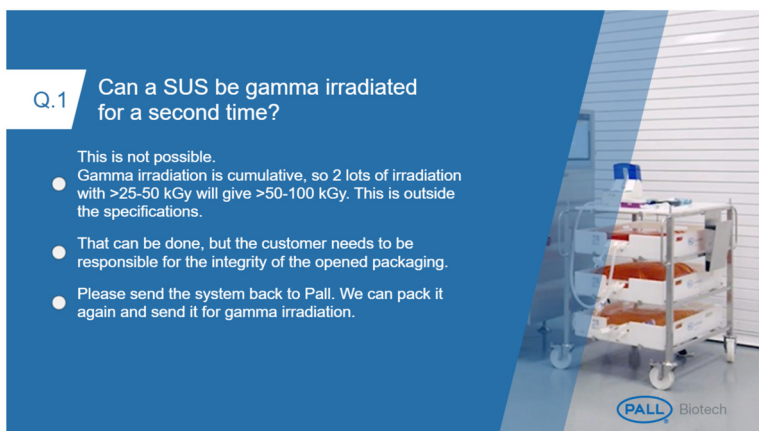


Training course on single-use system handling

Knowledge Checks



Knowledge checks assess the skills acquired by the learner and ensure training effectiveness. Once the knowledge check has been passed, a certificate will be issued to the learner and recorded on the platform. There are two categories of knowledge check, practical and theoretical. Theoretical knowledge checks assess the learner's knowledge in basic principles of the technology, whereas practical ones evaluate the learner's readiness to operate a piece of equipment or perform processing.



Knowledge check on single-use system handling do's and don'ts in fluid handling

Platform Architecture and Security

The Accelerator e-training platform was developed on an Amazon Web Services[♦] (AWS) serverless architecture. It was designed as a multi-tenant cloud platform to isolate and secure each client with a dedicated architecture. The platform is compliant to the Attributable, Legible, Contemporaneous, Original, Accurate (ALCOA+) principles recommended by Food and Drug Administration (FDA), European Medicines Agency (EMA) and other regulatory agents to ensure data integrity and cGMP compliance.

Accessing the Accelerator e-Training Center

The Accelerator e-training center is a subscription-only platform with a choice of access levels to:

- Mediabooks and the corresponding knowledge checks only
- Training courses and the corresponding knowledge checks only
- All the assets on the platform.

NB: To access dual-use product content, users in the restricted countries will need to provide a copy of the relevant dual-use product export license before access can be granted.

Once subscribed, the e-training center can be accessed at <https://pall.sourcin.com/login>. The license administrator can add and change users to the platform up to the user limit of the subscription. Each user can then access the platform using their own account and password.

Ordering Information

Part Number	Description
PTS03MB20	1-year subscription of mediabooks and knowledge checks for 1-20 users
PTS03TC20	1-year subscription of training courses and knowledge checks for 1-20 users
PTS03ALL20	1-year subscription of all assets for 1-20 users
PTS03MB50	1-year subscription of mediabooks and knowledge checks for 21-50 users
PTS03TC50	1-year subscription of training courses and knowledge checks for 21-50 users
PTS03ALL50	1-year subscription of all assets for 21-50 users
PTS03MB100	1-year subscription of mediabooks and knowledge checks for 51-100 users
PTS03TC100	1-year subscription of training courses and knowledge checks for 51-100 users
PTS03ALL100	1-year subscription of all assets for 51-100 users
PTS03MB100P	1-year subscription of mediabooks and knowledge checks for more than 100 users
PTS03TC100P	1-year subscription of training courses and knowledge checks for more than 100 users
PTS03ALL100P	1-year subscription of all assets for more than 100 users



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