

# SafeFlex Isolator System

Containment-Level  $\leq$  OEB 5 ( $<1\mu g/m^3$ )



# **SafeFlex Isolator**

The advantages / areas of application

# The SafeFlex Isolator – the flexible solution for closed processes

#### Flexible containment solution





Isolators are used to protect the environment or the processed product. A very well-planned flexible containment isolator comes very close to a stainless-steel isolator in terms of protection and can offer various advantages depending on the application.

This can be especially true for smaller product quantities, frequent product changes and frequent changes in process steps. Flexible containment can be converted quickly, which allows the operator to save time and money.

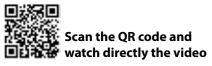
#### **Possible uses for SafeFlex Isolators:**

- Sampling
- Weighing
- Lyophilization
- Filter change
- Dismantling
- Emptying
- Reactor feeding / filling

## Possible uses for local containment:

(direct docking to the process equipment without its own frame)

- Filter change
- Sampling
- Enclosure of cleaning equipment (CIP and WIP)
- Maintenance purposes / dismantling



# The advantages of the SafeFlex Isolator:

- High product and personal protection
- Easy handling
- Universal usability
- Foil with high tear resistance
- High quality
- Lower investment costs compared to rigid systems
- Elimination of cleaning and validation costs
- Integrable in existing systems
- Gamma or x-ray sterilization possible
- Containment can be done quickly and can be adjusted flexibly afterwards

# **SafeFlex Isolator**

The production

# The SafeFlex Isolator – the flexible solution for closed processes

## Quality »Made in Switzerland«



mic study all the way through to ma- er requirements.

Lugaia is pushing the development quality grades as well as customized form the basis of our continuous inof comprehensive Containment Solu-solutions, manufactured in highest tions – from the idea of the ergono- quality and adapted to local custom-

king more complex isolator systems. Our experience in the field of contain-Our infrastructure enables us to offer ment as well as the steadily growing standardized solutions in different requirements of various industries

novation processes.

In the end, this also guarantees the »Made in Switzerland« rating for precision, quality and reliability.



#### **Design & Engineering**

developed using 3D-CAD software. Customer interfaces can thus be flexibly taken into account.



## Manufacturing

Custom concepts and solutions are At qualified manufacturing facilities, all products are produced under consideration of the specified clean room requirements.

> Validated processes and well trained staff stand for high quality products.



**Pressure Test** 

After production, all SafeFlex Isolators are checked for leaks and then receive approval for delivery.

# **SafeFlex Isolator**

The parts



ized to customer requirements and **needs** and adapted to local conditions in terms of dimensions and con- The optionally available Lugaia Continuous Liner for the inward and nectivity options such as ergonomic ventilation technology will carry outward transfer of equipment and requirements.

configuration options e.g. with a casters and stand.

easy-to-use tabs and snap fastener. removed and disposed.

The flexible isolators can be **custom**- The magnetic base plate on the bot- The isolator can be equipped with tom of the isolator provides a fixed different customer-specific dockand leveled platform.

out a pressure test. After operation product. There are also docking op-The basis for the isolator system is approval, the dust-free docking of tions for containers such as drums, provided by the **stainless-steel base** containers can be started. In operat- connections for transfer systems frame. This is available in different ing mode, the isolator is in negative (SafePort TransferBags or RTP Ports) pressure with constant air exchange. and interfaces for media feed. Direct stepless height adjustment, storage After finishing a production batch machine and system connection opoptions for equipment, platforms, and necessary change of the isolator, tions can also be implemented on different grounding points such as the negative pressure will be inter-request. rupted and the enclosed air will be The flexible isolator is made using evacuated. The isolator can then be

ings e.g. with special gloves and CLS

# **SafeFlex Isolator**

The components

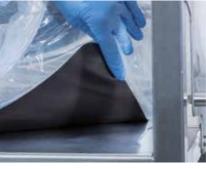
# The SafeFlex Isolator – user friendly and flexible

## Combines all advantages of Lugaias precision products and cutting-edge technology



## **Snap fastener and zippers**

teners allow for an easy and quick attachment to the base frame of the isolator. Due to the flexible and tear-resistant SafeFlex Foil, tension in the material is guaranteed (wrinkle-free field of vision). The inside of the isolator can be equipped with an ment. integrated zipper. A zipper can also be integrated into a side wall to facilitate inward and outward transfer of large equipment.



### **Magnetic Base Plate**

rustproof, magnetic work platform. The bottom of the isolator is also equipped with a base plate from the outside. Thus, it offers a fixed work surface (especially in negative pressure) as well as additional reinforce-



## **Filter Unit H14**

The tabs with incorporated snap fas- The stainless-steel base frame has a Each isolator comes with at least one H14 filter which allows the system to breathe. The filter cartridge is directly incorporated in the isolator film. Additional filters are required at the use of Lugaia ventilation unit with optional leak test and air exchange. These filters come delivered with appropriate certificates.



#### Connect the container

Drums in various dimensions can be docked or exchanged to the isolator free of contamination by means of Double O-Ring technology.



#### **Media Feed**

The media is supplied via special interfaces in the isolator foil. When dismantling the isolator, it is possible to undock them without contamination. (power cables, air connections, connections for liquids, etc.)



#### **Foil Liner**

The CLS Continuous Liners serve as 2-way locks for product, equipment and waste. The assembly, change and dismantling of the Continuous Liner at the isolator takes place without contamination.

# **SafeFlex Isolator**

Customized special solutions

# Flexible Isolator

## **Containment for handling OEB 5 substances**



# Existing dispensing isolator for a pharma-customer

Using the single-use isolator, you can weigh a wide variety of product out of various containers required for production. The mobile device will be installed and used when necessary in the respective production facility, it can be equipped with Continuous Liners, TransferBags and SafePort Bags.

# **SafeFlex Isolator**

Customized special solutions

# **Individual special solutions**

## Specially adapted to your needs



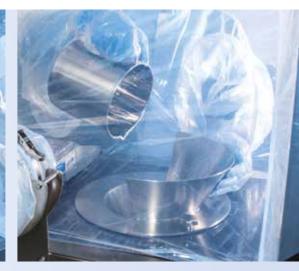


The properties of the SafeFlex Foil Depending on the application and To make handling easier, you can optimal freedom of movement.



Integrable systems

allow a good view inside, as well as needs, customer equipment such as chose numerous accessories scales and stirrers can be provided and placed inside.



**Accessories** 

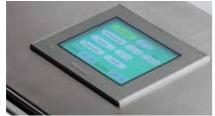
# **Ventilation technology**

## Mobile ventilation device



Mobile version (Can alternatively be integrated in the base frame)

The mobile ventilation unit is equipped with PLC-Software and is operated via a HMI touch panel. The complete cirquit and control technology is built into the equipment cabinet. The ventilation unit is available in standard or ATEX versions. In both versions, the equipment cabinet is made entirely of stainless steel.



PLC-Software with HMI touch panel

#### The functions

### 1. Pressure test

Automatically running pressure test according to the specified parameter

### 2. Working mode

- Vacuum operation
- Automatically running inerting process
- Possible system monitoring over O<sub>2</sub> measurement
- Parameters will be adapted to the process

## 3. Evacuation Mode

Evacuation of the isolator system via regulated vacuum operation



## **Custom made products for** special tasks

No production facility is the same. Almost every containment measure must therefore be manufactured individually exactly fitting to the local requirements. With this we are able to design and manufacture an individual solution according to customers wishes, practicality and requirements.

We develop and adapt to your needs and requirements, for example: Containment Solution for sampling, filter change and dismantling but also for cleaning and maintenance purposes.



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# **Our product overview:**

- Continuous Liner System CLS / CLCC
- SafeSeal Closure System
- TransferBag System
- SafeFlex Isolator System

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