



*Home of Containment Solutions*



## **Continuous Liner System **CLS/CLCC****

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

**LUGAIA**  
Containment Solutions



## Continuous Liner System

### Continuous Liner / Liner Carrier

The **Lugaia Continuous Liner Systems** prove themselves strongly when it comes to the safety of the staff and protection of your product. Axial folding enables film lengths of up to 80 meters. Fold height and foil length are depending on the film thickness.

On request, Lugaia also produces special CLS liner sizes from customer-specific foils.



#### The advantages of the Continuous Liner:

- High product and personal protection in the OEB 5 ( $<1\mu\text{g}/\text{m}^3$ ) Containment-Level
- Easy handling
- Customer customizable foil material
- Up to 80 meters per unit
- Less personal protection required
- Reduced or no cleaning of the environment
- Maximum film capacity in the smallest of spaces
- Different diameters and folding heights available
- Foil thickness of 50-150  $\mu\text{m}$
- High quality / manufactured in the ISO clean room

## Continuous Liner as Primary or Secondary Packaging

#### Folding technique:

Thanks to a special axial fold made from tubular foil, the Continuous Liner allows packaging in different manufactured sizes. With this folding process, it is possible to fold a maximum foil length (up to 80 m) into the smallest space available. This decreases the frequency for needed changes of the Continuous Liner packaging which saves time and costs.

#### Custom film material:

Lugaia offers the opportunity for Continuous Liners to be manufactured from a customized packaging foil material. The Continuous Liner can be used for readily validated applications.

By default, depending on the application, the Continuous Liners are made of a pure or antistatic LPDE.

#### Clean room assembly:

The best tailored and quality guaranteed processes for our customers are available in 3 Continuous Liner clean room classes: ISO 5, ISO 7 and ISO 8.

#### High containment solution:

For sealing and separating, the Continuous Liner will be using the Lugaia patented SafeSeal Closure System. Whereby an OEB 5 ( $<1\mu\text{g}/\text{m}^3$ ) Containment-Level can be guaranteed.

#### The possible uses:

- Pack-off Stations
- Packaging of API's (Active Pharmaceutical Ingredients) and toxic and highly reactive products
- Isolator and clean room application (Foil lock)
- Primary packaging
- Waste locks
- Material locks
- Sampling

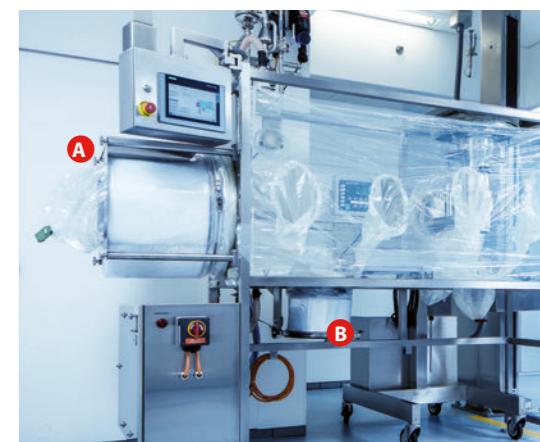
## Continuous Liner System

### Continuous Liner / Liner Carrier

The Liner Carrier System is used wherever endless liner is attached to a plant or an isolator system which needs to be installed as a foil lock. The foil package is placed on the carrier tube that is sealed with an O-ring and also pressed off and secured with an O-ring clamping ring. The connection of the Liner Carrier is individually adapted to the interface of the system, for example through TriClamp or flange connection.

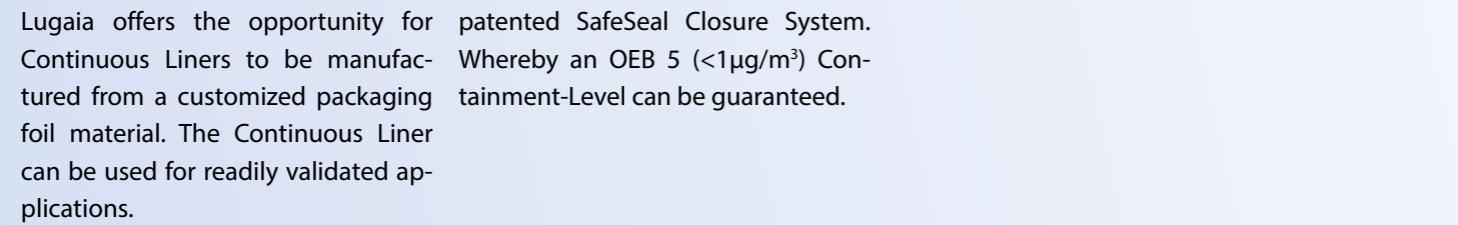
Lugaia provides options to suit various needs. We offer standard executions for basic applications at lower costs, as well as continuous liner systems starting from CLS 500 in a vertical design. These systems come with a mounting aid, facilitating easy installation even for larger and heavier liner units by a single person. Another advantage is the ability to pre-load, simplifying workflow and boosting efficiency right from the start.

#### Application example:



A CLS horizontal waste port

B CLS vertical product port



## Scope of Delivery

#### CLS standard sizes (p. 4):



#### Equipment:

- 1 Liner Carrier
- 2 Linerunit
- 3 O-ring and clamping ring
- 4 SafeSeal Premium Toolset
- 5 SafeSeal crimp
- 6 SafeSeal opener

#### CLS with mounting aid (p. 5):

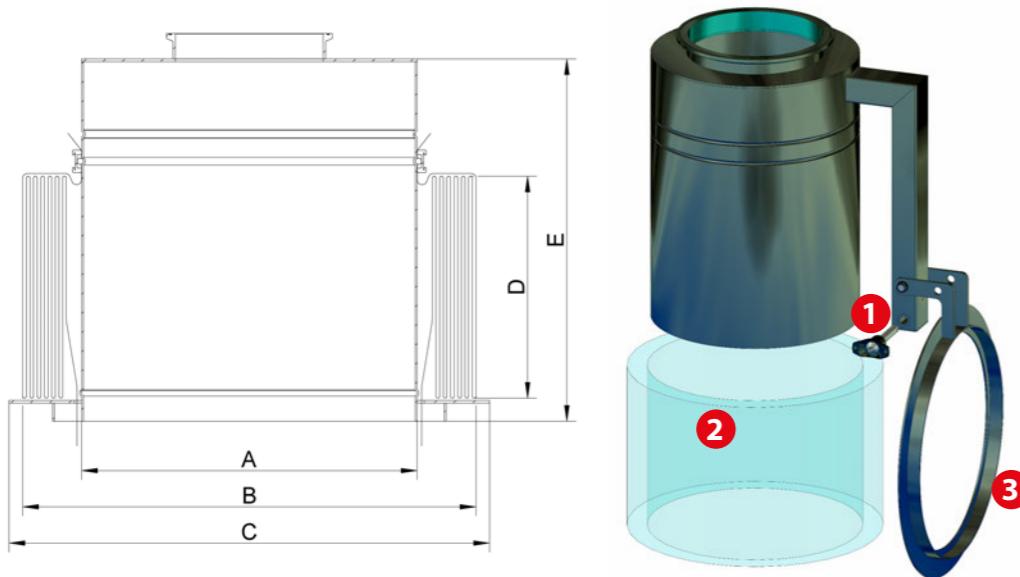


#### Equipment:

- 1 Liner Carrier (optional available with roll-out seal)
- 2 Linerunit with O-ring and clamping ring
- 3 Mounting ring
- 4 Retaining ring
- 5 Placement basket

## Continuous Liner System

### CLS Standard Sizes



- 1 Ball-lock pin
- 2 CLS-Liner
- 3 Foldable retaining ring



Scan the QR code  
and watch  
directly the video

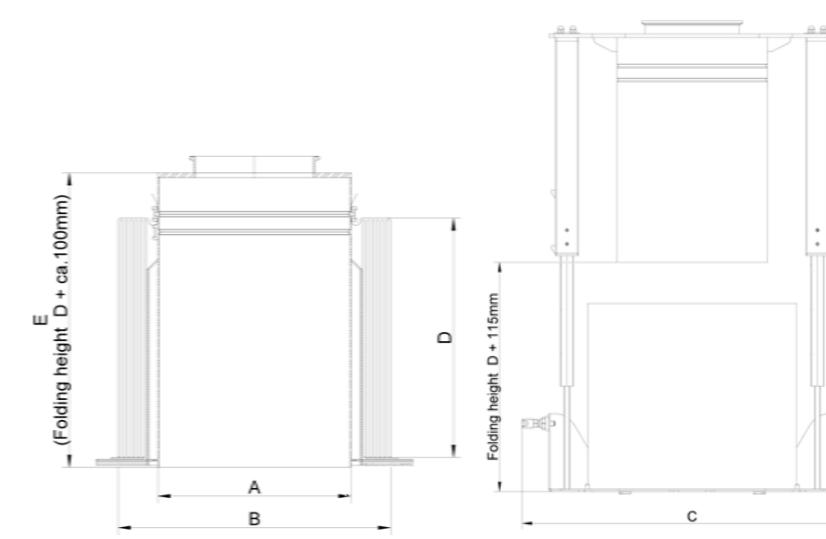
### CLS Continuous Liner Types

Type	Foil width (mm)	B= Foil diameter (mm)	D= possible Liner heights (mm)	Foil lengths (m)	A=Tube diameter (mm)	C= Holder diameter (mm)	E=Liner Carrier construction height (mm)
<b>CLS-300</b>	300	190	150 / 300	5-20	115	240	
<b>CLS-400</b>	400	250	150 / 300	5-20	170	300	
<b>CLS-500</b>	500	320	170 / 250 / 400	20-40	220	370	
<b>CLS-600</b>	600	380	170 / 250 / 400	20-50	300	430	
<b>CLS-700</b>	700	450	170 / 250 / 400	20-50	340	500	
<b>CLS-800</b>	800	500	170 / 250 / 400	20-50	370	550	
<b>CLS-910</b>	910	580	170 / 250 / 400	20-80	420	630	
<b>CLS-970</b>	970	620	170 / 250 / 400	20-80	450	670	
<b>CLS-1100</b>	1100	700	170 / 250 / 400	20-80	530	750	

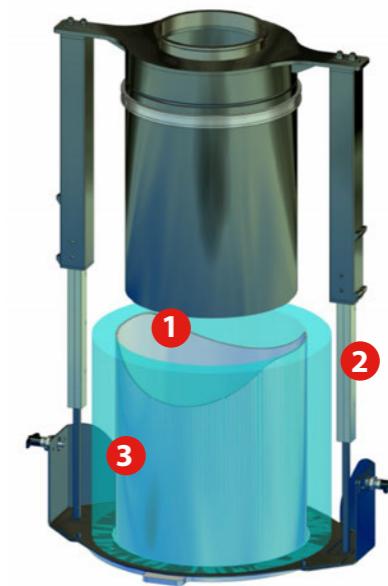
### Corresponding Liner Carrier Types

## Continuous Liner System

### Mounting Aid



Interface can be chosen individually (e.g.  
TriClamp, flange, tube, etc.)



- 1 Placement basket
- 2 Telescopic rods
- 3 CLS-Liner

### CLS Continuous Liner Types

Type	Foil width (mm)	B= Foil diameter (mm)	D= possible Liner heights (mm)	Foil lengths (m)	A=Tube diameter (mm)	C= Holder diameter (mm)	E=Liner height + ca 100 (mm)
<b>CLS-500</b>	500	320	170 / 250 / 400	20-40	220	620	
<b>CLS-600</b>	600	380	170 / 250 / 400	20-50	270	680	
<b>CLS-700</b>	700	450	170 / 250 / 400	20-50	300	750	
<b>CLS-800</b>	800	500	170 / 250 / 400	20-50	330	800	
<b>CLS-910</b>	910	580	170 / 250 / 400	20-80	420	900	
<b>CLS-970</b>	970	620	170 / 250 / 400	20-80	450	930	
<b>CLS-1100</b>	1100	700	170 / 250 / 400	20-80	500	1000	

### Equipping the CLS Continuous Liner Carrier



Liner carrier getting prepared  
for loading



Continuous liner fully loaded and  
ready for filling

### Equipping the CLS Continuous Liner Carrier with mounting aid



Liner carrier with mounting  
aid getting prepared for  
loading



Continuous liner fully loaded and  
ready for filling

## Continuous Liner System

### Continuous Liner

### Continuous Liner Carrier System from Lugaia – effective and popular

#### Clean room production ISO 5, ISO 7 and ISO 8

Quality is the top priority in the manufacturing process of our products. Our quality management system provides credentials for this with certifications according to ISO9001: 2015 and ISO15378: 2017 (primary packaging for pharmaceutical applications). In our class ISO 5, ISO 7 and ISO 8 clean rooms, we use cutting-edge technology for processing and welding of foils according to validated processes on qualified systems.



#### The Continuous Liner



#### Foil variants:

- PE with antistatic characteristics
- Pure PE for primary packaging
- PE with antistatic or conductive grid printing
- Barrier foils
- Custom foils

#### FDA, EP and USP approved

## Continuous Liner System

### Customized Special Solutions

### Customized liner carrier systems

#### According to your wishes and specifications

In addition to standardized carriers we also design customized solutions specifically to suit your system. For example liner carrier systems with customer-specific connection, out of special material, with dedusting connection, with inflatable seal, with various sizes etc.



Liner carrier with inflation hose for sealing



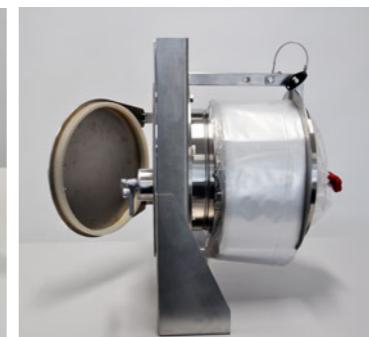
Liner carrier for tablet discharge



Liner carrier for contamination-free discharge from tablet press



Various liner carriers with integrated washing system



Continuous Liner System as a clean room lock



Customized liner carrier with dedusting connection

#### Washing option



Liner carrier with washing bell and cleaning sleeves

#### Key Features:

- Enhance your cleaning efficiency with our washing option for liner carriers
- Our system facilitates both internal and external cleaning of the CLS system at the end of your processes
- Benefit from a specialized cleaning sleeve designed for closed dismantling, ensuring thorough cleanliness
- The inclusion of an integrated spray ball guarantees effective cleaning, reaching all areas
- Prevent residue buildup with our drainage system, promoting optimal hygiene standards
- Streamline your operations with our combined mounting aid, simplifying installation while ensuring cleanliness every step of the way

## Continuous Liner System

CLCC Continuous Film Carrier

### CLCC Continuous Liner Carrier (with RTP Beta)

Rapid transfer port systems for high containment



CLCC Continuous Liner Carrier

Scan the QR code and  
watch directly the video



#### The advantages of the CLCC Carrier:

- Light design through use of plastic
- Continuous Liners are easily assembled
- Custom design
- Tested RTP connection system

#### Equipping the CLCC Continuous Liner Carrier



Remove the retention basket



Fit the O-ring



Put on the Continuous Liner



Seal the Continuous Liner on the carrier tube



Mount the retaining basket



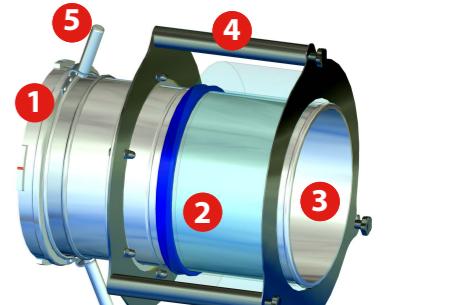
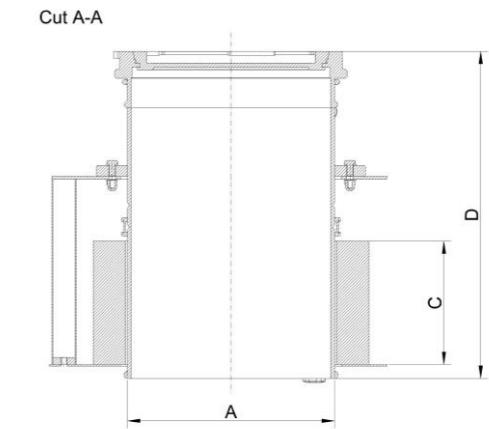
Close the Continuous Liner with SafeSeal

## Continuous Liner System

CLCC Sizes and Scope of Delivery

#### The Standard Sizes

- Depending on the type of Continuous Liner, fold heights between 150-400 mm can be chosen.
- Design and dimension can be manufactured according to customer specifications.
- Brand of Beta-Port can be selected.



1 Beta Port  
2 CLS-Linerunit  
3 Liner carrier material: PE300 white  
4 Retention system with retaining plate  
5 Handles

Type	Liner size	A=pipe dia $\bar{z}$ meter outside (mm)	OD=retention ekefW (mm)	OD=handles (m_ fi)	5/efS <sup>+</sup> VSdV ↑ WdZWf (m_)	6/efS <sup>+</sup> ZVYf
CLCC-105	CLS-300	##	\$" "	\$" "	100/150/300	Dim. A + 150mm
CLCC-190	CLS-400	\$" "	% \$	412	100/150/300	Dim. A + 250mm
CLCC-270	CLS-600	\$**	' 00	565	170/250/400	Dim. A + 250mm
CLCC-350	CLS-700	%" &	' ) *	584	170/250/400	Dim. A + 250mm
CLCC-460	CLS-910	8" &	(*&	760	170/250/400	Dim. A + 250mm

Continuous Liner Carriers form the interface between the outlet and the Continuous Liner Package and guarantee appropriate handling and protection. There are specific requirements for each application that we have taken into account when designing our standard Liner Carriers. This way we can achieve the highest possible occupational safety and ensure user-friendliness.



#### Scope of Delivery:

- 1 Liner Carrier
- 2 Liners
- 3 O-ring and clamping ring
- 4 SafeSeal Premium Toolset
- 5 SafeSeal crimp
- 6 SafeSeal openers



**Lugaia AG  
Containment Solutions**

Industriezone Basper 31  
3942 Raron, Switzerland  
Telephone +41 (0) 27 948 45 55  
anfrage@lugaia.ch

**Lugaia Deutschland GmbH  
Containment Solutions**

Westendstraße 2  
85084 Reichertshofen, Germany  
Telephone +49 (0) 8453 33 550-0  
info@lugaia.de

**Lugaia USA, LLC Containment  
Solutions**

Ponte Vedra Beach, Florida  
Telephone +1 904 401 0003  
info@lugaia.com

[www.lugaia.com](http://www.lugaia.com)

**Our product overview:**

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

**Follow us on**



**LUGAIA**  
Containment Solutions