



*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 (<1µg/m³) 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 µm
- High quality / manufactured in the ISO clean room

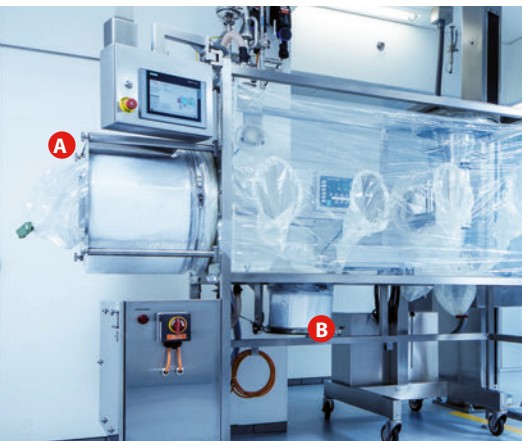
# Continuous Liner System

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

## 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 (<1µg/m³) 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

## 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):



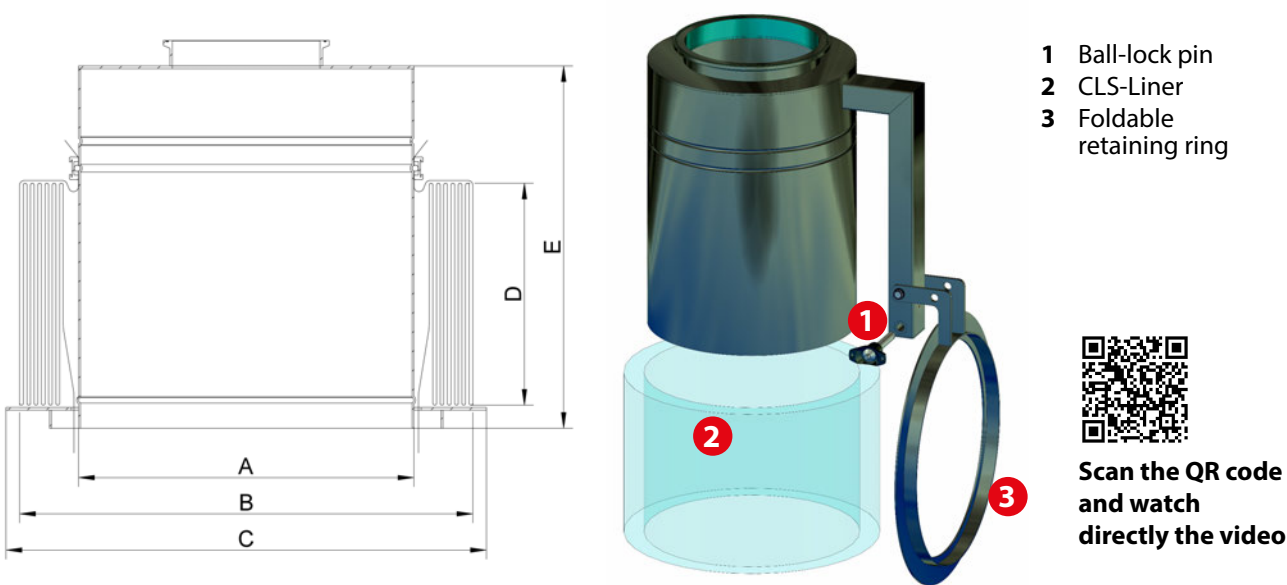
### Equipment:

- 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



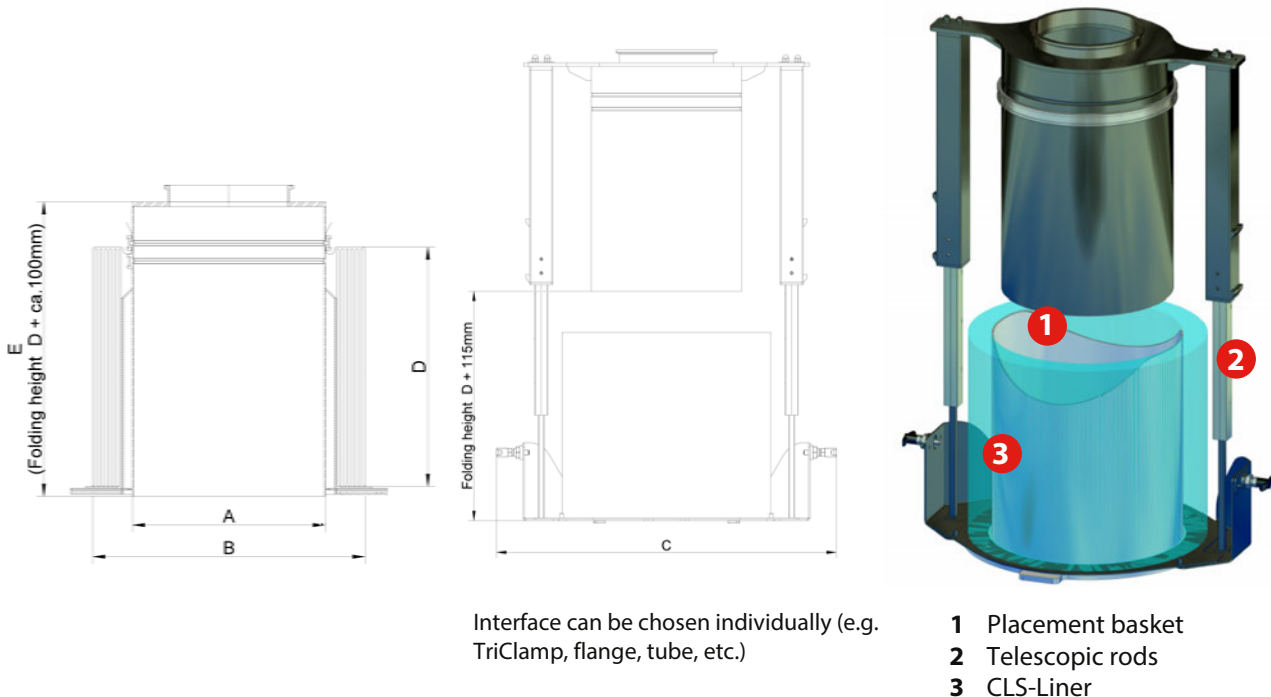
CLS Continuous Liner Types

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)
CLS-300	300	190	150 / 300	5 - 20	115	240	Liner height + approx. 150 mm
CLS-400	400	250	150 / 300	5 - 20	170	300	
CLS-500	500	320	170 / 250 / 400	20 - 40	220	370	
CLS-600	600	380	170 / 250 / 400	20 - 50	300	430	
CLS-700	700	450	170 / 250 / 400	20 - 50	340	500	
CLS-800	800	500	170 / 250 / 400	20 - 50	370	550	
CLS-910	910	580	170 / 250 / 400	20 - 80	420	630	
CLS-970	970	620	170 / 250 / 400	20 - 80	450	670	
CLS-1100	1100	700	170 / 250 / 400	20 - 80	530	750	

Corresponding Liner Carrier Types

Continuous Liner System

Mounting Aid



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)
CLS-500	500	320	170 / 250 / 400	20 - 40	220	620	Liner height + approx. 100 mm
CLS-600	600	380	170 / 250 / 400	20 - 50	270	680	
CLS-700	700	450	170 / 250 / 400	20 - 50	300	750	
CLS-800	800	500	170 / 250 / 400	20 - 50	330	800	
CLS-910	910	580	170 / 250 / 400	20 - 80	420	900	
CLS-970	970	620	170 / 250 / 400	20 - 80	450	930	
CLS-1100	1100	700	170 / 250 / 400	20 - 80	500	1000	

Corresponding Liner Carrier Types

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**

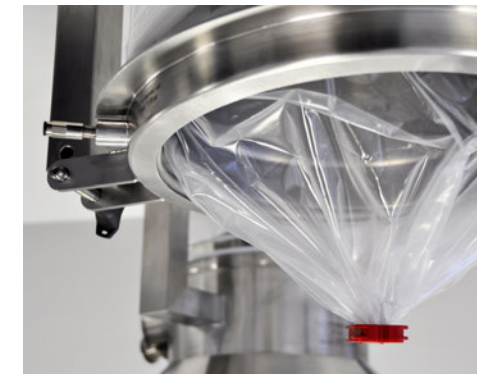
## Continuous Liner System

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



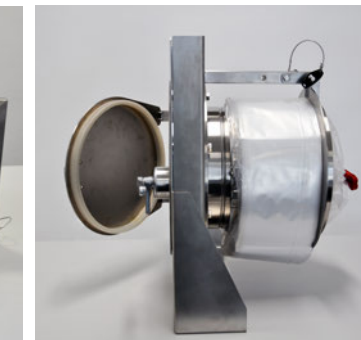
Liner carrier for tablet discharge



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



Our Continuous Liner Carrier combined with the RTP Beta-System makes it possible for inward and outward transfers at RTP Alpha interfaces. The Continuous Liner Types CLS-300-910 can be combined with the RTP Beta-Ports 105-460.

### The advantages of the CLCC Carrier:

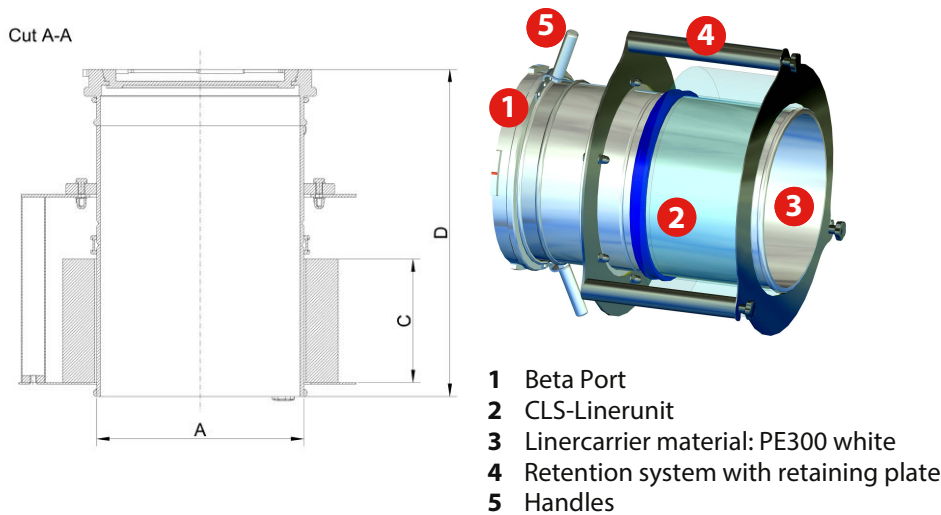
- Light design through use of plastic
- Continuous Liners are easily assembled
- Custom design
- Tested RTP connection system

# Continuous Liner System

CLCC Sizes and Scope of Delivery

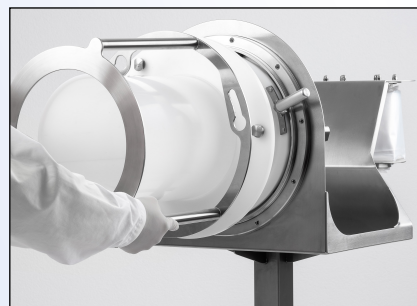
## The Standard Sizes

- 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.



Type	Liner size	A=pipe dia meter outside (mm)	OD=retention clamping (mm)	OD=handles (m_ fi	5/efS` VSd/ ↑ VmZVWZfe (m_ )	6/fafS^ ZVWZf
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	&) &	( * &	760	170/250/400	Dim. A + 250mm

## Equipping the CLCC Continuous Liner Carrier



Remove the retention basket



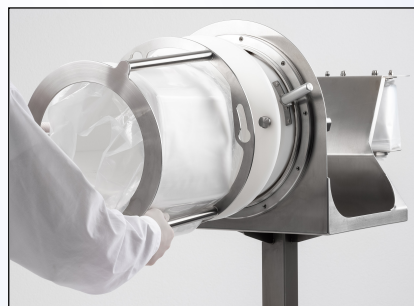
Fit the O-ring



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 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





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**Our product overview:**

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

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