

# COMBO ASEPTIC

THE ULTIMATE SYSTEM FOR  
EFFICIENT ASEPTIC FLUID HANDLING



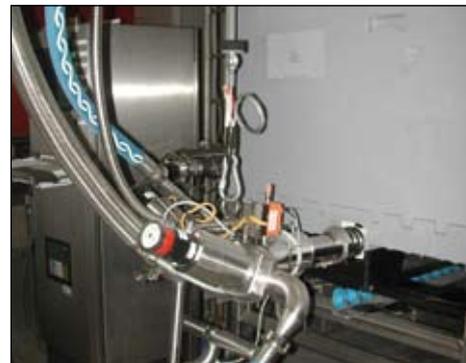
The Combo Aseptic bag-in-box system with sterile liner bag and aseptic valve

The highly efficient Combo Aseptic bag-in-box solution for use in the processing industry.

The Combo Aseptic is designed for companies that require a cost-efficient system to distribute fruit concentrates, food preparations, dairy products and other kinds of liquid food for which safety and hygiene are essential.

The system consists of a foldable container with a sterilised bag and a patented valve for aseptic filling and discharging. Easy to use, efficient to transport and requiring little maintenance, the Combo Aseptic system results in considerable cost savings.

At a time when freight costs are rising steeply, many producers are committed to cutting costs in order to remain competitive. Offering unrivalled efficiency in fluid handling, the Combo Aseptic enables them to achieve this goal. The system's user-friendly, hygienic design, excellent stacking performance and foldability all make Combo Aseptic an excellent choice for today's cost-conscious producers.



Combo Aseptic works both in highly automatised production facilities as well as manually operated filling areas.

**Schoeller Arca Systems**

Creative solutions for better returns

## Increase storage and transport efficiency

Storage and transport efficiency are advantages that apply to both filled and empty containers. Filled containers can be safely stacked on top of one another; empty ones can be folded up neatly for transport and storage.

### Container stacking heights

- Filled for storage: 5 containers
- Filled for transport: 2 containers
- Emptied and folded: 15 containers

### Transport, when emptied and folded

- 110 containers fit into a standard size lorry
- 50 containers fit into a 20 foot sea container
- 100 containers fit into a 40 foot sea container

### Prepare to meet future demands

Combo Aseptic heralds the arrival of a new generation of user- and environmentally-friendly distribution containers. This practical system is not only cost-effective but also resource efficient. By increasing customer satisfaction the Combo Aseptic system is also good for your business.

### Improve handling operations

The Combo Aseptic system is a truly ergonomic and user-friendly throughout the handling chain. A drop door on one of the container's side walls simplifies installation of the liner. The valve, which comes fixed to the liner, is easily connected to the container by a snap fit design, so no tools are required. The outlet of the valve can be steam-sterilised to remove any bacteria, and the product filling process can be fully automatised.



The folded Combo Aseptic requires very little space.



Combo Aseptic can also be stored outdoors.

## A complete fluid handling system

Combo Aseptic is a system for distributing fluid products which require aseptic filling and discharging. It consists of a heavy duty foldable and returnable plastic container, a disposable liner bag and a patented aseptic valve.

The container has a hygienic design and is easy to keep clean. The liner and valves are gamma-irradiated to ensure a sterile product that is free of harmful bacteria when the fluid is packaged.

To fill and discharge the liquid product, the valve is connected to the plant's feeding or discharging line. In order to avoid any risk of contamination, the valve can be steam-sterilized before opening. The liner is then filled automatically, and does not require operator assistance. Tamper evident devices are applied to the Combo Aseptic containers before transport.

### Cost savings

Combo Aseptic generates considerable cost savings compared with other aseptic fluid handling systems. Preparation of the system for filling is a rapid and simple process. The containers are highly space efficient in transport, handling and storage which reduces costs:

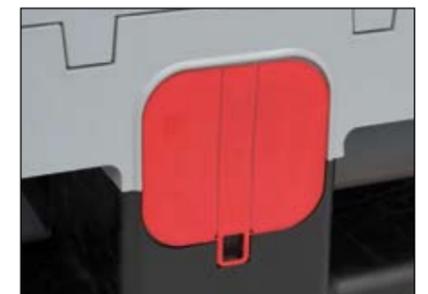
- **With this system, residual product is negligible**
- **The filled product has a long shelf life and can be removed in stages while remaining aseptic**
- **No legal approvals are required during the system's full service life**
- **No nitrogen is needed**
- **Cleaning requirements are minimal due to the disposable aseptic liner bag**
- **The containers can loaded and unloaded quickly and easily for transport**
- **Efficient stacking and folding also reduce transport**



Combo Aseptic is a range of plastic containers of different volumes and with the corresponding accessories.



The three-layer liner bags are made with two inner layers of LLDPE and an outer layer of EVOH to give a good protection barrier. The valve is made primarily of polycarbonate, chosen for its excellent performance when heat treated.



Tamper evident caps and seals guarantee that the product will arrive safely at its final destination.



#### TRANSPORT AND DELIVERY

The containers' compact, square design maximises space and payload in all modes of transport. Their low weight compared to most other distribution units leads to a reduction in transport costs.



#### DISCHARGING

Discharging product from the flexible Combo Aseptic liner bag is easy as it expands when filled and contracts when emptied. The bag contains no air so there is no risk of oxidation or skinning.



#### FOLDING AND RETURNING

Once the liner bag is removed, one operator can unlock the side walls and fold them down again. Since the collapsed volume of the empty IBC's is reduced significantly, they take up a minimum of storage space and at the same time generate substantial cost savings on return freight.



#### SETTING UP

One person can easily prepare a Combo Aseptic IBC for use. The walls are raised and locked into place by hand. The liner bag is placed inside the IBC with the discharge valve clip-locked in position.



#### FILLING

Combo Aseptic IBCs are designed for ease of use and compatibility with existing filling systems. For aseptic filling, a closed system and sterilised liner bag prevent contamination.



#### STACKING AND STORING

These strong and stable IBCs can be stacked five high. They are weather proof and can be left outdoors for long periods when aseptically filled without any risk to the product.

## Filling



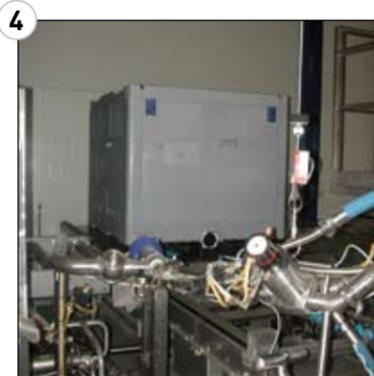
1 The container is folded for efficient storage and transport.



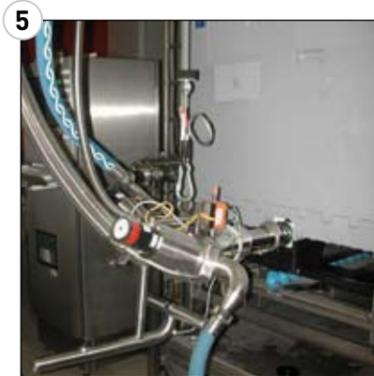
2 Unfolding the container is quick and easy.



3 The liner is placed in the container with the valve fixed to the base.



4 The container is carried to the filling station by a conveyor belt.



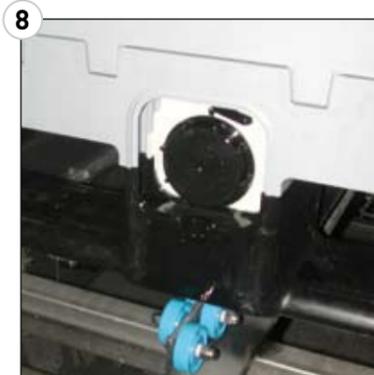
5 The filling head is connected to the valve. It is steam-treated prior to filling.



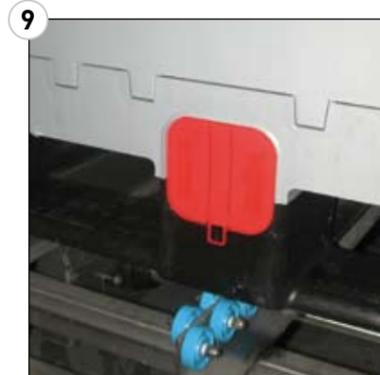
6 The liner is filled with liquid product automatically through the valve. No operator supervision required during filling.



7 The outlet of the closed valve is sprayed to prevent bacteria from accumulating.



8 A cap is screwed onto the valve to prevent unintentional opening.



9 A tamper evident cap is applied, sealing the container.

## Discharging



1 The discharging equipment is connected to the valve.



2 The outlet of the closed valve is steamed-sterilized prior to opening.



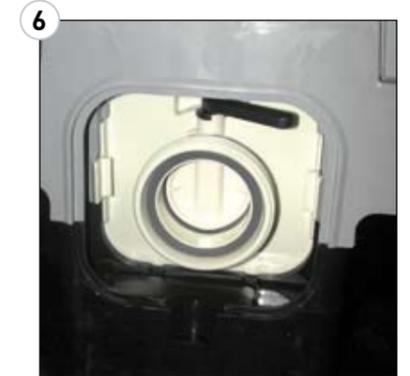
3 The fluid is pumped from the container.



4 The discharging process is fully automatic.



5 After discharging, a negligible amount of residual fluid remains.



6 The valve is closed and the discharging equipment disconnected.



7 A cap is screwed onto the valve before the disposable liner is disconnected from the container.



8 The container is ready for folding.



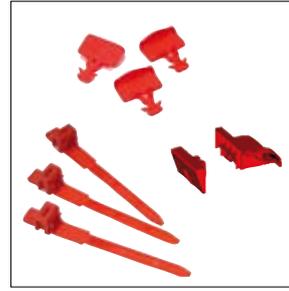
9 The folded container is ready for return transport.



The valve outlet is a DN50 with male Rd 78-6 threads. All gaskets are integrated in the valve.



The valve is covered by a tamper evident cap during transport.



The top lid is sealed by tamper evident devices during transport.

DESCRIPTION IBC	CL 65BD	CL 270BD	CL 285DD	CL 315BD
<b>Item No.</b>	4430.020.502	4440.220.502	4420.032.502	4440.120.502
<b>Volume</b> (litre)	250	1020	1060	1190
<b>Tare weight</b> (kg)	20	93	88,5	102
<b>Dimensions</b> (mm)	810 x 609 x 833	1230 x 1130 x 1063	1155 x 1155 x 1132	1235 x 1135 x 1217
<b>Collapsed height</b> (mm)	403	480	467	475
<b>Height stacked 2 - filled</b> (mm) (max dynamic load)	1646	2096	2247	2404
<b>Height stacked 5 - filled</b> (mm) (max static load)	4085	5195	5592	5965
<b>Height stacked 15 - filled</b> (mm)	5765	6780	6767	6780
<b>Projected foot area</b> (m <sup>2</sup> )	0,5	1,4	1,3	1,4
<b>Container capacity</b> (kg)	350	1500	1400	1500
<b>Max dynamic load stack</b> (kg)	700	3200	3000	3200
<b>Max static load stack</b> (kg)	1750	8000	7400	8000
<b>Skids</b>	Yes	No	Yes	No
<b>Ambient temperature</b>	-20°C to +40°C	-20°C to +40°C	-20°C to +40°C	-20°C to +40°C
<b>DISPOSABLE ARTICLES</b>				
<b>Liner w. valve Item No.</b>	4460.320.000	4460.330.000	4460.310.000	4460.340.000
<b>Valve outlet</b>	DN50, Rd 78-6	DN50, Rd 78-6	DN50, Rd 78-6	DN50, Rd 78-6
<b>Max filling temperature</b>	60°C	80°C	60°C	80°C
<b>Liner gamma irradiation</b>	min 15 kGy	min 15 kGy	min 15 kGy	min 15 kGy
<b>Cap Item No.</b>	4457.000.232	4456.001.232	4456.000.232	4456.001.232
<b>Seal Item No.</b>	4428.011.232	4440.096.232	4420.080.232	4440.096.232

