

DELFIN · OEB FACILITIES · CYCLONE SEPARATOR WITH BIBO

Delfin SEP.DC-020

Cyclone separator with a built-in BIBO filter unit for OEB 4 containment at process equipment. The cyclone is made from AISI 316 and polished both inside and out. An H14 absolute filter (20,500 cm²) and an F9 safety filter are included as standard, both with BIBO replacement. Requires an external vacuum unit.

- Cyclone in AISI 316, polished both inside and out — easier to clean and validate
- H14 absolute filter, 20,500 cm² — 99.995 % efficiency at 0.18 µm
- Both the H14 and F9 filters are supplied in stainless BIBO housings as standard
- 30 L containment bag with an ø150 AISI 316 butterfly discharge valve
- 24 VDC capacity sensor included — signals when the bag needs changing
- No integrated motor — the vacuum source is provided by an external unit



Delfin SEP.DC-020 cyclone separator with BIBO H14 filter unit for OEB 4 containment

OEB 4 — HPAPI containment · H14 — 99.995 % at 0.18 µm · Cyclone ≥98 % · CE — Machinery Directive 2006/42/EC · GMP compatible · AISI 304/316

Quick facts

OEB suitability	OEB 4
Cyclone	≥98 %
Max air flow	420 m ³ /h
Filter	H14 (standard)
Filter surface	20,500 cm ²
Safety filter	F9 BIBO (standard)
Collection	Containment bag
Capacity sensor	24 VDC (standard)
Capacity	30 L
Construction	AISI 304/316
Motor	None — external source
Weight	115 kg

What is the Delfin SEP.DC-020?

The SEP.DC-020 is Delfin's cyclone separator with a built-in BIBO filter unit. It combines cyclone separation, the H14 absolute filter, the F9 safety filter and the containment bag in a single wheeled unit, so it can be moved to whichever process equipment it serves. The cyclone is made from AISI 316 and polished both inside and out — that is the difference from the SEP.DC-001, which is polished on the inside only, and it makes cleaning and validation noticeably easier in a GMP context.

The unit has no motor of its own. Suction is provided by an external vacuum unit, typically installed in a plant room. This keeps motor noise and heat out of the production area and makes it possible to serve several separators from one central system. The 24 VDC capacity sensor is included as standard and signals when the containment bag needs changing.

No motor: the SEP.DC-020 is a passive unit. What may look like a blower in the photograph is the housing for the H14 filter. The unit requires an external vacuum source, and sizing depends on hose length, pipe diameter and the number of simultaneous suction points. Contact us for an assessment of your installation.

The filtration chain in detail

Dust-laden process air enters through the 3" clamp connection and passes into the cyclone, where centrifugal force throws the particles against the cyclone wall and down into the containment bag. The cyclone separates at least 98 % of the material before the air reaches the filter — that is what keeps filter life up and running costs down.

The remaining air fraction passes through the H14 absolute filter with a surface area of 20,500 cm² and an efficiency of 99.995 % measured at 0.18 µm. Downstream sits the F9 safety filter. Both filters are supplied in stainless BIBO housings: the used filter is sealed inside a disposable bag before it leaves the housing, so the operator never touches contaminated material.

Emptying takes place through the ø150 AISI 316 butterfly valve into the containment bag, which is crimped and sealed before removal. The entire chain from process to disposal therefore takes place without open handling of the powder.

Technical specifications

Parameter	Value
OEB suitability	OEB 4
Cyclone efficiency	≥ 98 %
Max air flow	420 m ³ /h — design maximum for cyclone and filter
Filter	H14 absolute filter — included as standard
Filtration efficiency	99.995 % at 0.18 µm
Filter surface	20,500 cm ²
Safety filter	F9 in a stainless BIBO housing — included as standard
Filter replacement	BIBO (Bag-In Bag-Out) on both H14 and F9
Collection system	Containment bag
Container capacity	30 L
Capacity sensor	24 VDC — included as standard
Suction inlet	Clamp 3"
Air inlet	Clamp 2½"
Discharge	Butterfly valve ø150 AISI 316
Construction — cyclone	AISI 316 polished inside and out
Construction — chassis	AISI 304
Motor	None — requires an external vacuum unit
Dimensions	60 × 142 × 196h cm
Weight	115 kg

CE marking based on: Machinery Directive 2006/42/EC • IEC 60335-2-69 • Low Voltage Directive 2014/35/EU • EMC Directive 2014/30/EU

Options and accessories

The H14 and F9 filters and the capacity sensor are included in the standard delivery. Below are the accessories most often ordered alongside.



BIBO filter replacement on the Delfin SEP.DC-020

BIBO filter replacement

H14 and F9 in stainless BIBO • Standard



Capacity sensor for the Delfin SEP.DC-020

Capacity sensor

24 VDC signal • Standard

Also available: crimping tool with cutter and sealing caps for the containment bag; a kit of five PE ANT bags with six silicone rings; BIBO spare filter kits in both H14 and F9 versions, polished inside and out; and 3" clamp coupling kits for ø50 or ø70 flexible hose in polished stainless steel, inside and out.

CONTACT

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