

Delfin Containment Range

Technical data for the Delfin high-containment vacuum and separator range (CANISTER filter unit, PHARMA 40.40 DC, and SEP.DC cyclone separators) for handling potent compounds (HPAPI) up to OEB 5 in cleanroom and OEB facilities.

Brand: Delfin | Manufacturer: Delfin Industrial Vacuums

Contents

- Delfin CANISTER
- Delfin PHARMA 40.40 DC
- Delfin SEP.DC-001
- Delfin SEP.DC-002
- Delfin SEP.DC-009
- Delfin SEP.DC-010
- Delfin SEP.DC-011

Delfin CANISTER

H14 BIBO filter unit in AISI 304 - Stage 2 of Delfin's modular three-stage containment system. With 100,000 cm² of filter surface and BIBO filter replacement as standard, the CANISTER ensures that the remaining airstream from the cyclone separator is cleaned to 99.995 % efficiency, and that the operator never contacts the spent filter.

Brand: Delfin | Manufacturer: Delfin Industrial Vacuums

Key features

- H14 absolute filter with BIBO replacement as standard - operator never contacts the spent filter
- 100,000 cm² filter surface - long filter service life and low pressure drop
- Differential pressure sensor as optional - electrical signal to BMS system
- Mobile on 4 wheels with fold-down work surface - facilitates filter replacement
- Combined with SEP.DC-010 cyclone separator and CV vacuum unit in a complete OEB 5 system

Certification

OEB 4-5 - as part of complete three-stage system
H14 - 99.995 % MPPS
BIBO filter replacement - standard
CE - Machinery Directive 2006/42/EC
GMP compatible
AISI 304 stainless steel

Specifications

OEB suitability (system)	OEB 4-5 (as part of complete three-stage system)
Filter class	H14 - 99.995 % MPPS at 0.18 µm
Filter surface	100,000 cm ²
Filter replacement	BIBO (Bag-in Bag-out) - standard
Filter indicator	Differential pressure sensor - optional (KT.2961.0000)
Max. airflow (compatible vacuum unit)	1,000 m ³ /h
Suction inlet	Clamp 3"
Construction	AISI 304 satin-finished stainless steel
Mobility	Mobile on 4 wheels - fold-down work surface
H14 BIBO spare kit	KT.2961.0000
Crimping tool	KT.1782.0000 - optional
Dimensions	70 x 75 x 155h cm
Weight	60 kg

Delfin PHARMA 40.40 DC

The Delfin PHARMA 40.40 DC is a stationary industrial vacuum for containment of highly potent APIs at tablet presses, blister machines and process equipment. With an integrated cyclonic pre-separator, H14 BIBO filtration and a sealed crimp-bag collection system as standard, it is rated for OEB 4 and OEB 5.

Brand: Delfin | Manufacturer: Delfin Industrial Vacuums

Key features

- Integrated cyclone retains up to 98 % of powder before the filter
- H14 absolute filter with BIBO system as standard - safe filter change without operator contact
- Crimp-bag (containment bag) as standard - BIBO principle during emptying
- Side channel blower 4 kW - designed for continuous 24/7 operation
- Suitable as dedicated machine vacuum (FETTE and similar) or centralised vacuum system
- Control panel for BMS signal output and operator HMI available to specification

Certification

OEB 4-5 - HPAPI direct extraction
H14 BIBO - 99.995 % MPPS
CE - Machinery Directive 2006/42/EC
EN 60335-2-69 - Class H
GMP compatible
AISI 304/316 - satin/polished

Specifications

OEB rating	OEB 4-5 (HPAPI direct extraction)
Cyclone efficiency	>=98 % (placebo powder)
Filtration system	Cyclone + H14 upstream BIBO + H14 downstream
Filter class (IEC 60335-2-69)	H14 - 99.995 % MPPS
Filter surface area	20,500 cm ²
Collection system	Crimp-bag (containment bag) with BIBO during emptying
Level sensor	24 VDC - option (customer responsibility)
Motor type	Side channel blower
Power	4 kW
Current draw	4-8.4 A
Voltage	400 V, 50 Hz, three phase
Max vacuum	3,200 mmH ₂ O
Continuous vacuum	2,300 mmH ₂ O
Max airflow	420 m ³ /h
Suction inlet	Clamp 3" - AISI 316
Tank capacity	30 L
Exhaust	Butterfly ø150 AISI 316
Construction	AISI 304 satin - AISI 316 product-contact surfaces
Duty cycle	Continuous (24/7)
Sound level (EN ISO 3744)	70 dB(A)
Dimensions	95 x 56 x 232h cm
Weight	160 kg

Delfin SEP.DC-001

Pure cyclone separator for safe collection of high-potency APIs up to OEB 5 - without any filter stage. The cyclone retains up to 98 % of the powder in a sealed crimping bag, and the BIBO principle ensures the operator never touches the collected material. Requires an external filter and vacuum unit.

Brand: Delfin | Manufacturer: Delfin Industrial Vacuums

Key features

- Cyclone retains up to 98 % of the powder - polished AISI 316 inside and out
- Crimping bag (sealed disposable liner) as standard - the operator never touches collected material
- Capacity sensor (24 VDC) included as standard
- No filter - always used with an external filter unit (CANISTER or equivalent)
- No motor - vacuum unit located in the technical room, separator at the process
- WIP (Wash in Place) for in-situ cleaning of cyclone and hopper - optional

Certification

OEB 5 in production / OEB 4 in maintenance
Cyclone ≥ 98 % - placebo powder
CE - Machinery Directive 2006/42/EC
GMP compatible
AISI 316 - polished stainless steel

Specifications

OEB suitability	OEB 5 in production / OEB 4 in maintenance
Cyclone efficiency	≥ 98 % (placebo powder)
Filter	None - pure cyclone separator
Collection system	Crimping bag (sealed disposable liner)
Capacity sensor	24 VDC - included as standard
Max. airflow (compatible vacuum unit)	1,000 m ³ /h
Suction inlet	3" (76 mm) - AISI 316
Container capacity	30 L
Discharge	Butterfly $\varnothing 150$ AISI 316
Construction - cyclone and hopper	AISI 316 polished stainless steel
Construction - frame	AISI 304 brushed stainless steel
Motor	None - requires external vacuum unit (CV series)
WIP (Wash in Place)	Optional - only available for SEP.DC-001
Dimensions	72 x 70 x 240h cm
Weight	65 kg

Delfin SEP.DC-002

Pure cyclone separator for collection of medium-toxic powders and APIs up to OEB 5 in production - no filter. The cyclone retains up to 98 % of the powder in a 42 L stainless steel container. Requires an external filter and vacuum unit.

Brand: Delfin | Manufacturer: Delfin Industrial Vacuums

Key features

- Cyclone retains up to 98 % of powder - polished AISI 316 inside and out
- Fixed 42 L stainless steel collection container - larger capacity than SEP.DC-001
- Capacity sensor (24 VDC) included as standard
- No filter - always used with an external filter unit (CANISTER or equivalent)
- No motor - vacuum unit located in technical room, separator positioned at process machines
- Lightest model in the range - 55 kg, height 172 cm

Certification

OEB 5 in production / OEB 4 in maintenance
Cyclone ≥ 98 % - placebo powder
CE - Machinery Directive 2006/42/EC
GMP compatible
AISI 316 - polished stainless steel

Specifications

OEB suitability	OEB 5 in production / OEB 4 in maintenance
Cyclone efficiency	≥ 98 % (placebo powder)
Filter	None - pure cyclone separator
Collection system	Fixed stainless steel container - 42 L AISI 316
Capacity sensor	24 VDC - included as standard
Max. airflow (compatible vacuum unit)	1,000 m ³ /h
Suction inlet	3" (76 mm) - AISI 316
Construction - cyclone and funnel	AISI 316 polished stainless steel
Construction - frame	AISI 304 brushed stainless steel
Motor	None - requires external vacuum unit (CV series)
WIP (Wash in Place)	Not available - exclusively SEP.DC-001
Dimensions	72 x 70 x 172h cm
Weight	55 kg

Delfin SEP.DC-009

Modular cyclone and filter unit with a pre-separator cyclone and H14 BIBO filter for safe collection of high-potency APIs up to OEB 5. The cyclone retains up to 98 % of the powder, the H14 filter (99.995 % MPPS) captures the remainder - and the BIBO collection bag ensures the operator never touches the collected material. Requires an external vacuum unit.

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Key features

- Integrated cyclone retains up to 98 % of the powder before the H14 filter
- H14 absolute filter with BIBO system as standard - 99.995 % MPPS, 100,000 cm²
- BIBO collection bag as standard - the operator never touches the collected material
- Capacity sensor (24 VDC) included as standard
- No built-in motor - vacuum unit located in utility room, separator at the process
- WIP (Wash in Place) for in-situ cleaning of cyclone and hopper section - optional

Certification

OEB 4-5 - HPAPI direct collection
H14 BIBO - 99.995 % MPPS
Cyclone >=98 % - placebo powder
CE - Machinery Directive 2006/42/EC
GMP compatible
AISI 316 - polished stainless steel

Specifications

OEB suitability	OEB 4-5
Cyclone efficiency	>=98 % (placebo powder)
Filter configuration	Integrated cyclone + H14 BIBO filter
Filtration efficiency (MPPS method)	H14 - 99.995 %
Filter surface area	100,000 cm ²
Collection system	Disposable bag (BIBO bag) with BIBO emptying
Capacity sensor	24 VDC - included as standard
Max. airflow (compatible vacuum unit)	1,000 m ³ /h
Suction inlet	3" - AISI 316
Container capacity	30 L
Construction - cyclone	AISI 316 polished/satin stainless steel
Motor	None - requires external vacuum unit (CV series)
WIP (Wash in Place)	Optional - in-situ cleaning of cyclone and hopper section
Dimensions	70 x 128 x 262h cm
Weight	115 kg

Delfin SEP.DC-010

Modular cyclone separator for safe collection of hazardous APIs up to OEB 5 - designed as the first step in a three-stage containment system. The cyclone retains up to 98 % of the powder in a BIBO collection bag before the air continues to the filter unit and the vacuum station.

Brand: Delfin | Manufacturer: Delfin Industrial Vacuums

Key features

- Cyclone retains up to 98 % of the powder before the pre-filter - significantly extends filter life
- BIBO collection bag as standard - the operator never handles the collected material
- Capacity sensor (24 VDC) as standard - indicates full collection container
- Modular design - vacuum unit placed in a technical room, separator at the process machines
- WIP (Wash in Place) for in-situ cleaning of cyclone and hopper - optional

Certification

OEB 4-5 - as part of complete three-stage system
Cyclone ≥ 98 % - placebo powder
CE - Machinery Directive 2006/42/EC
GMP compatible
AISI 304/316 - satin/polished

Specifications

OEB suitability (system)	OEB 4-5 (as part of complete three-stage system)
Cyclone efficiency	≥ 98 % (placebo powder)
Pre-filter	Class M star filter - 20,000 cm ²
Collection system	BIBO collection bag (crimp bag) with BIBO discharge
Capacity sensor	24 VDC - standard
Filter indicator	Magnehelic - visual pressure indication - standard
Max. airflow	750 m ³ /h
Max. vacuum (compatible vacuum unit)	2,700 mmH ₂ O
Suction inlet	Clamp 3" - AISI 316
Container capacity	30 L
Discharge	Butterfly ø150 AISI 316
Construction - cyclone and hopper	AISI 316 polished stainless steel
Construction - frame	AISI 304 satin-finished stainless steel
WIP (Wash in Place)	Optional - in-situ cleaning of cyclone and hopper
Dimensions	70 x 70 x 265h cm
Weight	80 kg

Delfin SEP.DC-011

Cyclone and H14 filter unit for OEB 4 containment at process equipment - no side channel blower. Same filtration chain as the PHARMA 40.40 DC: cyclone $\geq 98\%$, H14 absolute filter ($20,500\text{ cm}^2$), crimp bag and magnehelic as standard. Requires an external CV vacuum unit.

Brand: Delfin | Manufacturer: Delfin Industrial Vacuums

Key features

- Integrated cyclone retains up to 98 % of powder before the H14 filter
- H14 absolute filter ($20,500\text{ cm}^2$) - 99.995 % MPPS - included as standard
- Crimp bag (containment bag) and BIBO disposal as standard
- Magnehelic filter pressure indicator and capacity sensor (24 VDC) as standard
- No integrated motor - vacuum source provided by external CV unit in technical room
- Identical filtration configuration to the PHARMA 40.40 DC - WIP, Photohelic and ATEX options available

Certification

OEB 4 - HPAPI containment
H14 - 99.995 % MPPS (standard)
Cyclone $\geq 98\%$ - placebo powder
CE - Machinery Directive 2006/42/EC
GMP compatible
AISI 304/316

Specifications

OEB suitability	OEB 4
Cyclone efficiency	$\geq 98\%$ (placebo powder)
Filter	H14 absolute filter - included as standard
Filtration efficiency (MPPS method)	H14 - 99.995 %
Filter surface area	$20,500\text{ cm}^2$
Filtration class (IEC 60335-2-69)	Class H
Collection system	Crimp bag (containment bag) with BIBO disposal
Filter indicator	Magnehelic - visual pressure indication - standard
Capacity sensor	24 VDC - included as standard
Suction inlet	Clamp 3" - AISI 316
Container capacity	30 L
Discharge	Butterfly $\varnothing 150$ AISI 316
Construction - filter housing	AISI 304 brushed stainless steel
Construction - cyclone and contact surfaces	AISI 316 polished stainless steel
Motor	None - requires external vacuum unit (CV series)
Dimensions	95 x 50 x 232h cm
Weight	80 kg