



***Industrial vacuum solutions for
pharmaceutical, food and OEM industries***

INDUSTRIAL VACUUM SOLUTIONS FOR PHARMACEUTICAL, FOOD AND OEM INDUSTRIES

Pharmaceutical and food industries must avoid any form of contamination to guarantee the highest quality of finished product. Delfin's industrial vacuum and conveying solutions help processing facilities meet cleanliness, hygiene and safety standards with 100% certainty.



MAXIMUM QUALITY OF FINISHED PRODUCTS



INCREASE PRODUCTIVITY



AVOID CROSS-CONTAMINATION



IMPROVE SAFETY FOR OPERATORS



FULL COMPLIANCE TO GMP STANDARDS



AVAILABLE WITH ATEX CERTIFICATION



SAFE AND HYGENIC PROCESSING SOLUTIONS



TAILORED EFFICIENCY

CENTRALIZED SYSTEMS

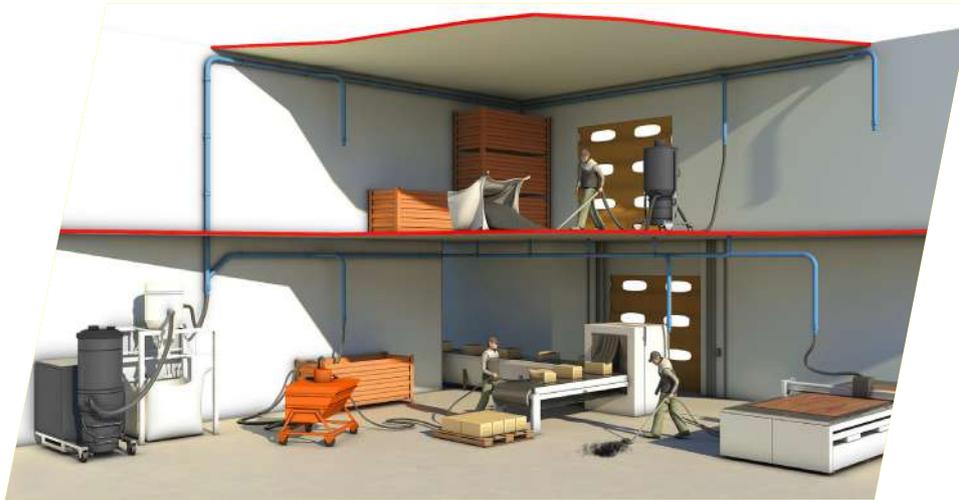
Delfin's dedicated research and development team can design and build the perfect vacuum system for your needs.

- **Boost** your productivity
- **Reduce** cleaning and maintenance
- **Improve** operating efficiency



DUST CONTAINMENT

The cyclone retains 97% placebo-type powder. The BagIn-BagOut system allows the suction of powders and pharmaceutical active ingredients ensuring OEB level 5 during suction and OEB 4 during material removal and replacement of the HEPA H14 filter.



A PARTNER TO INNOVATE WITH

Delfin is partner of many national and international OEMs thanks to its extreme flexibility of design and production

- Creations of **customized units**
- **Dedicated technical office** of 10 people
- Production with **lean manufacturing** methodologies
- **In-house customization** for specialty systems
- **Internal epoxy powder coating**
- Large spare parts **warehouse** of 5.000sqm

ABSOLUTE FILTRATION

YOUR BEST ALLY AGAINST CONTAMINATION

High-efficiency filtration is essential to avoid contamination, preserve quality and safeguard respiratory health. Delfin vacuums offers multi-stage filtration to capture fine dust and guarantee sterility of the environment

- **Sterility** of the environments guaranteed
- Primary class **M or H* filters**
- **HEPA or ULPA filtration** for extremely fine dust, up to 99.999% of particles of 100 nanometer size
- Comfortable and efficient manual or automatic filter cleaning systems installed on the machine

* Reference standard IEC / EN 60335-2-69, H14 with individual filter traceability



ATEX AND NFPA CERTIFICATIONS

THE SECURITY GUARANTEE YOU WERE LOOKING FOR

Safety is an important aspect when dealing with very fine dust and potentially explosive environments.

Delfin vacuum cleaners boast the **widest range of ATEX certifications** on the market obtained thanks to construction criteria that guarantee maximum prevention of the risk of explosion.

The exclusive double **1 / 3D-2D certification inside and outside** the aspirator allows to guarantee total safety even with a full container.

- Wide range of electrical or pneumatic solutions for each risk zone
- **Zone 20 certification** inside the vacuum cleaner
- **Vacuum cleaners** certified according to **UL / CSA directive**
- Antistatic filtration and earthing installed on the machine



SOLUTIONS FOR SPECIAL ENVIRONMENTS

STERILIZATION OF CLEAN ROOMS

Compliance for clean rooms up to ISO4
Total hygiene
It guarantees the sterility of the environment
Eliminates the risk of contamination
Up to 6 stages of high efficiency filtration



VACUUM CLEANERS WITH ATEX CERTIFICATION

Systems certified by external institutions
Maximum safety for operators
Compressed air models available



ACCESSORIES

THE RIGHT TOOLS FOR A PERFECT WORK

Wide range of ergonomic accessories for every specific aspiration need in the pharmaceutical / food world



Antistatic accessories
AISI 304 stainless steel



Autoclavable accessories



FDA approved color-coded accessories
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Comfortable extensions for cleaning pipes

CLEANING SOLUTIONS



CLEANING OF WORKPLACES

Maximum hygiene
Safety for operators
Ensures product quality



MAINTENANCE OF MACHINERY AND PRODUCTION LINES

Avoid risk of contamination
Reduces downtime
Ensures product quality



SUCTION OF FINE POWDER IN SUSPENSION

Purify the work environment
Greater safety for operators
Localized suction to avoid dispersion



VACUUM CLEANERS

		202DS	PHARMA 20 PHARMA 30	4533 4535	DG 50 EXP DG70 EXP	ZFR EV 420 ZFR EV 560	LC1000D - LC1100WD
Application		Work environment cleaning	Machinery maintenance and production lines			Aspiration of volatile dust	Clean room
Voltage	V-Hz	230-50	400-50	400-50	400-50	400-50	230-50
Power	kW	2,3	1,8 - 2,2	2,2 - 4	4 - 5,5	0,75 - 4	1 - 1,1
Max. air flow	m³/h	360	250 - 318	318 - 420	420 - 530	1.000 - 2.700	175 - 180
Depression	mmH ₂ O	2.500	2.300 - 2.600	2.600 - 3.200	3.200 - 3.600	180 - 350	2.900 - 2.500
Capacity	lt	20	33	45	100	45 - 100	5 - 40
Filtration		3m² M PTFE	3m² M PTFE	2m² ANT M	3m² ANT M	2-10,6m² ANT M	Up to 6 stages
Dimensions	cm	59x48x110h	52x69x147h	110x55x125h	66x118x145h	52x60x180h 78x85x250h	36x33x51h 43x43x73h



AVAILABLE WITH
ATEX CERTIFICATION

PRODUCTIVITY SOLUTIONS

INTEGRATION ON-BOARD

Blistering machine | Tablet press | Filler
Flowpack | Wrapping

Ensures product quality
Increase system automation
Reduces necessary maintenance



SCRAP SUCTION OF PACKAGING

Reduces downtime
It guarantees high productivity
Fast disposal of waste



PNEUMATIC CONVEYANCE OF POWDERS AND SOLIDS

No de-mixing of the product
Simple to sanitize
Avoid risk of contamination
FDA certified components for food contact



UNIT FOR INTEGRATION

		DBF/V 05-10	DBF/V 20-30	AS
Application		Process machines		Packaging
Voltage	V-Hz	400-50	400-50	400-50
power	kW	0,4 - 0,85	1,8 - 2,2	0,85 - 5,5
Max. air flow	m³/h	100 - 150	250 - 318	150 - 530
Depression	mmH ₂ O	1.750 - 2.000	2.300 - 2.500	1.400 - 3.600
Capacity	lt	15	15	130 - 210
Filtration		0,2m² M PTFE	1,2m² M	Nylon Bag L
Dimensions	cm	75x34x42h 50x33x74h	84x44x71h 54x42x113h	59x55x132h 63x100x125h



CONVEYORS

		6 bar	230 - 50Hz	400 - 50Hz
Voltage		Pneumatic 4-15 Venturi	Electric 4-15 kW 1-	Electric 2,2-17,3 kW 3-
Air consumption	V-Hz	370-1400	250	250
Depression	mbar	750	235	210-540
Air flow	m³/h	110-380	170	318 - 1.200



Stainless steel construction



Simple sanitization



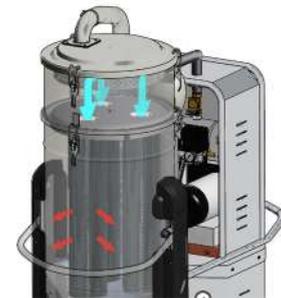
Absolute filter



Manual filter shaker cleaning system



Convenient cleaning system for the Dustop semi-automatic filter



Automatic pneumatic cleaning of alternating air counter-current filters



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