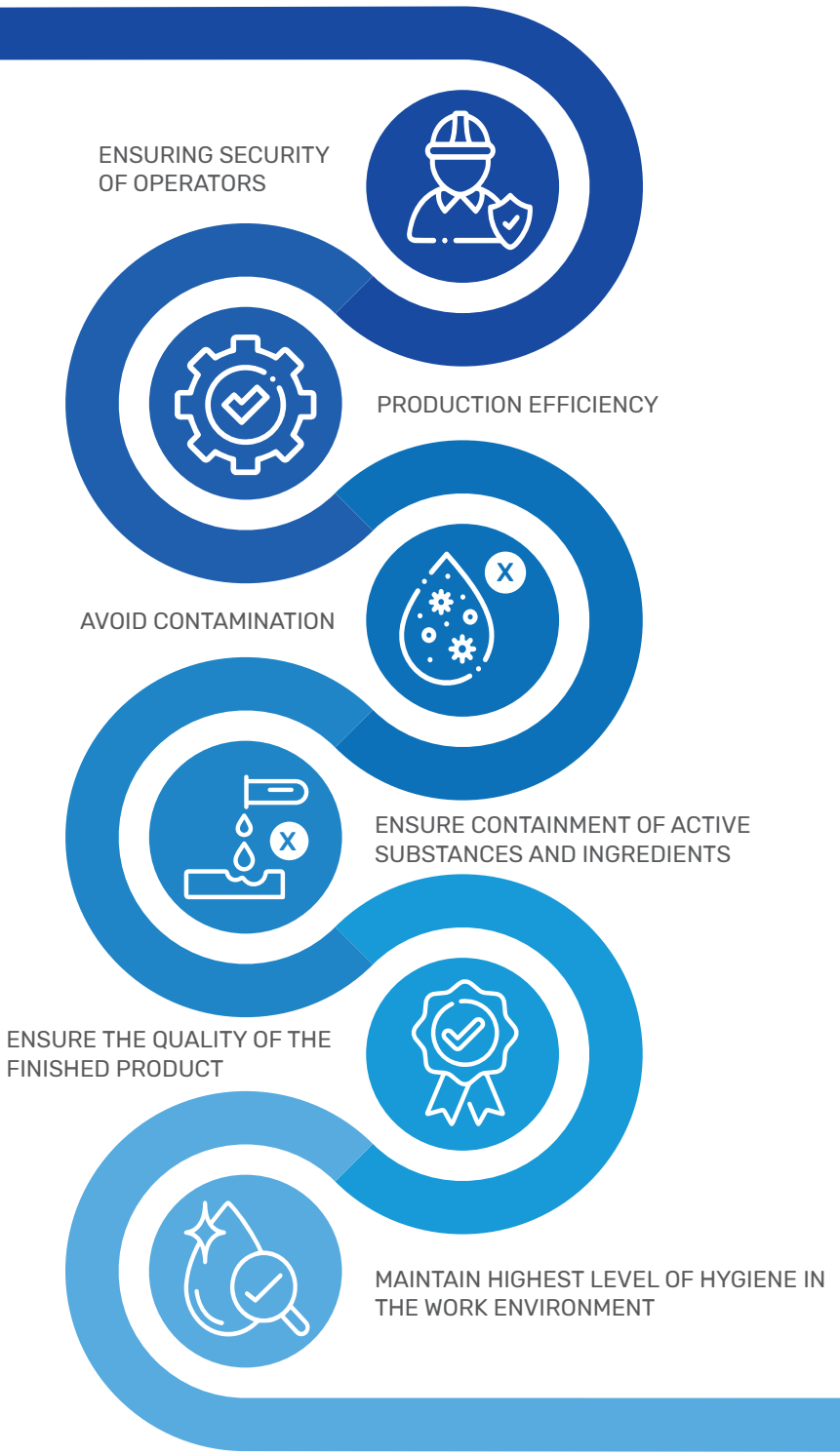
delfin
INDUSTRIAL VACUUM SOLUTIONS

VACUUM SOLUTIONS
FOR THE PHARMACEUTICAL INDUSTRY

PHARMACEUTICAL INDUSTRY
HEALTH, SAFETY AND PRODUCTIVITY

The production process in the pharmaceutical sector involves high standards of hygiene, safety and productivity to ensure a safe, compliant and effective end products.



Based on these priorities, Delfin offers an innovative range of pharmaceutical-specific solutions that includes dust containment systems covering different degrees of high risk (API and HPAPI) and different levels of operator exposure risk (OEB1 to OEB5).

THE ADVANTAGES OF DELFIN VACUUM SYSTEMS

With over 30 years experience and ongoing investment in research and development, Delfin offers expertise and innovation to the pharmaceutical industry:

- Wide and diverse range that meets specific industry requirements and standards.
- Dust filtration and containment solutions among the most compact, high-performance and competitive on the market.
- Maximum safety ensured by BIBO (Bag in - Bag out) and dust containment systems (HPAPI/ OEB 3-5).
- Individually tested H14/HEPA absolute filters ensure the total integrity of the filter and its features, as well as total control of the quality of the filter itself.
- Cyclonic systems with up to 98% filtration efficiency. Optimized design of H14/HEPA filters to ensure more compact dimensions and reduction of machine weight.
- Customizable control panel according to the need of interfacing with the production line
- Complete range of mobile solutions for the general cleaning of production facilities (including cleanrooms), in full compliance with pharmaceutical industry standards.
- Continuous vacuum solutions to avoid downtime and increase productivity.
- Modular solutions for positioning in rooms outside the production area, to optimize space and avoid noise and heat emissions.
- Innovative pneumatic conveying solutions for loading on to production machinery.
- Certifications on request: GMP, ATEX, HEPA/ ULPA, IECEX compliance.

A COMPLETE RANGE OF SOLUTIONS

Delfin offers the pharmaceutical industry a wide range of mobile and stationary industrial vacuum cleaners and several pneumatic conveying solutions that seamlessly integrate with the production process, from the storage of raw materials to the packaging process of the finished product.

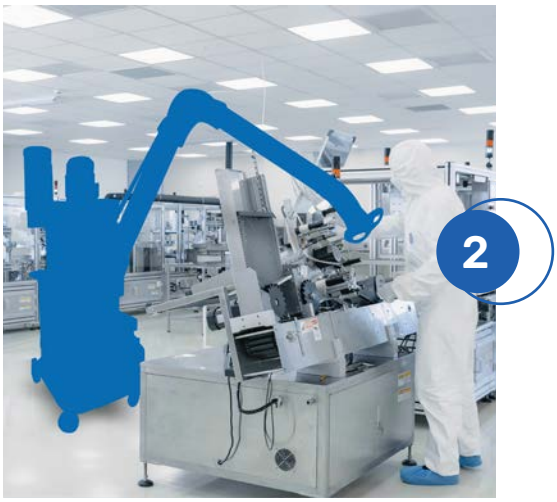
1. SOLUTIONS FOR LOGISTICS AND RAW MATERIAL STORAGE AREAS
2. SOLUTIONS FOR PRE-PRODUCTION AREAS
3. SOLUTIONS FOR PRODUCTION AREAS
4. SOLUTIONS FOR CLEANROOMS
5. SOLUTIONS FOR PACKAGING LINES

ACCIDENTAL SPILLS

Compact models for dust and liquid suction with large collection capacity and central solutions with fixed piping for storage and production areas.

DELFIN SOLUTIONS: DG / 802WXP / 451BL / CV WITH SEPARATORS, HEPA FILTERS AND ATEX CERTIFICATION

SUCTION OF SUSPENDED DUST



Dust collectors with suction arm to avoid powder scattering into the environment and operator exposure.

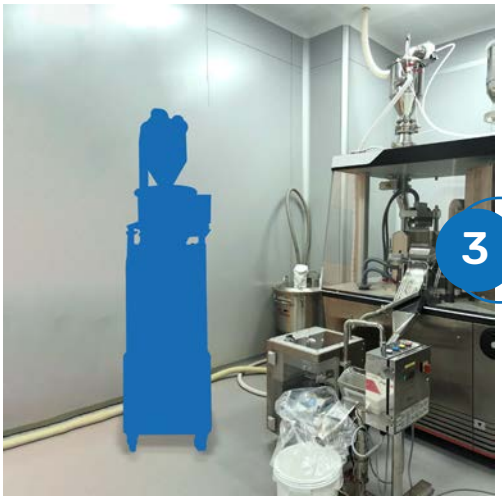
DELFIN SOLUTIONS: ZFR EV AP

LOADING AND CONVEYING OF RAW MATERIALS OR FINISHED PRODUCTS

Integrated solutions for automation of raw materials loading or finished products conveying.

DELFIN SOLUTIONS: PNEUMATIC CONVEYOR

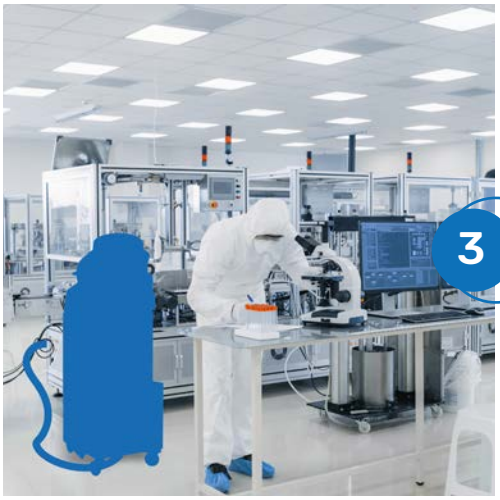
INTEGRATED SOLUTIONS FOR SECURE CONTAINMENT



Process-integrated models suitable for OEB environments with operator safety guarantee.

DELFIN SOLUTIONS: PHARMA 40.40 SEP.DC / PNEUMATIC CONVEYOR

INTEGRATED VACUUM SOLUTIONS ON PRODUCTION LINES



Integrated solutions on production lines to eliminate powders and reduce maintenance operations.

DELFIN SOLUTIONS: PHARMA 40.40 / PHARMA 40.30/ PHARMA 20.18 / DBF / DG

CLEANROOM CLEANING

Autoclavable models for dust or liquid suction with ULPA filters.
Suitable for cleanroom, ISO4 or higher.

DELFIN SOLUTIONS: LC1000 / LC1100WD

REMOVAL OF PACKAGING WASTE

Integrated solutions for the removal of packaging scraps and trimmings (cardboard, plastic film, etc.).

DELFIN SOLUTIONS: AS RANGE

SPECIFIC AND INTEGRATED SOLUTIONS ON PRODUCTION MACHINERY

GRANULATING AND TABLETTING MACHINES

• Suction of **medium toxic materials (OEB1-3)** with 2-3 vacuum points.
DELFIN SOLUTIONS: PHARMA 40.40/40.30

• Suction of **toxic materials/active ingredients OEB4-5.**
DELFIN SOLUTIONS: PHARMA 40DC, FILTERING SEPARATORS

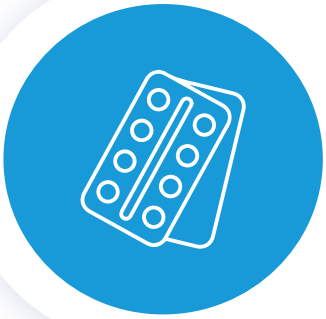
• Suction of large quantities of **material non-toxic material.**
DELFIN SOLUTIONS: DG75, CV WITH H FILTERS AND ATEX CERTIFICATION

• Loading of powders.
DELFIN SOLUTION: PNEUMATIC CONVEYOR

TABLET PRESSES

• Retention of the tablet by means of vacuum pumps and powder suction.
DELFIN SOLUTION: DG (Custom)

• Loading of empty capsules and powders.
DELFIN SOLUTION: PNEUMATIC CONVEYOR



BLISTER MACHINES

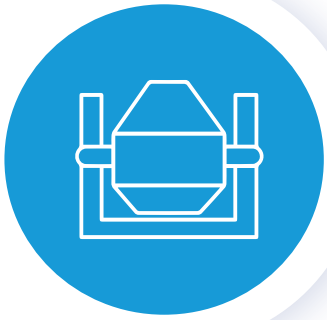
• Loading of tablets.
DELFIN SOLUTION: PNEUMATIC CONVEYOR

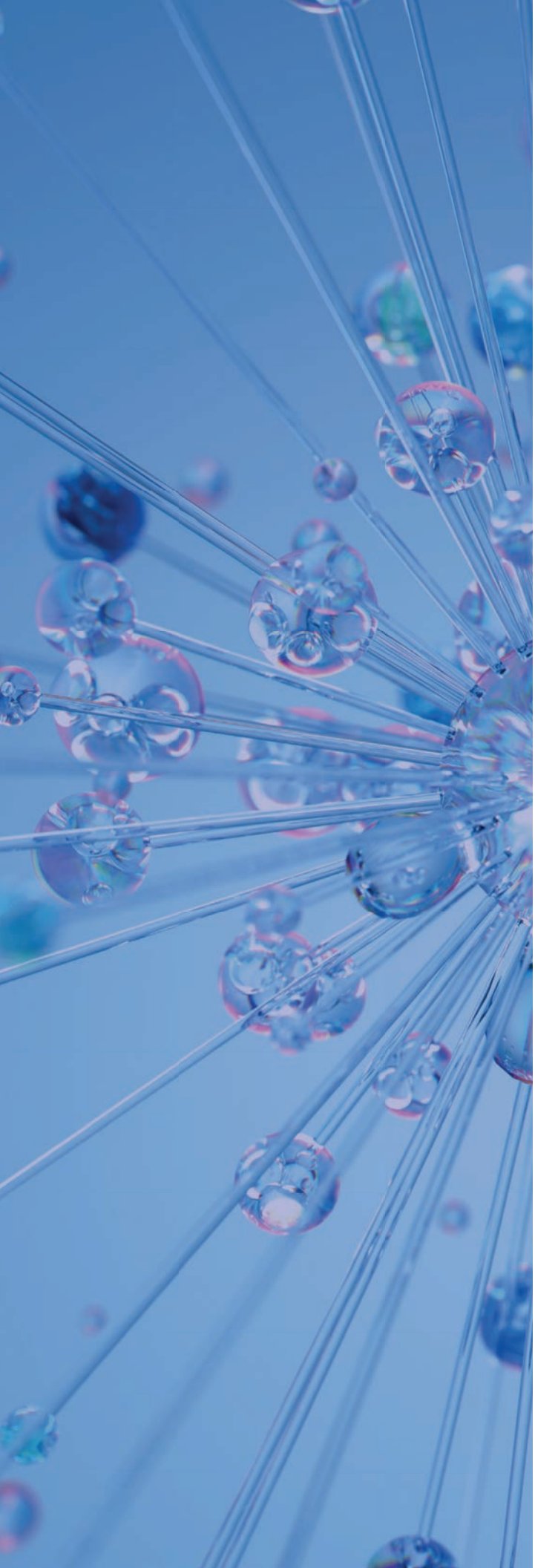
• Suction of powder dispersed during packaging or translation on modules.
DELFIN SOLUTION: DG

• Removal of blister welding residues and trimming.
DELFIN SOLUTIONS: AS, CV+SEP (Mobile or integrated solutions)

COATING MACHINES

• Loading and handling of tablets in order to create the coating film.
DELFIN SOLUTION: PNEUMATIC CONVEYOR





FULL INTEGRATION FOR MAXIMUM PRODUCTION EFFICIENCY

Delfin research and development department is working to develop vacuum systems seamlessly integrated on processing machines, with complete automation of vacuum operations and improvement of production efficiency.

Technology and modular solutions offered by Delfin can be designed and customized according to the specific needs and features of each client.

BENEFITS:

- INCREASED SAFETY FOR OPERATORS
- HIGH QUALITY OF FINISHED PRODUCTS
- IMPROVED LEVELS OF PRODUCTION EFFICIENCY AND COST REDUCTION
- REGULATORY COMPLIANCE

INDUSTRY 4.0

Delfin solutions can be customized to effectively communicate with the company SCADA or ERP system, enabling advanced interaction with machines in the production process.

Thanks to integrated and digital 4.0 systems it is possible to perform preventive and predictive maintenance of the production system on which the vacuum system has been integrated.

BENEFITS:

- IMMEDIATE DETECTION OF FAULTS
- REDUCTION OF MACHINE DOWNTIME
- REDUCTION OF TECHNICAL REPAIR COSTS
- PREVENTION OF FAULTS CAUSED BY INCORRECT USE
- INCREASED SECURITY
- REMOTE SUPPORT OPTIONS FOR OPERATORS
- MAINTENANCE SCHEDULING
- MAXIMIZED PERFORMANCES

VACUUM CLEANERS FOR DIRECT POWDER SUCTION FROM PROCESSING MACHINES AND FOR GENERAL CLEANING

PHARMA 20.18

Extremely quiet, compact and handy vacuum unit for direct suction of powdered active ingredients up to 0EB3 (API) on processing machines. Also fit for general cleaning and machines maintenance.

BENEFITS:

- Continuous suction in order to avoid machine downtime and to maintain high productivity standards
- Thanks to its extreme quiet operation, it does not release noise emissions within the production area
- High filtration efficiency

OPTIONAL

STAINLESS STEEL CONSTRUCTION
Filtering chamber and structure available in AISI304 stainless steel

Safety HEPA FILTER
for suction of toxic, carcinogenic, pathogenic dust

SAFE BAG SYSTEM
Secure bagging system

ARTICULATED ARM
for localized dust extraction

FDA FILTER
FDA-certified antistatic filter

ATEX-NFPA
Unit certified for use Atex Zone 22 and NFPA compliant

TECHNICAL DATA	PHARMA 20.18
Voltage/Power	230/460V - 60Hz 3~ / 3.0 HP
Max water lift	74.8 inH_2O
Max air flow	176.6 CFM
Filter	Antistatic Polyester - Class M
Capacity	5.8 gal
Dimensions/Weight	28x20x51h in / 165lb

VACUUM CLEANERS FOR DIRECT POWDER SUCTION FROM PROCESS MACHINES AND FOR GENERAL CLEANING

PHARMA 40.40

Compact, quiet and flexible industrial vacuum unit for direct suction of powdered active ingredients up to 0EB3 (API).

BENEFITS:

- Continuous suction in order to avoid machine downtime and to maintain high productivity standards
- Thanks to its extreme quiet operation, it does not release noise emissions within the production area
- High filtration efficiency

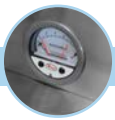
OPTIONAL

INVERTER
ABB Inverter IP66 kW4 Z22 for air flow and air speed modification

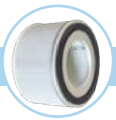
TABLE TOP
For filter replacement with BIBO system

STAINLESS STEEL CONSTRUCTION
Filter chamber and structure available in AISI304 stainless steel. Internal mirror polishing available

SAFE BAG SYSTEM
Secure bagging system



SENSORS
Magnehelic and Photohelic for filter clogging control



FILTRATION
FDA-certified antistatic filter | H14 absolute filter in upstream| H14 absolute filter with BIBO system and painted steel housing

TECHNICAL DATA	PHARMA 40.40
Voltage/Power	230/460V - 60Hz 3~ / 6.2 HP
Max waterlift	104.3 inH_2O
Max air flow	294.3 CFM
Filter	Antistatic Polyester Class M
Capacity	11.1 gal
Dimensions/Weight	30x20x61 in / 265lb

VACUUM CLEANERS FOR DIRECT DUST SUCTION FROM PROCESSING MACHINE

DBFV

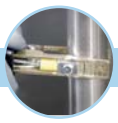
The fixed vacuum base on the machine is the ideal solution for removing powder and small scraps directly at the source during production cycles. Compact and available in vertical or horizontal construction, they are easy to install and integrate into existing or highly automated production lines.

BENEFITS:

- Continuous suction in order to avoid machine downtime and to maintain high productivity standards
- No powder releasing into the working environment
- Ergonomic and easy to use for thorough cleaning of the work area
- Minimal space requirements, modular construction

OPTIONAL

Safety H14 FILTER
for suction of toxic, carcinogenic, pathogenic powder



EARTH GROUNDING

STAINLESS STEEL CONSTRUCTION
Filtering chamber and structure available in AISI304 stainless steel

PUSH HANDLE AND WHEELS
For practical machine handling

COLLECTION BAG

SINGLE-PHASE 230V SIDE CHANNEL BLOWER

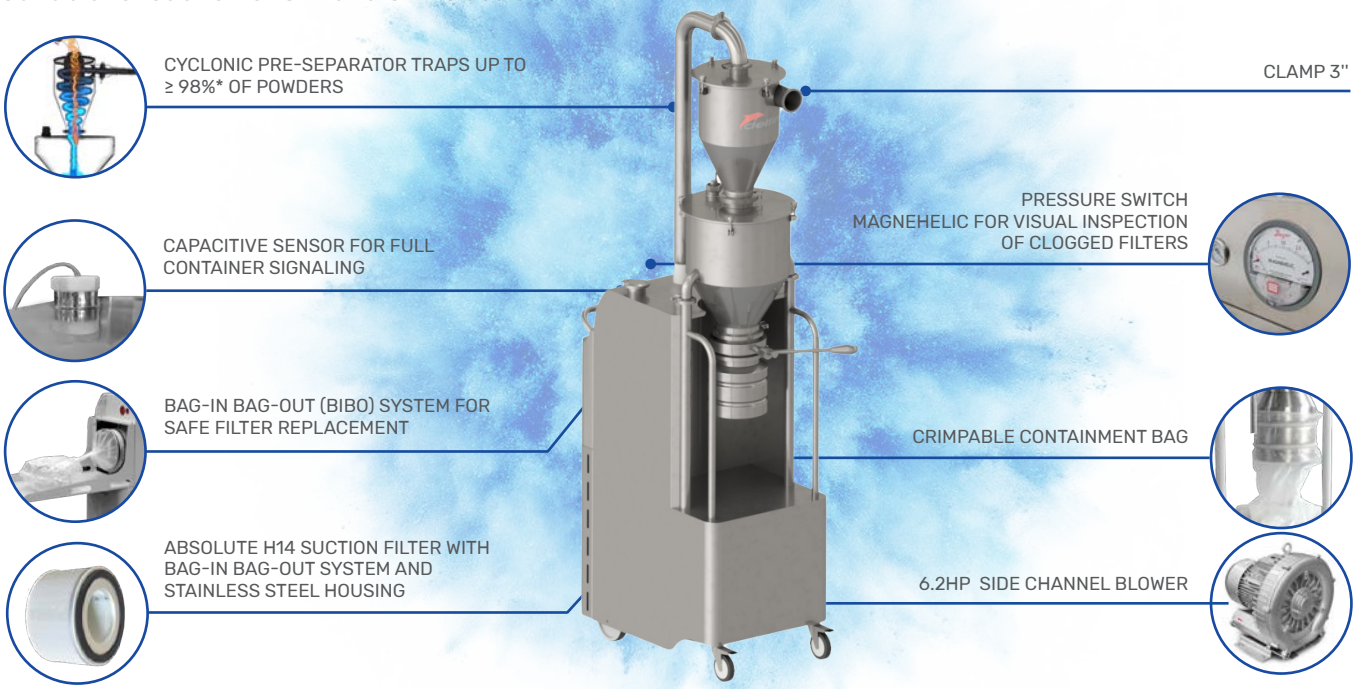
TECHNICAL DATA	DBFV 10	DBFV 20	DBFV 30
Voltage/Power	230/460 - 60Hz 3~/ 1.29HP	230/460 - 60Hz 3~/ 3.46HP	230/460 - 60Hz 3~/ 3.46HP
Max waterlift	62.9 inH_2O	102.3 inH_2O	74.8 inH_2O
Max air flow	103 CFM	194.2 CFM	221 CFM
Filter	Polyester bag - M PTFE	Polyester star - ANT M	Polyester star - ANT M
Capacity	4 gal	6.6 gal	6.6 gal
Dimensions/Weight	19.6x13x28.7 in / 77lb	21x21.6x40.5h in / 99lb	21x21.6x40h in / 132lb

SAFE CONTAINMENT OF HAZARDOUS POWDERS
PHARMA 40.40 DC

Compact, quiet and flexible industrial vacuum cleaner equipped with a bag collecting system, particularly suitable for connection to tablet press machines, shrink wrapping machines, and blister machines.
Perfect for direct suction of HPAPI powders up to OEB4 and OEB5. Construction material coming in contact with powder is AISI 316 stainless steel.

BENEFITS:

- Maximum powders filtration complying with OEB4-5 levels, ensuring total operator protection
- Ultra-compact system to fit into confined spaces
- No powder build-up for easy maintenance and cleaning
- Continuous extraction even in discharge step in order to avoid machine downtime during emptying and to maintain high production standards
- Suitable for suction of St 1 and St 2 class dust.



OPTIONAL

INVERTER
ABB Inverter IP66 kW4 Z22 for air flow and air speed modification

WASH IN PLACE
For cleaning the pre-separator and hopper

SEPARATE VACUUM UNIT
Possible location of the vacuum unit in the technical compartment.
Available Atex Z22

CRIMPING TOOL, END CAPS, SPARE BAGS
Supplied separately

PHOTOHELIC
For differential clogging or filter breakage control and signal sending to external systems.
Available Atex 2GD

SAFETY FILTER
F9 O H4
For toxic ,carcinogenic, pathogenic powder

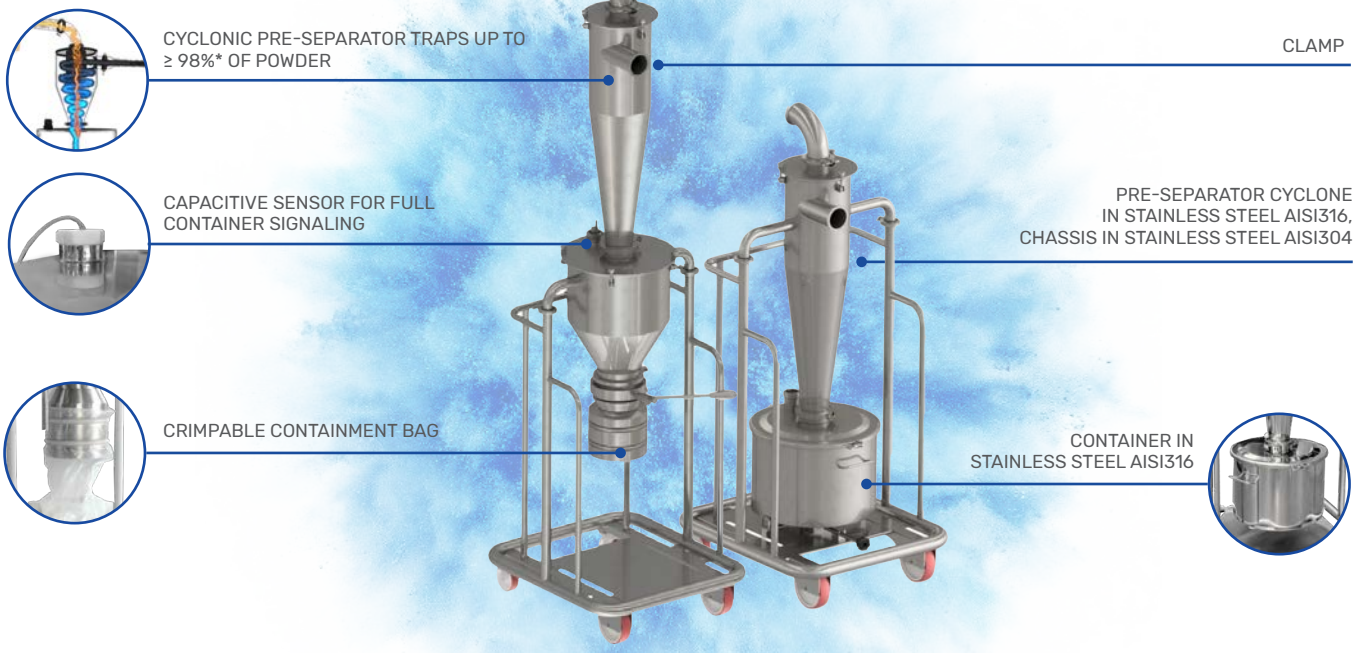
TECHNICAL DATA	PHARMA 40.40 DC
Voltage/Power	230/460V - 60Hz 3~/ 6.2HP
Max waterlift	104.3 inH_2O
Max air flow	294.3 CFM
Filter - Filter surface	H14 - 22 ft^2
Capacity	7.9 gal
Discharge	Butterfly ø150 AISI316 / Butterfly ø150 AISI316
Dimensions/Weight	37x22x91h in / 353lb

CYCLONIC SEPARATOR
SEP.DC-001 / SEP.DC-002

Cyclone pre-separator in polished AISI 316 stainless steel, with cyclone dust separation maximum efficiency up to 98%. Safe powder collection system in containment bags.

BENEFITS:

- Reduction of primary filter clogging for a longer filter life
- Ultra-compact system for use in confined spaces
- No powder build-up for easy maintenance and cleaning
- Maximum filtration efficiency for almost total powder recovery

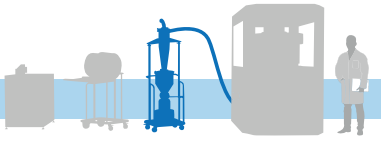


OPTIONAL

WASH IN PLACE
For cleaning the pre-separator and hopper

CONTAINMENT BAGS
KIT.1780.0000 | 5 containment bags and 6 rings - spare parts kit

CRIMPING TOOL, END CAPS, SPARE BAGS
Supplied separately



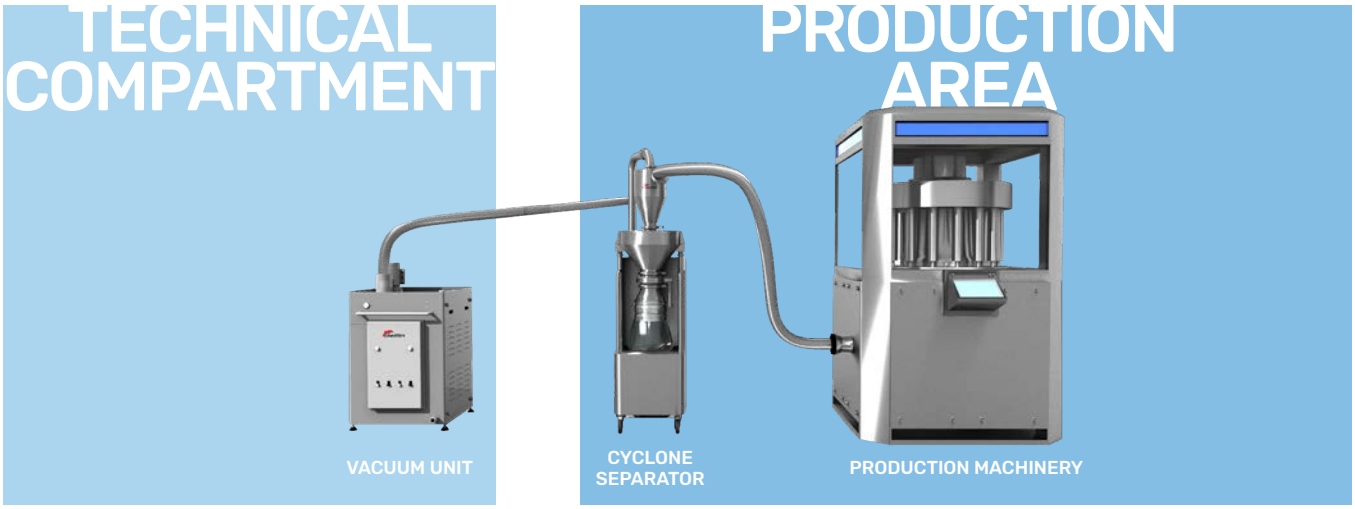
WIRING DIAGRAM IN PRODUCTION

TECHNICAL DATA	SEP.DC-001	SEP.DC-002
Capacity	7.9 gal	11 gal
Dimensions/Weight	28x28x94h in / 143lb	28x28x92.5h in / 154lb
Collection system	Containment bag	Container

MODULAR SOLUTIONS

Modular solutions allows the vacuum unit to be positioned outside the production area.
The pre-separators thanks to their compact dimensions allow space saving. The absence of powder accumulation points ensures cleanliness, efficiency and easy maintenance.

These models can be supplied with a separate suction unit.



VACUUM UNITS

CV RANGE

BENEFITS:

• Its positioning in the technical compartment optimizes space and does not release heat and noise into the production room
• Maintenance-free

4.0

INTERCONNECTION WITH FACTORY ERP AND PARAMETER CONTROL

INVERTER

FREQUENCY ADJUSTMENT AND VACUUM PARAMETERS

Option: Atex certification

TECHNICAL DATA	CV117
Voltage	400V - 60Hz 3-
Power	8.4 HP
Max waterlift	110.2 inH_2O
Max air flow	353.1 CFM
IN/OUT	2.7 in
Dimensions	25.2x25.9x54.7 in

Other power CV units also available on request

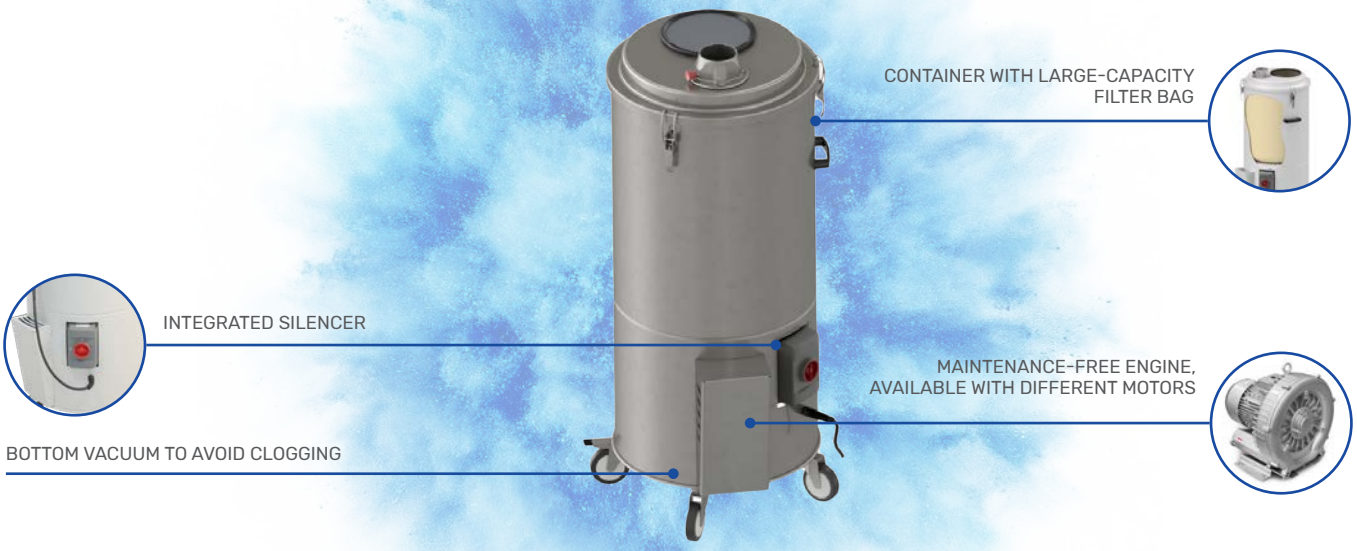
VACUUM CLEANERS FOR SUCTION OF TRIMMINGS AND PACKAGING WASTE

AS RANGE

AS Range vacuum cleaners are designed for the suction of bulky scraps and waste from production cycles and packaging equipment, such as nylon, plastic, fabric, and cardboard. The vacuumed waste is contained and compacted in a nylon bag, which filters out any powder and allows for quick and easy disposal. They can be integrated on machines and production lines, typically at the packaging and wrapping stage.

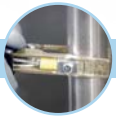
BENEFITS:

- Immediate removal of residual plastic and paper materials
- Suction from above to prevent filter clogging
- Collection bag for quick disposal
- Compact size and quiet operation



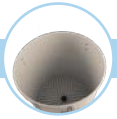
OPTIONAL

FILTER
Class M polyester



GROUNDING

STAINLESS STEEL CONTAINER
AISI304 stainless steel container



BASKET
Gridded basket to balance pressure

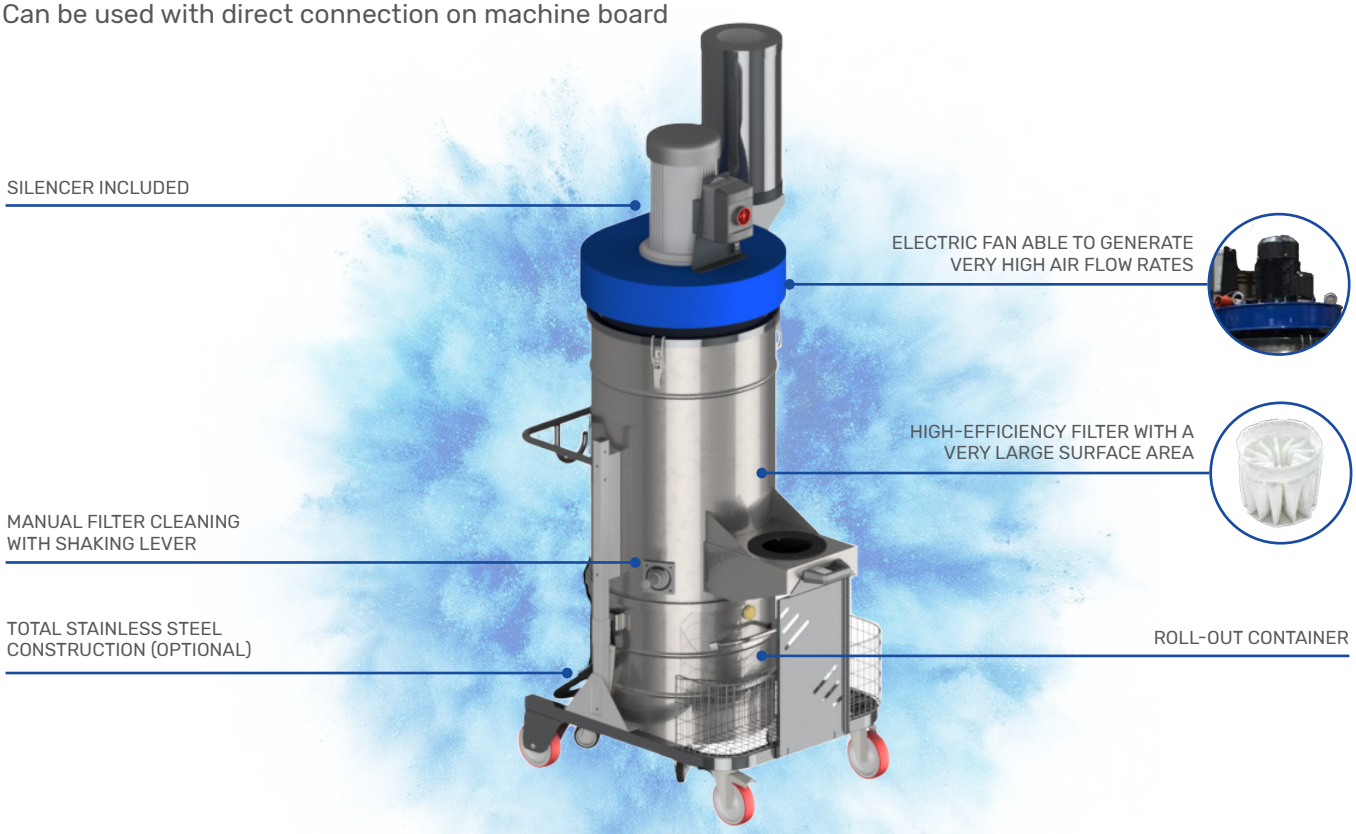
TECHNICAL DATA	AS 10	AS 20	AS 30	AS 70
Voltage/Power	230/460V - 60Hz 3~/1.3HP	230/460V - 60Hz 3~/3HP	230/460V - 60Hz 3~/3.4HP	230/460V - 60Hz 3~ /8.4HP
Max waterlift	64.2 inH_2O	74.8 inH_2O	84.3 inH_2O	118.1 inH_2O
Max air flow	103 CFM	176.6 CFM	211.9 CFM	353.1 CFM
Suction inlet	3 in	3 in	3 in	3 in
Filter	Nylon bag - Class L	Nylon bag - Class L	Nylon bag - Class L	Nylon bag - Class L
Diameter/Height	500, 26 mm, in	500, 26 mm, in	500, 26 mm, in	560, 32 mm, in
Capacity	34 gal	34 gal	34 gal	55 gal
Dimensions/Weight	23x22x52h in / 132lb	23x22x52h in / 154lb	23x22x52h in / 165lb	25x39x49h in / 276lb

INDUSTRIAL DUST COLLECTORS
ZFR EV AP

Trolley dust collectors feature a very high air flow rate, which is necessary to vacuum powder at the source and prevent it from being dispersed into the environment.
They are also a perfect solution for localized suction directly on board of processing equipment. Their function is to avoid dust dispersion in the production environment, preventing even the finest powder from escaping into the surroundings.

BENEFITS:

• It allows the vacuuming of fine powder suspended in the work environment, ensuring the safety of operators and preventing the dust from spreading into the surroundings
• Can be used with direct connection on machine board



OPTIONAL

SAFETY H FILTER
for suction of toxic, carcinogenic, pathogenic powder

STAINLESS STEEL SUCTION ARM

ATEX -NFPA
Unit certified for use Atex Zone 22 and NFPA compliant

TECHNICAL DATA	ZFR EV AP 420	ZFR EV AP 560
Voltage / Power	230/460V - 60Hz 3~ /1.2 HP	230/460 - 60 3~ / 6.4HP
Max waterlift	9.1 inH_2O	7.9 inH_2O
Max air flow	412 CFM	1589 CFM
Filter	Polyester star - L	Polyester star- ANT M
Capacity	11.9 gal	26 gal
Dimensions/ Weight	23x25x71h in/ 132lb	31x33x98h in/ 287 lb

CLEANING OF CLEANROOMS UP TO ISO4

LABCONTROL RANGE LC1000 D / LC1100 WD

The typical feature of cleanrooms is the purity of the air inside, which maintains a very low content of suspended micro-particles of powder.
Delfin range of Labcontrol vacuum cleaners reduces the risk of product contamination in full compliance with industry regulations, while maintaining the highest levels of hygiene. Specific tests have certified their compatibility for use in cleanrooms up to ISO4 level (according to ISO14644).
They are autoclavable (excluding motor head), and equipped with dedicated, FDA-certified and autoclavable accessories. They are modular and ergonomic, easy to use and sanitize and provide progressive efficiency of multi-filtration.

BENEFITS:

- Avoids contamination of finished product
- Easy to use and clean

OPTIONAL

ULPA 15 FILTER
For exhaust air outlet (LC1100WD)

ACCESSORY KIT
Autoclavable Dry D40

REPLACEMENT BAGS
Pack of 5 disposable bags

	OEB1	OEB2	OEB3	OEB4	OEB5	OEB6	OEB7	OEB8	OEB9	OEB10
CONFORMITY										

TECHNICAL DATA	LC1000 D	LC1100 WD
Applications	Powders	Powders / Liquids
Voltage/Power	115V - 60Hz 1~ / 1.3HP	115V - 60Hz 1~ / 1.3HP
Max waterlift	107.4 inH_2O	90.1 inH_2O
Max air flow	100.1 CFM	105.9 CFM
Primary filter	Polyester bag - M PTFE	Polyester bag - M PTFE
ULPA 15 Filter	Included	Optional
Solids/Liquids capacity	1.3 gal / -	10.6 gal / 6.6 gal
Dimensions/Weight	14x13x20h in / 44lb	17x17x29h in / 60lb

INDUSTRIAL VACUUM SYSTEM FOR LIQUIDS WITH RAPID DISCHARGE VIA PUMP

802 WXP

Ideal for disposal of large quantities of liquids
AISI 304 stainless steel container, two single-phase by-pass motors and practical immersion pump for container emptying.

BENEFITS:

- Safe removal of large quantities of liquids
- Suction and discharge of liquids even simultaneously
- PPL pre-filters for pump and motor protection

TECHNICAL DATA	802 WXP
Voltage/Power	115V - 60Hz 1~/ 2.7HP
Max waterlift	90.1 inH_2O
Max air flow	211.9 CFM
Filter	Polypropylene bag 300 micron
Capacity	21 gal
Noise level	76 dB (A)
Dimensions/Weight	21x23x42h in / 110lb

INDUSTRIAL VACUUM CLEANERS FOR REMOVING LARGE QUANTITIES OF DUST AND SOLIDS

MTL451BL D2

Thanks to Brushless single-phase motors, it is possible to continuously vacuum small and large quantities of powder in Class II Dividion 2 certified areas. Class M antistatic primary filter together with H filter (optional) allow even the finest dust to be filtered out, preventing it from being re-introduced into the environment posing danger to the operator.

BENEFITS:

- Mobile and compact machine
- Continuous suction possible thanks to brushless motors
- Maintenance-free brushless motor

OPTIONAL

HEPA FILTER
Safety suction of toxic powder

BAG
Collection bags for complete container with depressor kit

STAINLESS STEEL CHAMBER

TECHNICAL DATA	MTL451BL D2
Atex zone / Category	Class II, Div. 2, Groups F, G
Voltage/Power	115V - 60Hz 1-/ 1.5HP
Max waterlift	90.6 inH₂0
Max air flow	121.8 CFM
Filter	Star - Polyester ANT M
Capacity	12 gal
Filter cleaning system	Manual
Noise level	74 dB (A)
Dimensions/Weight	23x25x53h in / 121lb

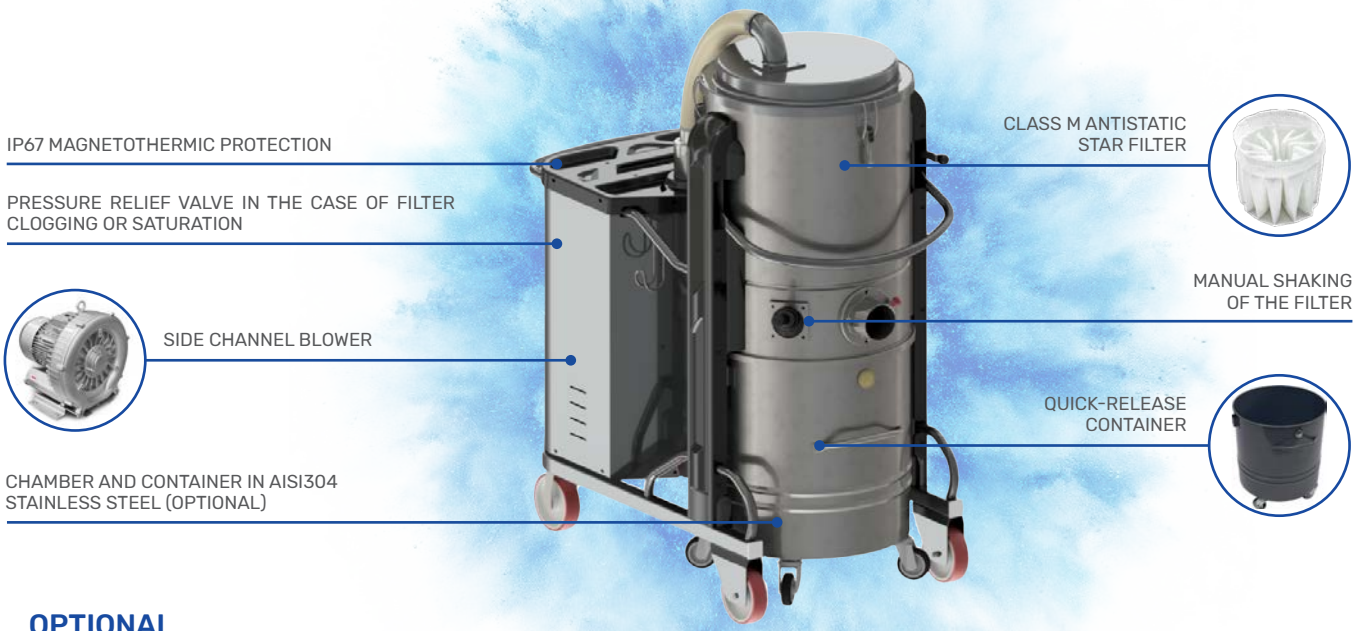
INDUSTRIAL VACUUM CLEANERS FOR LARGE QUANTITIES OF DUST AND FOR FIXED INSTALLATION

DG 70 / DG 86 AF D2

DG 70 and DG DG 86 AF D2 allow large quantities of material to be collected, continuously and without the need for routine maintenance, even using very long hoses. The powerful three-phase side channel blower allows direct and integrated suction on production machines even with fixed pipe systems.

BENEFITS:

- Structure with easy access to the filter for maintenance operations
- Large collection capacity for a high volume of material, even at long distances
- Maximum vacuum performance guaranteed
- Very quiet operation



OPTIONAL

HEPA FILTER
Safety suction of toxic powder

ENDLESS BAG
Continuous bag collection system

ATEX-NFPA
Unit certified for use Atex Zone 22 and NFPA compliant

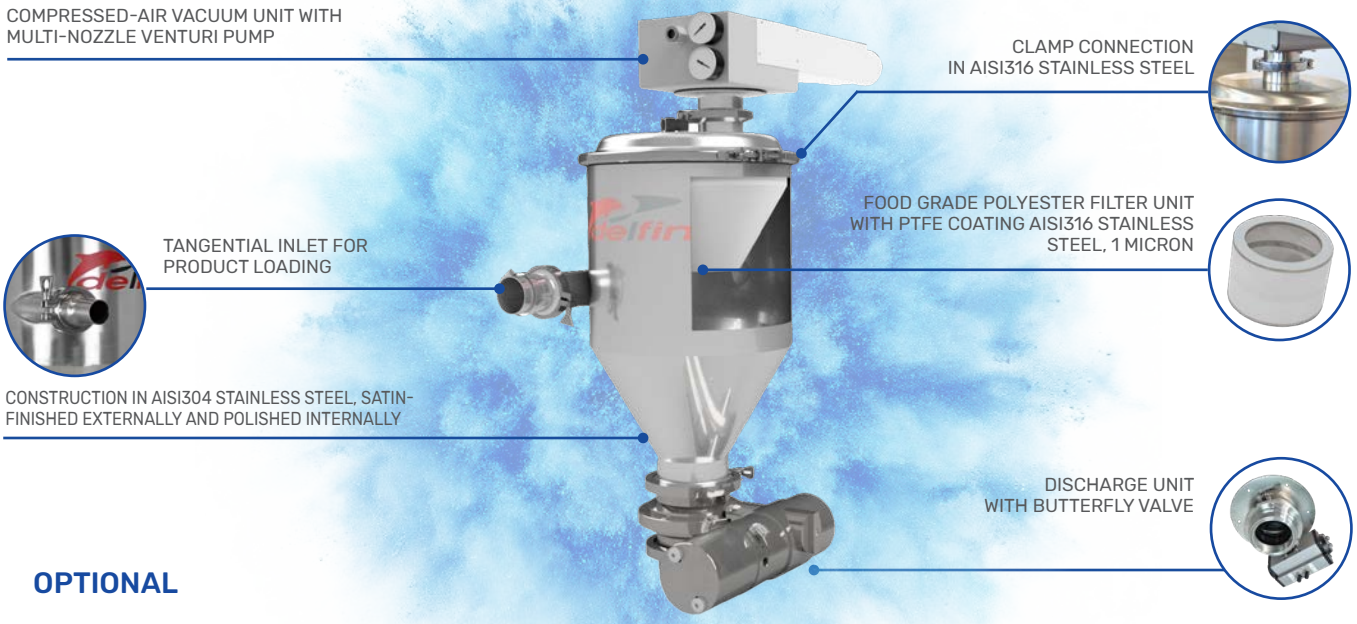
TECHNICAL DATA	DG 70	DG 86 AF D2
Marking	-	Class II, Div. 2, Groups F, G
Voltage/Power	460 - 60Hz 3~/ 8.4HP	460 - 60Hz 3~/ 11.5 HP
Continuous waterlift	110.2 inH_2O	108.4 inH_2O
Max air flow	353.1 CFM	482.6 CFM
Filter	Star	Star
Capacity	26 gal	26 gal
Filter cleaning system	Manual	Manual
Noise level	72 dB (A)	75 dB (A)
Dimensions/Weight	26x46x57h in / 331lb	26x47x69h IN / 397lb

PNEUMATIC CONVEYORS

The perfect solution for loading powders into processing equipment, allowing operation automation and ensuring the highest levels of safety. Powder or capsules can be loaded directly into the airtight machine and on a scheduled basis, avoiding any risk of contamination with the external environment. The systems easy installation allows for improved production efficiency, replacing manual or mechanical operation with fully automated and safe handling.

BENEFITS:

- No contamination or de-mixing of transported powders
- High level of hygiene and safety within the production department
- High flexibility of use and easy interfacing with industry processing machines
- Easy sanitization and compliance with pharmaceutical industry regulations
- Precision and quality of the final product
- Compact dimensions
- Careful check of the loading cycle

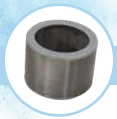


OPTIONAL

PHARMACEUTICAL FINISHING
Externally polished structure

PNEUMATIC VIBRATOR
Turbine-type for conveyor

POWER SUPPLY



CARTRIDGE FILTER
In AISI 316 stainless steel, 10 micron or 200 micron

ACCESSORIES
Product loading hopper/ pipe

ATEX-NFPA
Unit certified for use Atex Zone 22 and NFPA compliant

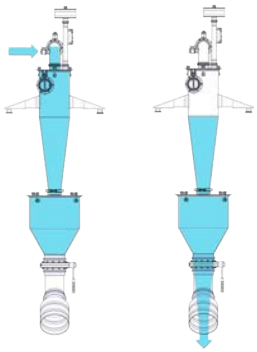
TECHNICAL DATA	TECH.280P 4V	TECH280PS	CAP-FLOW.280P
Compressed air supply	87 PSI	87 PSI	from 43 to 87 PSI
Max waterlift	249 - 301 - 313 inH20	249 - 301 - 313 inH20	104 - 148 - 197 inH20
Max air flow	50 - 65 - 77 CFM	50 - 65 - 77 CFM	153 - 218 - 288 CFM
Load volume	2.1 gal	9.2 gal	Conveyor 2.1 gal Lower hopper 52.8 gal
Product discharge	4 in	5.9 in	4 in
Filter	Cartridge	Bag	-
Dimensions	Ø280 - 30h in	Ø280 - 17.7h in	Conveyor -Ø280 - h 30 in Lower hopper -Ø560 - h 43 in
Weight	40 lb	42 lb	Conveyor - 42 lb Lower hopper - 121 lb

SAFETY ALWAYS COMES FIRST

01

SAFE REPLACEMENT OF HEPA14 FILTER

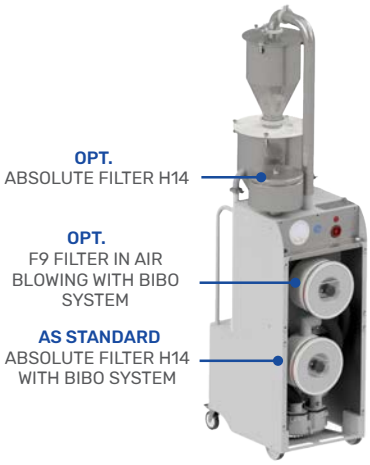
THE BAG IN - BAG OUT SYSTEM ALLOWS HEPA H14 FILTERS TO BE REPLACED, PREVENTING DISPERSION INTO THE ENVIRONMENT AND ANY CONTACT BETWEEN THE POWDER AND THE OPERATOR. THE BAG, CONTAINING THE EXHAUSTED FILTER INSIDE, CAN BE SAFELY DISPOSED OF BY THE OPERATOR.



02

WASH-IN-PLACE DUST CLEANING AND DEACTIVATION SYSTEM

THE CYCLONIC PRE-SEPARATOR AND COLLECTION HOPPER CAN BE EASILY CLEANED VIA A CONVENIENT WASH-IN-PLACE SYSTEM, WHICH USES WATER, BY MEANS OF VALVES, TO INERT ANY HARMFUL RESIDUAL POWDER LEFT INSIDE THE UNIT.



03

ABSOLUTE FILTRATION

DUST PASSING THROUGH THE CYCLONIC PRE-SEPARATOR IS RETAINED BY PROGRESSIVE EFFICIENCY FILTERS, WHICH PROVIDE TOTAL CONTAINMENT CAPACITY TO THE SYSTEM, PROTECTING THE ENVIRONMENT AND OPERATORS.

04

SECURE COLLECTION IN CRIMPABLE CONTAINMENT BAGS

THE POWDERS, ONCE DISCHARGED FROM THE HOPPER, ARE COLLECTED IN CONTAINMENT BAGS THAT CAN BE CRIMPED THANKS TO THE GRIPPER AND THE HIGH-TIGHT SEALS.

05

REAL-TIME VACUUM MONITORING

THE SENSORS MONITOR THE FILTER CLOGGING LEVEL SENDING A SIGNAL BACK TO THE MACHINE PLC.
A LEVEL SENSOR SIGNALS WHEN THE CONTAINER IS FULL.

06

COMPLIANCE WITH GMP STANDARDS

DELFIN CONTAINMENT UNITS HAVE BEEN DESIGNED TO MAKE UNIT MAINTENANCE AND CLEANING OPERATIONS SIMPLE AND SAFE, ALWAYS AIMING TO PROTECT OPERATORS.

- POSSIBLE INSTALLATION OF A VACUUM UNIT IN THE TECHNICAL COMPARTMENT AND AN ON-BOARD FILTRATION UNIT
- NO DUST BUILD-UP, ENSURING MAXIMUM HYGIENE
- MIRROR-POLISHED AISI316 STAINLESS STEEL FOR PARTS IN CONTACT WITH POWDER; ON REQUEST

GOOD • MANUFACTURING • PRACTICE
GMP

07

CERTIFIED SOLUTIONS AVAILABLE

NRTL CERTIFIED WITH ETL INTERTEK.
NFPA 652 COMPLIANT.
ATEX SOLUTIONS AVAILABLE FOR RISK CLASSES IN ZONES 20/21/22

Intertek NFPA

08

FAT DOCUMENTATION

UPON REQUEST, DELFIN CAN PROVIDE FAT (FACTORY ACCEPTANCE TESTING) DOCUMENTATION, WHICH CERTIFIES THAT THE MACHINERY AND RELATING DOCUMENTATION MEET THE REQUIREMENTS OF DESIGN, OPERATION, MAINTENANCE, STANDARDS, NATIONAL AND INTERNATIONAL GUIDELINES, PRIOR TO COMMISSIONING.

FAT
Factory Acceptance Testing

ACCESSORIES FOR PHARMACEUTICAL ENVIRONMENT CLEANING

Accessories designed for all specific vacuum cleaning needs in the pharmaceutical industry, for technical cleaning of machines and working environments.

CONICAL NOZZLE

PRECISION ACCESSORY WITH DIAGONAL END CUT ALLOWING AIR INLET FOR SMOOTH SUCTION AT ALL TIMES.

BRUSH AND DOUBLE BEND FOR FLOOR CLEANING

FLOOR CLEANING ACCESSORY WITH COMFORTABLE DOUBLE BEND AND BRUSH WITH TWO BRISTLE STRIPS AND WHEELS INCLUDED.

SCRAPING NOZZLE

ACCESSORY FOR SCRAPING TANK BOTTOMS OR SURFACES TO BE CLEANED, EVEN IN THE CASE OF PARTICULARLY STICKY RESIDUES.

FLOW REGULATOR

PRACTICAL COUPLING TO CONNECT TO THE VACUUM CLEANER FOR EASY ADJUSTMENT OF THE SUCTION AIR FLOW.

PRECISION CONICAL NOZZLE

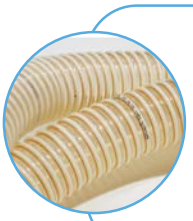
ADJUSTABLE PRECISION ACCESSORY FOR CLEANING SMALL PARTS AND TIGHT CORNERS.

FDA-CERTIFIED AND AUTOCLAVABLE HOSES

FDA-APPROVED AND AUTOCLAVABLE HOSES

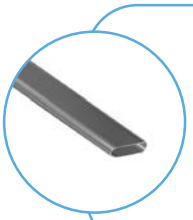
ROUND PVC BRUSH

ROUND BRUSH WITH BRISTLES FOR CLEANING FLAT, GROUND OR ELEVATED SURFACES. PERFECT ALSO FOR CLEANING OBJECTS.



ANTISTATIC HOSES

PIPES WITH PVC SPIRAL AND COPPER BRAIDS FOR SUCTION OF CONDUCTIVE MATERIALS



STAINLESS STEEL FLAT NOZZLE

PRECISION ATTACHMENT TO REACH EVEN THE MOST DIFFICULT PLACES. THE FINAL DIAGONAL CUT ALLOWS BETTER AND EASIER SUCTION

COLOR-CODED ACCESSORIES

THEY ALLOW SUCTION IN PHARMACEUTICAL FACILITIES, MAKING ACCESSORIES TRACEABLE AND AVOIDING PRODUCT CROSS-CONTAMINATION IN DIFFERENT AREAS OR DEPARTMENTS.

STAINLESS STEEL ROUND NOZZLE

ANGLED NOZZLE WITH A VERY LARGE INLET DIAMETER FOR SUCTION HEAVY AND PARTICULARLY LARGE-GRAINED MATERIALS.

OVERHEAD CLEANING ACCESSORIES

ACCESSORY KIT CONSISTING OF SEVERAL EXTENSIONS TO REACH THE MOST DISTANT AND HIGH SPOTS, FOR CLEANING WAREHOUSES AND PRODUCTION AREAS.

SUCTION ARMS FOR CAPTURE AND DUST CONTROL

Delfin vacuum cleaners can be equipped with suction arms for localized suction of small amounts of airborne powder to prevent it from being dispersed into the surrounding environment.

SCHEDULED FILTER MAINTENANCE FOR HIGH LEVELS OF SAFETY

Class H filters require mandatory annual maintenance and replacement to ensure steady H-filtration compliance.
Delfin offers an extensive catalogue of replacement filters and provides its expertise to ensure that vacuum cleaners are always safe and well-performing.
In addition, the DOP TEST service ensures and proves conformity of H filter mounted on a machine with a certain air flow rate.

For class M and L filters, maintenance and replacement are recommended for steady and efficient performance.

SECURE CONTAINMENT FOR EVERY SPECIFIC NEED

Collection bag.
Delfin models: MTL451BL/DG

Safe collection system
Dust Containment.
Delfin models: PHARMA 40.40DC

Safe and continuous
Endless Bag collection.
Delfin models: DG

Safe bag system (disposable filter bag)
Delfin models: PHARMA 20.18/ PHARMA 40.40/DBFV

Delfin is a global leader in the manufacturing of industrial vacuum equipment, ranging from portable vacuums for industrial cleaning, to central vacuum systems and engineered solutions, to pneumatic conveying systems. Our mission is to create value by designing innovative solutions that improve efficiency, safety, and productivity. Our aim is to use our expertise to help our customers to achieve their goals.

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