

delfin

# INDUSTRIAL VACUUM CLEANERS WITH LOBE PUMP

TX 11

# **VACUUMING SOLUTIONS FOR HEAVY INDUSTRIES**

In order to keep the highest production efficiency and security standards, cement plants, foundries, steelworks, incinerators and power plants require powerful and effective cleaning tools, able to deal with large quantites of material.

DHV Delfin industrial vacuums make it easy and safe to remove and move large quantities of dusty or solid material. Thanks to its features, the DHV range is the most suitable vacuuming solution to the needs of industries dealing with large quantities of dusts, wastes and residuals which constantly mine their production efficiency and safety.



CEMENT PLANTS AND LIME



STEEL WORKS (FORGING, LAMINATION, SANDBLASTING)



SHIPYARDS



FERTILIZER PLANTS



STEEL PLANTS



FOUNDRIES



REFINERIES



**BRICK & TILES** 



POWER GENERATION (COAL, BIOMASS, INCINERATORS)



GLASS FACTORIES

# **INDUSTRIAL VACUUMING CLEANERS FOR HEAVY INDUSTRIES**

Delfin DHV industrial vacuum cleaners are the most effective solution for the maintenance needs inside heavy industry production plants, allowing safe and easy handling of large quantities of dusts and solids.

- Vacuums engineered for heavy and continous duty
- Highly performant and long-lasting products
- High filtration efficiency
- Several customized solutions available upon request
- High autonomy of the system
- Low noise level
- Easy to set up and to maintain



**COMPACT RANGE 22/30/37 TANK** with 1.000 It detachable container



**COMPACT 22 HOPPER** with 1.000 lt hopper and Big-Bag discharge



DHV TANK with 800 It detachable container



**DHV HOPPER** with 1.000 It hopperr and butterfly discharge system

		CP 22AF	CP 22HV	CP 30AF	CP 37AF	CP 37HV	DHV 30AF	DHV 30HV	DHV 45AF	DHV 45HV
Power	kW	22	22	30	37	37	30	30	45	45
Max Water lift	mmH₂0	5.000	7.500	5.000	5.000	7.200	5.000	8.500	5.000	8.500
Air flow	m³/h	1.300	1.100	1.700	2.000	1.500	1.800	1.300	2.500	1.900
Main filter	Cm²	70.000	70.000	120.000	120.000	120.000	160.000	160.000	160.000	160.000
Safety filter	cm²	40.000	40.000	40.000	40.000	40.000	70.000	70.000	70.000	70.000

# **BENEFITS**



WASTE REDUCTION Recovery of leaks and spillages with a recycling process Increase of product quality



PRODUCTION EFFICIENCY Maximum production capacity and efficiency thanks to the regular maintenance of the plants



**DOWNTIMES REDUCTION** Prevention of breakdowns and increase of plant lifetime, thus reducing spare parts buying costs



SAFE AND HEALTY WORKING ENVIRONMENTS Injury reduction and minimization

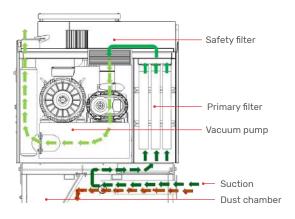
Injury reduction and minimization of diseases caused by the costant presence of dust



CONTROL PANEL BOARD WITH DISPLAY ON DHV LINE

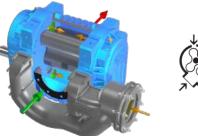
# **DHV OPERATING PRINCIPLE**

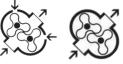
A powerful pump with tri-lobe rotors generates the vacuum, which allows to vacuum large quantities of heavy materials. A set of highly efficient sleeve filters protects the pump while separating air from the recovered material, which falls into the collection unit.



#### **HIGH VACUUM LOBE PUMPS**

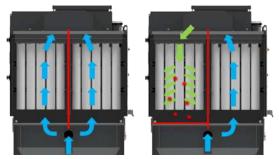
Self-cooling lobe pumps generate very high waterlift and air flow values





### **EFFICIENT FILTRATION SYSTEM**

The vacuum unit is protected by class M polyester filters and safety cartridges, able to filter up to 1 micron dusts. Filter efficiency and vacuum cleaner performances are guaranteed by an automatic filter cleaning system which constantly cleans the sleeve filters.



FILTER CLEANING IN ALTERNATING BACKWASH CHAMBER SYSTEM



FILTER CLEANING SYSTEM FOR COMPACT RANGE

# EASY HANDLING OF THE VACUUMED MATERIAL

The DHV vacuum cleaners are equipped with detachable and forked containers or with Big-Bag discharge hoppers for maximum ease and safety of use.



HIGH COLLECTION CANISTER EQUIPPED WITH FORKS INTAKES

BIG BAG COLLECTION

## **CUSTOMIZED VACUUMING SOLUTIONS**



Delfin engineers and manufactures centralized vacuum systems complete with vacuum unit, filter hoppers, preseparators and piping, that allow to vacuum material even from multiple points simultaneously.

A centralized vacuum system allows to:

- Improve the hygiene level and cleanliness of working environments
- Collect materials, convey or dispose of them in an easy, safe and quick way
- Increase safety level of working environments, thus reducing injury risks
- Reduce the environmental impact of the company

#### **POWERFUL VACUUM UNITS**

The vacuum unit is the heart of the centralized system and its power must be dimensioned considering the specific need of the customer. Delfin vacuum units are equipped with sound-proof cabin and cooling fan.

		CV 22AF	CV 30AF	CV 30HV	CV 37AF	CV 37HV	CV 45AF	CV 45HV
Power	kW	22	30	30	37	37	45	45
Max Water lift	mmH₂0	5.000	5.000	7.500	5.000	7.200	5.000	8.500
Air flow	m³/h	1.300	1.700	1.300	2.000	1.500	2.300	1.700



FILTER HOPPER WITH LADDER AND PLATFORM

#### **FILTER HOPPERS**

In order to guarantee the maximum power for the vacuum unit it is necessary to protect the engines from dusts by means of filter hoppers. Delfin pre-separators are equipped with a cyclonic cover, equipped with filtering sleeves, and automatic alternating backwash.

FILTER HOPPER Ø780 LT500 FILTER HOPPER Ø1200 LT1000



		FILTER HOPPER 500LT	FILTER HOPPER 1000LT	FILTER HOPPER 1000LT	
Capacity	lt	500	1000	1000	
Main filter	cm²	85.000	85.000	160.000	



- Mobile separator with sleeves filters
- Backwash filter cleaning
- 1,000 litre hopper with inspection hatch
- Manual butterfly discharge 0250
- Platform with ladder for filter maintenance
- Stability / Safety / Robustness
- Rotating level detector
- Filtering surface 160.000 cm2

# PRESEPARATORS WITH CYCLONE

All pre-separators units are equipped with a cyclone and can be designed with different discharge systems.



EASY TO HANDLE BY MEANS OF FORK LIFT INTAKES

# **DISCHARGE SYSTEM FOR ANY NEED**



AUTOMATIC SNAP CLOSURE



CHASSIS WITH DIFFERENT HEIGHTS AVAILABLE UPON REQUEST



BUTTERFLY VALVE



DOUBLE BUTTERFLY VALVE



ROTOVALVE FOR CONTINUOUS DISCHARGE

## SAFETY EQUIPMENT

Every product can be equipped with additional safety systems, to satisfy any installation requirement.



# **DHV APPLICATIONS**























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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