



High Power Vacuums Application Book





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Presentation

This application book is a collection of the most common uses of Nilfisk-CFM high power vacuums. This collection doesn't want to be exhaustive but has the aim to describe the potentialities and advantages coming from the use of industrial vacuums in different contexts. The application book offers a fast overview of the immediate solutions given by Nilfisk-CFM industrial vacuums.



Cement plants



General cleaning in cement company:
standard Nilfisk CFM HPV mod. Compact on Container used for the flexible, transportable use to clean and remove big Quantity of Bulk material.





Cement plants



Cement Company uses the Nilfisk CFM HPV Compact as flexible to use clearing tool mainly in the Milling area to remove the Big quantities of Klinker dust with hoses up to 50mt.



Cement plants



Silo and conveyor cleaning:

Use of the HPV Multivac Diesel as independent suction unit for the removing of big quantities of material, cement under the silo structures and conveying belts during the Start up of a new Cement production. The removed material is discharged inside the material stock direct in the conveying system brings the material back in production.



Cleaning contractor



Cleaning contractor ordered N°4 Nilfisk CFM Multivac Models on trailer connected to 1.300lt. separators with bottom discharge for the use in a wide chemical area.





Steel plants



Cleaning contractor working inside a Steel company:

The customer that has already 2 Nilfisk CFM HPV with container working in different areas in the steel company sucking mainly debris and refractory material needed a transportable machine that is able to discharge automatically and continuously in customer Big Bag.

The customer needs to disassemble and transport easily the HPV and move it every week to a different place in the steel company. Thank to the possibility to divide the HPV in 3 pieces by unscrew 8 bolts, this is the right powerful machine to move to the place where it has to be employed and can be connected with 40-50mt. long main hoses of D.100mm and accessory hoses of D.70mm.

This HPV sucks mainly mixtures of dust of calcium carbonate and additives used in the steel production.



Steel plants

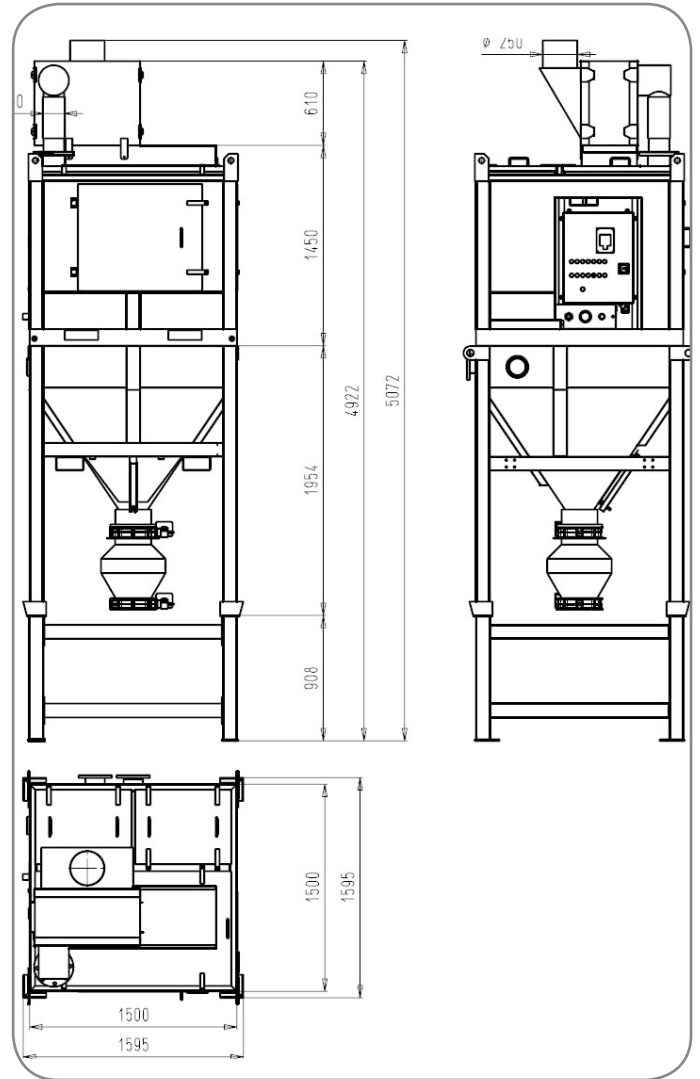


Steel company:
Rolling mill use the Nilfisk CFM HPV Compact with Container and Crane Kit, transported by Overhead crane and sucking and cleaning the material, debris and calamine out of the pit and transport facilities of the production of steel beams.





Decontamination



Decontamination: use of the Nilfisk CFM Compact on hopper to suck big quantities of contaminated Debris during the demolition of an Industrial building. The material sucked is contaminated by Heavy metals and asbestos. For this reason the machine was equipped with M – class filter Bags and efficient Downstream Absolute Filter H14 class.



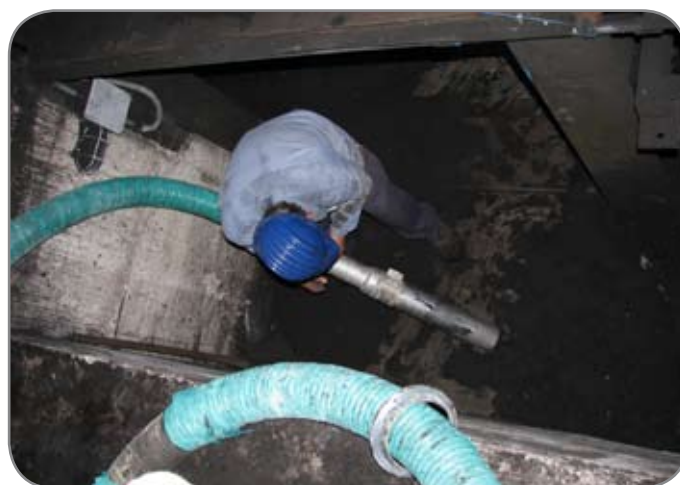
Lime, Plaster production



Nilfisk CFM HPV centralized vacuum system connecting 2 production towers with the pipeline for removing the dust and debris created during the milling and working process inside the production towers. All the removed material is discharged automatically on the belt that brings the material back in the production. Cleaning, maintenance of the plant removing the abrasive dust and stones and recovering of Material in one system.



Foundry



Foundry: Classic work in the foundry. Cleaning of pits with difficult practicability from fine heavy foundry sand. Operators that work normally with shovel and bucket are able to suck 1000lt of material in 12 minutes with Nilfisk CFM HPV Compact container of 37kW. Discharge easy by pull out the container and discharge thru bottom unload where it is useful for the customer. The material can also be recovered and brought back in production process.



Foundry



Customer asked for the possibility to bring back the recovered Material in the production, to the Foundry sand recovering plant. Material is sucked from a distance up to 80mt. in the cellar deep ca. 3 mt. to the hopper placed above the belt. Material is discharged on the belt only when belt is moving. The choice to combine the Filter hopper of centralized system with the outside positioned Nilfisk CFM HPV was made through the little space for the assembly inside the customer structure. The hopper normally used in CVS application was reinforced inside for the use with abrasive material in heavy duty application.



Foundry



Nilfisk HPV Multivac electric 55kW, connected to the HPV separator as stationary Filter system Bag house, with continuous Filter cleaning by compressed air purge system. The Separator is connected to a reinforced stainless steel pipeline that pass through the complete areas of foundry sand recycling to collect the foundry sand that has to be eliminated from the production process. The Hopper below the bag house discharges continuously in the customer container.



Toxic products



Battery recycling and recovering of lead. The customer requested a powerful and secure system to recover lead dust and lead oxide. Nilfisk HPV equipped with Absolute - Filter downstream is connected to a pipeline that pass through the whole working ambient. Material is recovered in the Filter hopper and discharged in a Big Bag or customer container. Hopper is equipped with fluidization device to move the sticky material during the discharge and a Temperature control in case that too hot material enters the hopper.





Glass production/recycling



Glass Production: Big Glass production company sucks abrasive Silica Sand for cleaning and removing big quantities from Silo. Nilfisk CFM HPV Compact is easy to move and has big capacity for flexible work.





Mining industry



Bauxite Mining Industry needs to clean in the milling, cooking and silo area. Abrasive dust and debris need to be removed from moving parts and Conveying belts. Cleaning and maintenance. The company decided to invest in machine as people are not able to provide requested high grade of cleanliness and fast removing of material that avoid production stops and machine damage.



Incinerator



Customer has the task to suck 2 different materials in 2 different stationary positions and discharge continuously. Nilfisk CFM Compact on Hopper is connected on 2 different pipelines. 1st Pipeline connects the machine to the Air extraction Filter Bag Houses of the Incinerator that needs continuous maintenance. 2nd pipeline is connected to Nilfisk HPV Cyclone separator hopper put under vacuum by Nilfisk CFM Compact on Hopper that allows to the customer the suction of ashes out of the burners. The material of both Hoppers is discharged continuously in screw conveyors and brought to a further process.



Incinerator



Pipeline in the Incinerator connected to the Nilfisk CFM HPV Cyclone separator to suck heavy or big size material, mounted on a higher level discharge the material continuously in the Big Bag or Customer container on the level below.

The Nilfisk CFM HPV model Compact is used as Power station to put the Cyclone separator under vacuum and can be used transportable by forklift in case of extraordinary maintenance or big quantity of material to remove. The material in this case is recovered in the 1000lt. pull out container.



Incinerator



Pipeline in the Incinerator connected to the Nilfisk CFM HPV Filter Bag house with automatic compressed air cleaning to suck big quantities of light small size material (ashes), mounted on a higher level and discharge the material continuously in the Big Bag or Customer container on the level below. The Nilfisk CFM HPV model Compact is used as Power station to put the Cyclone separator under vacuum and can be used transportable by forklift in case of extraordinary maintenance or big quantity of material to remove. The material in this case is recovered in the 1000lt. pull out container.



Sandblasting



Sandblasting company recovers sand and fine dust.

The fine dust and the sand will be recovered automatically in 2 different Big bags. Task of the customer is to remove the Sand from the Sand blasting plant and try to clean the Sand as much as possible from the fine dust removed by the Sand. The Sand can be brought back in the production process.

The Nilfisk CFM cyclone separator hold the heavier parts and the Nilfisk CFM Compact on Hopper hold the fine parts in the filter. The discharge is automatically during the suction in the Big Bag.