

P. & M. ENGINEERING

INDUSTRIAL APPLICATIONS

DE-DUSTING APPLICATIONS

We are introducing you to some indicative installations for several different plants

De-dusting of lime stone furnaces

Our company with great experience at handling installations of special requirements, has made a series of such kind of installations. In such a kind of de-dusting plant we have to deal with dust concentration along with high temperature, and moisture.



De-dusting of 2 lime stone furnaces. 100 tn/h each



De-dusting of a lime stone furnace of 80 tn/h



De-dusting of 3 lime stone furnaces 120 tn/h each



De-dusting of two lime stone furnaces

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INDUSTRIAL APPLICATIONS

Asphalt plants and dryers

In these applications we have to deal with high moisture, high dust concentration and depending on the fuel presence of sulphur in waste gases, we are managing to de-dust all these kinds of plants by controlling also the temperature and the different needs of air volume, according to the working period and the high concentration of dust.



De-dusting of Asphalt plant 120 tn



De-dusting of Asphalt plant 80tn



De-dusting of Asphalt plant 120 tn/h



De-dusting of ready mix dryer

We have also the capability to renovate the existing filter in the plant and combine the existing parts in a new de-dusting system.

Cement. quarry and inert materials

In these installations we have to take care of the heavy dust concentration and the required special suction hoods for each position.



In quarries we are de-dusting the crushers, the sieves and the conveying belts and in general, anywhere it might exist dust.



Cement production industry is an industry branch where the usage of de-dusting filters is almost necessary at every production phase.

Due to the continuous operation of most production facilities, they are required additional precautionary measures on filter's operation, in order to decrease as much as possible the malfunctions and the periodic maintenance.

Also, it is required experience in order to design the pipe network because first of all, any accretions will cause pipe blockage, and secondly because network damage is a usual phenomenon, especially on special parts (curves etc.).

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Pharma and chemical plants

In this field we have made installations for de-dusting detergents, pharmaceutical factories etc.



De-dusting of detergents



De-dusting of Phosphate in Aqaba port - Jordan



De-dusting of animal pharma plant



Pharma de-dusting and air re-circulation

In these special applications we have to take into consideration all the needs for the presence of enzyme in the waste gases and recirculation of the de-dusted air, if it is dried etc. In this case we need the required special filter clothes and the presence of hygroscopic dust.

Metallurgy and foundries de-dusting

In these plants we are de-dusting the production line such as the furnace, the recycling plants, the chemicals for the furnace etc.



De-dusting of car recycling plant



De-dusting of Anthracite plant



De-dusting of mold dust



De-dusting of battery production line

Pneumatic conveying systems

These kinds of applications are necessary when we have to transfer materials in dust or pellet form, in long distance or in order to feed several different positions in the production line.

The pneumatic conveying systems could work in over pressure or vacuum, depending on the project. Moreover, with the vacuum system we can make a central vacuum plant for cleaning the whole production line, and handling the dust which is concentrated in only one place.



Big-bag emptying and pneumatic conveying of chemicals



Bag automatic emptying and silo feeding station for cement.



Central vacuum system for calamine in electrorodes manufacturer



Central vacuum system in lime stone plant

Silos and silo equipment

In these plants we can offer you a wide range of silo filters, measuring level indicators, silo emptying devices, conveying screws etc.



Silo equipment for dried sludge silos at Athens municipality



Stainless steel silos for plastics



Silo filters in de-dusting various silos together, or one filter for each silo.



Silo filter jet pulse type



Paddle type level indicator

Special applications

Our company has the ability to create some special installations covering a variety of different needs in the production line. So, we are producing some special products such as wet scrubbers, pelletizers for asphalt dust and also special constructions for renovating old filters etc.

Waste gases and vapor disposal

When we have to handle installations with high concentration in moisture and chemical vapors, the most valuable solution is to use wet scrubbers. These could be made by plastic (PP or PE), from stainless steel AISI 304, or AISI 316L.

It should be given also special attention in the suitable suction hoods.



Wet scrubber



Special plastic suction hoods and ducts

Pelletizers

Due to the fact that the quantity of dust after de-dusting asphalt plant is a lot and the dust is very fine, it is important to make a pelletizing system in order to handle the dust and make it disposable.



Pelletizer of asphalt dust



De-dusting of Asphalt plant
120 tn/h with pelletizer

Our company **P&M ENGINEERING** was founded at 2003 by 2 qualified Mechanical Engineers with post-graduate studies, and long experience at environmental protection projects.

Since then, our company has a continuous development with a dominant position at the Greek market and the presence in many foreign countries.

The main competitive advantage of our company is our ability to offer integrated solutions which include the study, the construction of the equipment, as well as the installation and commissioning of our facilities.

Also, we construct several special installations through the evolution of new products (custom made solutions) and we have the ability to modernize, or to expand older de-dusting installations.

Taking also into account the ability to produce with a relatively low cost, we can offer integrated installations at very competitive prices.

The main activities of our company include the construction and installation of de-dusting plants, as well as pneumatic conveying systems.

In a more analytical way, our activities include the following:

Design and manufacturing of :

- Pulse jet de-dusting filters
- Steel pipes at any diameter from common steel, stainless steel, HARDOX etc
- Storage silos at various capacities
- Ventilators from 500 m³/h up to over 100.000 m³/h
- Conveyor screws
- Wet scrubbers
- Horizontal mixers for pelletizing of very fine dust for transportation and deposition at open areas without dust emission
- Central vacuum systems for the cleaning of industrial areas
- Pneumatic conveying systems of powders or pellets
- Spare parts for de-dusting filters (Filter bags, filter cages etc)

The main sectors of industry on which our installations are appropriate, are the following:

- Production and distribution of aggregates (Quarries)
- Cement factories
- Production of concrete
- Lime stone furnaces
- Asphalt plants
- Ready mix plants
- Metallurgical Industry (Steel production, foundry facility)
- Recycling Industries (scrap, debris)
- Chemical Industries
- Food Industries
- Distribution of grain
- Bulk carriers)

The main goal of our company is the provision of high quality services at competitive prices, as well as the full support of our client, not only at the phase of the study and the realization of the project, but also at the duration of the operation with full service and spare parts provision.

During the course of our company up today, the above target is fulfilled completely, having as a result only satisfied clients.

We are at your disposal to discuss together the possibility to co-operate and we believe that we can fulfill your expectations



A. MASTOROPOULOS – M. PROZYMAS O.E.**INDUSTRIAL CENTRIFUGAL FANS**

P & M Engineering Ltd manufactures centrifugal fans for any use.

Fan type “M”

Fan type “M ” supply air at 2.000 m³/h
up to 250.000 m³/h and have static pressure that reaches 4.000 Pa.
The impeller has flat blades with backward inclination, simple or aerodynamic
and are appropriate for the passage of air that is relatively clean.

Fan type “H”

Fan type “H” supply air at 1.200 m³/h
up to 100.000 m³/h and have static pressure that reaches 6.500 Pa.
The impeller has radially arranged flat blades
and is appropriate for the passage of air with large percentage of dust
or for air transport of various materials.

Fan type “HA”

Fan type “HA” supply air at 200 m³/h
up to 20.000 m³/h and have static pressure that reaches 16.000 Pa. The
impeller has curved blades with backward inclination and is appropriate
for the passage of air that is relatively clean.

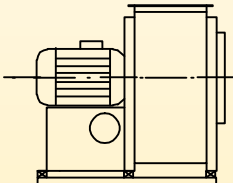
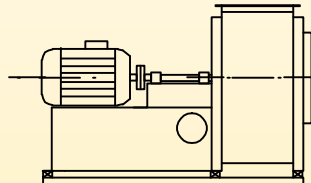
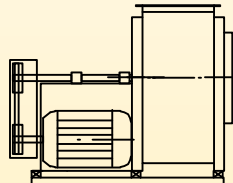
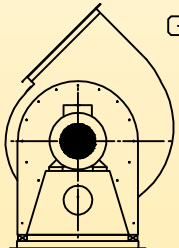
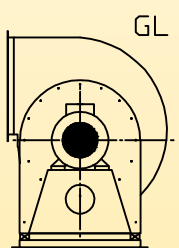
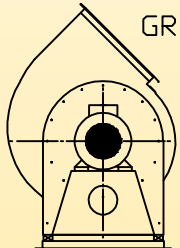
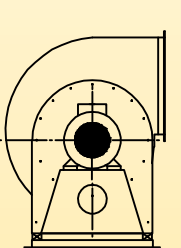
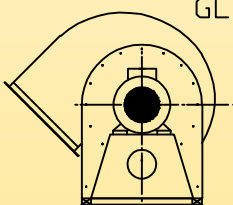
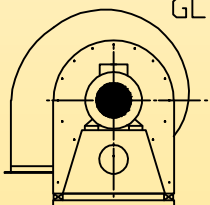
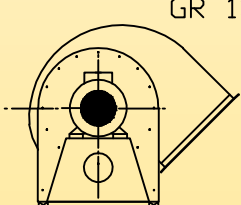
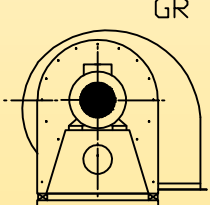
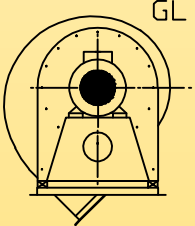
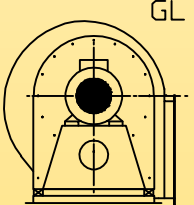
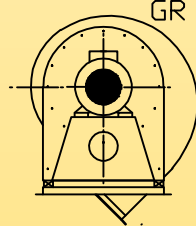
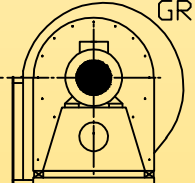
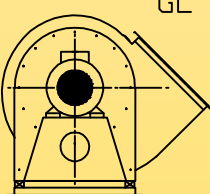
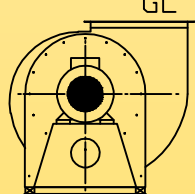
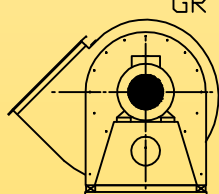
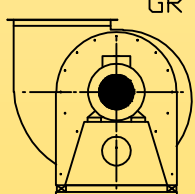
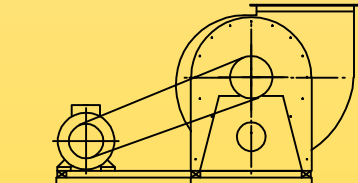
Fan type “HAL”

Fan type “HAL” supply air at 1.000
m³/h up to 200.000 m³/h and have static pressure that reaches 10.000 Pa. The
impeller has flat blades with backward inclination and are
appropriate for the passage of air with large percentage of dust.
Fans – blowpipes of type “O”, supply air from
80 m³/h up to 3.000 m³/h and have static pressure that reaches
16.000 Pa for single stage and 50.000 Pa for multistage.
The impeller is appropriate for clean air.

Fans are manufactured to all the fittings.

The operating temperature-if required- can be up to 800°C.

The construction material can be manufacturing steel, stainless steel anti friction steel.

TYPE M direct drive	TYPE MM with coupling	TYPE RM with pulleys	
			
 GL 45	 GL 90	 GR 45	 GR 90
 GL 135	 GL 180	 GR 135	 GR 180
 GL 225	 GL 270	 GR 225	 GR 270
 GL 315	 GL 360	 GR 315	 GR 360
<p>MOTOR POSITION left or right of the fan</p>		<p>GL- l360</p> 	<p>GL- r360</p> 