

DESIGN OF A VENTILATION SYSTEM
FOR A MOSAICS FACTORY

Project Report Submitted by:

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INTRODUCTION

The design of the ventilation system for the industrial space consists of two parts. Design of the exhaust system and design of the supply system local exhaust ventilation is a system for preventing the contamination of factory air by withdrawing the contaminant at or near it's source. At this specific case of the mosaic factory, the contaminant is the dust. Dust control by local exhaust is essentially the application of air flow to the points of dust production so that the dust can be conveyed to a dust collector without first passing through the operatives breathing zone.

The design of a ventilation system for an industrial space consists essentially of three problems:

- (1) Determination of the air flow rate and arranging it's flow pattern in the space to be served.
- (2) Design of the dust system or its counterpart and
- (3) Selection of the fan or other air moving equipment. Of these three problems, the characteristics of the first largely distinguish industrial ventilation from other application.

The determination of the air flow is of very importance and it differs for each type of industry. Also the flow patterns influence the motion of the contaminants. It is very important to know the flow of these contaminants because this

will specify the point of location of the collectors. For the design of the ventilation system of the mosaic industry, both the effectiveness and the economical view must be taken into consideration.

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