

Design of Dust Extractor to Prevent Chemical Dust Coming out of Water Treatment Process

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In water purification, every water purification unit makes sure to apply the appropriate chemicals to the specific need and locations. In this case, various chemicals have to be applied to separate the mud or any substance that has been mixed with the water and destroy the micro-organisms such as harmful bacteria in the water and purify the water. From time to time a coagulant like alum has to be applied to the water purification process. Here the chemical substance has to be used as a powder for those processes. This paper comes up with a solution to prevent the dust from mixing with the person with the substance as well as the environment. The dust may be released into the environment and into the body of the person performing that task. As a solution for that, there is a requirement called for a dust extractor for the water treatment plants. The main objectives of this case are contributing to the increase of local production at a lower cost and helping to retain local currency here and enlarge the technical knowledge and their production, which encourage the people by avoiding harmful processes for the global. A dust extractor is a device that collects suspended dust. They have filters that effectively separate large particles from microscopic particles. The importance of the dust extractor is, frequently utilized as an air contamination control gadget to keep up or improve air quality. But its special feature is that although there is a dust extractor machine as a solution, they are expensive and inefficient and cannot be used for a long time. This paper mention something about designing a dust extractor for this at no extra cost. This is most suitable for water treatment plants. This is an attempt to manufacture this machine at a very low cost and suits the economic level of Sri Lanka. As well as using a simple mechanism.

Keywords: Dust Extractor; Environmental effect; Healthy; Cost-effective; Water treatment