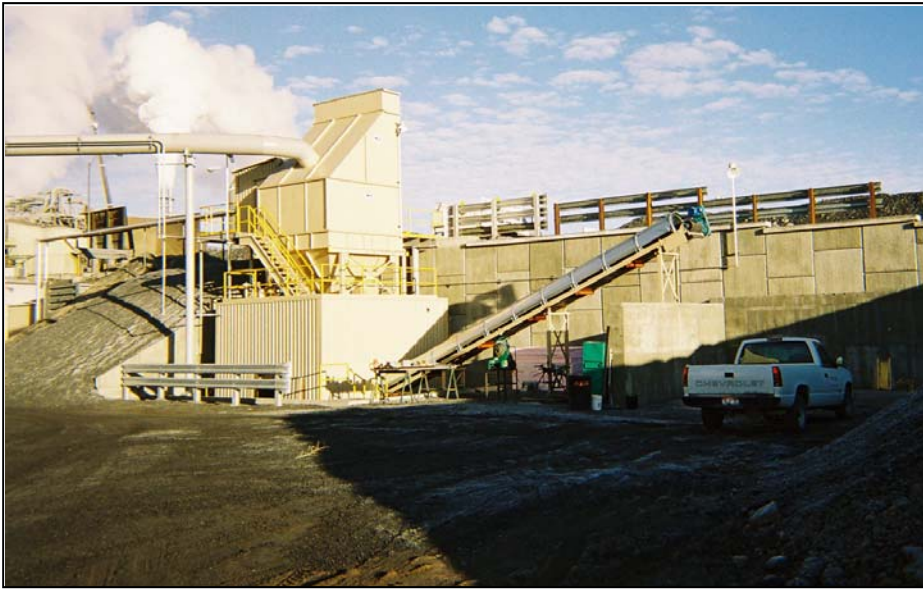


DUSTMASTER®

Applications

DustMASTER® Enviro Systems Provides Conditioning Plant for Mineral Dust



DustMASTER 20 TPH Series II system installed with truck dump hopper and discharge conveyor.

DustMASTER Enviro Systems Division of Mixer Systems Inc has provided a state-of-the-art conditioning system for a mineral processing company located in one of the western states. Many mineral dusts are potentially hazardous and difficult to handle before being properly conditioned to an environmentally stable state for storage and re-use or disposal.

This is accomplished by the unique DustMASTER system which quickly and efficiently produces a homogeneous mix of dry solids and water in a totally enclosed weigh-batch mixing system.

A 20 TPH Series II system was selected as the heart of this conditioning system. This weigh-batch mixer system efficiently converts the dry, powdery mineral fines into a consistently homogenous material with the moisture characteristics of common potting soil. The conditioned material is safely dropped into an outdoor bunker. Evaporation is controlled with the use of a moisture retention agent which is added automatically during the mixing cycle.

The DustMASTER system is complete and self-contained, including a high-

intensity mixer, a weigh-batcher, and water addition system with programmable controls. The Turbin-style mixer used on this application provides a three-dimensional mixing action, producing a uniformly wetted dust in 90 seconds.

The truck dump station with hopper and building enclosure, structural supports with work platform, and discharge conveyor were all part of the complete package provided by DustMASTER for this customer. Installation is also offered for turnkey requirements.

High material temperatures and exothermic reactions are accommodated by our programmable control, which adds the dry solids and water concurrently and in a pre-determined ratio, so that the reaction is controlled and steam is vented properly. Our controls are custom-engineered in-house to offer the flexibility needed for the most challenging scenarios. The DustMASTER weigh-batch system is the answer where consistent stabilization of dust or other difficult material is needed. Contact DustMASTER today for more information about our testing program. A test of our system handling your material will demonstrate how our state-of-the-art technology can offer a solution for your processing requirements.



Model 20 TPH Series II DustMASTER installed under truck dump hopper.



The DustMASTER programmable controller with 100% manual override, operates the DustMASTER system.

Processing Mineral Dust

Type of Company: Mineral Processing Plant

Location: Northwest U.S.

System: 20 tph DustMASTER Test Unit

Product Tested: Silica dust

Objective: Test was conducted to determine if a DustMASTER system could successfully process silica dust with water to achieve a dust-free product for landfill disposal.

TEST DATA	TEST #1	TEST #2	TEST #3
Total Dust Weight	424 lbs.	465 lbs.	442 lbs.
Water by Weight	34 lbs. (8%)	56 lbs. (12%)	66 lbs. (15%)
Mix time	60 sec.	60 sec.	60 sec.
Conditions Produced	Slight dusting Slight packing	Non dusting Packing Small balls No water seperation	Non dusting Packing Small/Medium balls
Unloading Time	20 sec.	20 sec.	20 sec.

Final product was dust free with 12% water and a 60 second cycle, the silica dust was acceptable for transport and landfill disposal.



Mixed product in test mixer.



The 20 TPH DustMASTER size test mixer with stand.