

SHOWCASE - DUST



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The foam suppression system in operation.



The foam suppression system at work in a mobile crusher.

CITRUS FOAM SUPPRESSION OFFERS DUST SOLUTION

Mobile crushing is becoming the preferred way of many quarries to manage their businesses due to the ease of operation and mobility of this type of crushing and screening operation.

With this mobility, there are some shortcomings within the process, particularly the ability to curb the major problem of dust. This is a problem that all operations find when they go mobile, as they do not have at their disposal the same solutions that work with fixed plant configurations.

With water being a scarce commodity that cannot be sourced easily at every site and is not always the preferred suppression method, Boral Contract Crushing has enlisted the expertise of Polo Citrus Australia to control and manage its dust generation and emissions.

Boral Contract Crushing has several mobile crushing plants across Australia, with two new fully track-mounted aggregate plants in operation with the capacity to crush up to 300tph. At the same time, these plants generate a significant amount of dust.

The solution? Enter Polo Citrus Australia, with an extensive knowledge of dust control and a dust suppression system that can be varied to any type of crushing operation. Boral Contract Crushing was aware of the good record of Polo Citrus systems on Boral fixed plants throughout Australia.

Ben Henry, operations manager, Boral Contract Crushing, said the company chose Polo Citrus because it “had a good quality product”, its system “can effectively suppress ultra fine dust produced in a crushing circuit, reducing the amount of airborne dust” and

its “backup is good”.

Systems were in place for Boral Contract Crushing with some of its older mobile plant, but with new Metso and Sandvik plants coming into production that were of greater crushing capacity, the company was unsure if the present Polo Citrus systems could suppress the extra tonnage. With assurances that the Polo Citrus system would be able to cope with the extra tonnage, Boral Contract Crushing placed an order for the installation and commissioning of one Polo Citrus foaming unit suppression system to be fitted to the Metso plant; instant results were observed with dust generation cut down considerably and with the ease of the Polo Citrus system being constructed for mobility, it fitted in with Boral Contract Crushing’s specifications

for its mobile plant configuration.

With the system in operation on the Metso plant meeting the desired effect relating to dust suppression, the next plant to commission the Polo Citrus foaming unit suppression system was the new Sandvik mobile crushing plant. All the current and previous plants within the Boral Contract Crushing fleet had 240V power at their disposal, but the new Sandvik plant had only a 24V DC power supply. This did not pose a problem for the team at Polo Citrus Australia who designed and built a system to operate via a 24V DC that, in turn, operated the same as a 240V system, achieving the same suppression effect on the process with a significant dust reduction throughout the process.

Ben Henry said that with fully mobile crushing equipment, Boral had a system that, once fitted correctly, “only takes about one hour on each site to pack up and set up. The system is easy to use and very reliable. Once it is set up, we rarely need to do anything with the system except turn it on when the material starts flowing

With water a scarce commodity and not a preferred dust suppression method, Boral Contract Crushing turned to Polo Citrus Australia.

through the crushing plant”.

As with most mobile plants, Boral Contract Crushing is sometimes unaware of the next location its machines will operate in; it may be in a pit-type situation crushing for a quarry in remote parts of country Australia, or near a metropolitan area. In all these applications, one thing is required - dust suppression, whether it be for the health and safety of the employees operating the plant or the general public who are close to the operation.

“Dust suppression is, and should be, a major concern to the people owning and operating this type of plant,” said Brett Aisen, the managing director of Polo Citrus Australia. “For these reasons, dust suppression on mobile plants is a must for the future of processing crushed material in populated areas or in full view of the public and their environment.

“As resources become more scrutinised by the general public, operators must be more aware of the public’s perceptions of them and their operations. They should manage and combat the environmental issues that come within this industry, be it water conservation, air pollution, noise pollution or health and safety.

“These issues are intensely magnified when the production facilities are of mobile plant arrangement and the relationship between Polo Citrus Australia and Boral Contract Crushing helps to build a sustainable future for the benefit of all concerned.” •

Source: Polo Citrus Australia