

Stockpile solutions from Cleveland Cascades



The diversity of stockpile installations poses many challenges for the bulk materials handling industry. Stockpiles are used in many different areas, such as power stations, refineries and manufacturing facilities and for many different types of material. These challenges are well known to Cleveland Cascades Limited, the Teesside (UK)-based manufacturer of bulk materials loading chutes.

“The original Cleveland Cascades chutes were designed for shiploading applications” says Commercial Manager, Chris Wise. “Our customers required a safe and controlled loading of problematic bulk materials, but with the added timescales demanded by port logistics. With stockpile loading, there may not be the exact time-bound demands of ship loading and demurrage charges; however, the requirement for efficient bulk materials loading is still the same, as it is for all our applications”.

Materials that are stockpiled outside, for example coal and coke, tend to be of larger particle size, and maintaining this large particle size during loading and stocking is of high importance to operators, such as steelworks and power stations. The Cleveland Cascades Cascade System allows a controlled yet efficient transfer of material from conveyor to stockpile. The material is supported the full length of the chute by means of an arrangement of oppositely inclined cones. The material is loaded at a low velocity, yet high volume and this means products can be transferred with minimised generation of dust emissions and also minimized degradation and segregation



of product.

“Since we designed and manufactured the first Cascade shiploaders in 1992, we have seen continued growth from all bulk handling applications, especially stockpile loading chutes. The year 2012 was another record for the business, not just with our Cascade chutes, but also our range of Freefall loading chutes.”

Cleveland Cascades Freefall loading chutes are ideal for robust materials such as iron ore and limestone, or for materials with relatively high moisture content. Recent Freefall installations include limestone loading in the Middle East, iron ore in Russia and metal concentrates in Canada. Freefall systems can be designed to a ‘C’ (cone) specification or ‘T’ (tubular) specification, depending on the installation type, loading rate and material handled. Material distribution is further optimized with the addition of trimmer spouts and skirted outlets at the base of the chutes.

“We offer the customer the widest choice of stockpile loading chutes, from Cascade Systems to Freefall Systems, which can accommodate materials loading at rates from 50 to 6,000 cubic meters per hour. Our approach is for our commercial, design and engineering teams to work closely together, and with their customer counterparts, from project inception right through to project commissioning. What we believe sets us apart from our much larger competitors is that we are able to draw on our previous experience but we are constantly bringing in new ideas and incorporating those of our customers.”