



# Cleveland Cascades Ltd

## CASE STUDY

### COAL LOADING AT PUERTO BRISA TERMINAL, COLOMBIA



<b>Customer</b>	Puerto Brisa.	<b>Location</b>	Colombia.
<b>Date</b>	Aug 2016	<b>Material Handled</b>	Coal
<b>Application</b>	Ship Loader	<b>Loading Rate</b>	2,000 m3 ph
<b>Chute Type</b>	Cascade 1500	<b>Chute Length</b>	23.8 m

The coal handling terminal at Puerto Brisa, on Colombia's Caribbean Coast, was completed in 2014 as part of a government plan to improve infrastructure and increase coal exports. The new facility includes over 3km of conveyors connected to a Bedeschi travelling, slewing & luffing Ship Loader, capable of loading vessels up to 180,000dwt. The chute from Cleveland Cascade has been engineered to be interchangeable with the existing "banana spout" already fitted.

The Cascade system of inclined cones was chosen by the port because of its ability to prevent material degradation and maintain the lump size of the coal. It has a capacity of 2,000 cubic meters per hour and is expected to load 1 million tonnes of coal pa. The 23.8-meter long chute. has auto raise-lower capability and is fitted to a pivoting head chute capable of working in tandem with the luffing boom.

To effectively handle highly abrasive coal, the GRP cones, trimmer and head chute have a 6mm ceramic liner. The loading process is categorised as a hazardous area and carries some explosion risk, so the electrical components which come in to contact with the material, are certified to NEMA4x standard.

Two interchangeable options were specified for the outlet. A standard skirted arrangement and a trimmer spout, which extends to 1.5m from the chute and helps ensure maximum utilisation of the ships hold space.

The chute was installed and commissioned on site by Cleveland Cascade engineers. The commissioning engineers were on site for the installation, as well as cold & hot commissioning to ensure the chute was optimised to the customers' requirements.

