

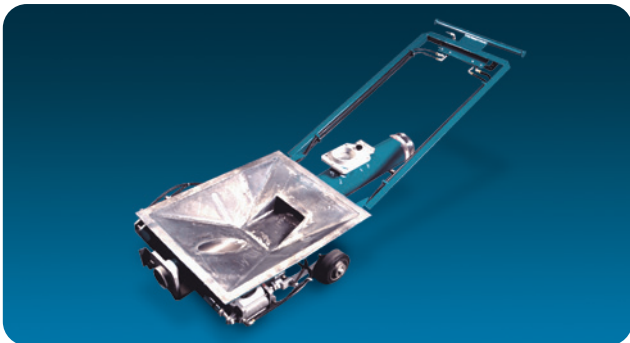


Customized railcar adapter takes a load off

Innovation boosts delivery potential for a valued customer



The innovative under-car adapter allows speedy vacuum unloading of railcars at the customer's delivery point.



The adapter is designed to fit into the tight space between the railcar's outlet and the rails.

“... the Smoot device ... allowed us to ship more product.”

— Anita Stettner, Regional Accounts and Logistics Manager.

When a valued customer came to Saskatchewan Minerals looking to substantially increase its sodium sulphate delivery volume, it became apparent that if we were going to meet this challenge we would have to change the way we traditionally serviced this account. Typically, Saskatchewan Minerals serviced the accounts with a centerflow type of railcar with Gravity-Pneumatic outlets. To accommodate the extra volume we needed to come up with a solution to take our centerflow type of railcars with a normal gravity outlet and on the customer end provide a device to off load the car with an external adapter allowing the customer to still connect their pneumatic lines to vacuum the product out of the car. By providing an under-car external device, Saskatchewan Minerals would have the flexibility to send other fleet cars while accomplishing the client's extra volumetric needs.

Working with a third party to meet the challenge

The challenge was connecting the hopper car to vacuum pickup points. The railcar gate opening is 14.5" x 44", but the standard Smoot Rail Car Discharge Adapter (RCDA) measured 13" x 42". Although plywood adapters were available, none of them worked due to the tight height limitation. A custom solution was really the only option, and it would have to work flawlessly from the start. Undaunted, Saskatchewan Minerals and Smoot worked together on an innovative solution, developing their own RCDA. It was a challenge that other companies had previously faced...unsuccessfully.

Finding a solution that fits

Working in collaboration and exchanging information freely, the engineering departments at both Saskatchewan Minerals and Smoot dedicated themselves to meeting the customer's needs. Besides fitting the opening, reducing the height of the RCDA was the most significant design change, since it had to squeeze under the bottom of the hopper and still connect to the unload system above the height of the rail track; pits below the track were not possible.

In-person demos and training highlight the innovation

The eventual solution was a shining example of cooperation and innovation. Representatives from both Saskatchewan Minerals and Smoot travelled to the customer's facility to demonstrate the RCDA and provide training. The adapter, which can be positioned quickly, cleanly and efficiently by a single operator, is a testament to both companies' focus on exceeding their customer expectations.

“With the end user having the Smoot device, it allowed us to manage the immediate challenge to ship more product,” says Anita Stettner, Regional Accounts and Logistics Manager, with Saskatchewan Mineral,. “And we enhanced our railcar operations on a longer term basis.” Through years of experience, Saskatchewan Minerals has found that gravity-pneumatic outlets are not well suited for sodium sulphate. There are lots of maintenance issues – essentially more parts, so more chances something can go wrong.”

Saskatchewan Minerals is always trying to improve their container conditions for all customers and by developing the Smoot device, we were able to work towards a gate change project that allowed us to be more efficient with the equipment we have, not only on the maintenance end but also logistically. Having to manage different gate types makes ordering in and loading railcars more difficult. The Smoot device was both an improvement for the end user and Saskatchewan Minerals but also our efficiencies over a large majority of our customer base.