Commodities: Pellets, rock, easily unloaded commodities
Discharge rate: Up to 20,000 tonnes/h

Kiruna Wagon’s Bottom Dumper is based on more than 100 years of experience in rail ore transport and the result is a remarkable combination of robust bottom door function and low tare.

The BD wagon is designed to haul heavy loads of pellets, rock and other easily unloaded commodities and has a discharge capacity of up to 20,000 tonnes per hour in a low-cost unloading solution, which is also manufactured by Kiruna Wagon.

As for all our wagons, the BD has a modular design which means that any key component can be replaced in two hours by two persons.

WATCH OUR PRODUCT MOVIES ON OUR YOUTUBE CHANNEL
www.youtube.com/kirunawagon

WWW.KIRUNAWAGON.COM World Class Ore Logistics
The solution and its components are tested and proven in a demanding subarctic climate; the BD wagon is currently in traffic north of the Arctic Circle in Sweden and Norway.

**Robust and climate tested**

- Operates in temperatures ranging from −40 to +60 °C

**A ROBUST SOLUTION FOR THE HEAVIEST DRY BULK TRANSPORTS**

The BD wagon is optimised for heavy transport and high-capacity continuous discharge of easily unloaded commodities, such as pellets and rock.

The design and construction of the BD wagon is based on more than 100 years of experience in rail ore transport and steel refinement in the Nordic region.
High-capacity continuous discharge

Unloads 20,000 tonnes per hour
Low-cost unloading station

HIGH-CAPACITY CONTINUOUS DISCHARGE

Fast unloading is a key feature of the Bottom Dumper. The wagon is designed for rolling discharge and has an unloading capacity of up to 20,000 tonnes per hour.

Emphasis has been placed on the angle of repose, to optimise the centre of gravity and achieve a complete emptying. The bottom of the wagon consists of two large hatches that open entirely during discharge.

The BD unloading station is a low-cost solution designed to provide a reliable service in temperatures ranging from −40 to +60 °C. The solution is tested and proven in a demanding subarctic climate.

STATE-OF-THE-ART MATERIALS AND TECHNOLOGY

By using ultra-high-strength hot-rolled steel with a lowest yield point of 650 MPa in the body, we have minimised the tare weight and developed a more efficient and environmentally friendly ore transport.

The wagon body is built like a boat hull where a supporting frame distributes the forces downward from the load to the chassis. Advanced techniques, such as laser hybrid welding and laser cutting have been used in the manufacturing process to produce durable seams.
A COMPLETE LOGISTICS SYSTEM

When acquiring the BD logistics system, you receive an optimised combination of wagon and unloading solution, both of which are designed and manufactured by Kiruna Wagon.

We consider the whole logistics chain and deliver complete systems for efficient transport at the right total capex and opex.

BASED ON A PROVEN TECHNOLOGY

Our new BD for Rana Gruber is based on the experiences and components from the BD we built for LKAB in over 1000 units. The wagon has performed flawlessly for more than 10 years in a harsh and demanding Nordic climate.
At Kiruna Wagon, we consider fleet speed to be one of the most important key performance indicators. The BD wagons built for LKAB moves at 17.5 km/h and our new-generation BD wagons for Rana Gruber at 25.7 km/h. On our website you can download our excel sheet and compare with the data of your own fleet.
The modular design of the BD wagon allows for easy replacement of damaged components. The body, bottom door and chassis are all individual parts that can easily be removed and replaced. A goal of our maintenance concept is that two people should be able to exchange any of the wagon components, such as a damaged body or bottom door, within two hours.

Kiruna Wagon’s service does not end with the delivery of your wagon and unloading station, we offer additional services to ensure that our customers get maximum performance and value from their systems. Our after-sales service includes installation, work specification and training, technical support and a spare parts department. We stock all major components that are considered as spare parts in the products we have supplied.

When practically appropriate, we provide running fleet maintenance, as we have done for Boliden for many years. Our role as service partner and the experience it provides, is central to our product development work.
Since 2005, Kiruna Wagon has delivered more than 1000 units of Bottom Dumpers to the Swedish mining company LKAB. The delivery of 1000 wagons entails a total of 10.3 km of train and 21,000 tonnes of steel. No equivalent industrial project has been undertaken in Sweden during the past 40 years.

The BD wagon was developed according to the following customer specifications:

- **Load**: 100 tonnes
- **Transport**: 1.4 million tonnes during its 20-year lifetime
- **Roll**: 600,000,000 kilometres (490 times around the globe)
- **Function**: at temperatures ranging from -40 to +50 °C
- **Development**: maximum 1 year
All wagon types can be customised to fit Your logistics preconditions. Such as axle loads, length, volume, loading profile, AAR, TSI, etc.