

INDUSTRIAL CRANES  
NUCLEAR CRANES  
**PORT CRANES**  
HEAVY-DUTY LIFT TRUCKS  
SERVICE  
MACHINE TOOL SERVICE

**BULK HANDLING**

**KONECRANES**<sup>®</sup>  
Lifting Businesses<sup>™</sup>

**Performance through reliability**  
**AGD GRAB UNLOADER**



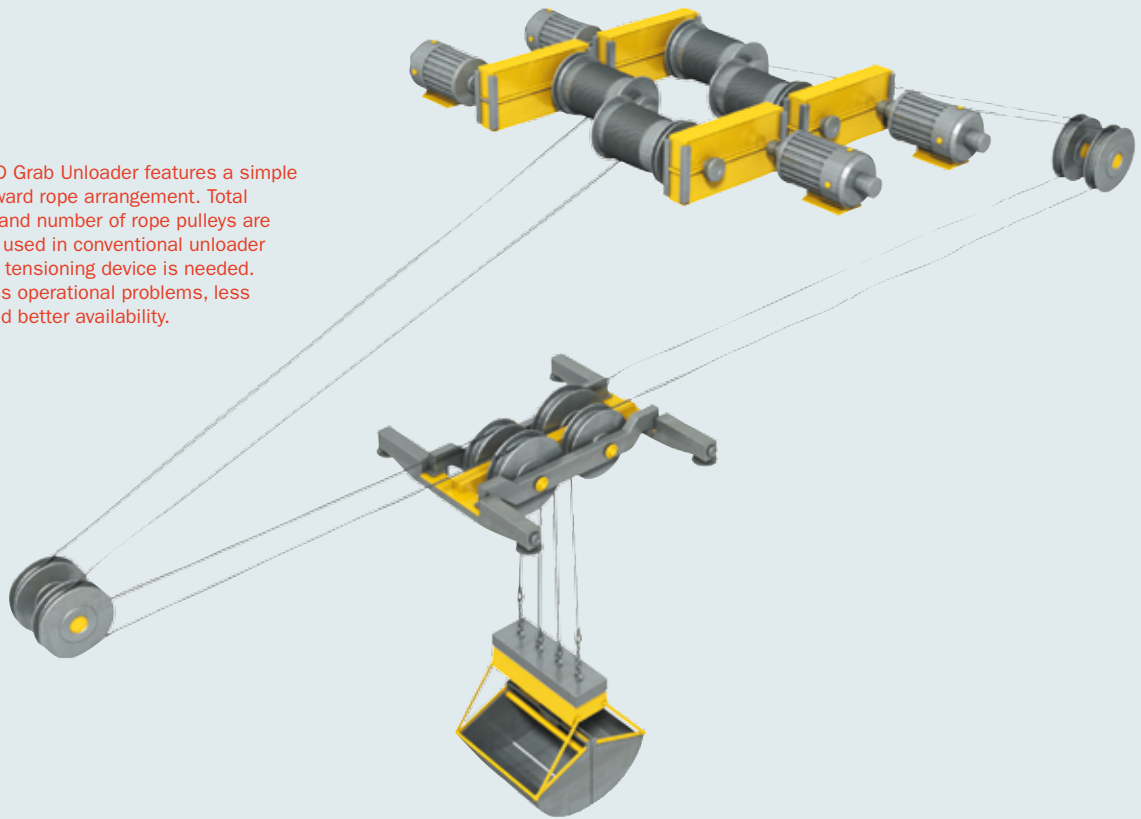
**We're in the business of building trust. This trust stems from an unwavering confidence in the safety, reliability and performance of both our products, and the face of Konecranes – our people. You tell us exactly how high, how successful and how wide you want your business to reach, and we'll help you get there.**

**Konecranes AGD Grab Unloader** is the answer to modern bulk terminals' demands for consistent performance and ultimate degree of reliability. The AGD unloader family covers all capacities and site conditions from barge unloading to the largest ocean-going bulk carriers. The unique rope reeving design and advanced AGD control system provide trouble-free operation and ease of maintenance.



## ROPE REEVING

Konecranes AGD Grab Unloader features a simple and straight-forward rope arrangement. Total length of ropes and number of rope pulleys are only half of that used in conventional unloader design. No rope tensioning device is needed. The result is less operational problems, less maintenance and better availability.



# NEW LEVEL OF PRODUCTIVITY

**Konecranes AGD Grab Unloader utilizes proven Konecranes components that ensure minimum maintenance and maximum reliability. The most demanding requirements of a modern bulk terminal are met with consistent performance.**

## TYPICAL TECHNICAL DATA

Unloading capacity:	1000...3000 tph
Lifting capacity:	16...65 tons
Outreach:	30...45 m
Backreach:	0...20 m
Hoisting speed:	180 m/min
Closing speed:	180 m/min
Trolley speed:	180 m/min
Gantry speed:	20...30 m/min



1 Operator's cabin.  
2 Hopper rear view.

1 Hopper grizzly with flex-flap structure.  
2 Fully enclosed belt feeder.  
3 Lifting of front-end-loader.

**High performance AGD Control System.** Automatic unloading with many optional operating modes as standard. Better efficiency and reduced driver fatigue.

**Konecranes electrical system.** Konecranes AC electrical system is designed for crane application. Smooth and precise movements with short response times. Konecranes Crane Management System (optional) provides a broad range of reporting, analyzing and remote diagnostic features.

**Ergonomic operator's cab.** Spacious and ergonomic cab ensures productive working environment for the driver. Good visibility to all operating areas. Remote cab operation as an option.

**AGD machinery house.** All machinery components of the four main winches are fully interchangeable. Standard Konecranes components provide reliable operation and easy maintenance. Good access to all service points.

**Dust free material flow.** Konecranes AGD Grab Unloader can be furnished with a large variety of features to provide optimal dust free handling of practically any bulk commodity.

Effective dust suppression with water mist is used for materials that occasionally cause dusting.

Materials like animal feed, clinker, cement etc. require more efficient dust prevention. Dust is extracted by powerful fans from the grab discharge area in the hopper and from all conveyor loading points. Filter bags in the dust extraction units are cleaned by air after each cycle.

Hopper itself is furnished with special grizzly to prevent the escape of return air from the hopper.

**Hopper arrangement.** The discharge hopper is lined with bolted wear plates. Wind walls are standard in all deliveries. The back door is made of strong rubber sheets to withstand occasional contacts with the grab. The hopper can also be closed by hydraulic operated roof sections to prevent rain water to get in contact with material.

A special spillage plate is used to prevent the fall of possible grab spillage between the unloader and the vessel.



# PERFORMANCE AND RELIABILITY

## with pollution-free material handling

### High productivity with AGD Control System

- > No slack rope problems
- > Versatile automatic operation modes
- > Easy to drive, short learning time for crane operators

### Maintenance friendly

- > Simple rope reeving; fewer ropes and pulleys
- > Short rope changing time; one-rope change possible
- > Easy access to all maintenance points and locations
- > Minimum maintenance requirements for Konecranes AC drives and motors

### Low operating costs

- > Low energy consumption per unloaded ton
- > Low rope consumption
- > High availability
- > Low down time

### Reliability

- > Konecranes Port Services provides local support
- > Remote diagnostics supplied as an option

### Environmentally friendly

- > Modern control system enables spill-free materials handling
- > Dust suppression with water mist for moderately dusty materials
- > Dust extraction with fully enclosed conveyor arrangement for such materials as animal feed, cement, clinker etc.



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Konecranes is a world-leading group of Lifting Businesses™ offering lifting equipment and services that improve productivity in a wide variety of industries. The company is listed on NASDAQ OMX Helsinki Ltd (symbol: KCR1V). With over 10,000 employees at more than 570 locations in almost 50 countries we have the resources, technology and determination to deliver on the promise of Lifting Businesses™.

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**Konecranes** P.O. BOX 661 Koneenkatu 8 FI-05801 Hyvinkää  
Tel +358-(0)20 427 2043 Fax +358-(0)20 427 2103 [www.konecranes.com](http://www.konecranes.com)