

RAM **SPREADERS**

Revolver **for Containerized Bulk Handling**

4100 series



Performance Through Innovation

The RAM Revolver is world's best practice machine for bulk handling, It is fast, flexible and generates virtually no dust. The containerised bulk handling process, using the RAM Revolver, has won 2 awards for its environmental benefits and innovative technology. The containerized system reduces contamination and material loss.

Designed to work with ship-to-shore, mobile harbour, reach stacker and even ship cranes. The RAM Revolver consists of an inner and outer frame, the outer frame attaches to the crane and the inner frame rotates the container.

Why Use a RAM Revolver ?

- **Fast to Market:** Short lead times
- **Clean and Green:** Generates virtually no dust
- **Low Cost:** Use existing container handling equipment and containers as storage
- **Fast:** Can load up to 1000 tonnes per hour



Awards received

Quality Design and Construction

The RAM Revolver is designed to DIN 15018 together with other applicable international standards and is tested to 125% of designed load before delivery. Its automated welding ensures consistent quality and stability.



Lid Lifter

To ensure a high level of environmental compliance, RAM has designed a revolver that can remove a lid, rotate and tip the container and replace the lid in one smooth process at the bottom of a ships hatch reducing dust to almost zero.

Twistlock

The floating twistlocks allow the operator to quickly locate and lock the Revolver® onto a container. Proximity switches indicate the locked and unlocked condition of the twistlocks. There is no shear force on twistlocks using RAM container gripper.

Electrical System

In accordance with IEC/IEEE Regulations and designed to operate at the same voltage as the crane, the Revolver electrical system is fitted with an on-board logic control system.

The RAM Revolver uses electrical systems built from high quality components, supplied by leading manufacturers and are readily available from suppliers worldwide.



TECHNICAL DATA

Application for	Ship-to-shore crane	Mobile harbour crane	Ship crane	Reach stacker	Bridge crane
Model	4111 / 4112	4121	4131	4141	4151
Container Size	20ft / 40ft	20ft	20ft	20ft	20ft
Capacities	38t SWL	45t SWL	35t SWL	35t SWL	35t SWL
Tare Weight	13.0t / 17.0t	15.0t	8.5t	10.0t	10.0t

Operational Speeds

Function

Twistlock	1.5 sec
Rotation through 360°	22 sec
Gripper	7 sec



Diagnostic Panel

FEATURES

A wide range of features are available for the revolver to provide the most productive revolver or solution to customer's requirements; including:

On-Board PLC

Fitted on the revolver, the on-board PLC provides logic communication and a simplified control system.

Height Monitoring System

A valuable safety and productivity feature which provides signals to the crane operator when the revolver is approaching the top of the commodity pile or wharf.

Container Side Support

Protects the bulk handling container during the rotation of the bulk commodity.

Diagnostic Panel

Provides various impressive real-time diagnostic features and status of the revolver spreader via remote wireless technology or an optional power over-Ethernet system.



RAM Spreaders continues to develop its product range, both in response to customer expectations and in anticipating future developments. With such a wide range of spreader models and options we can meet the needs of most terminal operators but we're always happy to develop bespoke solutions to deliver the most effective and practical container handling solution.

RAM Spreaders is the world's leading independent, dedicated specialist spreader manufacturer. The company has manufacturing facilities in China; service and repair centres in Singapore, UK and Germany; and sales and after-sales service support throughout Asia, Americas, Europe, Middle East and Africa.

PRODUCT RANGE

A comprehensive range of product for:

- Ship-to-Shore Cranes
- Yard Stacking Cranes
- Mobile Harbour Cranes
- Straddle Carrier

Product range includes:

- Electro-Hydraulic Spreaders (Single and Twinlift)
- All-Electric Spreaders (Single and Twinlift)
- Light Weight Spreaders
- Overheight Spreaders
- Twin40 Headblock
- Revolver / Rotating Spreaders
- PinSmart (Automated Twistlock Handling Machine)

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Printed on June 2017

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