

# **RAM** **SPREADERS**

## **3900 series**

**All Electric Telescopic Twinlift Spreaders  
with CenterSpread for Container Lifting Cranes**



**Performance Through Innovation**



The RAM 3900 series All Electric Twinlift CenterSpread® has been developed to provide productive, safe and cost-effective container handling for both ship-to-shore cranes and yard stacking cranes.

The versatile Twinlift concept allows the crane operator to lift a 20', 40' or 45' container in single lift mode, or two 20' containers at once in twin lift mode, all with the same spreader unit. In twinlift mode, the space between the containers is adjustable for faster handling and placing.

### **Quality Design and Construction**

All RAM Spreaders are designed to DIN 15018 together with other applicable international standards and are tested to 125% of designed load before delivery. RAM 3900 series is built to last and minimizing downtime. Its automated welding ensures consistent quality and stability.

### **Twinlift CenterSpread®**

Designed to assist in quicker and more precise twin container handling, the 3900 series spreader can adjust the gap between the two 20' containers. Positioning sensors guide the operator by detecting the gap distance. With linear transducers, the gap can be adjusted automatically to any position between the minimum and maximum spacing.

### **Flipper / Gather Guides**

The 3900 series spreader for ship-to-shore cranes are fitted with electric retractable flippers, while the yard stacking cranes are fitted with four fixed guides. The electric flippers have both high holding and high gathering torque for high performance.

### **Twistlock**

The floating twistlocks allow the operator to quickly locate and lock the spreader onto a container. Proximity switches indicate the locked and unlocked condition of the twistlock.

### **Electrical System**

In accordance with IEE Regulations and designed to operate at the same voltage as the crane, the electrical system is fitted with an on-board logic control system, to the centre section from where cables run to the various electrical components on the spreader.

All RAM Spreaders use electrical systems that are built from high quality components, supplied by leading manufacturers and are readily available from suppliers worldwide.

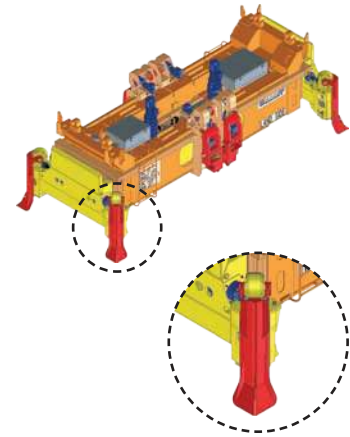
### **ASi / CAN Communication System**

All spreader functions are controlled by ASi or CAN Communication System. The ASi or CAN Communication System simplifies the installation of electrical components that provides efficient diagnostics and makes it easier to feed data to the crane's control system. It also consists of a controller either fitted on the spreader or in the crane cabin.

**TECHNICAL DATA**

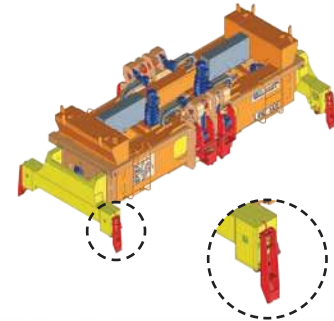
For ship-to-shore cranes with flipper arms

Model	Container Size	Capacities	CenterSpread®
3910	1 x 20ft / 40ft / 45ft	40t SWL	0 ~ 1600mm
	2 x 20ft	2 x 30t SWL	
3920	1 x 20ft / 40ft / 45ft	40t SWL	0 ~ 1600mm
	2 x 20ft	2 x 25t SWL	
3930	1 x 20ft / 40ft / 45ft	40t SWL	0 ~ 1600mm
	2 x 20ft	2 x 32.5t SWL	
3940	1 x 20ft / 40ft / 45ft	50t SWL	0 ~ 1600mm
	2 x 20ft	2 x 32.5t SWL	



For yard stacking cranes with fixed guides

Model	Container Size	Capacities	CenterSpread®
3950	1 x 20ft / 40ft	40t SWL	0 ~ 800mm
	2 x 20ft	2 x 25t SWL	
3960	1 x 20ft / 40ft	40t SWL	0 ~ 800mm
	2 x 20ft	2 x 30t SWL	
3970	1 x 20ft / 40ft / 45ft	50t SWL	0 ~ 800mm
	2 x 20ft	2 x 30t SWL	



**Operational Speeds**

Function	Speed
Twistlock	1.0 sec
Flipper	5 sec
Telescopic - 20ft ~ 40ft	18 sec
Telescopic - 40ft ~ 45ft	26 sec
CenterSpread®	26 sec

**Power Rating**

Telescopic system	2.2 kW
CenterSpread®	4.0 kW
Twinlift - raise & lower	0.4 kW
Twistlock	0.4 kW
Flipper	1.5 kW



**Options**

RAM Spreaders offer a wide range of options to provide the most productive spreader specifications, including:

**On-Board PLC**

RAM Spreaders are fitted with an on-board PLC for logic control and a simplified control system.

**Height Monitoring System**

A valuable safety and productivity feature, signaling to the crane operator when the spreader is approaching the top of the container.

**LoadLite LED Load Indicator Lamps**

RAM's world standard LoadLite ensures faster and safer container handling with high visibility indication of spreader and container status.

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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