

RAM
SPREADERS



YARD GANTRY SPREADERS

Single | Twinlift | Hydraulic | Electric | Lightweight

RAM **SPREADERS**

2900 series

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



Performance Through Innovation



The RAM 2900 series 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, or two 20' containers at once, all with the same spreader unit.

The RAM 2900 spreader is fitted with hydraulically retractable twistlock housings mounted in the main centre section. When the additional twistlock housings are deployed the spreader can handle two 20' containers.

The CenterSpread function of the RAM 2900 spreader is designed for handling two containers where the operator can adjust the space between the two containers from 0mm to 1600mm* for faster lifting and placing.

* Dependent upon model

Quality Design and Construction

All RAM spreaders are designed to DIN 15018 and to other applicable international standards. Twin double box centre section, internally stiffened telescoping beams and steel wear plates on end beams are just some of the reasons why the 2900 series is built to last and minimise downtime. Automated welding ensures consistent quality and all RAM spreaders are tested to 125% of designed load before delivery.

Twinlift CenterSpread

Designed to assist faster, more precise twin container handling, the spreader can adjust the gap between the two 20' containers. Positioning sensors guide the operator by detecting the zero, 76mm and 1600mm gap distances, and with linear transducers, the gap can be adjusted automatically to any position between the minimum and maximum spacing.

Flipper / Gather Guides

The 2900 series spreaders for ship-to-shore cranes are fitted with hydraulically retractable flippers on each corner as standard. The flipper design helps gather the container smoothly and absorb the impact between the spreader and container. The yard stacking models are fitted with four fixed guides as standard.

Twistlocks

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 twistlocks.

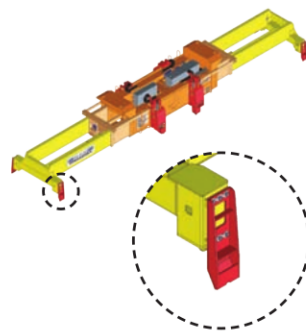
Electrical System

The spreader electrical system is designed to operate at the same voltage as the crane and is in accordance with IEC/IEEE Regulations, and is fitted with an on-board logic control system. An enclosure is fitted to the centre section from where cables run to the various electrical components on the spreader. A multi-pin electrical socket is fitted to one side of the enclosure to accept the multi-pin plug from the headblock.

TECHNICAL DATA

For yard stacking cranes with fixed guides

Model	Container Size	Capacities	Tare Weight	CenterSpread
2950	1 x 20ft / 40ft	41t SWL	12.8t	0 ~ 800mm
	2 x 20ft	2 x 25t SWL		
2960	1 x 20ft / 40ft	41t SWL	13.0t	0 ~ 800mm
	2 x 20ft	2 x 32.5t SWL		
2970	1 x 20ft / 40ft / 45ft	51t SWL	13.2t	0 ~ 800mm
	2 x 20ft	2 x 32.5t SWL		
2980	1 x 20ft / 40ft / 45ft	51t SWL	13.3t	0 ~ 1600mm
	2 x 20ft	2 x 32.5t SWL		



Operational Speeds

Function

Twistlock	1.5 sec	Power	7.5 kW or 11.0 kW
Flipper	5 sec	- depending on spreader model	
Telescopic - 20ft ~ 40ft	20 sec		
Telescopic - 40ft ~ 45ft	22 sec		
CenterSpread - 0 ~ 1600mm	35 sec		



OPTION FEATURES

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

ASi Communications

All spreader functions are controlled by ASi communications. The ASi system simplifies the installation of electrical components, provides efficient diagnostics and makes it easy to feed data to the crane's control system. It can be fitted with a controller on the spreader or can be extended back to the crane.

On-Board PLC

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

Twin Twenty Container Detection System

Ensures that the operation cannot handle two 20ft container instead of a 40ft container.

Height Monitoring System

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

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.

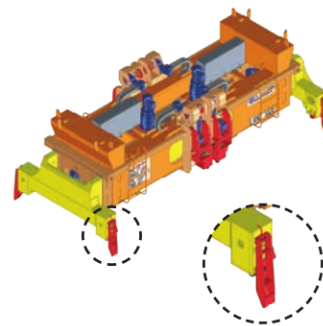
ASi / CAN Communication System

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 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**

2400 & 2500 series

**Telescopic Spreaders
for Container Lifting Cranes**



Performance Through Innovation



The RAM 2400 and 2500 series of Telescopic Spreaders bring innovative standards of reliability, low maintenance and performance to container handling with the RAM 2400 series spreaders designed for ship-to-shore cranes and RAM 2500 for yard stacking cranes.

The spreaders can be designed to interface with new or existing crane headblocks and electrical communication systems.

The spreaders are electro-hydraulically operated with all functions of the spreader controlled from the crane operator's cabin.

The range of models provide safe working loads of between 35 and 50 tonnes and capable of handling 20ft/40ft/45ft containers.

Quality Design and Construction

All RAM spreaders are designed to DIN 15018 and to other applicable international standards. Twin double box centre section, internally stiffened telescoping beams and steel wear plates on end beams are just some of the reasons why the 2400 and 2500 series are built to last and minimise downtime. Automated welding ensures consistent quality and all RAM spreaders are tested to 125% of designed load before delivery. Motors and gearboxes are mounted on the end beams in well protected locations, readily accessible for maintenance.

Flipper / Gather Guides

The 2400 series spreaders for ship-to-shore cranes are fitted with electric retractable flippers on each corner as standard. The flipper design helps gather the container smoothly and absorb the impact between the spreader and container.

The 2500 series spreaders for yard stacking cranes are fitted with four fixed guides as standard.

Twistlocks

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 twistlocks.

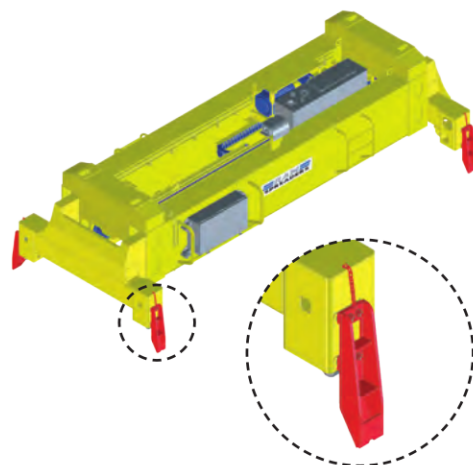
Electrical System

The electrical system of the spreader is designed to operate at the same voltage as the crane and is in accordance with IEC/IEEE Regulations. The spreader is designed with an on-board logic control system. An enclosure is fitted to the centre section from where cables run to the various electrical components on the spreader. A multi-pin electrical socket is fitted to one side of the enclosure to accept the multi-pin plug from the headblock. Electrical control and overload protection is installed in the enclosure for the spreader's electrical system. All RAM spreaders use electrical systems built from high quality components supplied by leading manufacturers and are readily available from suppliers worldwide.

TECHNICAL DATA

2500 series for yard stacking cranes with fixed guides

Model	Container Size	Capacities
2510	1 x 20ft / 40ft	35t SWL
2520	1 x 20ft / 40ft / 45ft	40t SWL
2530	1 x 20ft / 40ft	40t SWL
2540	1 x 20ft / 40ft / 45ft	50t SWL



Operational Speeds

Function	Speed	Power Rating
Twistlock	1.5 sec	Power 7.5kW or 11.0 kW
Flipper	5 sec	(depending on spreader model)
Telescopic - 20ft ~ 40ft	28 sec	
Telescopic - 20ft ~ 45ft	34 sec	



OPTION FEATURES

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

ASi Communications

All spreader functions are controlled by ASi communications. The ASi system simplifies the installation of electrical components, provides efficient diagnostics and makes it easy to feed data to the crane's control system. It can be fitted with a controller on the spreader or can be extended back to the crane.

On-Board PLC

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

Twin Twenty Container Detection System

Ensures that the operation cannot handle two 20ft container instead of a 40ft container.

Height Monitoring System

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

RAM **SPREADERS**

3400 & 3500 series

**All Electric Telescopic Spreaders
for Container Lifting Cranes**



Performance Through Innovation



The RAM 3400 and 3500 series of All-Electric Telescopic Spreaders bring innovative standards of reliability, low maintenance and performance to container handling with the RAM 3400 series spreaders designed for ship-to-shore cranes and RAM 3500 for yard stacking cranes.

The use of electrical drives and components eliminate hydraulic systems, improve uptime and provide a safer, more environmentally friendly operation.

Designed to handle 20ft, 40ft and 45ft containers, the 3400 and 3500 series provide telescopic handling flexibility for containers up to 40 tonnes with a lightweight version available in the 3500 series.

Quality Design and Construction

All RAM spreaders are designed to DIN 15018 and to other applicable international standards. Twin double box centre section, internally stiffened telescoping beams and steel wear plates on end beams are just some of the reasons why the 3400 and 3500 series are built to last and minimise downtime. Automated welding ensures consistent quality and all RAM spreaders are tested to 125% of designed load before delivery. Motors and gearboxes are mounted on the end beams in well protected locations, readily accessible for maintenance.

Flipper / Gather Guides

The 3400 series spreaders for ship-to-shore cranes are fitted with electric retractable flippers on each corner as standard. The flipper design helps gather the container smoothly and absorb the impact between the spreader and container.

The 3500 series spreaders for yard stacking cranes are fitted with four fixed guides as standard.

Twistlocks

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 twistlocks.

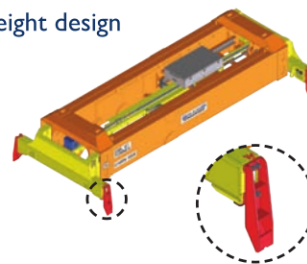
Electrical System

The spreader electrical system is designed to operate at the same voltage as the crane and is in accordance with IEC/IEEE Regulations. The spreader is designed with an on-board logic control system. An enclosure is fitted to the centre section from where cables run to the various electrical components on the spreader. A multi-pin electrical socket is fitted to one side of the enclosure to accept the multi-pin plug from the headblock. Electrical control and overload protection is installed in the enclosure for the spreader's electrical system. All RAM spreaders use electrical systems built from high quality components supplied by leading manufacturers and are readily available from suppliers worldwide.

TECHNICAL DATA

3500 series for yard stacking cranes with fixed guides

Model	Container Size	Capacities	Tare Weight	Applications
3510	1 x 20ft / 40ft	40t SWL	6.8t	Lightweight design
3520	1 x 20ft / 40ft / 45ft	40t SWL	7.8t	Lightweight design
3530	1 x 20ft / 40ft	40t SWL	8.5t	
3540	1 x 20ft / 40ft / 45ft	40t SWL	9.0t	



Operational Speeds

Function		Power Rating	
Twistlock	1.5 sec	Telescopic System	3.7 kW
Flipper	5 sec	Twistlock	2 x 0.4 kW
Telescopic - 20ft ~ 40ft	28 sec		
Telescopic - 20ft ~ 45ft	34 sec		



OPTION FEATURES

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

ASi Communications

All spreader functions are controlled by ASi communications. The ASi system simplifies the installation of electrical components, provides efficient diagnostics and makes it easy to feed data to the crane's control system. It can be fitted with a controller on the spreader or can be extended back to the crane.

On-Board PLC

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

Twin Twenty Container Detection System

Ensures that the operation cannot handle two 20ft container instead of a 40ft container.

Height Monitoring System

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

RAM developed its product range responding to customers' operational needs and future expectations. We offer bespoke equipment based on our wide range of spreader models and options to deliver the most effective and practical container-handling solutions.

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 and UK; 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

Product range includes:

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

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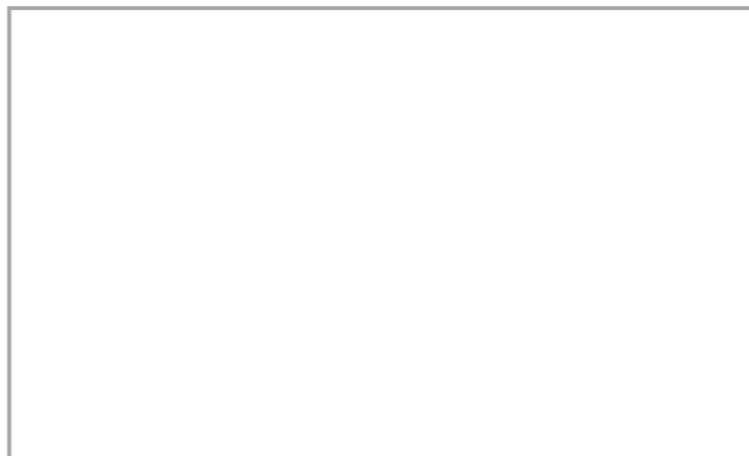
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Printed on September 2022