MEDITERRANEAN Ports and Logistics 2024

TANDEM40

The future of container handling
on single hoist STS cranes

RAM SPREADERS

Who we are?

RAM SPREADERS

Over 50 years in the industry

50 years of innovation

Over five decades and many innovations, including the launch of the **RAM SingFlex** tandem headblock system

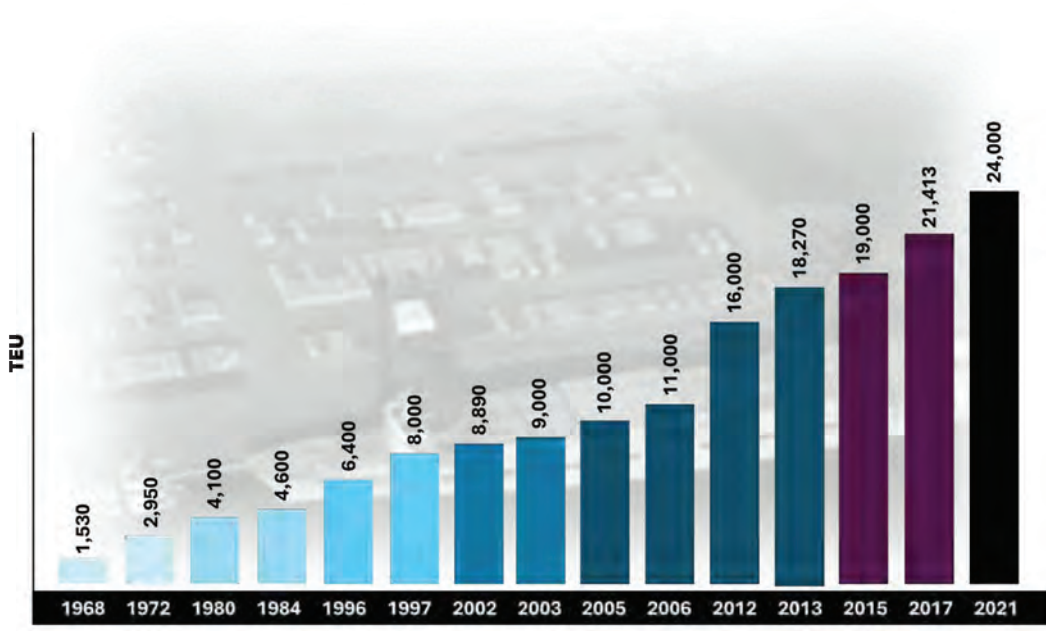
1972	RAM Spreaders formed
1986	First telescopic spreader build for quay cranes
1995	'ShockAbsorb' technology introduced
2000	Twinlift spreader with "centrespread" launched
2005	**Development of Tandem (Twin40) Headblock**
2007	MHC & ASC spreaders introduced
2011	RAM enters bulk handling industry with RAM Revolve CBH
2023	Universal Pipe Handling Spreader developed

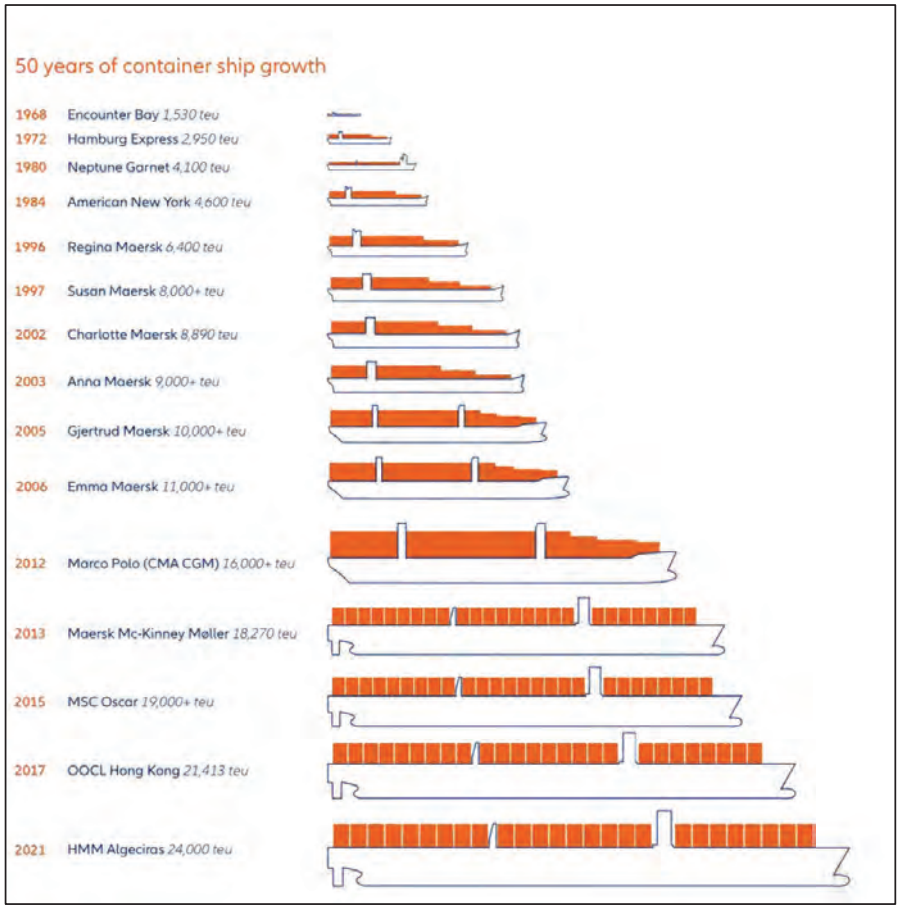
Tandem 40 Cranes

“a good choice for terminals”

50 years of container ship growth

Container ship capacity increase from
1500 TEUs to 2400 TEUs



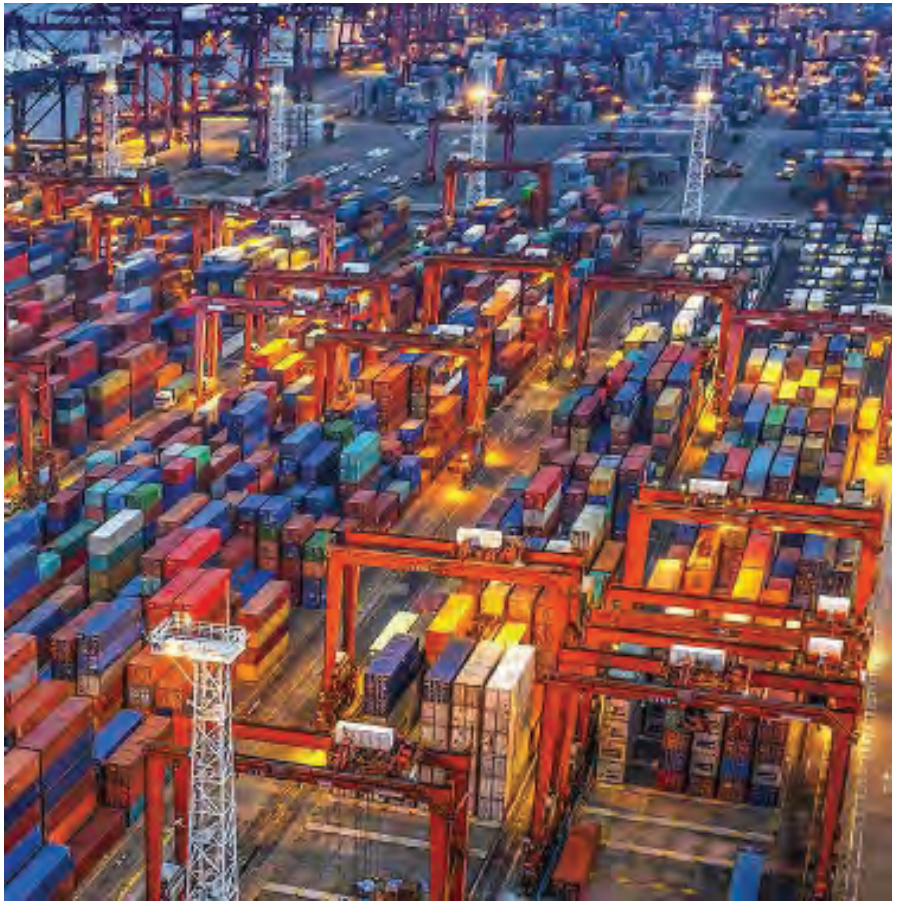


Twinlift spreaders

Since the millennium, spreaders capable of handling two 20ft containers have played a crucial role in dealing with global demand…

Progress

Ports and terminals must consider the future of container handling and its impact on their operation to remain competitive.

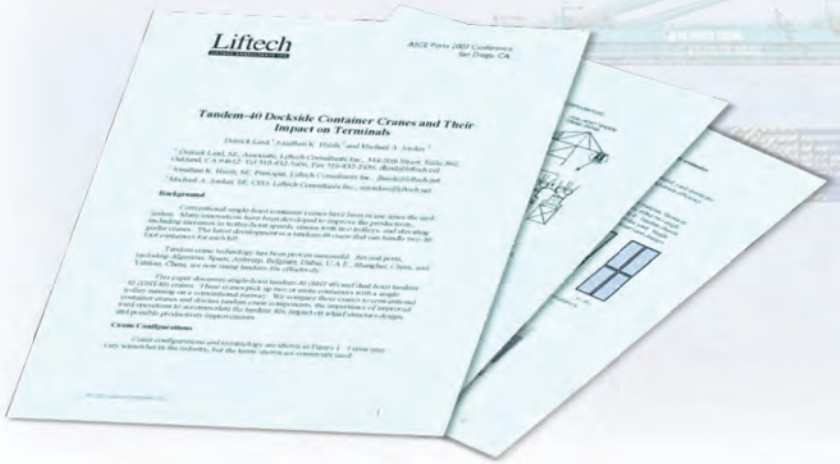


Increase in demand

Is there a solution?

Tandem crane Operations

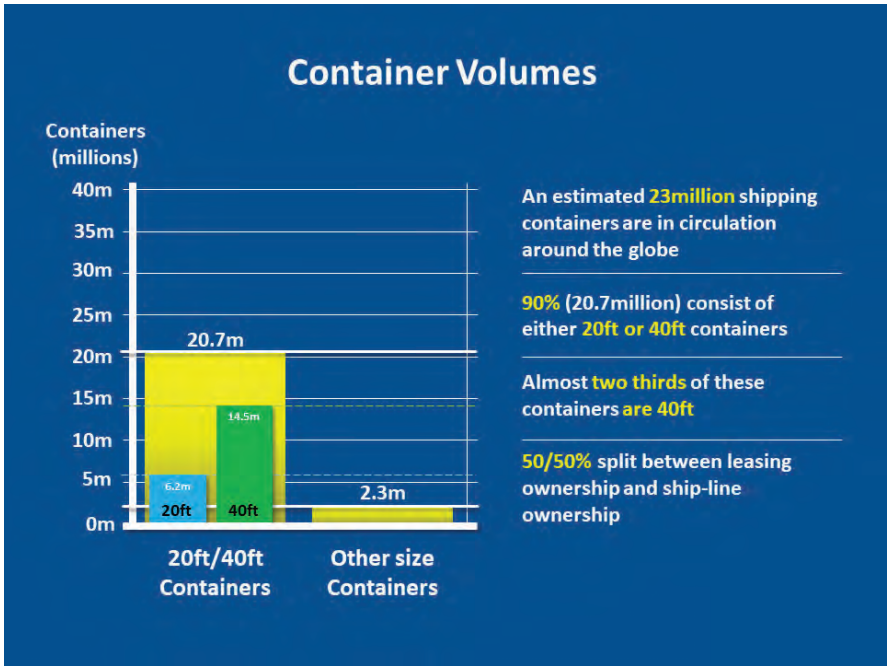
A white paper in 2007 discusses the need for ports and terminals to gain full advantage of tandem crane operations and to increase yard operations.



Container Volumes

It is estimated 90 percent of the worlds shipping containers are 40ft ISO…

…is it possible to move more 40ft containers in a single lift cycle, but also handle different height containers?



Tandem 40

A tandem headblock system that uses single-hoist STS cranes to lift multiple containers in a single lift cycle.

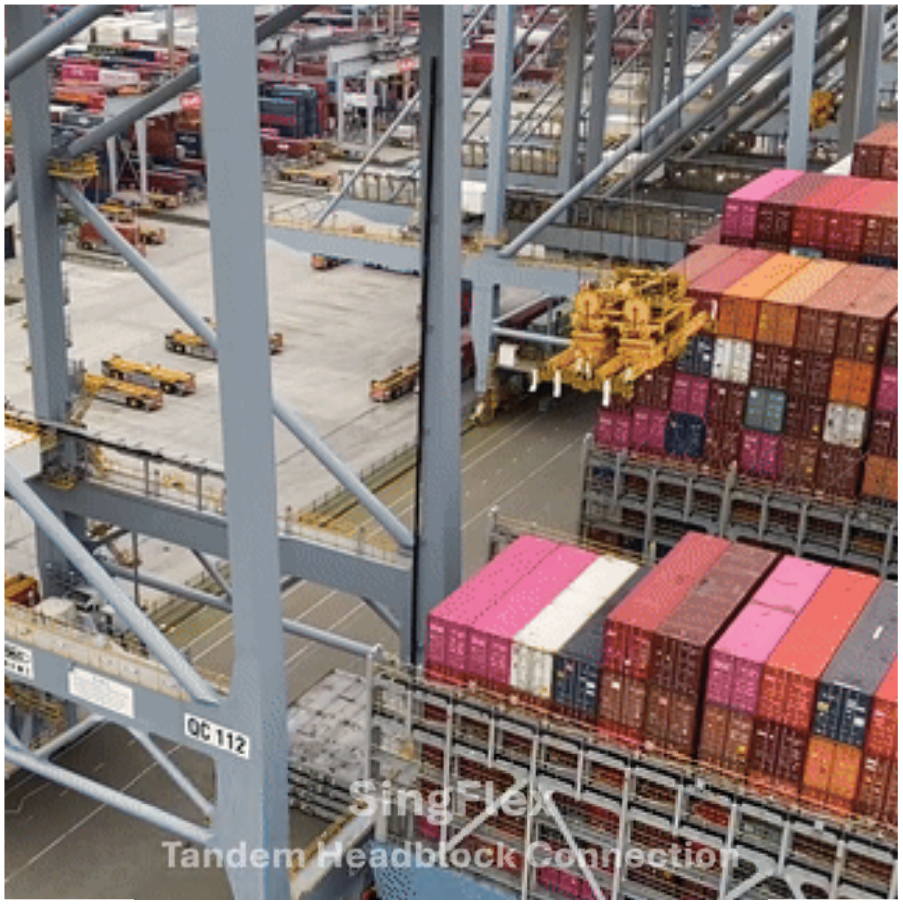
Typically consists of:

Headblock

- Primary and Secondary Headblock
- Bridge System with Sheaves

Spreaders

- Two Twinlift spreaders with centre gap separation



Tandem Headblock System

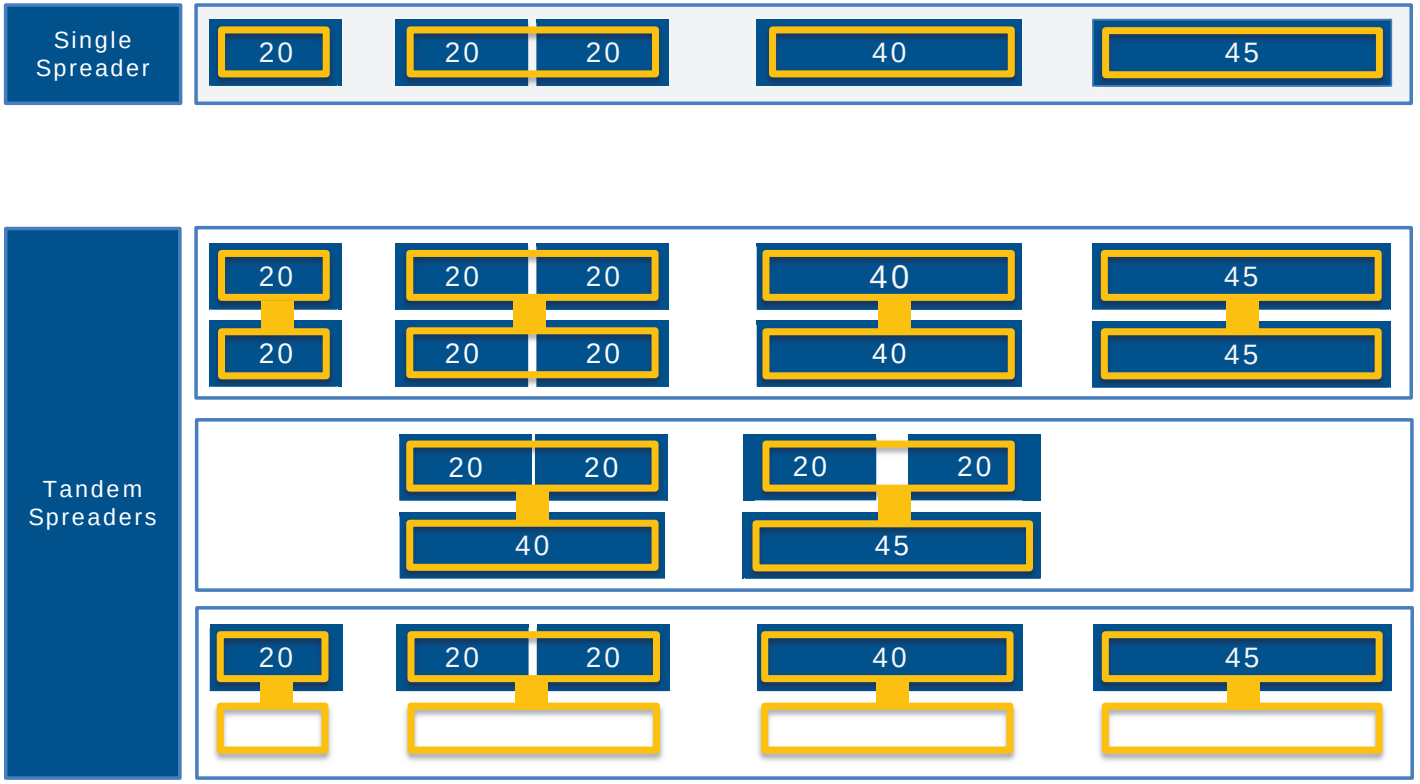
Typical lifting configurations

Single Spreader:
1 x 20 | 40 | 45*
2 x 20

Tandem Spreaders
1 x 20 | 40 | 45*
2 x 20 | 40 | 45*
4 x 20

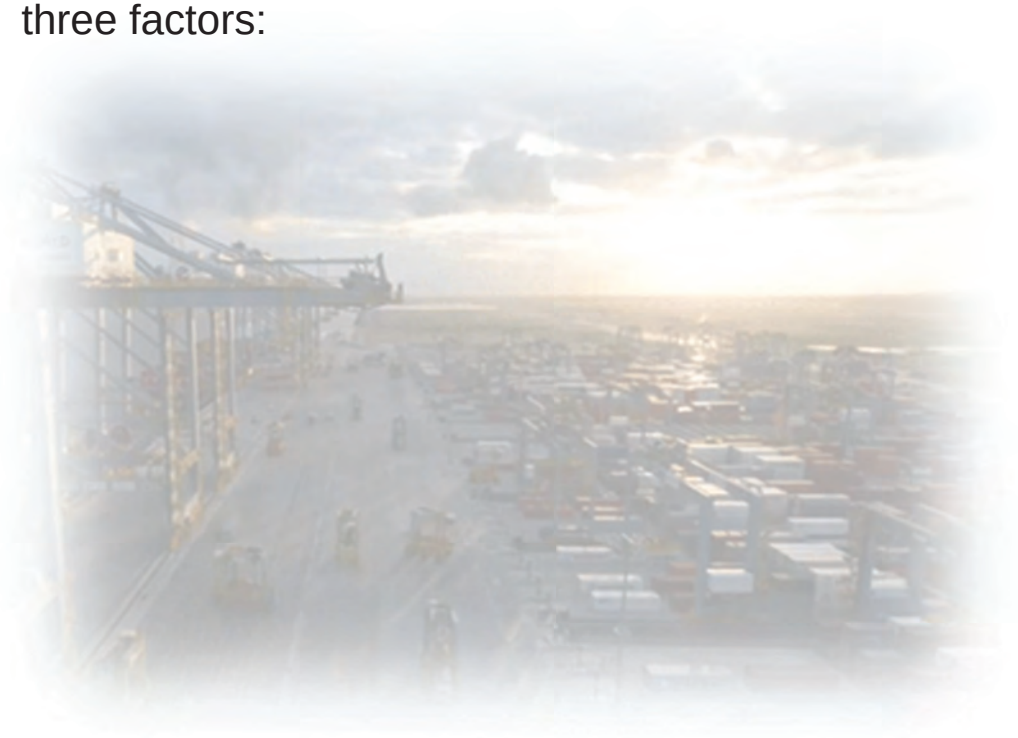
Combinations:
1 x 40 | 45* + 2 x 20ft

** subject to spreader specifications*



Tandem utilization

The key to successful tandem operations comes from three factors:

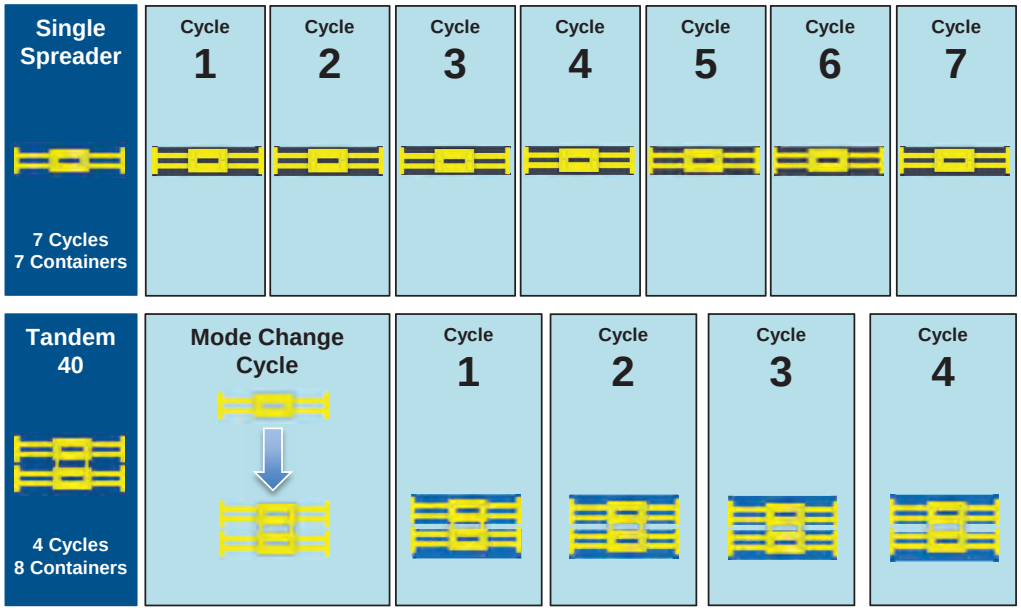


1. Using a tandem system that can switch fast between tandem and single
2. Flexible design to cover many stowage conditions
3. Good yard support to ensure containers are moved to the yard fast

Is it really that quick?

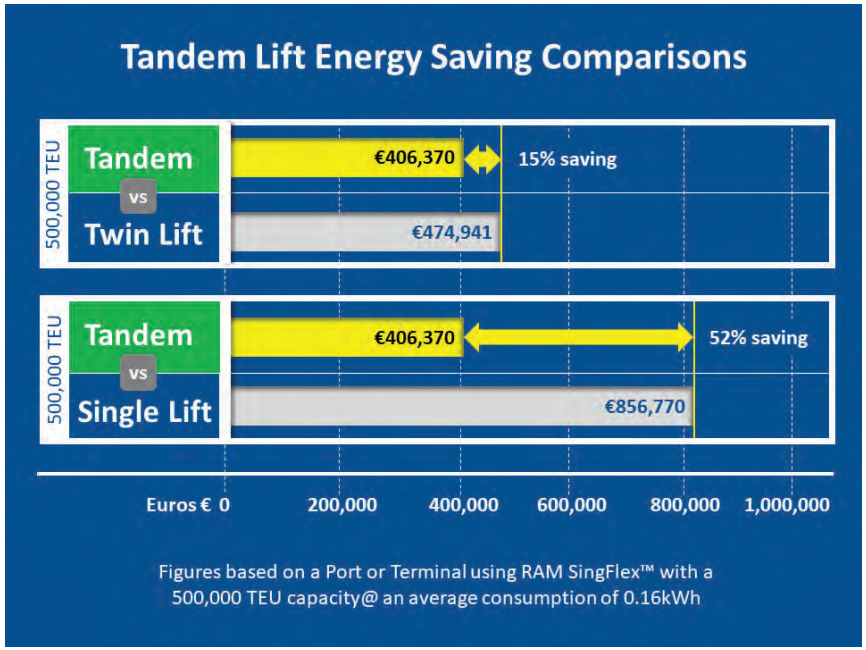
Crane operators using a tandem system with a quick change-over between spreaders will benefit from lifting more containers per lift cycle.

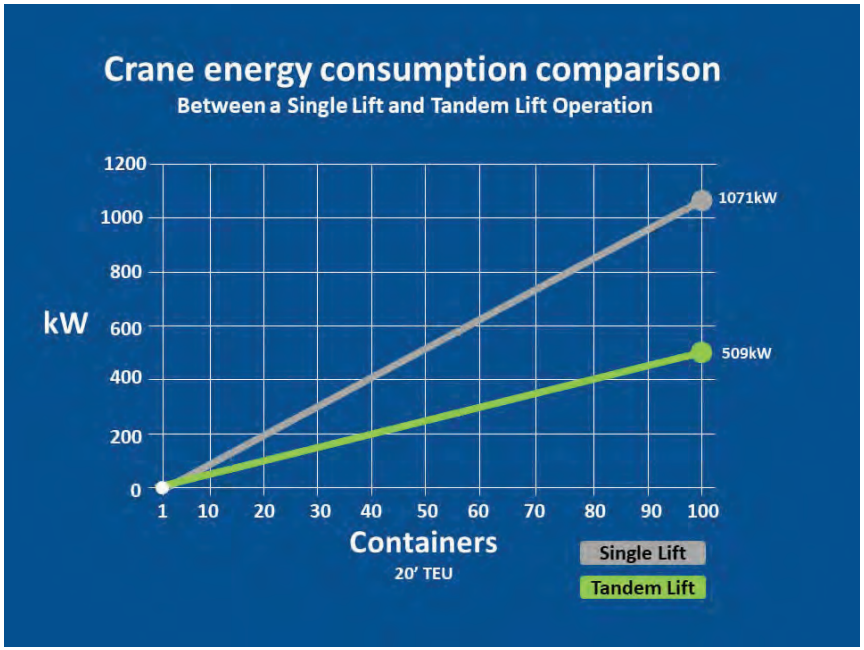
Even with the initial mode change, 8 containers can be moved in 4 lift cycles, compared to a single spreader lifting 7 containers in 7 lift cycles.



Energy Saving Benefits

By reducing the cycles per box move, even with a slight increase in crane intensity using tandem, there are still energy savings to be made.



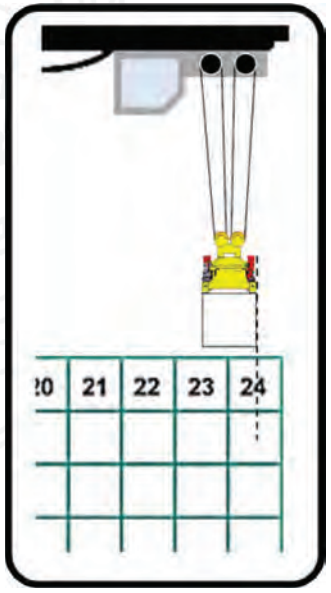


Future proofing operations

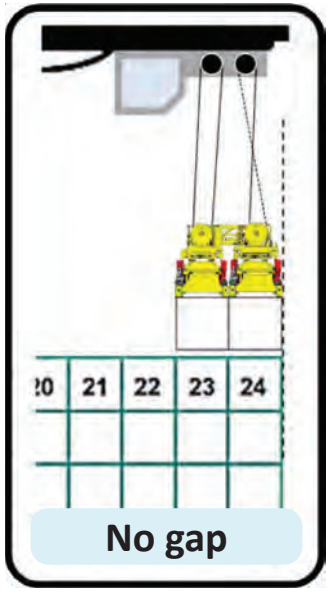
With capacities of container vessels on the increase…

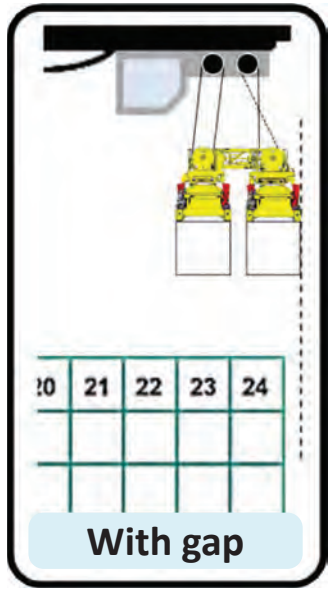
…tandem headblock systems with an overall low height and extended reach can handle the 24th row of one of the largest mega vessels.

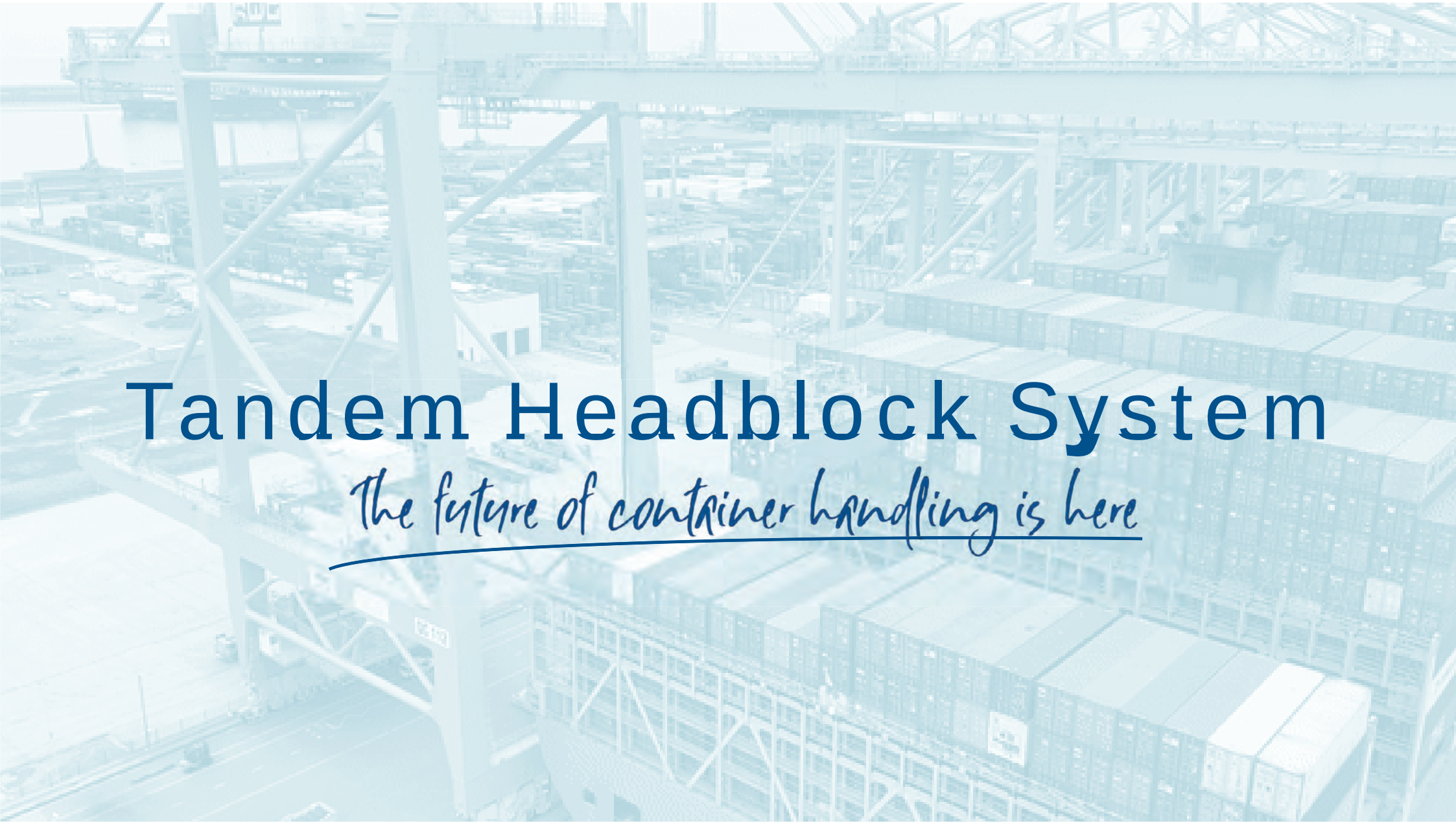
Single Spreader



Tandem Spreader







Tandem Headblock System

The future of container handling is here