

PATRICK

asciano

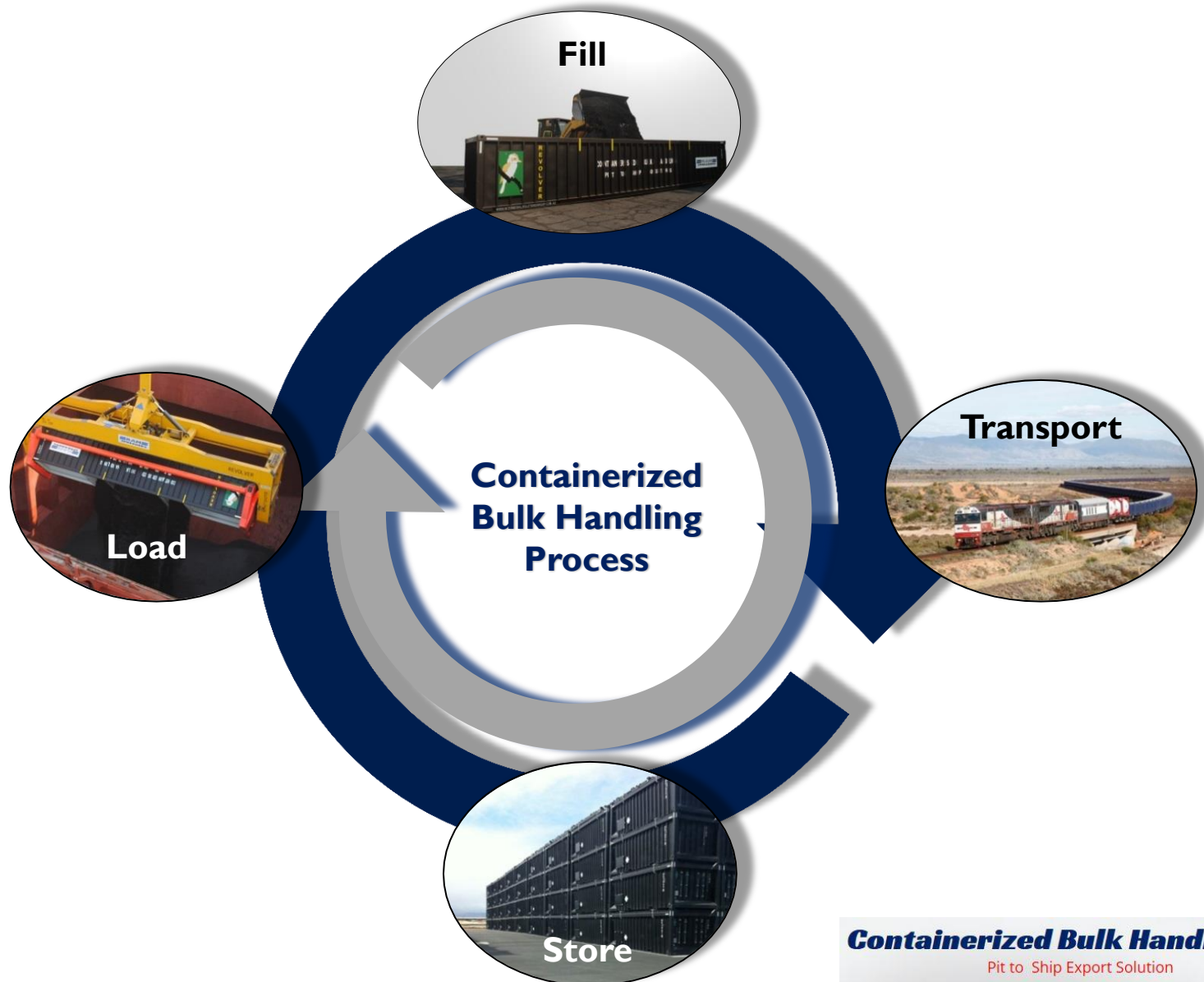
RAM
SPREADERS

LOW CAPITAL DUST FREE BULK EXPORT USING SHIPS GEAR

Case Studies



PROCESS



AN INNOVATIVE SOLUTION

Uses Ships Crane to handle bulk containers

Capital Expenditure < 1 million USD

Containers leased at \$ per day rate

Free of dust & material loss



SYSTEM SPECIFICATIONS

40 tonne ships gear

8 tonne revolving spreader

3 tonne box

29 tonnes of copper concentrate

Cost ✓

Dust free ✓

Fast ✓

PRODUCTION



15 Lifts per hour

400 Tonnes per crane per hour

2 Cranes

18000 Tonnes per day

CONTAINER SPECIFICATIONS

3 Tonne tare weight

38 Tonne capacity

6K cost (USD)

Automated lid removal



“Patrick was able to utilize this new revolving spreader technology to export copper concentrate for our client with very little capital”



Adrian Howard
Commercial Director



“....Our Client was extremely pleased with the dust free solution”

CAPITAL COMPARISONS

Existing Bulk Loading Infrastructure



Capital Cost = USD150-250 million

CAPITAL COMPARISONS

Containerized Bulk Handling Costing Capital

MHC Model

• Cranes x 2 =	USD\$8,000,000	= 10 million
• Containers x 30 =	USD\$ 300,000	
• CHE =	USD\$ 500,000	
• Revolvers =	USD\$1,500,000	

Ships Crane Model

• Revolvers x 2 =	USD\$ 800,000	= 1 million
• Misting System =	USD\$ 200,000	
• Container =	USD\$ Leased	
• Fork Truck =	USD\$ Leased	

PROVEN IN OPERATION

IMX crosses 2m-tonne export milestone

BUSINESS EDITOR CHRISTOPHER RUSSELL - THE ADVERTISER - JULY 05, 2012 11:24AM
COOPER Pedy iron miner IMX Resources has passed a milestone two million-tonne mark for exports.

The company has gone on to load a record 85,140 tonnes at Port Adelaide aboard the Trans Hangzhou which departed on the weekend.

“Thanks to the efforts of our broker, Probulk in Singapore, and operator Cargill, we managed to locate a uniquely sized vessel that fitted the requirements of Port Adelaide,” IMX logistics manager Mark Hoepfl said.

“We have shipped over two million metric tonnes to date and we usually average approximately 75,000 metric tonnes per vessel.

“Our previous record was 80,471 metric tonnes, making this a landmark shipment,” Mr Hoepfl said.

The ore – a unique blend of iron and copper – is from IMX’s Cairn Hill mine southeast of Coober Pedy.



IMX Resources' logistics manager Mark Hoepfl with a cargo ship bound for China.
Picture: Bianca De Marchi. Source: The Advertiser

PATRICK PORT KEMBLA FACTS

12,000 tonnes of ore per month

10 year contractor

EPA reviewed

Growing jobs in Wollongong



CONTAINERIZED BULK PROCESS

Loading commodity



Land Transport



Quay Side



With Revolver®



Load Ship at Port



Lift from Storage



MINERS PERSPECTIVE

“Environmentally it is a very clean system due to containers being emptied directly into the ship’s hold thereby minimizing a number of dust generating points”

“...Loading rates of 15,000 wmt/day being achieved are such that it helps to minimize shipping costs”



Jim Smith
North Parkes Mine



CONTAINERIZED BULK HANDLING BENEFITS

- ✓ **Flexible Berths – No fixed bulk berths**
- ✓ **Fast to start**
- ✓ **No dust**
- ✓ **Low cost**



EQUIPMENT – INTERGRATED APPROACH

Revolver®



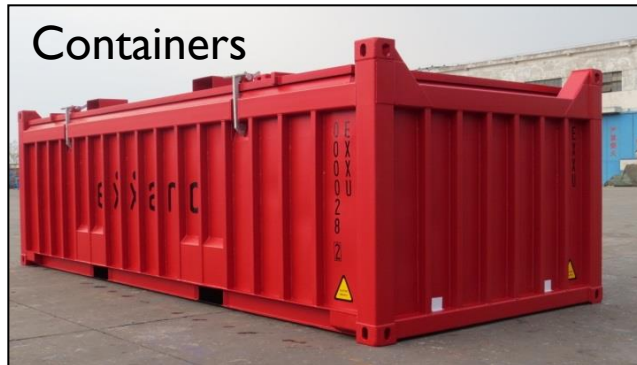
Cranes



Dust Suppression



Containers



Container Handlers



REVOLVER trailer system



DUST FREE



NO DUST



MATERIALS HANDLED LOAD & DISCHARGE

- **Grains**
- **Wood Chip**
- **Coal**
- **Iron Ore**
- **Mineral Sands**
- **Copper Concentrates**
- **Scrap Metal**
- **Bagged Material**
- **Soya**



SYSTEM BENEFITS

Cost

- **Lower set up costs (No conveyor, ship loaders, storage sheds)**

Environmental

- **Zero dust, no clean up**
- **Best practice by EPA with fast approval**

Safe & Fast

- **Virtually man less operation with loading rates of 1700 TPH per crane**

Proven & Reproducible

- **Providing a simple proven turnkey solution to exporters**

JOIN THE REVOLUTION



Companies

- Exxaro
- Grinrod
- DP World
- Eletheni/ SNR
- BHP B
- Oz Minerals
- Hillgrove Copper
- Transnet
- FQML
- TPR Argentina
- Patrick
- Ironclad

*“not often do you get a solution
that is the lowest cost but also the
best practice environmentally”*

Thank You

Contact us

sales.uk@ramspreaders.com