

**A-WARD**

**MiTilt™**

BULK HANDLING SOLUTIONS

**FIT MORE IN**



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**MiTilt™**  
BULK HANDLING SOLUTIONS

## WHY MiTilt?

MiTilt reshapes the way the world handles bulk materials. A-Ward's futuristic thinking has created a tilting container loader that allows you to fill up every last inch faster, reducing freight, labor and handling costs.

### Faster and more competitive

Using controlled angle or vertical loading options, you can load directly into shipping containers in less than five minutes – without damage or the extra cost of hiring equipment and keeping trucks waiting.

With quicker loading times, MiTilt allows your business to turn around high volumes of materials fast and take advantage of favorable shifts in exchange rates or international pricing, where others can't.

### Smaller footprint, greater capacity

MiTilt loaders are highly compact and designed to take up less yard space than traditional horizontally-placed containers. By loading from above, you have access to 100% of the internal container volume. Doors are closed and secured remotely before returning the container to the horizontal position for truck loading.

A-Ward has a matrix of frames and options designed for different industries and materials. We will advise on a customized combination that delivers the greatest efficiencies and cost savings – with the lowest cost of ownership.

### Accurate weighing

MiTilt's built-in scale system means each load is weighed 'live' by the operator using a digital hand-held remote.

MiTilt enables loading right up to the maximum allowable weight accurately, so you only ever handle a load once.

### Engineered for safety

Operator and workplace safety are designed and engineered into every MiTilt product. A-Ward's intelligent remote control system means all loading, weighing and transfer operations are in the hands of a single operator – and are made from the safety of the controller's cab.

All four tilting cylinders are fitted with counter-balance safety check valves which allow you to load any material at any angle.

### Buy once, buy the best

Tough environments demand the toughest materials and engineering. Right from the drawing board up, MiTilt is designed and built to take the knocks.

A-Ward's heavy duty I'Beam structure guarantees strength, durability and an extremely long product life. Every 'wear' surface is fitted with high grade abrasion steel and supported with high tensile container locking points. Clever design and engineering combined with the toughest construction means your investment will require minimal servicing and deliver a high return on investment.

While similar products have recently emerged, MiTilt is the original; the result of many years research, development, patented technologies, design and engineering.

The proof? Hundreds of A-Ward tilting products have stood up to the most punishing industrial conditions, every day for over 10 years.

# MiTilt™

## SELECTION STEPS

1

### SELECT A FRAME

This is the 'body' of your MiTilt set up.

- Universal
- Flat Deck
- Long Front
- Short Rear
- Raise and Tilt
- Tilt and Raise

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### SELECT ACCESSORIES

Choose accessories to customize operation and KPIs.

- |  |   |
|--|---|
| <input type="checkbox"/> Digital scale system          | <input type="checkbox"/> Access ladder  |
| <input type="checkbox"/> Radio remote control          | <input type="checkbox"/> Access platform  |
| <input type="checkbox"/> Forklift pockets              | <input type="checkbox"/> Mounted camera   |
| <input type="checkbox"/> Hydraulic container door arms | <input type="checkbox"/> Integrated operation control                               |
| <input type="checkbox"/> Rear container support brace  | <input type="checkbox"/> Mobile drive system  |
| <input type="radio"/> Fixed <input type="radio"/> Gate | <input type="radio"/> Wheel <input type="radio"/> Slide <input type="radio"/> Track |
| <input type="checkbox"/> Movement wheels               | <input type="checkbox"/> PLC communication control                                  |
| <input type="checkbox"/> Transport kit                 |   |

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### SELECT A POWER PACK

Choose a power pack to optimize speed and throughput.

- Electric (multiple sizes)
- Diesel (multiple sizes)

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### SELECT TILTING ANGLE

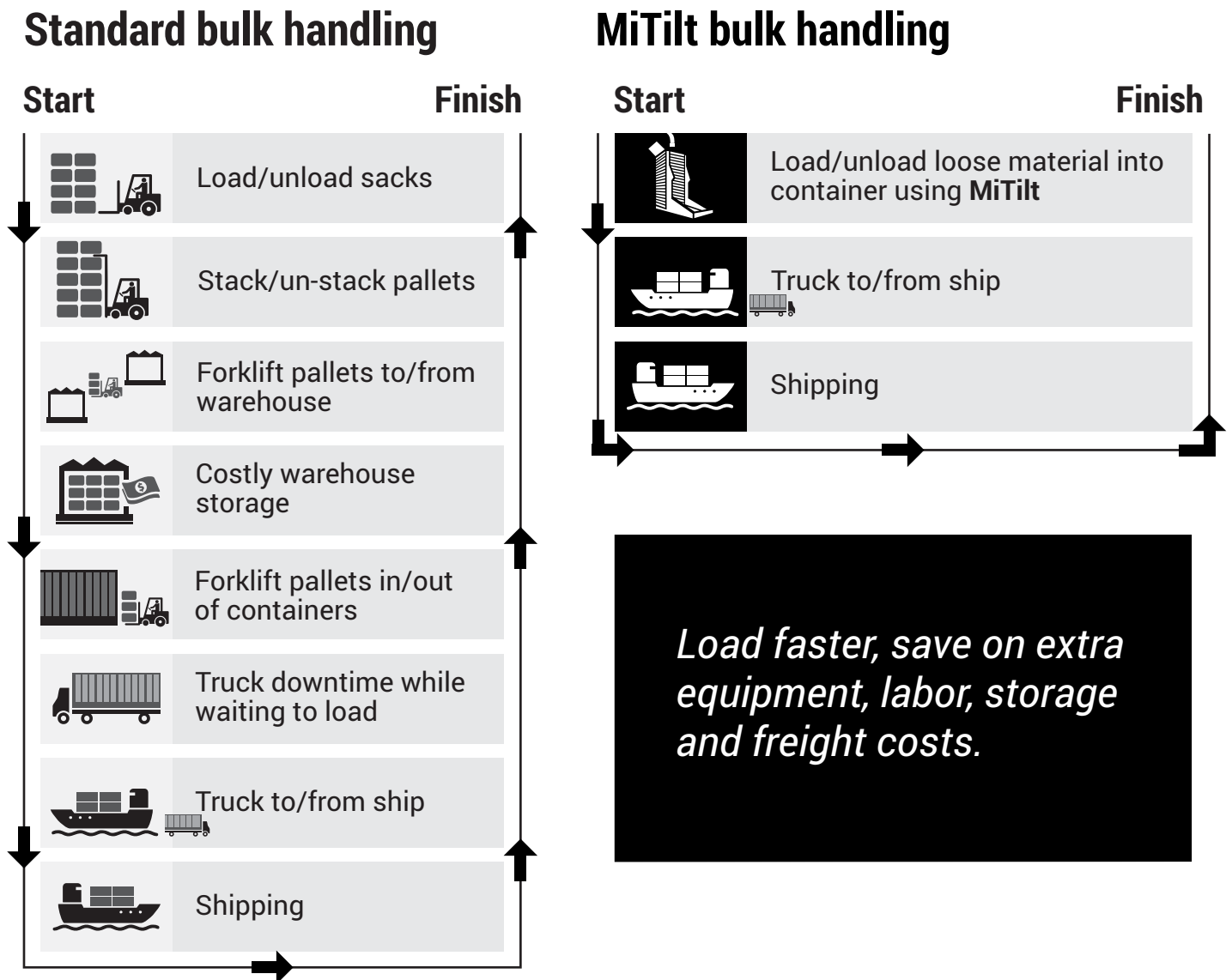
Select tilting option based on materials and budget.

- 0-70%
- 0-90%

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# MAKE SHORT WORK OF BIG LOADS

Here's how MiTilt halves the steps in your bulk handling cycle.



*When I started I needed a crane, a material handler, a forklift and four men to load my containers to 80% capacity. Now I have an A-Ward Tilter I can achieve 100% capacity with just a material handler and one man.*

Daniel Davis, G.S.D (Texas, USA)



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## We asked:

“Why can't we use gravity to turn wasted space and labor into extra time and money?”

## We invented:

**MiTilt.** Fills up every last inch in minutes. Makes every shipment more profitable.

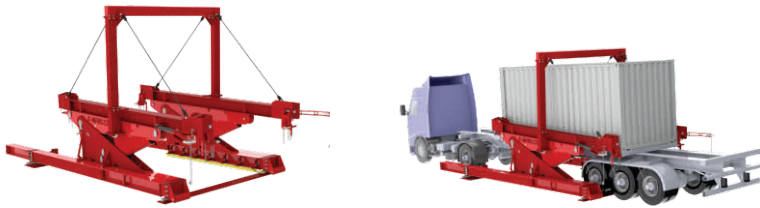


## FRAME SELECTION

### UNIVERSAL

The Universal Frame is A-Ward's most flexible frame design, compatible with a wide range of trailer styles.

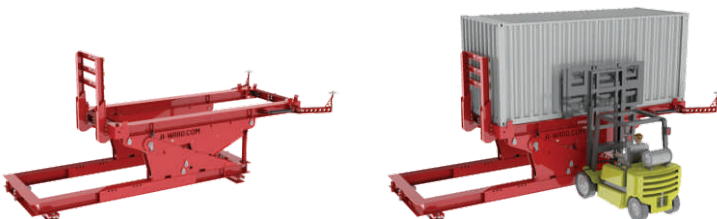
Mechanically operated swing-down arms connect to the shipping container holes using A-Ward's innovative and easy to use twist lock system, reducing the number of hydraulic components. The universal frame is A-Ward's most popular tilting option due to its simplicity.



### FLAT DECK

The Flat Deck Frame enables extremely fast insertion and removal of containers, and suits companies wanting to insert and remove shipping containers using forklifts, cranes and swing lift trailers.

The containers are guided into the tilter using curved corner guides and, once sitting on top of the tilter, hydraulic twist locks are engaged to lock the container into place. Container insertion and removal using a trailer is not possible with the Flat Deck Frame.



## FRAME SELECTION

### SHORT REAR

The Short Rear frame suits operations using 20 foot trailers, where the container doors always face the rear of the trailer and works well with North American designed trailers.

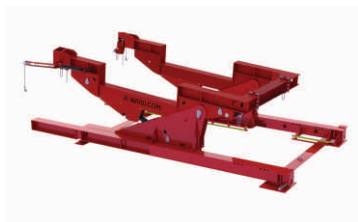
Top and lower frame rear support beams ensure a high level of frame rigidity and rear hydraulic container locking pins enable container attachment with the push of a button.



### LONG FRONT

The Long Front frame suits the majority of trailer styles and sizes where the container doors face the front of the trailer.

The Forklift Pocket option is often added to this frame to allow an empty container to be inserted using a forklift. It is compatible with 40 foot trailers so supports maximum weight handling.





## FRAME SELECTION

### RAISE AND TILT

This model removes the costs and inefficiency of building a below-ground hopper or storage system? This design model allows for easy unloading of material into a fixed transfer or discharge above-ground systems. It allows you to raise the open end of the container above the ground during tilting, for greater the tilt angle and greater the ground clearance.



### TILT AND RAISE

A simple design frame which can remove the container directly from the truck and lift it up to a set raised position, then tilt the container at the fixed height. This system avoids the cost and hassle of building a below-ground hopper or storage system. This system allows a safe area to open the container doors and tip material at 1.5 to 3m heights.

A-Ward can custom design a solution to meet your unloading above-ground systems height.



## ACCESSORIES SELECTION

### ADD ON OPTIONS



#### DIGITAL WEIGHING SCALE SYSTEM

A-Ward's standard scales achieve maximum and accurate loading weight every time. The +/-1% weight accuracy of the Digital Scale System removes the cost risk of re-opening containers and adjusting loads. Certified scale options are also available.

Combine with the Radio Remote Control option to see real time weight displayed on the digital handheld remote screen.



#### RADIO REMOTE CONTROL

A heavy-duty Handheld Radio Remote enables a single operator to safely control loading and unloading. This dramatically speeds up the connection and disconnection to shipping containers. When used with a Digital Scale System, the real time weight is displayed on the handheld remote screen during loading.



#### TRANSPORTATION KIT

Easily transport your tilter between different sites to maximize productivity and minimize downtime. Transportation is quick and easy. Simply condense and lift your tilter onto the transport trailer then lock on for transportation.



#### HYDRAULIC CONTAINER DOOR CLOSERS

For safer and faster operation of your tilter, hydraulic container door arms are controlled remotely at any stage of the tilting process. This allows your operator to stay safely on the ground rather than climbing up to manually open and close doors.



#### FORKLIFT POCKETS

This is a great option if you need to store extra empty containers on-site or require fast truck turnaround times. Insert the containers onto the tilter at any time using a forklift, then schedule a truck to pick up once your materials are fully loaded. Your truck can arrive with an empty container and then leave immediately with a full one.



#### ACCESS LADDER AND PLATFORM

This is a safe and simple add-on if you're handling loads that need to be inspected or adjusted before closing container doors. Your operator has safe access the top of an open container, even when it is tilted to the maximum 90° level.

## ACCESSORIES SELECTION



### MOUNTED CAMERA

This world-first technology has been created by A-Ward to provide a quick, safe and reliable alternative to manually taking photos inside an open container. The mounted camera can be remotely-controlled by an operator on the ground.



### MOVEMENT WHEELS

Save time and money by moving your tilter to the load, rather than moving your load to the tilter. One end of the tilter can be easily lifted by a forklift or other lifting machine so you can quickly and easily 'wheel' your tilter around the site.



### REAR CONTAINER SUPPORT BRACE

Where correct container tilter loading procedures are followed, the Rear Container Support Brace option is generally not required. Where this accessory is preferred there are two styles available:

#### Fixed

The 'FIXED' rear brace version of the Rear Container Support Brace is compatible with the Flat Deck and Long Front frames.

#### Gate

The 'GATE' version of the Rear Container Support Brace is compatible with for the Universal and Short Rear frames.



### MOBILE DRIVE SYSTEM

The complete MiTilt unit can be 'driven' around a plant to exactly where materials need to be loaded. The heavy duty solid wheels and twin drive operation work from the existing diesel power pack. Drive options for two position drive movement are:

- Slide system for short movement
- Rail track system for greater distance movement



### PLC - SENSOR AND FACTORY INTEGRATION

This Programmable Logic Controller option enables you to fully monitor control and knows the container position at any stage. The PLC supplies weight, locking status and tilt angle information, for integration of the container loading with other machinery.

# MiTilt™

## POWER PACK SELECTION

### POWER PACK OPTIONS IN DIESEL OR ELECTRIC



#### ELECTRIC POWER PACK (FIXED LOCATION)

The A-Ward Electric Power Pack is emissions-free and very low maintenance. The Power Pack runs off an electrical source at all times so is the preferred option for tilters located at a single location. With the Smart Saving Energy and fully monitored Control, the Electric Power Pack is extremely quiet and highly cost-effective to run.

- TILT TIME (15kw): horizontal to 90° approx. 70 secs
- TILT TIME (30kw): horizontal to 90° approx. 50 secs

LARGER SIZE ARE AVAILABLE ON REQUEST.



#### DIESEL POWER PACK (PORTABLE)

The A-Ward Diesel Power Pack offers the benefit of portability for businesses intending to move their tilter around the site or to different sites. The innovative new Diesel Power Pack is extremely quiet when running, and incorporates an Eco-Fuel Emission and monitored Control system. This means you can leave the power pack running for extended periods of time with a very low level of diesel consumption.

- TILT TIME (15kw): horizontal to 90° approx. 70 secs
- TILT TIME (30kw): horizontal to 90° approx. 40 secs

LARGER SIZE ARE AVAILABLE ON REQUEST.



# MiTilt™

## TILTING ANGLE SELECTION

### TILTING ANGLE OPTIONS



#### 0-90° TILTER

The optimal tilting angle with easy access for loading a full range of materials. Used with all types of loading devices to quickly and easily maximize load weights.



#### 0 – 70° TILTER

If you're handling materials that don't require a full tilt, the 70° MiTilt is an efficient and affordable option.



# MiTilt™

## CASE STUDY

Unilever has improved their base soap powder shipping efficiency by 80% and reduced their handling stage and cost by 50%.

### Our challenge

Unilever Australasia challenged A-Ward to design and build a fully customized container unloader into an existing factory to enable Unilever to switch from one cubic meter bag transport of base soap powder into bulk single lined 20ft containers. A-Ward set up both the loading factory in Thailand and two unloading factories in Australia and New Zealand. The customized 20ft container unloader system had to incorporate a special unloading hopper, with set angles, maximum discharge system with safety procedure. The design also had to enable fully remote locking and movement of all functions and once fully tilted discharge into an above ground factory feeding conveyor. Unilever wanted a "Solution Finder" and not a "Problem Finder".

## Outcomes

Unilever improve transport efficiency by 80%, with container transport weight going from 11mt to 19mt. A-Ward removed several material handling steps with inherent product risk, including storage and handling. By using a customized A-Ward container unloader, Unilever has been able to maximize operator safety, reduce labor and unload as fast or slow as they desire without incurring additional cost. Unilever was focused on keeping perfect particle distribution through the transport and unloading process, which was achieved by collaboration with A-Ward.





# A-WARD INNOVATION



A-Ward has a reputation for challenging the status quo and creating real and measurable efficiencies for businesses like yours.

We thrive on understanding the commercial realities and barriers your business faces every day – and solving them with clever thinking, engineering and technologies.

Our team helps leaders in the food, mineral, chemical, brewing, recycling and steel industries solve their bulk materials handling issues. We bring that same intelligence and problem-solving to every conversation we have with you.

At A-Ward that conversation always begins with: “How can we help get your business running faster, better and safer?”

**We solve the problems others can't.**



# ENGINEERING CONSULTING SERVICES

## ***THE VALUE ADDED COMPONENT FOR OUR CUSTOMERS***

**A-Ward** provides engineering consulting services to many industries including the scrap metal, chemical, polymer, food and mineral industries. Our customers want to focus on their business and want a partner to deliver a value added solution that solves their issues.

We focus on companies who distribute products that are dry and free-flowing in nature to be safely handled and transported in bulk form using ISO standard 20 foot and 40 foot shipping containers. Our unique **MiTilt™** and **MiSlide™** products revolutionize the time and safe loading and unloading of content as well as maximizing the load capacity per container.

We create dynamic efficiencies and cost savings for both clients and their customers via the introduction of a more automated product handling process in conjunction with unique transportation concepts. Our engineers work with customers to provide the optimal solution for their specific requirements.

At **A-Ward**, we work with our clients to 'rethink' how the components of their business come together and how we can provide more innovative solutions when loading and unloading their products.

Recognized for our professional approach and cost effective service, our solutions and recommendations achieve the highest standards of safety and environmental protection for our client's workplace.

## **THE A-WARD SOLUTION**

Our scope of services cover three main areas:

**Logistics Consulting** - we work with clients to ensure that we understand their customer's requirements and we address every need on the project for managing large bulk content efficiently and effectively.

**Load Optimization** - with our extensive industry knowledge and expertise, we assist the customer to manage the load per container more effectively using **MiTilt™** or **MiSlide™** solutions - specifically we ensure these systems are designed with the right specifications and are competitively priced.

**Supply of Material Handling Systems** - via our extensive industry contacts we are able to supply the components and equipment needed to convey the product directly from the container to a storage facility (silo) - our solutions are designed to reduce space, time, and cost of loading and unloading containers.

Following all project installations, our team is in contact with the customer to ensure the smooth operations are exceeding their client expectations.

A full **training session** is conducted on site once the equipment and manuals are delivered. This process ensures that all staff are fully aware of the operations of the equipment and components prior to final sign off of the installation. Our team works to ensure all components and equipment are functioning to the clients requirements.

*To find out more about A-Ward consulting services, please visit [www.a-ward.com/consulting-services](http://www.a-ward.com/consulting-services) or call Simon Ward direct on, landline: **+(64) 9 972 0311** or mobile: **+(64) 21 595 111***



## 'PEACE-OF-MIND' ATTRIBUTES:

### Parts and Warranty

A-Ward stocks comprehensive parts inventories in local markets for quick delivery and minimum downtime. All products are covered by an industry-leading manufacturer's warranty.

### Servicing

To avoid costly downtime, it pays to service your products regularly. We offer general overhaul and service contracts on all our products and have teams available worldwide that can be on-site promptly.

### Safety Assurance

All A-Ward's products have been designed and certified for optimum safety during their operation.

### Product Quality and Durability

Our many products are made from robust, high quality materials to ensure they stand up to the rigorous demands of our discerning customers. Their performance has been proven over many years.

### Complementary Materials Processing

Equipment In addition to A-Ward's Container Tilters, we have over 100 specialised excavator attachments to efficiently process and handle bulk materials. More information on these attachments can be found on our website [www.a-ward.com](http://www.a-ward.com)

### Fit for Purpose

A-Ward's products are carefully and innovatively constructed to meet the specific and varying needs of our customers.

### Global Reach

A-Ward products can be purchased and serviced in many countries around the world. Please see below for relevant contact details.

### Training and Knowledge Transfer

A-Ward can arrange skilled people to advise on installation and offer valuable training to both operators and supervisors and product certification.

### Technically Advanced

A-Ward has a continual R&D programme to refine existing products and develop new products to simplify bulk materials handling and reduce costs for customers.

### Problem Solvers

Most customers regularly face new operational challenges. A-Ward can be relied on to come up with the right solutions for customer's evolving needs.

*We welcome all enquiries.*

“

*We thrive on solving problems others can't.”*

Simon Ward, Managing Director



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