



# ISO-Veyor

Revolutionising Dry Bulk Material Transportation

**inBulk**  
TECHNOLOGIES

An InterBulk Investments plc company

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it 2  
81 83

MAX. GROSS 34000 kg  
74957 lb

2 BARG  
M.A.W.P

TARE

4125 kg  
9095 lb

CE 0098





## Today's Global Supply Chain Challenges

Consolidation, globalisation and ever increasing trade throughout industry, is placing more emphasis on sustainable supply chain management. Manufacturing and logistics companies face new and increasing challenges due to congestion, rising cost of fuels and increasing environmental concerns.

Transport is an increasingly crucial aspect of the overall costs of finished products. InBulk Technologies has developed a revolutionary solution that is transforming the way people think about transporting and storing 'dry bulk' materials.

### What ISO-Veyors Will Do for You

ISO-Veyors are extremely versatile and allow the effective transportation, storage and horizontal discharge of dry bulk materials.

- ◆ **Road Transportation**  
When placed on a skeletal trailer the ISO-Veyor becomes a powder road tanker.
- ◆ **Rail Transportation**  
When placed on a rail car, the ISO-Veyor becomes a railway powder tanker.
- ◆ **Sea Transportation**  
ISO-Veyors are ideally suited for short or deep sea shipping, in the same way as standard box containers.
- ◆ **Ground Storage**  
When placed on the ground, the ISO-Veyor becomes a ready made weatherproof storage silo.
- ◆ **Unbeatable Versatility**  
ISO-Veyors come in a range of configurations, specifications, sizes and material of construction based on the properties of the material for transport and intended use.

### ISO-Veyor Key Design Criteria

- ◆ **Maximise Payloads**  
The patented fluidisation process maximises payloads within the intermodal frame.
- ◆ **Minimum Tare Weight**  
Results in a greater amount of product for transport.
- ◆ **Minimal Discharge Time**  
Discharge velocity can be controlled and rates of 1 tonne per minute are achievable.
- ◆ **Minimum Residue**  
Residue of only 0.2% following discharge. Simple access via 'man way' hatches on the dished ends.
- ◆ **Maximum Flexibility**  
We can cater for nearly any usage: transportation by road, rail or ship; storage; new business; existing long or short-term contracts.





## ISO-Veyor Benefits

The InBulk Technologies ISO-Veyor has been designed with certain crucial factors in mind which are key to your company's continued competitive advantage. The internal configuration of the ISO-Veyor does not compromise payload in the same way as variations of the 'belly tanker' concept. The ISO-Veyor discharges more material in less time, via dense phase pneumatic conveying.

### Cost Benefits

ISO-Veyors provide the functionality of dedicated powder road or rail tankers – without the expense. ISO-Veyors remove the need to physically handle or transfer the material between transport modes.

Dedicated modal solutions require storage silos to receive the material at either end of the transport chain. ISO-Veyors remove this requirement. Product integrity is ensured and opportunities for accidents are greatly reduced, as the material itself is not handled until discharge into the final process.

### Intermodal Benefits

ISO-Veyors are easy to fill, discharge, and handle. Deliveries of dry bulk materials are safe, efficient and secure without the requirement to transfer the material from one modal container to another. This saves time and money and provides your company with a significant strategic advantage.

### Environmental Benefits

ISO-Veyors offer several direct and indirect benefits to the environment. The ISO-Veyor is a closed, sealed system resulting in zero opportunity for pollution or spillage of material during transfers. There is a greatly reduced chance of accidental discharge into waterways, the atmosphere or other sensitive areas. Balancing of loads between road-rail-sea through the practice of intermodal logistics has a significant effect on air pollution and provides no opportunity for contamination of the materials throughout the transport chain.

### Flexibility

ISO-Veyors can be utilised in any transport and storage setting. ISO-Veyors offer strategic flexibility as the transportation landscape evolves and projects and contracts change.

The ISO-Veyor offers a range of flexible, weatherproof storage options when space is limited or other options are impractical. ISO-Veyors can be stored in conjunction with box containers or ISO-Tanks for liquids and gases. Rail ports, docks, construction consolidation centres and intermodal villages can all be used effectively as areas of temporary storage.

### Safety

As ISO-Veyors can be discharged in the horizontal position without the need for tipping, this leads to a reduced risk of accidents and represents a major improvement to the safety of on-site deliveries. Top-loading hatches allow for simple filling via gravity. Due to the sealed nature of the filling, transport and discharge, there is no need for human intervention at any time.



## Sizes & Configurations

ISO-Veyors are produced in a range of available sizes and configurations. This ensures that we provide the perfect solution to fit all logistical needs. A simple 2-barg air supply will discharge the ISO-Veyor on the truck, the train or the ship and also on the ground. Use your ISO-Veyor as a standalone logistics solution or plug into an extensive and ever-expanding global infrastructure. InBulk can provide a solution, whatever your individual needs.

### PH Type ISO-Veyor for Powders

For materials with relative particle size less than 100 microns, InBulk have developed the PH Type ISO-Veyor.

The PH Type is available in mild steel, stainless steel or aluminium and comes in three standard dimensions: 20 feet, 30 feet or 40 feet.

(Non-standard swap bodies are also available.)

ISO-Veyors are discharged by standard 2-barg air supply from horizontal position. (Without the need for tipping.)

Can be used in conjunction with a variety of intermodal infrastructure commonly used for box containers. Examples include Intermodal villages, Railports, Reach stackers, SLTs and cranes.

This broadly translates to fine fluidizable powders including:\*

- ◇ Cement
- ◇ Ash
- ◇ Fine chemicals
- ◇ Ground granulated blast furnace slag
- ◇ Limestone powders
- ◇ Grouts & admixtures
- ◇ Flour
- ◇ Starch powder
- ◇ Soda ash
- ◇ Calcium carbonate powder
- ◇ Titanium Dioxide
- ◇ Ferrous sulphate powder
- ◇ Silicone powder

### GH Type ISO-Veyor for Granules

InBulk have developed the GH Type ISO-Veyor for materials with relative particle size greater than 100 microns.

The GH Type is available in mild steel, stainless steel or aluminium and comes in standard dimensions: 20 feet, 30 feet or 40 feet.

(Non-standard swap bodies are also available.)

ISO-Veyors are discharged by standard 2-barg air supply from horizontal position (without the need for tipping.)

As with the PH Type, this ISO-Veyor can be used in conjunction with a variety of intermodal infrastructure commonly used for box containers.

Suitable materials include:\*

- ◇ Granular limestone
- ◇ Granular calcium carbonate
- ◇ Ferrous sulphate granules
- ◇ Silicon granules
- ◇ Shredded computer scrap
- ◇ Silica sand
- ◇ Granulated sugar
- ◇ PB resins
- ◇ PET resins
- ◇ Granular fertilisers
- ◇ PTA

\*The materials listed for both types of ISO-Veyor are for guidance only and are subject to both particle size analysis and particle size distribution tests.



## Intermodal

- ◇ Eliminate intermediate handling
  - ◇ Significantly reduce silo investment
    - ◇ Enhance the overall effectiveness of your supply chain
      - ◇ Remove any requirements for tipping chassis

### Intermodal by Road

Benefit from driver controlled deliveries – drop or switch loads without need to queue for discharge slots.

The ISO-Veyor and skeletal trailer combination provide an equivalent to road tankers at a significant cost advantage, with no loss in performance and very small payload difference. No requirement for tipping chassis as ISO-Veyors discharge from a horizontal position.

Lower investment, reduce fleet inspection requirements and increase efficiency, flexibility and productivity.

### Intermodal by Rail

Combines great rail economics with all the flexibility of JIT road deliveries.

Allows suppliers, end-users and rail operating companies vast new opportunities for intermodal rail freight supply. Make a gain from rental income whilst ISO-Veyor is utilised for 'door to door' delivery by road and storage at the terminal or delivery site.

### Intermodal by Sea

Increase export reach and widen geographical radius of supply.

ISO-Veyors, like standard ISO box containers can be stacked on container ships and barges and transported either by 'deep sea' or 'short sea' shipping. ISO-Veyors are fully compatible with Ro Ro or Lo Lo ships, providing a variety of shipping solutions.

Standard ISO Frame allows port handling infrastructure to efficiently load and unload ISO-Veyors alongside ISO box containers and ISO-Tank consignments.



## ISO-Veyor Options

### Capital Purchase

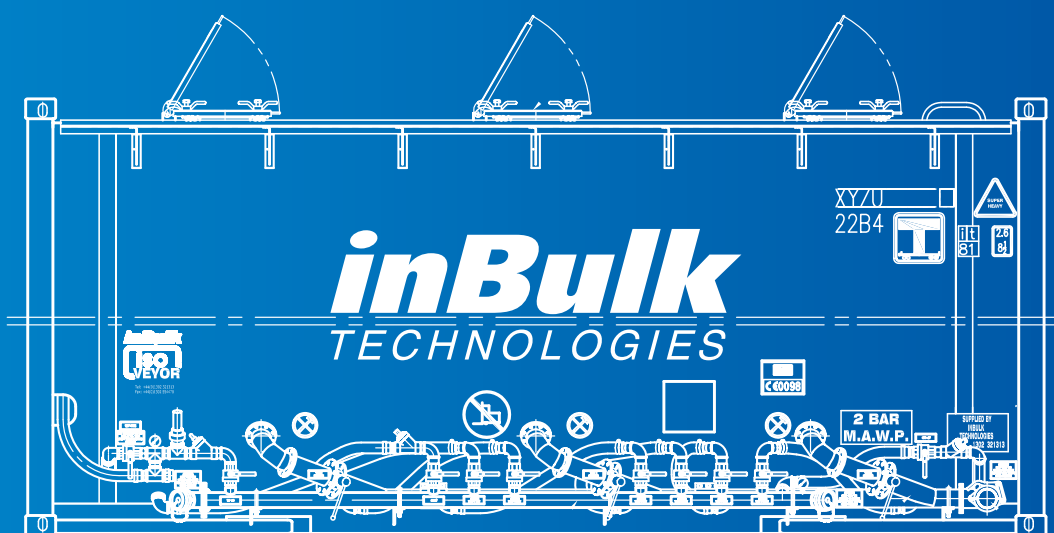
We understand that all projects are unique. InBulk can design and build a wide range of ISO-Veyor configurations dependent on material characteristics and intended use.

### Lease/Rental Package

To minimise 'up-front' investment, InBulk can lease ISO-Veyors for individual contracts or projects.

### Logistics Package

Through its ISO-tank sister company, United Transport Tankcontainers, InBulk can offer a reliable, global 'door to door' solution for all your dry bulk materials.



### Standards & Approvals

|                                 |   |
|---------------------------------|---|
| Pressure vessel designed to     | ASME V111 Div1                                    |
| Constructed in accordance with  | ISO 1496-3 (dry bulk container) CSC, UIC, TIR     |
| Vessels & fittings certified to | European pressure directive PED97/23/EC CE Marked |
| Classification Society          | Germanischer Lloyd                                |

InterBulk is an AIM-listed company which comprises United Transport Tankcontainers and InBulk Technologies.

Through its operating companies InterBulk has a significant presence in the intermodal tankcontainer industry for bulk materials. The group employs 150 people, with a network of offices and operations spanning the globe.

United Transport Tankcontainers (UTT) are a tank operating company that specialises in the world-wide door-to-door transport of chemical and food bulk liquids in intermodal tankcontainers. UTT operate from 13 strategically placed 'owned' offices and manage a network of 62 representative and associated companies world-wide.

Through its integrated global network and leading edge IT and communication system, UTT are able to provide flexible solutions to any tankcontainer logistics requirement.



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