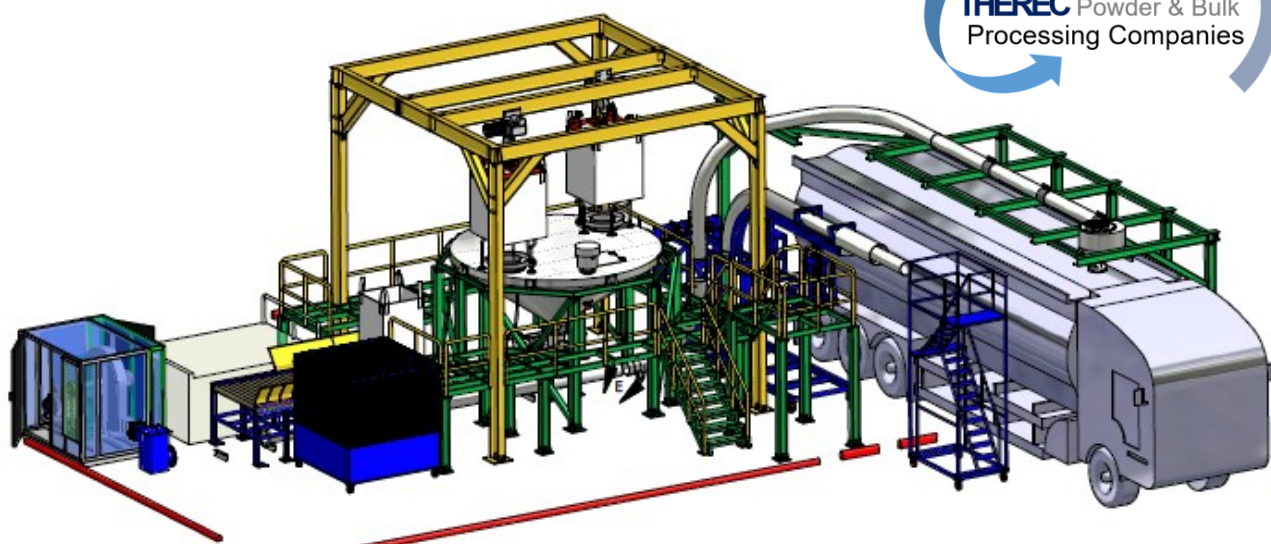
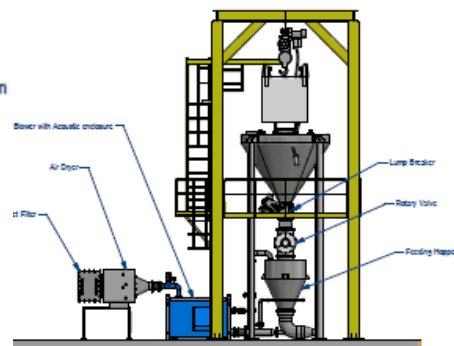
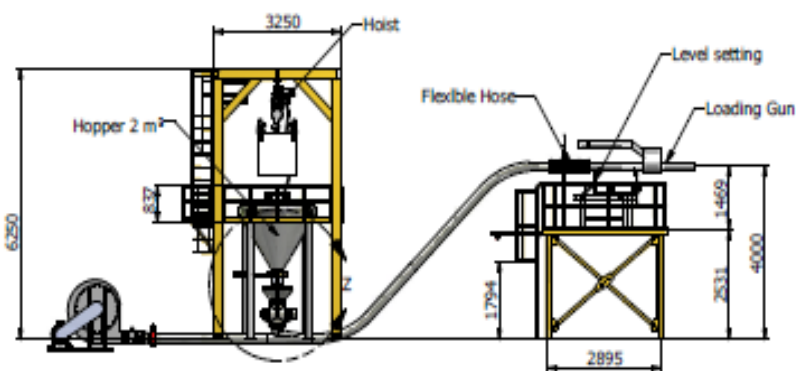


THEREC ENGINEERING & CONSULTING CO.,LTD.

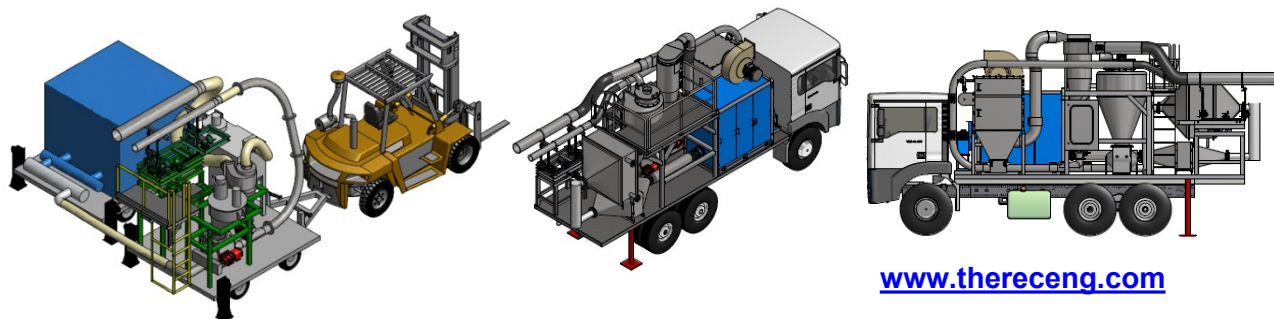
THEREC PROCESSING MACHINE CO.,LTD



Full Bulk material handling system for powder and bulk processing line /
Storage / Loading / Unloading / Weighing / Mixing / Sizes classifying
Connecting all together by pneumatic conveying system and control.



Sea bulk Loader or Bulk Truck loader / Mobile or Fixed Station



[CONTAINER LOADERS]

Loading shipping containers at 90 degrees enables companies to fill 100% of a container's volume, therefore optimizing freight efficiency. Shipping containers can be inserted either directly with a standard trailer or from above with a forklift, crane or reach stacker.

OTHER BENEFITS:

- Speed up the container loading process.
- Reduce labor.
- Weight the container during loading.
- Maximize operator safety.



A-WARD™



COFFEE



Kraft Foods in France uses an A-Ward container loader to load coffee beans into shipping containers for domestic storage.

PLASTIC GRANULES



Coca-Cola, Tetra-Pak, Indorama, Abu Dhabi Polymers and Bumi Mulia all use A-Ward container unloaders to unload polymers.

[CONTAINER UNLOADERS]

A-Ward container unloaders enable immediate and controlled unloading of shipping containers and remove the reliance on expensive and scarce tilting trailers. Shipping containers can be inserted either directly with a standard trailer or from above with a forklift crane or reach stacker.

OTHER BENEFITS:

- Maximize operator safety.
- Reduce labor.
- Control unloading speed by adjusting tilt angle.
- Ability to unload over a longer period of time.



A-WARD™

Therec Engineering & Consulting Co., Ltd.



First Installed in Site 1 / year 2007



Move to Site 10 / year 20015

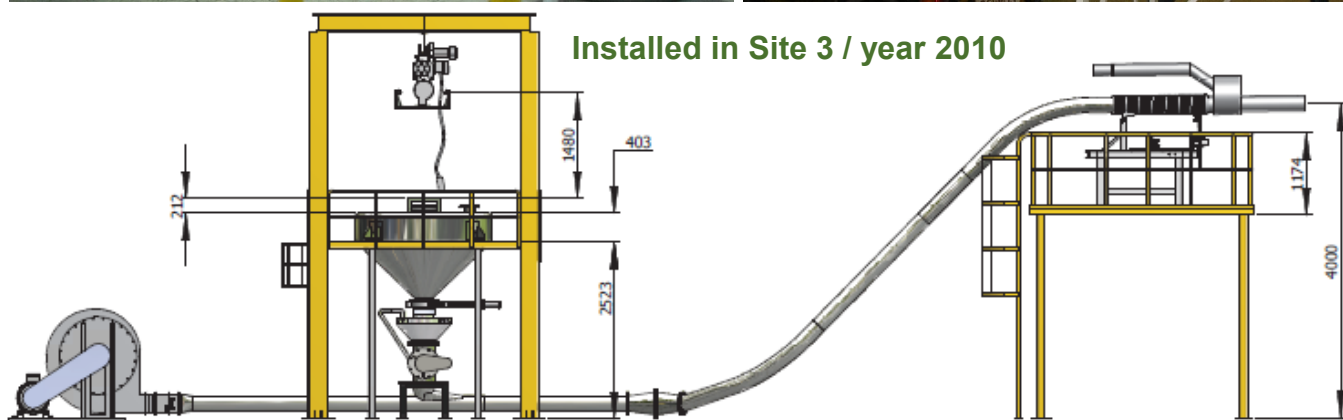
Sea Bulk loading system (PE Pellet) SCG Chem (TPE)
Warehouse Site 1 / and Finally moved to Site 10

The total system consisting of :

- 1 of 11.0 tons Pneumatic conveying systems
- 1 of Big bag unloading stations, gravity feed with 1,000 litre hopper
- 1 of Fixed feeding gun for container truck, 4 directions and swing
- 1 of High pressure Centrifugal blower 15.0 kw / 20.0 hp
- 1 of Heavy duty air lock granular rotary valves (pellet valve),
Stainless steel 304
- 1 of Electrical control box, with SIEMENS LOGO PLC



Therec Engineering & Consulting Co., Ltd.



Sea Bulk loading system (PE Pellet) SCG Chem (TPE) Warehouse Site 3

The total system consisting of :

- 1 of 25.0 tons Pneumatic conveying systems
- 1 of Big bag unloading stations, 1 rail, 2 hoist operated, 3,000 litre hopper
- 1 of Fixed feeding gun for container truck, 4 directions and swing
- 1 of High pressure Centrifugal blower 22.0 kw / 30.0 hp
- 1 of Heavy duty air lock granular rotary valves (pellet valve),
Stainless steel 304
- 1 of Electrical control box, with SIEMENS LOGO PLC



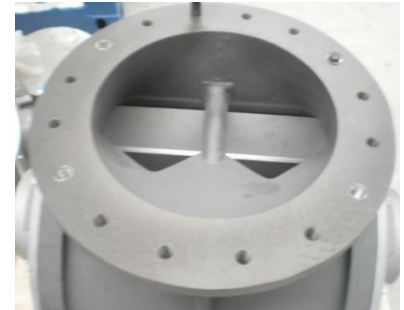
Therec Engineering & Consulting Co., Ltd.



Roots blower package with air cooler set



Schenck Accurate Mass Flow Meter set

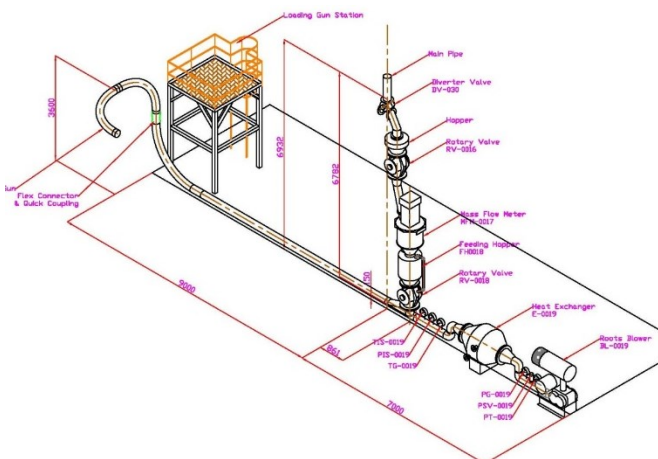


Non cutting Rotary valve (Granular Valve)

Installed in Site 7 / year 2012

The total system consisting of :

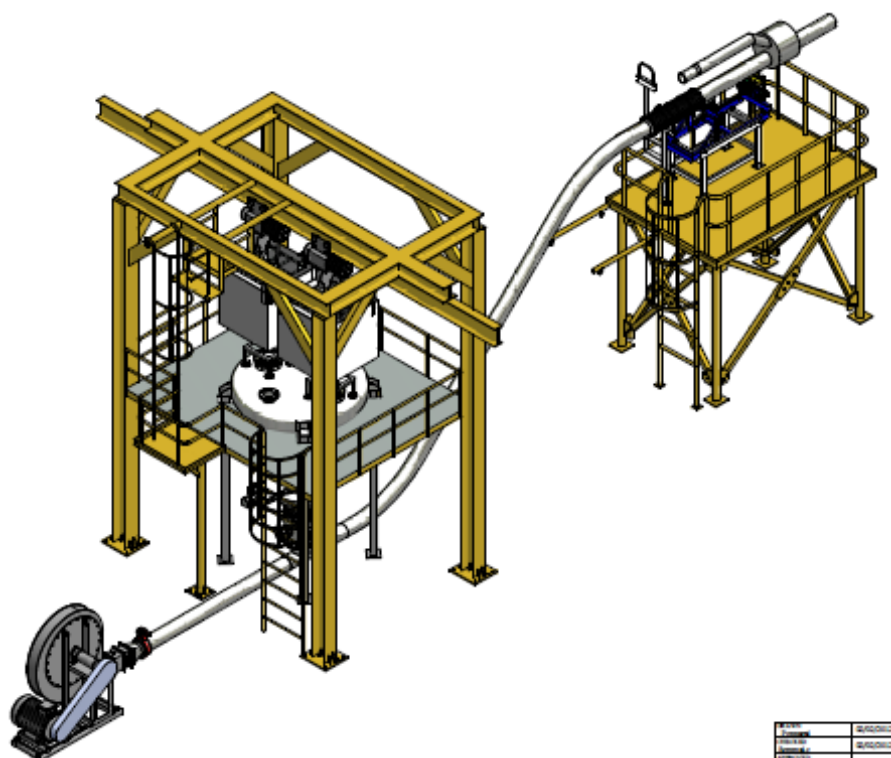
- 1 of 35.0 tons/hr Pneumatic conveying systems
- 1 of Pipe set, gravity feed with 1,000 litre hopper
- 1 of Adjustable feeding gun for container truck, 4 directions and swing
- 1 of High pressure Roos blower 45.0 kw / 60.0 hp
- 1 of Heavy duty air lock granular rotary valves (pellet valve),
Stainless steel 304
- 1 of Electrical control box, with SIEMENS
- S7 300 PLC



Sea Bulk loading system (PE Pellet) SCG Chem (TPE)
Warehouse Site 7



Therec Engineering & Consulting Co., Ltd.



First Installed in Site 1 / year 2014



Sea Bulk loading system (PE Pellet) SCG Chem (TPE) Warehouse Site 5

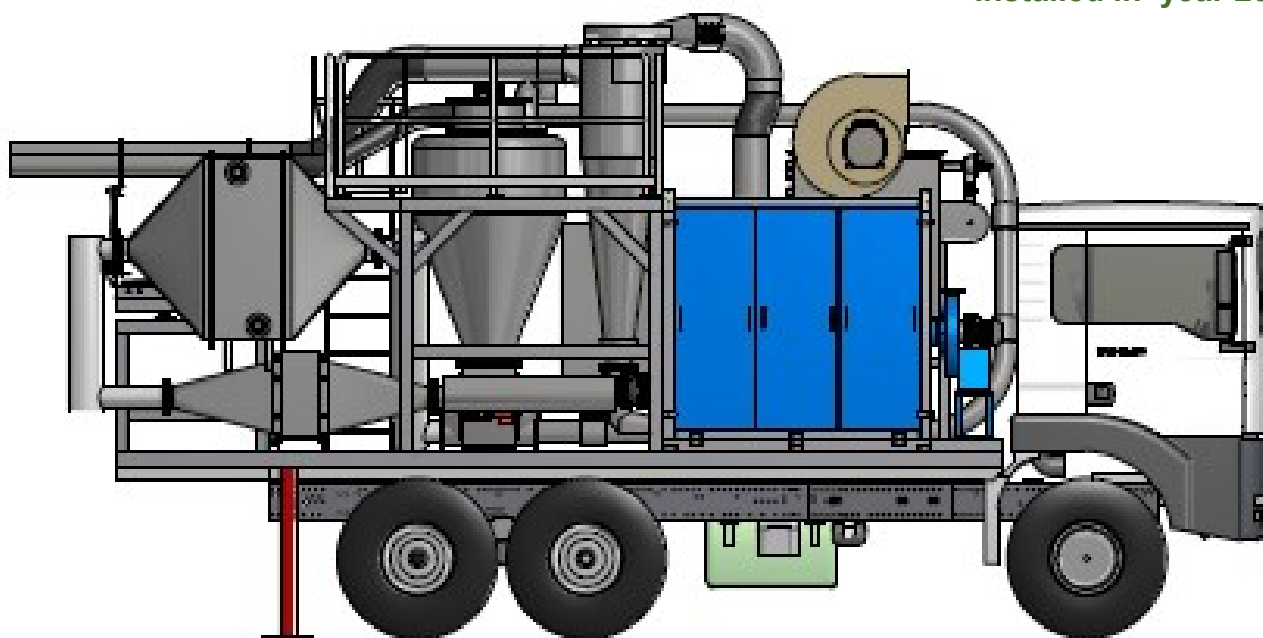
The total system consisting of :

- 1 of 20.0 tons Pneumatic conveying systems
- 1 of Big bag unloading stations, 1 rail, 2 hoist operated, 3,000 litre hopper
- 1 of Fixed feeding gun for container truck, 4 directions and swing
- 1 of High pressure Centrifugal blower 18.5 kw / 25.0 hp
- 1 of Heavy duty air lock granular rotary valves (pellet valve), Stainless steel 304
- 1 of Electrical control box, with SIEMENS LOGO PLC



Therec Engineering & Consulting Co., Ltd.

Installed in year 2014



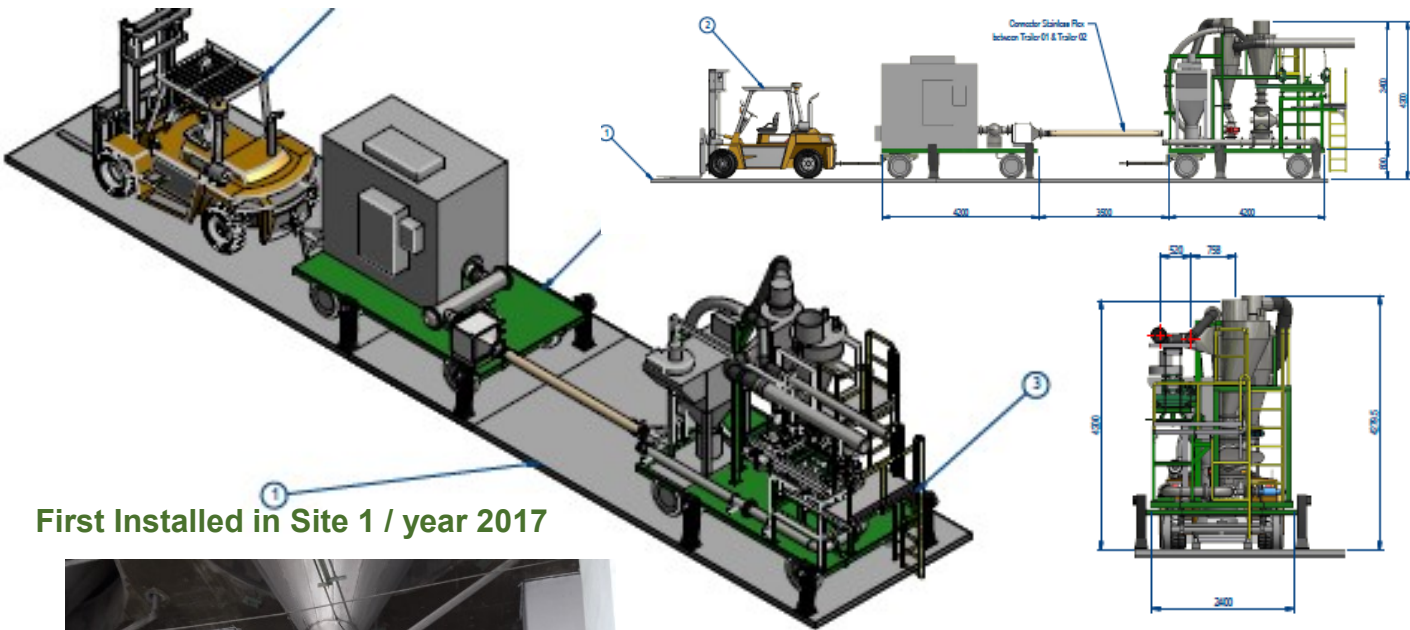
Sea Bulk loading system (PVC Powder) SCG Chem (TPC) Warehouse , Site 9

The total system consisting of :

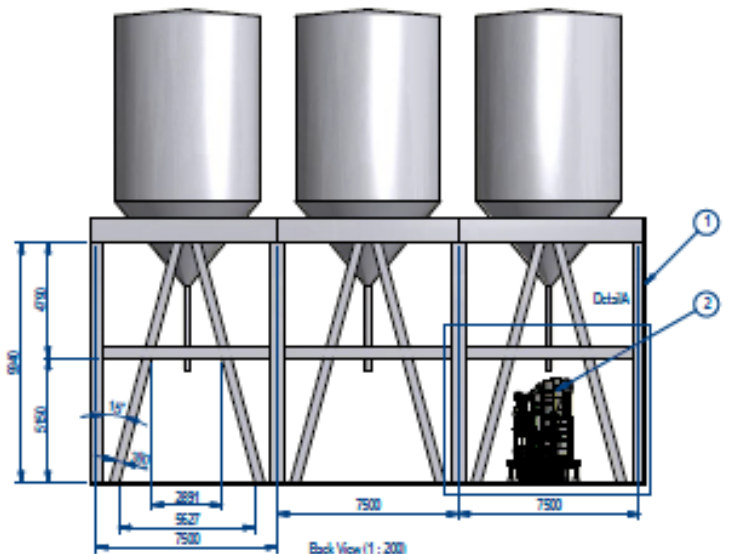
- 1 of 18.0 tons Pneumatic conveying systems
- 1 of Fixed feeding gun for container truck, 4 directions and swing
- 1 of High pressure Roots blower 37kw / 50.0 hp
- 1 of Cyclone for dust controlling system, with 1,300 m³ centrifugal fan
- 1 of Bag filters for dust controlling system, with 1,300 m³ centrifugal fan
- 2 of Heavy duty air lock rotary valves (powder valve), Stainless steel 304
- 1 Stainless steel air cooler , air to water (cooling tower water) type
- 1 Stainless steel housing in line air filter , HEPA element
- 1 of Electrical control box, with SIEMENS LOGO PLC



Therec Engineering & Consulting Co., Ltd.



First Installed in Site 1 / year 2017



Sea Bulk loading system (PVC Powder) SCG Chem (TPC) Warehouse, Site 9

The total system consisting of :

- 1 of 18.0 tons Pneumatic conveying systems
- 1 of Fixed feeding gun for container truck, 4 directions and swing
- 1 of High pressure Roots blower 45kw / 60.0 hp
- 1 of Cyclone for dust controlling system, with 1,300 m³ centrifugal fan
- 1 of Bag filters for dust controlling system, with 1,300 m³ centrifugal fan
- 2 of Heavy duty air lock rotary valves (powder valve), Stainless steel 304
- 1 Carbon steel air cooler , air to water (cooling tower water) type
- 1 Stainless steel housing in line air filter , Mini pleat element
- 1 of Electrical control box, with Mitsubishi PLC



Therec Engineering & Consulting Co., Ltd.



Installed in year 2014



Sea Bulk loading system (PE Pellet) PTT PL Warehouse

The total system consisting of :

- 1 of 18.0 tons Pneumatic conveying systems
- 1 of Big bag unloading stations, over head crane operated, 1,500 litre hopper
- 1 of Small bag dumping stations, manual operated, 100 litre hopper
- 1 of Moveable feeding gun for container truck, 4 directions and swing
- 1 of High pressure air compressor 75.0 kw / 100.0 hp
- 2 of Heavy duty air lock rotary valves (powder valve), Stainless steel 304
- 1 of Electrical control box, with SIEMENS LOGO PLC



Therec Engineering & Consulting Co., Ltd.



Sea Bulk loading system (PE Pellet) SMC Logistic Warehouse

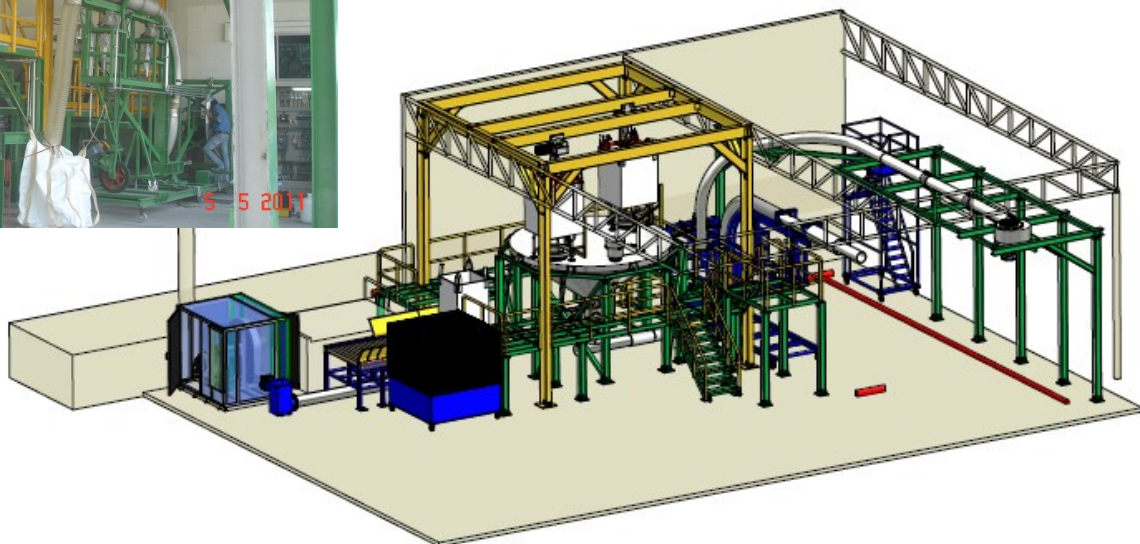
The total system consisting of :

- 1 of 18.0 tons Pneumatic conveying systems
- 1 of Big bag unloading stations, Fork lift crane operated, 1,000 liter hopper
- 1 of Moveable feeding gun for container truck, 4 directions and swing
- 1 of High pressure air compressor 37.0 kw / 50.0 hp
- 2 of Heavy duty mobilized set air lock rotary valves (powder valve), Stainle 304
- 1 of Electrical control box, with SIEMENS LOGO PLC



Therec Engineering & Consulting Co., Ltd.

Installed in year 2011



Sea Bulk loading system (PE Pellet) Ptt Global Chem Warehouse

The total system consisting of :

- 1 of 25.0 tons Pneumatic conveying systems
- 3 of Automatic roller conveyors for bulk bag feeding
- 1 of Big bag unloading stations, 2 rails, 2 hoists operated, 4,000 litre hopper
- 1 of Moveable feeding gun for container truck, 4 directions and swing
- 1 of Feeding pipe, Loading cyclone and Loading bellow for Bulk truck
- 1 of High pressure Centrifugal blower 30 .0kw / 40.0 hp
- 1 of Heavy duty air lock granular rotary valves (pellet valve), Stainless steel 304
- 2 of Bag filters for dust controlling system, with 3,500 m³ centrifugal fan
- 1 of Electrical control box, with SIEMENS S7 300 PLC with PROFACE touch screen , suitable for full automatic operation and SCADA system requirement



Therec Engineering & Consulting Co., Ltd.



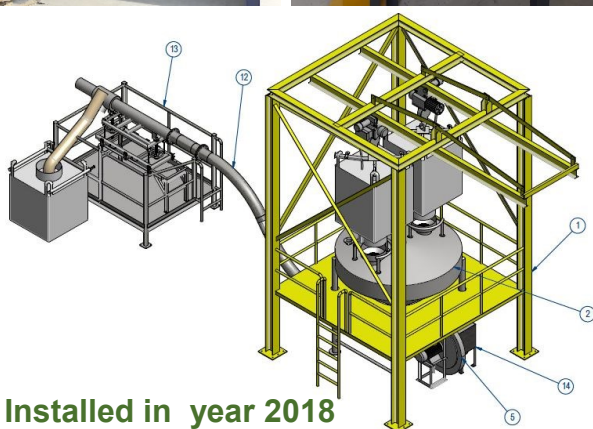
Sea Bulk loading system (PE Pellet) SMC Logistic, Warehouse 2

The total system consisting of :

- 1 of 20.0 tons Pneumatic conveying systems
- 1 of Big bag unloading stations, 2 rails, 2 hoists operated, 3,000 litre hopper
- 1 of Moveable feeding gun for container truck, 2 directions and swing
- 1 of Feeding pipe, Loading cyclone and Loading bellow for Bulk truck
- 1 of High pressure Centrifugal blower 18.5 kw / 25.0 hp
- 1 of Heavy duty air lock granular rotary valves (pellet valve), Stainless steel 304
- 1 of Flap type diverter valve size 8.0 inches, manual version
- 1 of Electrical control box, with SIEMENS LOGO PLC



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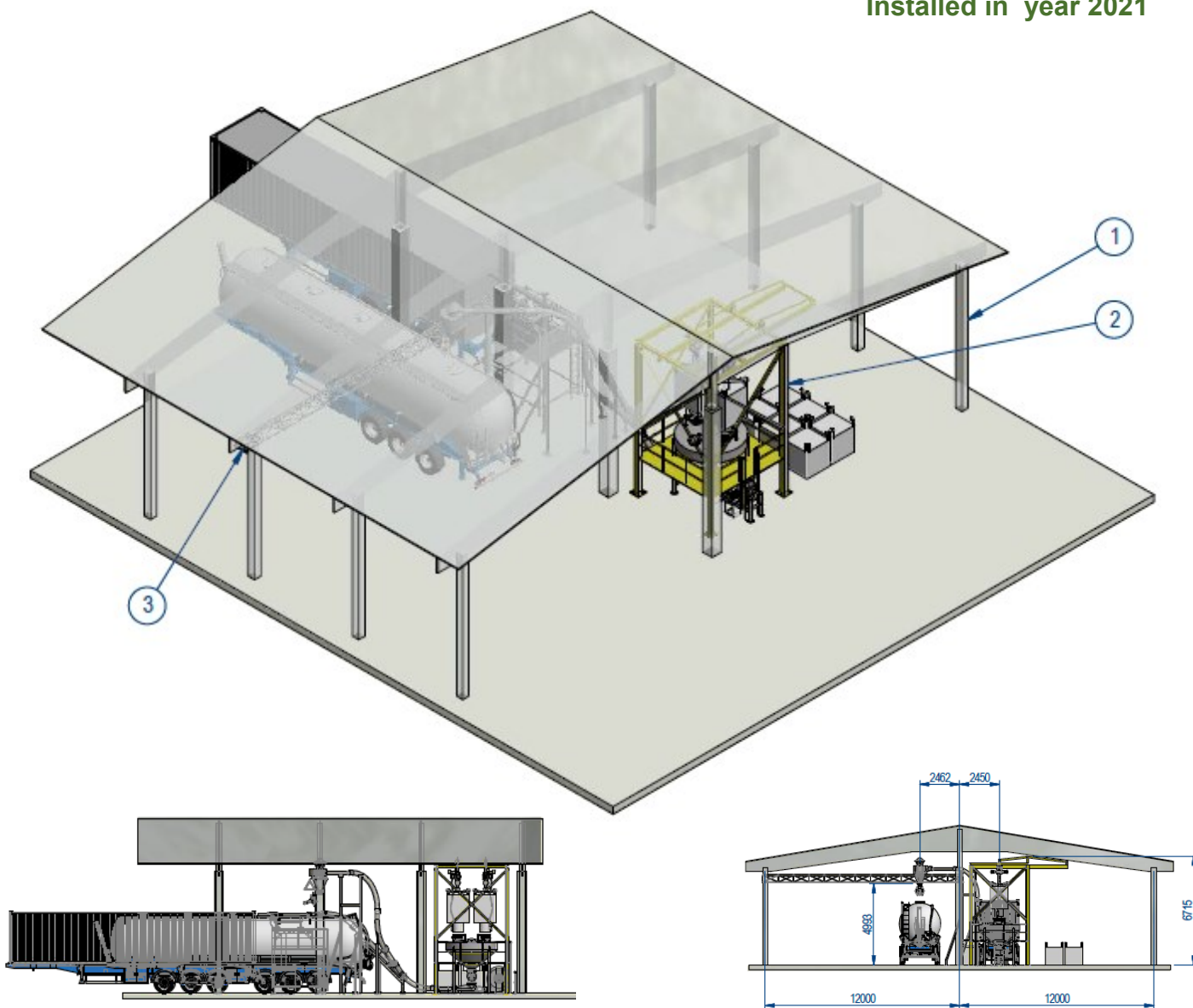
Sea Bulk loading system (PE Pellet) SMC Logistic, Warehouse 2

The total system consisting of :

- 1 of 18.0 tons Pneumatic conveying systems
- 1 of Big bag unloading stations, 2 rails, 2 hoists operated, 4,000 litre hopper
- 1 of Moveable feeding gun for container truck, 2 directions and swing
- 1 of Feeding pipe
- 1 of High pressure Centrifugal blower 18.5 kw / 25.0 hp
- 1 of Heavy duty air lock granular rotary valves (pellet valve), Stainless steel 304
- 1 of Flap type diverter valve size 8.0 inches, manual version
- 1 of Electrical control box, with SIEMENS LOGO PLC



Installed in year 2021

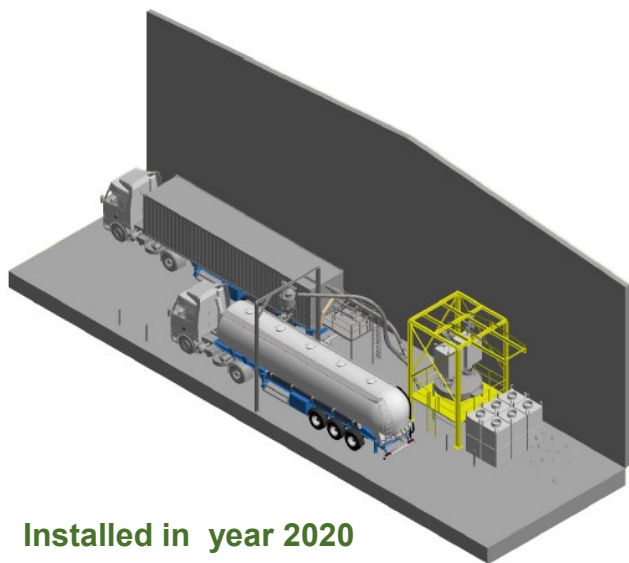


Sea Bulk loading system (PE Pellet) SMC Logistic, Warehouse 1

The total system consisting of :

- 1 of 18.0 tons Pneumatic conveying systems
- 1 of Big bag unloading stations, 2 rails, 2 hoists operated, 3,000 litre hopper
- 1 of Moveable feeding gun for container truck, 2 directions and swing
- 1 of Feeding pipe, Loading cyclone and Loading bellow for Bulk truck
- 1 of High pressure Centrifugal blower 18.5 kw / 25.0 hp
- 1 of Heavy duty air lock granular rotary valves (pellet valve), Stainless steel 304
- 1 of Flap type diverter valve size 8.0 inches, manual version
- 1 of Electrical control box, with SIEMENS LOGO PLC

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Installed in year 2020



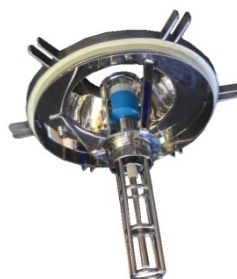
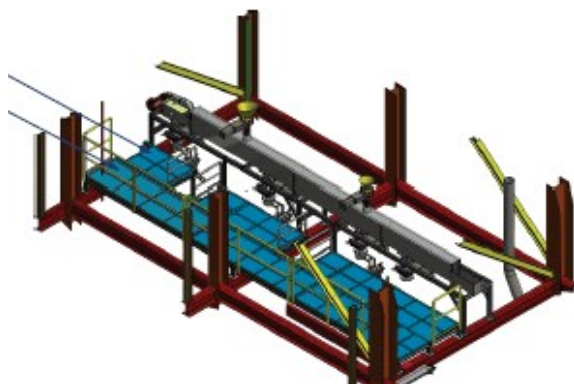
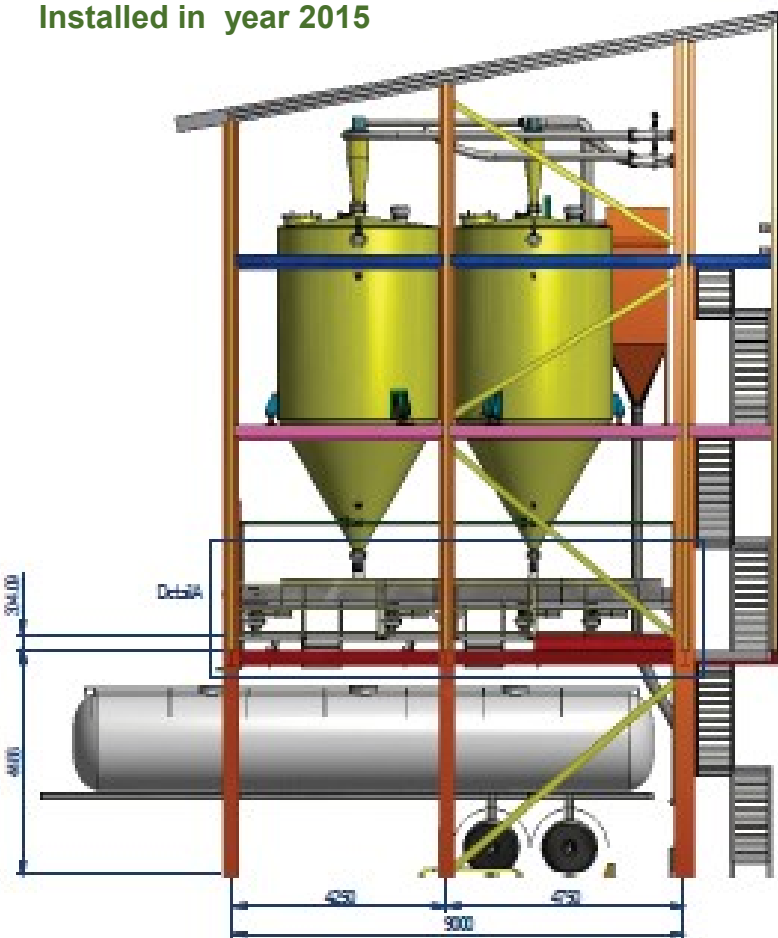
Sea Bulk loading system (PE Pellet) SMC Logistic, Warehouse 1

The total system consisting of :

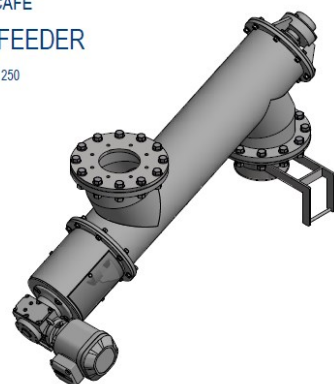
- 1 of 20.0 tons Pneumatic conveying systems
- 1 of Big bag unloading stations, 2 rails, 2 hoists operated, 3,000 litre hopper
- 1 of Moveable feeding gun for container truck, 2 directions and swing
- 1 of Feeding pipe, Loading cyclone and Loading bellow for Bulk truck
- 1 of High pressure Centrifugal blower 18.5 kw / 25.0 hp
- 1 of Heavy duty air lock granular rotary valves (pellet valve), Stainless steel 304
- 1 of Flap type diverter valve size 8.0 inches, manual version
- 1 of Electrical control box, with SIEMENS LOGO PLC

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Installed in year 2015



NESCAFE
SCREW FEEDER
SIZE 250



Bulk Truck loading system (Green Coffee) Quality coffee (Nest Café)

The total system consisting of :

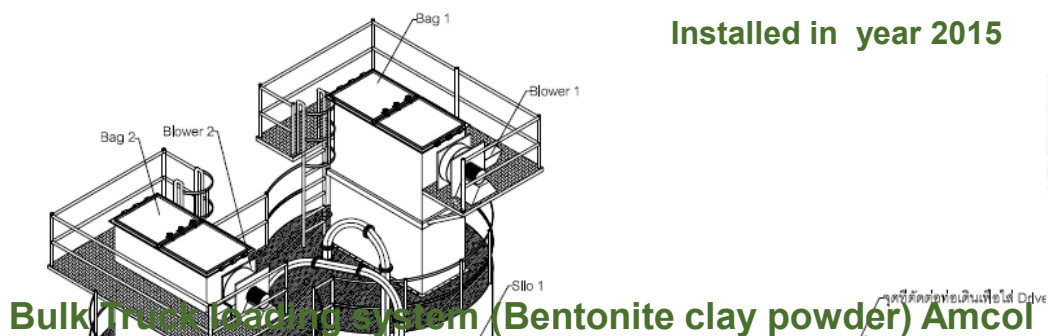
- 2 of 38 m³ Carbon Steel silos, with Nitrogen purge system & plate form structure
- 1 of Load cell system set and automatic hanging load cell calibrating set
- 1 of 5.0 tons Pneumatic conveying systems
- 2 of Bag filters for dust controlling system, with 1,500 m³ centrifugal fan
- 1 of Big bag filling stations with load cell
- 1 of Chain conveyor set for bulk truck loading
- 4 of Magnetic separator sets
- 4 of Light duty feeding rotary valves (pellet valve), Stainless steel 316
- 1 of Heavy duty screw conveyor, Stainless steel 316
- 4 of Loading bellow with level sensor, Stainless steel 316



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Installed in year 2015



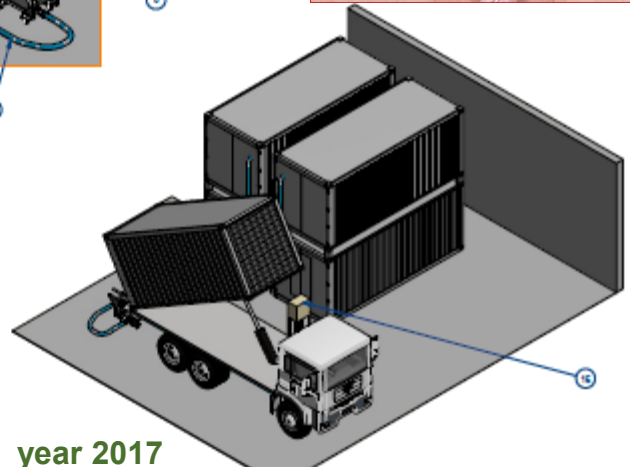
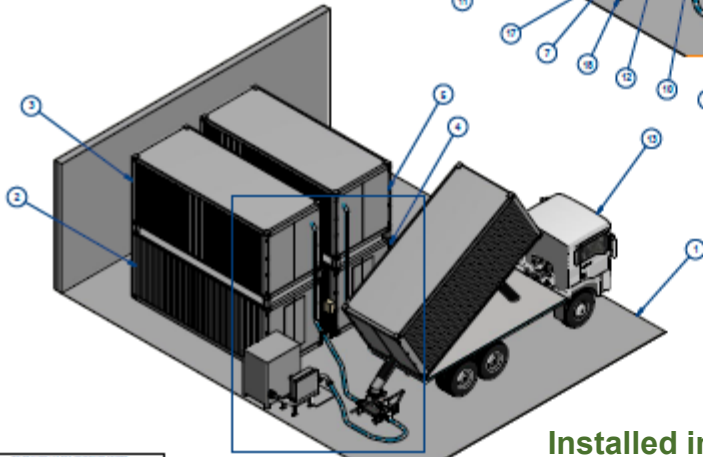
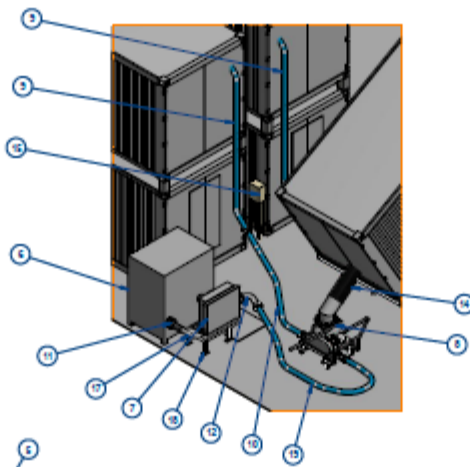
Bulk Truck loading system (Bentonite clay powder) Amcol

The total system consisting of :

- 2 of 100 tons Carbon Steel silos, plate form structure
- 2 of Load cell system set
- 1 of 7.0 tons/hr Pneumatic conveying systems
- 2 of Bag filters for dust controlling system, with 1,000 m³ centrifugal fan
- 2 of Light duty feeding rotary valves (pellet valve), Carbon steel
- 2 of Loading bellow with level sensor, Carbon steel J&H



Therec Engineering & Consulting Co., Ltd.



Installed in year 2017



Container Unloading system (PE Pellet) Grand siam composit / Aeroklas

The total system consisting of :

- 4 of 20 tons Carbon Steel container, for storage
- 1 of 30 kw roots blower with acoustic enclosure
- 1 of 18 tons/hr Pneumatic conveying systems
- 1 of Heavy duty feeding rotary valves (pellet valve), Stainless steel
- 1 of Air to Air unit air cooler



Silos System Component



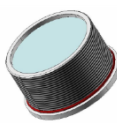
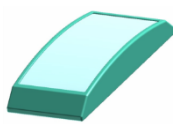
DMN
WESTINGHOUSE
Rotary , Diverter &
Scale valve



Silo feeding Multi ways diverter valve

Silo pressure & vacuum valve

Cast iron and Stainless steel
Slide gate valve



Vibrofluidizer

Fluidification plate PF & FLUO

Level sensor

Air Knocker



Flame Arrester

VIGILEX®

Bursting panel



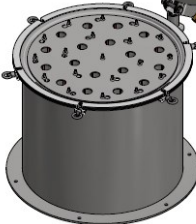
Jansen & Heuning
bulk handling systems



Silo Loading Bellow

THEREC
THEREC PROCESSING MACHINERY CO., LTD.

Silo Vent
Bag filter



Long Bend &
Coupling

MORRIS
COUPLING COMPANY

Roots

Silo Feeding
Blower



Low profile mounting
assembly



Install and Removal
without lifting tool



Silo mount ,Atex &
IECEx Certification



Smart Digital
Display



Junction box

Thames Side

Therec Engineering & Consulting Co, Ltd. www.thereceng.com

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Thailand

General product Therec 01 / 2016

บริษัท เทอร์เอก เอ็นจิเนียริ่ง แอนด์ คอนซัลติ้ง จำกัด
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