ERLINORD AUTOMATION

Description

Drawing nr. 122-659023

Semi-Automatic production

Crane loading & Pump loading

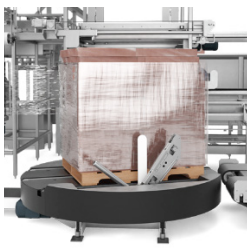
Cases based on 16 freezer









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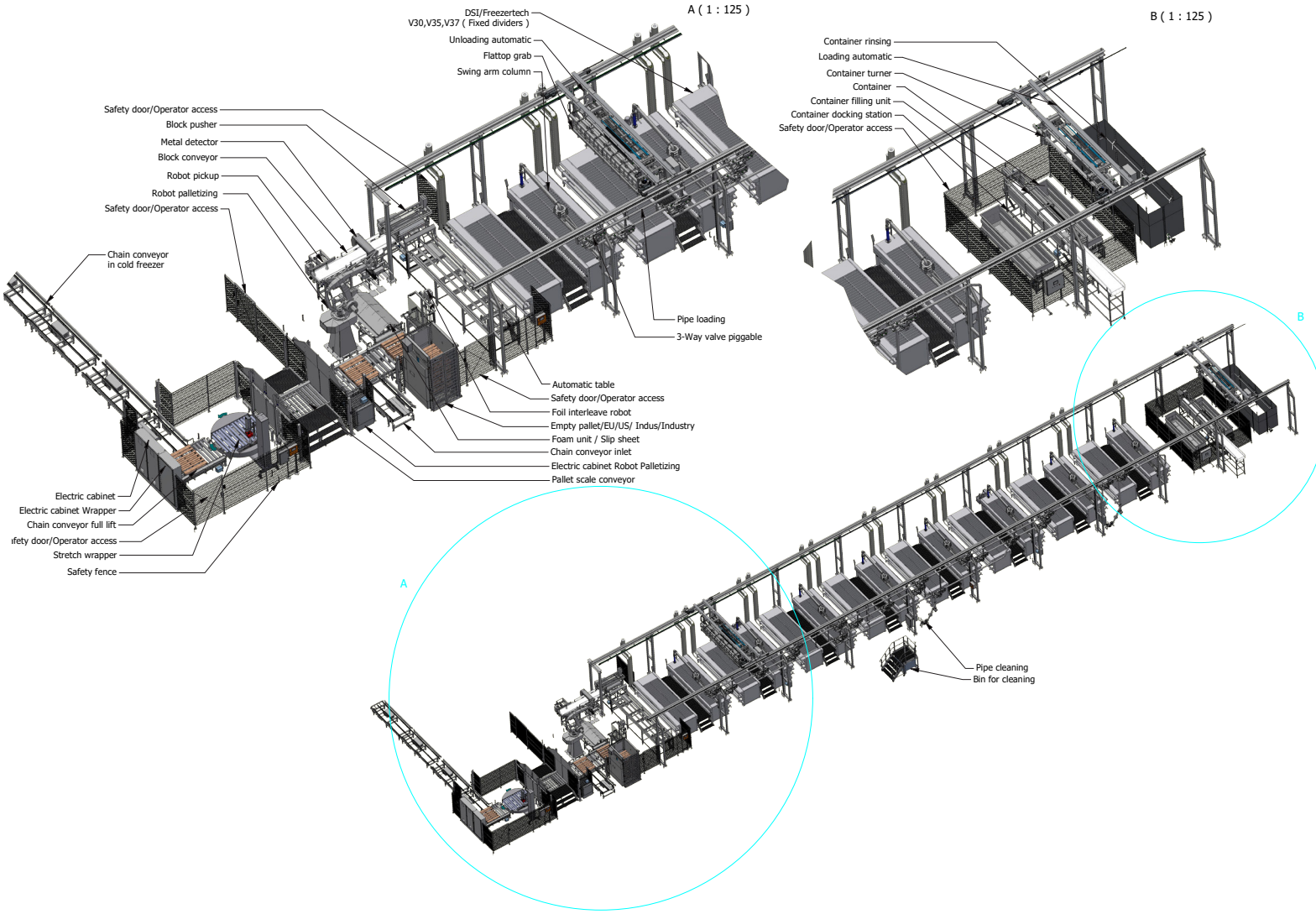

Semi-Automatic Production

Crane loading & Pump loading

Semi-automatic production with automatic robot palletizing. Bag station and hygienic rinsing station for optimal hygiene in human consumption production.

Cases based on 16 Freezers

- V37 36 station flat top freezers.
- Block size 1220 x 500 x 100 mm.
- Block weight 51,8kg.
- Cycle time 240 min.
- Capacity pr day pr. freezer 11.200kg/24 hours
- Capacity 16 freezers 179.200kg/24 Hours

SEAFOOD
MDM
LIQUIDS /SLURRY
ORGANS

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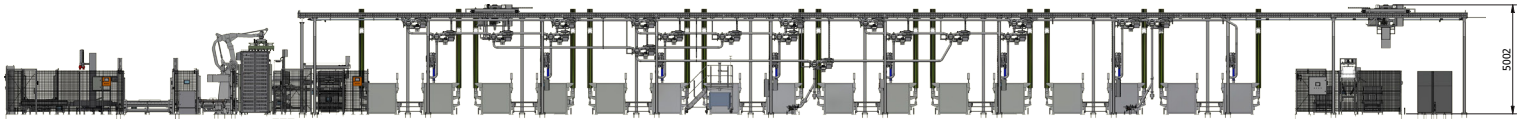
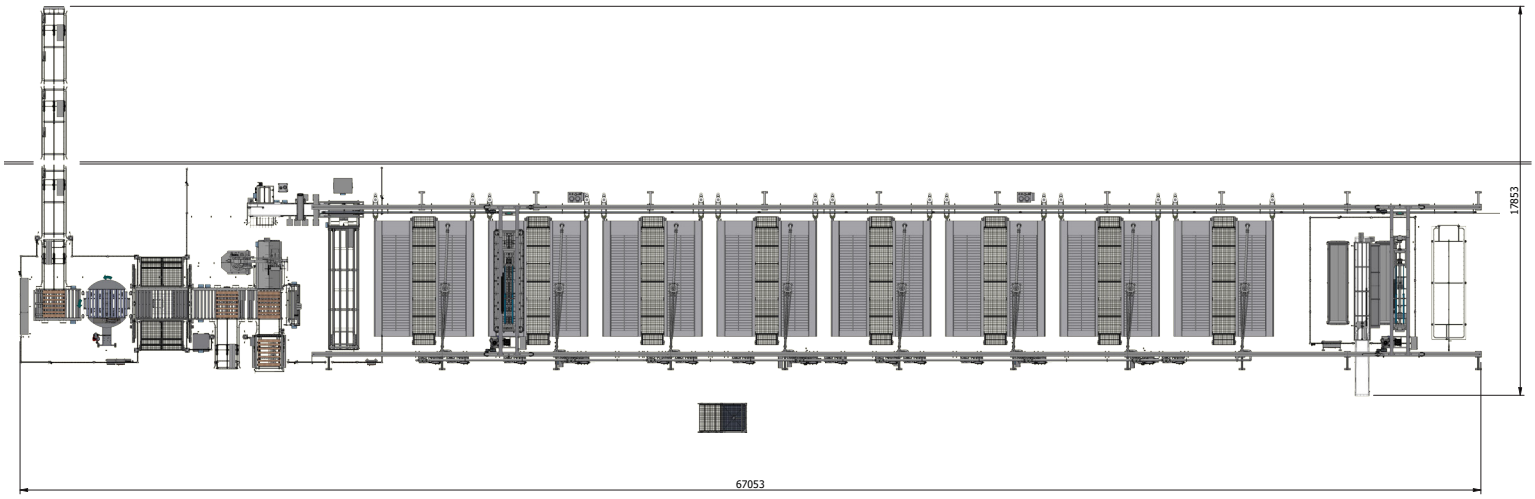
Dimensions





Flow Description

Pumpable products

The process and description of the flow of the project. Depending on the product the freezers will either be loaded by a loading arm or by a semi-automatic container loading system.

- **Scenario 1:** The operator will distribute the material into the freezers by a loading arm from an operator platform due to the height of the freezers. The loading arm will be connected to a pipeline system. The system contains 8 loading arms which each can fill two freezers. The loading arm will be manually handled by an operator who must control and make sure that the product is evenly distributed into the slots of the freezers. When the operator has filled the freezer, the freezing cycle can begin.

- **Scenario 2:** The loading containers will be loaded by whole organs from a conveyor system with a chute. The conveyor system will be able to drive back and forth to ensure that the container is evenly filled with the product. When the loading container has been filled with the desired weight, it will send a stop signal to the system and go to the start position. The chute will be able to turn to the other loading container to load when empty.

The loading crane will automatically place over a full loading container and lower the crane grab, clamp, and lift the container. The loading crane will move the container over an empty freezer. When the crane unit is in place, the operator will gently flip the container unit. The product from the container will then end up on top of the plate freezer. The operator must make sure that the product is even distributed in the slots of the freezer.

The operator releases the loading crane, and the loading crane will automatically return to the docking station with the empty loading container. When the next container is ready the crane automatically picks it up and brings it to the next freezer in line. The operator starts the freezing cycle.

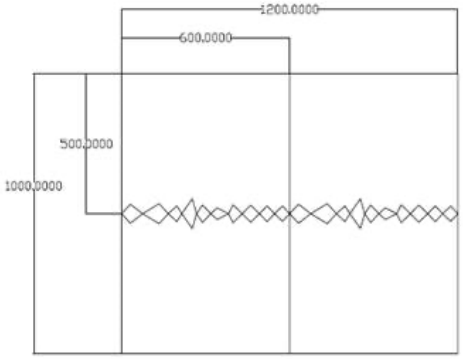
After defrosting the freezer will open and lift the blocks for the unloading crane to pick up. The unloading crane will automatically move to the first finished freezer who “calls” or are in line. The operator lowers the crane and must make sure that the blocks are ensured in the grab. When the operator presses “go” the crane will lift the blocks and secure the blocks with a safety tray.operator lowers the crane and must make sure that the blocks are ensured in the grab. The unloading crane will automatically unload the blocks on the unloading table. The automatic unloading table will flip the blocks two by two and one by one from vertical to horizontal position due to the number of layers on the pallet. The blocks are distributed through a metal detector. If a block contains metal, the block is rejected and dropped into a bin by the palletizing robot.

The blocks will be distributed by the block belt conveyor with integrated denature spray, spraying each side of the blocks, to the pickup area for the robot palletizer. The palletizing system is supplied with pallets from the pallet magazine which handles standard US pallets 40”x48”. Before a new pallet is sent to the palletizing area, a piece of slip sheet is applied by the slip sheet unit automatically to avoid contact between the product and the pallet.

The palletizing robot picks up the blocks from the conveyor-pickup and palletizes the blocks with the rough sides of the blocks up against each other on the pallet and therefore will not be visible when stacked.

The stacked pallet will be weighed and distributed to a manual handling station for an operator to place a bag over the stack. The pallets will be distributed to an automatic stretch wrapper where the stacked pallet will be wrapped with stretch folio.

The operator will be able to insert and retrieve partial pallets at the ½ pallet insert conveyor. After wrapping the pallet will be distributed to a buffer conveyor for the operator to remove the pallet and place it in storage.



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We’re here to help you find the right solutions.

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