



GEA AY-series IQF tunnel freezer

In touch with GEA Refrigeration Technologies –
Long Wave Fluidization™ for perfect IQF quality

GEA Refrigeration Technologies through the GEA freezing product range represents innovative solutions in industrial freezing and chilling closely oriented to the stringent requirements of its customers: Safe food processing, cost-efficient, energy-efficient and high product yield.

New GEA IQF technology enhances product quality and yield



Ideal product handling with Long Wave Fluidization™

GEA Refrigeration Technologies conducted intensive and continuous research and development to significantly improve the individual quick freezing (IQF) of fruits and vegetables. The Long Wave Fluidization™ system resulting from this development outperforms all existing IQF techniques. The new AY-series IQF tunnels integration of this technology exceeds food processors' expectations in product quality, low product dehydration and low product clumping. "This freezer has reduced our operational costs tremendously, while improving product quality," says Andy Enfield, at Enfield Farms, North West United States.

The GEA AY-series even eliminates the need for liquid nitrogen pre-crusting before freezing for highly sensitive products such as raspberries. By combining even air distribution, high air pressure and gentle mechanical product agitation, not belt shaking, the GEA AY-series ensures true fluidization.

Hygienically engineered design in a cost-effective solution

With a fully stainless steel welded enclosure, floor and structure and ample access to all components, the GEA AY-series design is the most hygienic on the market today. It allows easy, effective cleaning year after year, satisfying the highest food safety requirements.

The GEA AY-series can operate at -37°C/-35°F evaporative temperature, which can save more than 10% of energy, compared to the -40°C/-40°F.

Flexibility

By simply selecting a product from the menu on the touch panel, the user can adapt the airflow to each product in the IQF tunnel, ensuring the same IQF quality throughout production. The freezer only requires frequency inverters on the fan motors—without any additional airflow pulsators or bypass hatches.

In touch with your needs: gentle product handling and high hygiene

GEA AY-series IQF tunnel freezers

Capable of handling capacities from 1.5 to 15+ tons per hour, the GEA AY-series IQF tunnel range is designed to cost efficiently, durably and easily provide optimal IQF quality with a short installation time.

Features and benefits

- 1 **Higher yield from less damage on product:**
Product loading directly on the belt outside the freezer.
- 2 **Less free water on the product:** Excellent water management due to dewatering system.
Reduces crumbles and frost build-up in the tunnel.
- 3 **Product loaded on a clean and dried belt:** Possibility of continuous belt cleaning in operation.
- 4 **Superior IQF treatment:** High product yield and quality with Long Wave Fluidization™.
- 5 **Easy to shift from one product to another:** Frequency inverters on all fans for adjustable fluidization.
- 6 **Lower product dehydration:** Evaporators and airflow designed for shorter freezing time.
- 7 **Food safety:** Hygienically engineered design. Fully welded stainless steel floor, enclosure and structure.
- 8 **Easy operation:** Intuitive touch panel.

Patent pending

Wide range of applications

GEA AY-series tunnel freezers can handle:

- A wide range of applications: berries, fruits and vegetables; whole, sliced and diced, seafood products
- Sensitive products gently and minimizes the risk of damaging your product
- 1 shift to 40 hours of continuous operation with the Snow Removal System (SRS)

Cost-efficient production

Our tunnel freezers profitably:

- Increase yield by gently handling product, fluidizing just enough to produce superior IQF product
- Save energy by using higher evaporating temperature and lower pressure drop
- Clean quickly and effectively
- Ease maintenance, use non-proprietary spare parts

Great durability

Our tunnel freezers are strengthened by:

- Fully welded stainless steel
- Ease of operation
- Customer support

GEA 2AY-series. Fully pre-assembled prior to shipping

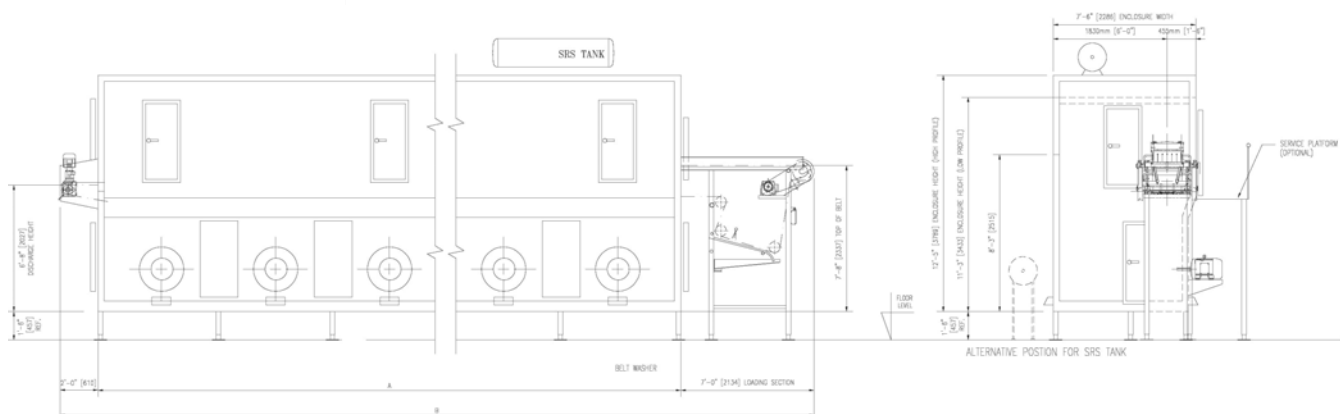
GEA 2AY-series selection table (Metric)
Capacity (kg/hr) table for each 2AY IQF tunnel freezer model @ -40°C suction temperature

Model	2AY-3C	2AY-4C	2AY-5C	2AY-6C
Vegetables				
Asparagus, cut, 25mm	1,500	2,000	2,600	3,100
Bean, green cut	1,500	2,000	2,600	3,100
Bean, soy	1,600	2,200	2,800	3,400
Broccoli, florets, 19mm-50mm	1,200	1,700	2,100	2,600
Carrots, diced, 9mm-13mm	1,400	1,900	2,400	2,900
Carrots, sliced, crinkle	1,200	1,700	2,100	2,600
Carrots, whole (baby)	1,400	1,900	2,400	2,900
Cauliflower, florets, 19mm-50mm	1,200	1,700	2,100	2,600
Corn, cut / kernel	1,500	2,000	2,600	3,100
Peas, black eyed	1,600	2,200	2,800	3,400
Peas, green	1,600	2,200	2,800	3,400
Potatoes, diced, 9mm-13mm	1,200	1,700	2,100	2,600
Fruit				
Blueberries wild	1,400	1,900	2,400	2,900
Blueberries cultured 6% sugar	1,300	1,800	2,300	2,800
Blueberries cultured 12% sugar	1,200	1,600	2,000	2,400
Cherries, pitted	1,200	1,600	2,000	2,400
Raspberries	1,100	1,500	1,900	2,300
Strawberries, 35mm-45mm	1,100	1,500	1,900	2,300
Strawberries, 25mm-35mm	1,200	1,600	2,000	2,400
Shrimp				
Shrimp, peeled, cooked and devined, 450-900 count/kg	1,200	1,700	2,100	2,600
Shrimp, raw, head off, shell on, 160-200 count/kg	1,200	1,600	2,000	2,400

Dimension table for each GEA 2AY IQF tunnel freezer model

Model	2AY-3C	2AY-4C	2AY-5C	2AY-6C
Enclosure length (A) [mm]	5,700	7,600	9,400	11,200
Overall length (B) [mm]	8,500	10,300	12,100	14,000

GEA 2AY IQF tunnel freezer layout

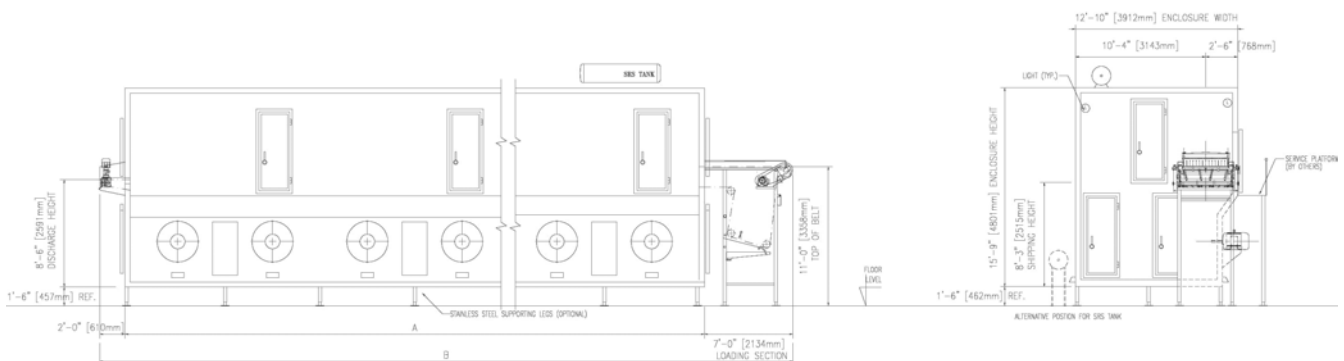


GEA 4AY-series. Pre-assembled prior to shipping

GEA 4AY-series selection table (Metric)										
Capacity (kg/hr) table for each 4AY IQF tunnel freezer model @ -40°C suction temperature										
Model	4AY-4C	4AY-5C	4AY-6C	4AY-7C	4AY-8C	4AY-9C	4AY-10C	4AY-11C	4AY-12C	4AY-13C
Vegetables										
Asparagus, cut, 25mm	4,700	6,000	7,200	8,300	9,600	10,700	11,900	13,100	14,300	15,500
Bean, green cut	4,700	6,000	7,200	8,300	9,600	10,700	11,900	13,100	14,300	15,500
Bean, soy	5,200	6,600	8,000	9,200	10,600	11,800	13,200	14,500	15,800	17,200
Broccoli, florets, 19mm-50mm	3,900	5,000	6,000	6,900	8,000	8,900	9,900	10,900	11,900	12,900
Carrots, diced, 9mm-13mm	4,500	5,700	6,800	7,900	9,100	10,100	11,300	12,400	13,500	14,700
Carrots, sliced, crinkle	3,900	5,000	6,000	6,900	8,000	8,900	9,900	10,900	11,900	12,900
Carrots, whole (baby)	4,500	5,700	6,800	7,900	9,100	10,100	11,300	12,400	13,500	14,700
Cauliflower, florets, 19mm-50mm	3,900	5,000	6,000	6,900	8,000	8,900	9,900	10,900	11,900	12,900
Corn, cut / kernel	4,700	6,000	7,200	8,300	9,600	10,700	11,900	13,100	14,300	15,500
Peas, black eyed	5,200	6,600	8,000	9,200	10,600	11,800	13,200	14,500	15,800	17,200
Peas, green	5,200	6,600	8,000	9,200	10,600	11,800	13,200	14,500	15,800	17,200
Potatoes, diced, 9mm-13mm	3,900	5,000	6,000	6,900	8,000	8,900	9,900	10,900	11,900	12,900
Fruit										
Blueberries wild	4,500	5,700	6,800	7,900	9,100	10,100	11,300	12,400	13,500	14,700
Blueberries cultured 6% sugar	4,200	5,300	6,400	7,400	8,500	9,500	10,600	11,600	12,700	13,800
Blueberries cultured 12% sugar	3,700	4,700	5,600	6,500	7,500	8,300	9,300	10,200	11,100	12,100
Cherries, pitted	3,700	4,700	5,600	6,500	7,500	8,300	9,300	10,200	11,100	12,100
Raspberries	3,400	4,300	5,200	6,000	6,900	7,700	8,600	9,500	10,300	11,200
Strawberries, 35mm-45mm	3,400	4,300	5,200	6,000	6,900	7,700	8,600	9,500	10,300	11,200
Strawberries, 25mm-35mm	3,700	4,700	5,600	6,500	7,500	8,300	9,300	10,200	11,100	12,100
Shrimp										
Shrimp, peeled, cooked and devined, 450-900 count/kg	3,900	5,000	6,000	6,900	8,000	8,900	9,900	10,900	11,900	12,900
Shrimp, raw, head off, shell on, 160-200 count/kg	3,700	4,700	5,600	6,500	7,500	8,300	9,300	10,200	11,100	12,100

Dimension table for each GEA 4AY IQF tunnel freezer model										
Model	4AY-4C	4AY-5C	4AY-6C	4AY-7C	4AY-8C	4AY-9C	4AY-10C	4AY-11C	4AY-12C	4AY-13C
Enclosure length (A) [mm]	9,400	11,700	14,000	16,300	18,600	20,900	23,200	25,400	27,700	30,000
Overall length (B) [mm]	12,200	14,500	16,800	19,000	21,300	23,600	25,900	28,200	30,500	32,800

GEA 4AY IQF tunnel freezer layout



In touch with hygiene

Your main concern. Our guarantee



GEA freezers and chillers satisfy the food industry's most stringent hygiene requirements through their:

Hygienic by design

Built with fully welded stainless steel, including the floor and enclosure. The smooth surface is easy to clean.



Structural support

Built with all-welded stainless steel. Prevents dirt, water and soil from remaining on the surface.



Good drainability

Consistent sloped floor drains easily. The structure sits on elevated studs welded to the floor and eliminates dirt traps.



Insulation without caulked joints

Option for fully welded insulated panels and floor on all our tunnels.



External motors

All drive motors and fan motors are externally mounted.

Ease of cleaning

Ample access to all components with wide walkways and catwalk.



Recirculating CIP system

Foaming Clean-In-Place (CIP) covers some or all zones. The recirculating CIP system pumps and filters water, acting like a giant dishwasher – using less water and detergent than non-circulating systems.



GEA Refrigeration Technologies offers superior customer support services. These services add significant value to your company's operation. Staffed by well-trained and experienced technicians, your experience with our service and support will be a positive one.

In touch with our customers

We offer you: top performance, from development to service



Worldwide service support

Of course we won't leave you alone when your systems have been installed. We support you during your plant operation, assure optimal maintenance, supply wear and spare parts, and are quickly there when your refrigeration systems unexpectedly have difficulty. In short: we are responsible for absolutely satisfactory operation – with companies around the world, and with highly competent staff.



Training programs by experts

Reliable maintenance and emergency repair service

We offer you preventive and restorative maintenance. Our engineers are selected, ongoing-trained experts that stand at your side around the world, and quickly and efficiently repair your equipment, minimizing production downtime. We customize your contract to meet your needs, from annual audits to full maintenance. You can depend also on our expert knowledge if you are looking for new possibilities of efficiency enhancement. Either for purchase or as part of contracting: our team will find the most energy-optimized and sustainable solution for you.

Proven spare parts

GEA Refrigeration Technologies quotes, designs and provides genuine replacement parts to optimize the performance and extend the operational life of your freezer or chiller. Owing our manufacturing shop, we can quickly manufacture your replacement parts, customizing them to fit your unique installation – without delay.

Friendly expert training

GEA Refrigeration Technologies offers training programs designed to optimize the performance of your freezer or chiller. Our highly skilled engineers conduct these programs for existing or new employees at your facility or in our Technology Center.



We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.

