The patented Cryoline® CW (CRYOWAVE™) is the world’s first hygienic IQF freezer with proprietary rolling-wave action. Ideal for diced poultry, pizza toppings, pasta, fruits and other high-value IQF products, the high-efficiency CRYOWAVE™ eliminates CO₂ snow carry-over, improves cleanability, and provides significant cost savings compared to other traditional freezing equipment. Diced products and other small items that tend to clump or stick to belts can be chilled or frozen at high production rates. The proprietary rolling-wave action gently tumbles layered products and keeps them separate as they rapidly freeze and seal in moisture. The CRYOWAVE™ freezer also provides precise control to minimize fines loss in addition to locking in moisture, shape, and quality for higher yields.

Also, in order to provide additional flexibility, the rolling wave action can be switched off, thus allowing the freezer’s conveyor belt to operate without vibration for traditional products.

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The CRYOWAVE™ freezer utilizes a mechanism that imparts a vibratory motion to the conveyor belt, creating a wave-like motion that travels the length of the conveyor. As the product passes through the freezer, these repeated wave-like motions dislodge the product from the surface of the belt and from surrounding products while it is sprayed with the chosen cryogen.

The combination of belt modulations and simultaneous injection of cryogen ensures rapid cooling of the product, forming an outer crust that locks in the moisture. This maintains the product yield and quantity that is critical for value-added IQF products.

Recipes can be simply loaded into the freezer controls by accessing a touch panel, which can store and recall the operational parameters of all product types.

- Operational cost savings as compared to traditional freezing technologies
- Superior quality with 99.9% IQF product exiting the freezer
- Product yield maximization
- Ability to stack products in several layers resulting in high production capacity
- Minimal product packaging losses due to elimination of CO₂ snow carryover
- Reduced cleaning and maintenance downtime
CRYOLINE® freezers are designed for hygiene and ease of cleaning. In addition to the freezer’s sloping floors and center trough drainage, all internal components are constructed with stainless steel or polyethylene. Modules are fully welded, ground, and finished. The freezer top lifts vertically to provide full access to all contact surfaces for cleaning.

Standard configuration

The fully-assembled and pre-tested freezer is delivered with the following features:

- Multi-language touch-screen control panel
- Retention time control
- Variable speed exhaust fans to maximize efficient use of the refrigerant
- Variable speed circulation fans with automatic defrost
- Fully welded stainless steel construction
- Stainless steel mesh belt
- Height-adjustable feet

Model range

The CRYOLINE® CW freezer starts with a base freezer of 5 meters (16.4 ft) in overall length with options of 3-meter (9.8-ft) extensions to a maximum of 14 meters (45.9 ft). Each model has a belt-width of 42 inches.

Options

Linde offers a belt washer for the CRYOLINE® CW freezer, which is connected to the freezer at the product infeed.

Technical data and specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Overall length</th>
<th>Height closed</th>
<th>Height opened</th>
<th>Overall width</th>
<th>Usable belt width</th>
<th>Max. product height*</th>
<th>Electrical power</th>
<th>Control Voltage</th>
<th>Electrical connection</th>
<th>Weight</th>
<th>Exhaust gas line</th>
<th>Refrigerant connection</th>
<th>Noise level</th>
</tr>
</thead>
<tbody>
<tr>
<td>CW 1250-5</td>
<td>17.4 ft</td>
<td>7.2 ft</td>
<td>9.5 ft</td>
<td>7.1 ft</td>
<td>42 in</td>
<td>4 in</td>
<td>6 KW</td>
<td>&lt;500V</td>
<td>380 - 500 V /32A</td>
<td>4850 lb</td>
<td>11.8 in</td>
<td>1X LINKUT 1”</td>
<td>≤ 85 db</td>
</tr>
<tr>
<td>CW 1250-8</td>
<td>27.3 ft</td>
<td>7.2 ft</td>
<td>9.5 ft</td>
<td>7.1 ft</td>
<td>42 in</td>
<td>4 in</td>
<td>9 KW</td>
<td>&lt;500V</td>
<td>380 - 500 V /32A</td>
<td>7940 lb</td>
<td>11.8 in</td>
<td>1X LINKUT 1”</td>
<td>≤ 85 db</td>
</tr>
<tr>
<td>CW 1250-11</td>
<td>37.1 ft</td>
<td>7.2 ft</td>
<td>9.5 ft</td>
<td>7.1 ft</td>
<td>42 in</td>
<td>4 in</td>
<td>12 KW</td>
<td>&lt;500V</td>
<td>380 - 500 V /32A</td>
<td>10800 lb</td>
<td>11.8 in</td>
<td>1X LINKUT 1”</td>
<td>≤ 85 db</td>
</tr>
<tr>
<td>CW 1250-14</td>
<td>46.9 ft</td>
<td>7.2 ft</td>
<td>9.5 ft</td>
<td>7.1 ft</td>
<td>42 in</td>
<td>4 in</td>
<td>15 KW</td>
<td>&lt;500V</td>
<td>380 - 500 V /63A</td>
<td>13670 lb</td>
<td>11.8 in</td>
<td>1X LINKUT 1”</td>
<td>≤ 85 db</td>
</tr>
</tbody>
</table>

*Maximum allowable product height may be reduced depending on operating conditions