Refrigeration and freezer solutions

Heating systems
Industrial energy systems
Refrigeration systems
About this brochure

Tailored to meet the highest standards in retail, hospitality and industry, Viessmann coldrooms and freezer rooms are particularly robust, offer sophisticated technology, energy efficiency, above average hygiene properties and a high level of user convenience.

- TECTO coldrooms and freezer rooms from page 4
- Refrigeration made to measure from page 6
- Perfect system design from page 8
- Refrigeration and freezer units from page 14
- Shelving systems from page 16
- The company from page 18
Viessmann coldrooms and freezer rooms are powerful performers, making them indispensable in food processing, supermarkets, retail, factories, transportation and catering. And without Viessmann’s innovative quality products, the pharmaceutical industry, hospitals, forensics, pathology, and plants in the petroleum industry, or the fabrication of synthetic raw materials would just not be the same.

Tailored to meet the highest standards in retail and industry, Viessmann coldrooms and freezer rooms are particularly robust, with above average hygiene properties and a high level of user convenience.

Viessmann offers technological excellence and outstanding levels of hygiene that you can rely on.
Take advantage of these benefits

- For temperature ranges from –50 to +60 °C
- 80 to 150 mm thick thermal insulation made from rigid polyurethane foam
- Quick assembly system with cam locks
- Straightforward to extend and reassemble
- Totally hygienic wall and floor radii in the TECTO Special range
- 5-year warranty (in accordance with our terms and conditions)
- Optimum insulation and low power consumption thanks to precision-fit manufacture
- A long service life
- Constant operational reliability
- Matched system design with Viessmann refrigeration units
- Extensive services
- Flexible solutions for various application areas
- Silicon-free joints
- Long lasting antimicrobial powder coating

Self-lifting doors and pressure compensation valve make opening the room easier

EVO-COOL® wall mounted unit
Ergonomic door handle
Operating panel – practical & clearly arranged
Door hinge, self-lifting
Refrigeration made to measure

Size overview, coldrooms/freezer rooms

<table>
<thead>
<tr>
<th>Type</th>
<th>TECTO Compact 80</th>
<th>TECTO Compact 100</th>
<th>TECTO Standard WL 80</th>
<th>TECTO Standard WL 100</th>
<th>TECTO Special 100</th>
<th>TECTO Standard 120</th>
<th>TECTO Standard 150</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Width</strong> (mm)</td>
<td>1800 – 3600</td>
<td>1800 – 3600</td>
<td>1200 – 6000</td>
<td>1200 – 6000</td>
<td>1200 – 6000</td>
<td>1500 – 6000</td>
<td>1500 – 6000</td>
</tr>
<tr>
<td><strong>Depth</strong> (mm)</td>
<td>1200 – 6000</td>
<td>1200 – 6000</td>
<td>1200 – 6000</td>
<td>1200 – 6000</td>
<td>1200 – 6000</td>
<td>1200 – 6000</td>
<td>1200 – 6000</td>
</tr>
<tr>
<td><strong>Exterior height incl. floor</strong> (mm)</td>
<td>2110</td>
<td>2150</td>
<td>2110</td>
<td>2150</td>
<td>2150</td>
<td>2490</td>
<td>2550</td>
</tr>
<tr>
<td><strong>Width</strong> (mm)</td>
<td>900</td>
<td>900</td>
<td>800</td>
<td>800</td>
<td>800</td>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td><strong>Height</strong> (mm)</td>
<td>1800</td>
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<td>2000</td>
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<td></td>
</tr>
</tbody>
</table>

* 300 mm and 100 mm grid, bespoke and larger room dimensions on request
Output overview

<table>
<thead>
<tr>
<th>Wall thickness</th>
<th>mm</th>
<th>80</th>
<th>100</th>
<th>80</th>
<th>100</th>
<th>100</th>
<th>120</th>
<th>150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended temperature differential acc. to VDI 2055 (ΔT in Kelvin)</td>
<td>K</td>
<td>38</td>
<td>45</td>
<td>38</td>
<td>45</td>
<td>45</td>
<td>56</td>
<td>70</td>
</tr>
<tr>
<td>Temperature range</td>
<td>°C</td>
<td>+2 to +60</td>
<td>-25 to +60</td>
<td>-20 to +60</td>
<td>-25 to +60</td>
<td>-25 to +60</td>
<td>-30 to +60</td>
<td>-60 to +60</td>
</tr>
<tr>
<td>U-values (W/m²K) to EN 13165</td>
<td></td>
<td>0.25</td>
<td>0.20</td>
<td>0.25</td>
<td>0.20</td>
<td>0.20*</td>
<td>0.17</td>
<td>0.14</td>
</tr>
</tbody>
</table>

* Does not apply to floor panels

Equipment overview

<table>
<thead>
<tr>
<th>TECTO Compact 80</th>
<th>TECTO Compact 100</th>
<th>TECTO Standard WL 80</th>
<th>TECTO Standard WL 100</th>
<th>TECTO Special 100</th>
<th>TECTO Standard 120</th>
<th>TECTO Standard 150</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wall thickness</strong></td>
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<tr>
<td><strong>80 mm</strong></td>
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<tr>
<td><strong>100 mm</strong></td>
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<tr>
<td><strong>100</strong></td>
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<tr>
<td><strong>120 mm</strong></td>
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</tr>
<tr>
<td><strong>150 mm</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Included
- Available as an option
- Not included
Each and every coldroom has a different layout. That calls for a high degree of individuality and engineering accuracy. The construction with optimised Viessmann grids of 300 mm and 100 mm (150 mm with partition walls) enables straightforward installation even under the most complex spatial conditions.

To save costs, optimal thermal insulation is required and the rigid polyurethane foam (PUR) used is perfect to meet this challenge. PUR has the lowest thermal conductivity of all currently relevant and practical insulation materials (< 0.25 W/m² K at +10 °C mean temperature).

Rigid PUR foam is also resistant to chemicals, solvents, fungi and microbes, is odourless and does not emit toxic gases. Rigid PUR foam can be processed precisely with accurate dimensions. This means that Viessmann coldrooms have an accurate precision-fit, offer high stability, are light weight and extremely easy to install.
Connection of cell panels

The cell sandwich panels (floors, walls, ceilings) are connected using a self-centring tongue & groove system. Cam locks with plastic housing and corrosion-protected clamping hooks are foamed into the panels. The cam locks are easy to operate from the inside; there is no need to access the cell from the outside during installation.

Viessmann ceiling panels

Viessmann ceiling panels round off the sturdy wall panels in the TECTO product range. The practical tongue & groove system ensures quick and convenient installation. With sufficient on-site reinforcement or static support, Viessmann ceiling panels are ideal for structures such as meat hook systems or tubular tracks, or the installation of Viessmann ceiling mounted units.

The maximum self-supporting ceiling span is six metres for TECTO WL80, WL100, 120 and 150. Larger spans or split ceiling panels need support or suspension structures, which we will be happy to design and manufacture to suit your individual requirements. Self-supporting girders or suspension supports made of two steel C sections are ideal for this. They allow for a span of six metres and over when secured to an on-site ceiling or steel structure, for example. If site characteristics do not allow the supports to be secured to the building structure, there is the option to use self-supporting frame girders for greater spans.

"Ceiling or floor" system

When there are high thermal insulation requirements and, at the same time, a need for ground-level access to the coldroom (e.g. in the deep freezing sector), Viessmann ceiling panels can also be used as high quality thermal insulation for the floor thanks to their robust design. On-site preparation enables integration below the relevant floor covering (e.g. screed).
Viessmann stainless steel floors – convenient reliability

Thanks to the design of the stainless steel 1.4301 (or optionally stainless steel 1.4571) floors, Viessmann coldrooms meet the highest of hygiene requirements. Viessmann stainless steel floors are designed with smooth underlapping and no joint gaps.

Pressed non-slip floor patterns
Manufactured with the (certified) in-house press pattern for multidirectional slip resistance, Viessmann stainless steel floors possess decisive benefits when it comes to safety. For a wide range of applications, Viessmann offers stainless steel floors in various cone and circle-pressed and plain patterns.

Floors with high load bearing capacity
Viessmann coldroom floors are made from high grade stainless steel, giving them extremely high load bearing capacity and, subject to the permissible wheel load, allowing them to be traversed with small wheels comfortably and without vibrations.

Coldrooms without floor panels
In coldrooms without stainless steel floors, the wall panels are secured on site to the floor of the installation site using plastic or stainless steel U-sections.

### Type | KR 09 | G 36 | KR 11 | KE 11 | KR 12
--- | --- | --- | --- | --- | ---
Version | circle-pressed | without embossing | circle-pressed | cone-pressed | circle-pressed
Max wheel load* | N/wheel | 1000 | 2000 | 4000 | 1000 | 2000 | 4000 | 1000 | 2000 | 4000 | 1000 | 2000 | 4000
Group** | R 09 | R 10 | R 11 | R 11 | R 12
Surface finish | unpolished | polished lengthwise | polished lengthwise | with/without lengthwise polishing | polished across

* Load area > 4 cm²/wheel
** Evaluation group for slip resistance (German trade association).

Other floor types on request. As an option, all floors may be welded.
TECTO Standard and Compact version
Wall thicknesses 80, 100 mm (TECTO Compact), 120, 150 mm (TECTO Standard)
The TECTO Standard and Compact version efficiently meets every requirement for hygienic and germ-free storage of refrigerated products. With TECTO Standard and Compact coldrooms and freezer rooms, the coldroom walls directly abut the thermally insulated stainless steel floor.

TECTO Standard WL version
Wall thicknesses 80, 100 mm
TECTO overlapping ensures wall to wall transition without gaps. The gapless overlapping of walls prevents build-up of dirt and water.

TECTO Special version
Wall thickness 100 mm
In the TECTO Special version, the thermally insulated stainless steel floor is connected to the wall panels with a large-radius hygienic curve. The corners of the floor are rounded and the surfaces of the floor are underlapped seamlessly and without gaps. This reliably prevents the accumulation of dirt.

The coldroom walls are overlapped without gaps, and are installed in a raised position on top of the floor curve. This design prevents cleaning water or moisture from refrigerated products from penetrating between the floor and wall panels. Germs that develop primarily in joints and corners are therefore effectively prevented. Additionally, the full-perimeter curve facilitates easy and hygienically optimum cleaning. The wall panels are supplied with gapless TECTO overlapping. The corners of the wall panels are finished with another curve on the inside of the coldroom.

Special versions such as marine coldrooms to USPH standard round off the attractive TECTO range.
Effective antimicrobial powder coating SmartProtec®

The top layers of the Viessmann sandwich elements are made from galvanised sheet steel, which is also treated with an effective, durable antimicrobial powder coating SmartProtec® in white (similar to RAL 9016). This prevents the transfer and spread of potentially harmful bacteria. The coating meets the pertinent standards and regulations relating to use in the food processing industry, and therefore ensures a higher level of hygiene for the storage of food and other vulnerable goods (recommended by Germany’s federal association of food inspectors (Bundesverband der Lebensmittelkontrolleure Deutschlands e.V.).

In addition to the antimicrobial powder coating, various stainless steel versions with different pressed patterns are available. Aside from standard quality 1.4301, Viessmann also offers versions in 1.4571 and 1.4509.

Alternative versions on request.
With more than 1000 different versions, Viessmann offers a diverse range of doors for coldrooms and freezer rooms. Doors are available in powder-coated sheet steel or optionally in various types of stainless steel with complete PUR insulation and without wooden elements in the door leaf or frame.
Viessmann wall mounted units
Viessmann’s EVO-COOL® wall mounted units are suitable for refrigeration and freezer applications (634 – 3020 W) and are available in 13 refrigeration capacity categories. EVO-COOL® is quiet, lightweight and easy to clean thanks to its microchannel heat exchanger. Defrosting by means of a hot gas bypass for greater energy efficiency. Manufacturing compliant with EN and CE standards.

Viessmann split units
Viessmann split units are suitable for installation in a coldroom or a conventional refrigeration room. Warm and cold units can be installed at a distance of up to 15 m apart. An integral electronic control unit is fitted. The refrigeration capacity for coldrooms and freezer rooms ranges from 900 to 2765 W. Electronic defrost or recirculation air defrost at coldroom temperatures higher than +3 °C can be selected. The refrigerant is R 134 a (R 404 A for freezer units). Manufacturing compliant with EN and CE standards.

Viessmann ceiling mounted units
These units can be installed on the outside of the coldroom ceiling. As the lower edge of the unit is flat, it makes them easier to reposition, too. Other than the coldroom surface area, no additional space is required. An integral electronic control unit is fitted. Several units can be connected in bus mode in a single coldroom. The refrigeration capacity for coldrooms and freezer rooms ranges from 800 to 2600 W, with condensate evaporation. The refrigerant is R 404 A. Manufacturing compliant with EN and CE standards.

Take advantage of these benefits
- Cooling capacity from 634 to 3020 W
- Electronic or thermostatic control
- Wide application limits with ambient temperatures from +1 to +43 °C
- Low power consumption
- Long service life
- Plug-in solution
- Winter control as an option
- Condensate evaporation pan as standard
## Capacity overview for refrigeration units

### Wall mounted units

**EVO-COOL**

<table>
<thead>
<tr>
<th>Cooling application</th>
<th>Wall mounted units</th>
<th>Split units</th>
<th>Ceiling mounted units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coldroom temperature, control range (°C)</strong></td>
<td>Chiller refrigeration</td>
<td>Freezer</td>
<td>Chiller refrigeration</td>
</tr>
<tr>
<td>+5 to +20</td>
<td>-5 to -25</td>
<td>+1 to +32</td>
<td>+5 to +20</td>
</tr>
<tr>
<td><strong>Ambient temperature, permissible (°C)</strong></td>
<td>-5 to -25</td>
<td>+1 to +32</td>
<td>+5 to +20</td>
</tr>
</tbody>
</table>

### Refrigerant

- R134a
- R 404 A

### Control unit

- Electronic

### Cooling medium

- Air

### Types

- CS 0500
- CS 0900
- CS 1300
- CS 1500
- CS 2000
- CS 2500
- CS 3000
- FS 0900 Split
- FS 1200 Split
- FS 1400 Split
- FS 1800 Split
- FS 2400 Split
- CT 0900
- CT 1200
- CT 1500
- CT 2000
- CT 3000

### Refrigeration capacity (W) at coldroom temperature of +5 °C (CS) or -18 °C (FS) and ambient temperature of +32 °C

<table>
<thead>
<tr>
<th>Models &amp; Sizes</th>
<th>CS 0500</th>
<th>CS 0900</th>
<th>CS 1300</th>
<th>CS 1500</th>
<th>CS 2000</th>
<th>CS 2500</th>
<th>CS 3000</th>
<th>FS 0900 Split</th>
<th>FS 1200 Split</th>
<th>FS 1400 Split</th>
<th>FS 1800 Split</th>
<th>FS 2400 Split</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage (V)/phases/frequency (Hz)</td>
<td>230/1/50</td>
<td>230/1/50</td>
<td>230/1/50</td>
<td>230/1/50</td>
<td>230/1/50</td>
<td>230/1/50</td>
<td>230/1/50</td>
<td>230/1/50</td>
<td>230/1/50</td>
<td>230/1/50</td>
<td>230/1/50</td>
<td>230/1/50</td>
</tr>
<tr>
<td>Rated consumption (W)/MCB/fuse rating (A)</td>
<td>334/1/50</td>
<td>820/1/50</td>
<td>1145/1/50</td>
<td>1279/1/50</td>
<td>1660/1/50</td>
<td>2043/1/50</td>
<td>2496/1/50</td>
<td>530/1/50</td>
<td>750/1/50</td>
<td>930/1/50</td>
<td>1440/1/50</td>
<td>2270/1/50</td>
</tr>
</tbody>
</table>

### Weight (kg)

- 45.0
- 54.0
- 58.0
- 61.0
- 65.0
- 60.0
- 101.0
- 101.0
- 101.0

### Dimensions (mm)

- Height x width x depth for split units
- only condenser unit (warm part)

<table>
<thead>
<tr>
<th>Models &amp; Sizes</th>
<th>CS 0500</th>
<th>CS 0900</th>
<th>CS 1300</th>
<th>CS 1500</th>
<th>CS 2000</th>
<th>CS 2500</th>
<th>CS 3000</th>
<th>FS 0900 Split</th>
<th>FS 1200 Split</th>
<th>FS 1400 Split</th>
<th>FS 1800 Split</th>
<th>FS 2400 Split</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (mm)</td>
<td>790x440x1013</td>
<td>790x440x1013</td>
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<td>790x440x1013</td>
<td>790x440x1013</td>
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<tr>
<td>Weight (kg)</td>
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<td>54.0</td>
<td>58.0</td>
<td>61.0</td>
<td>65.0</td>
<td>60.0</td>
<td>101.0</td>
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<td>101.0</td>
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<td>101.0</td>
</tr>
</tbody>
</table>

1. Compressor with oil sump heater
Shelving systems

Take advantage of these benefits

Rega Stabio
- Stainless steel shelving system
  Standard 5 (material 1.4301)
- Stainless steel shelving system
  Standard 25 (material 1.4509)
- Stainless steel for maximum hygiene
- Stainless, robust and easy to clean
- Straightforward installation
- Shelving section load of up to 1200 kg
  Shelf load of up to 150 kg
- 2-year warranty
  (in accordance with our terms and conditions)

Rega Almo
- Aluminium/plastic shelving system Standard 12
- Aluminium shelving system Standard 20
- Lightweight and robust
- Straightforward cleaning of plastic and aluminium shelves
- Shelving section load of up to 1200 kg
  Shelf load of up to 200 kg
- 2-year warranty
  (in accordance with our terms and conditions)

Rega Ferro
- Steel/plastic shelving system
  Standard 28 for dry storage
- Large number of different shelf types, for a wide range of possible uses
- Shelving section load of up to 600 kg
  Shelf load of up to 150 kg
- 2-year warranty
  (in accordance with our terms and conditions)
Recommended by experts

Germany’s federal association of food inspectors (Bundesverband der Lebensmittelkontrolleure Deutschlands e. V.) is a public institution that deals in particular with the area of food inspection in the catering industry. Primarily hygiene, and compliance with HACCP guidelines supported by Viessmann are decisive factors that are regularly and rigorously checked.

Upon introducing an antimicrobial powder coating as the new standard of hygiene for coldrooms and freezer rooms, Viessmann Kühlsysteme GmbH received a recommendation from Germany’s federal association of food inspectors (Bundesverband der Lebensmittelkontrolleure e.V.). This impressive level of hygiene, which comes as standard, is currently unique in the industry and underlines Viessmann’s commitment to high quality and innovation.

Viessmann quality

The experience and extensive knowledge of the industry gained over many years by design engineers, engineers and architects has been incorporated – from the initial idea and the creation of prototypes, right through to manufacture, so that only technologically advanced and high quality products leave the production line.

Put through its paces

Viessmann products always satisfy the highest of requirements. This is why Viessmann is able to deliver a comprehensive product range when it comes to fire safety too. Coldrooms and freezer rooms are available as an option in fire safety class B1 (low flammability) in accordance with DIN 4102, Part 1, for which extensive test certificates are available.

Viessmann Kühlsysteme GmbH also has general Building Regulations test certificates (P-SAC 02/III-047), so that, for example, coldrooms or flooring panels can be used in compliance with German State Building Regulations.

Thanks to its regular external and in-house checks, Viessmann Kühlsysteme GmbH is also one of only two manufacturers in Germany to bear the conformity mark (Ü-Zeichen) as a mark of quality in the construction industry.
The company
Viessmann – climate of innovation

Viessmann is one of the world’s leading manufacturers of intelligent, convenient and efficient systems for heating, cooling and decentralised power generation.

As a third generation family run business, Viessmann has been supplying highly efficient and clean heating systems for many decades.

**A strong brand creates trust**
Together with our brand label, our key brand message is an identifying feature recognised globally. "Climate of innovation" is a promise on three levels: It is a commitment to a culture of innovation. It is also a promise of enhanced product benefits and, at the same time, an obligation to protect the environment.

**Acting in a sustainable manner**
For Viessmann, taking responsibility signifies a commitment to acting sustainably.

This means bringing ecology, economy and social responsibility into harmony with each other, ensuring that current needs are satisfied without compromising the quality of life for the generations to come.

We consider climate protection, environmental responsibility and resource efficiency to be key priorities throughout our company, which has more than 11,500 employees worldwide.

**Example of Best Practice**
With its strategic sustainability project, Viessmann demonstrates at its own head office in Allendorf (Eder) that the energy and climate policy goals set for 2050 can in fact be achieved today with commercially available technology. The results speak for themselves:

- Expansion of renewables to 60 percent
- CO₂ emissions reduced by 80 per cent

The long term goal is for the company to meet all its own heating energy requirements by sustainable means.

Viessmann Group

**Company details**
- Established in: 1917
- Employees: 11,500
- Group turnover: 2.2 billion euros
- Export share: 56 percent
- 22 production companies in 11 countries
- 74 countries with sales companies and branches
- 120 sales offices worldwide

**The comprehensive product range from the Viessmann Group for all energy sources and output ranges**
- Boilers for oil or gas
- Combined heat and power generation
- Heat pumps
- Wood combustion technology
- Biogas production plants
- Biogas upgrading plants
- Solar thermal
- Photovoltaics
- Accessories
- Refrigeration systems
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