

RETAIL SOLUTIONS



RETAIL REQUIREMENTS

TEKO SOLUTIONS

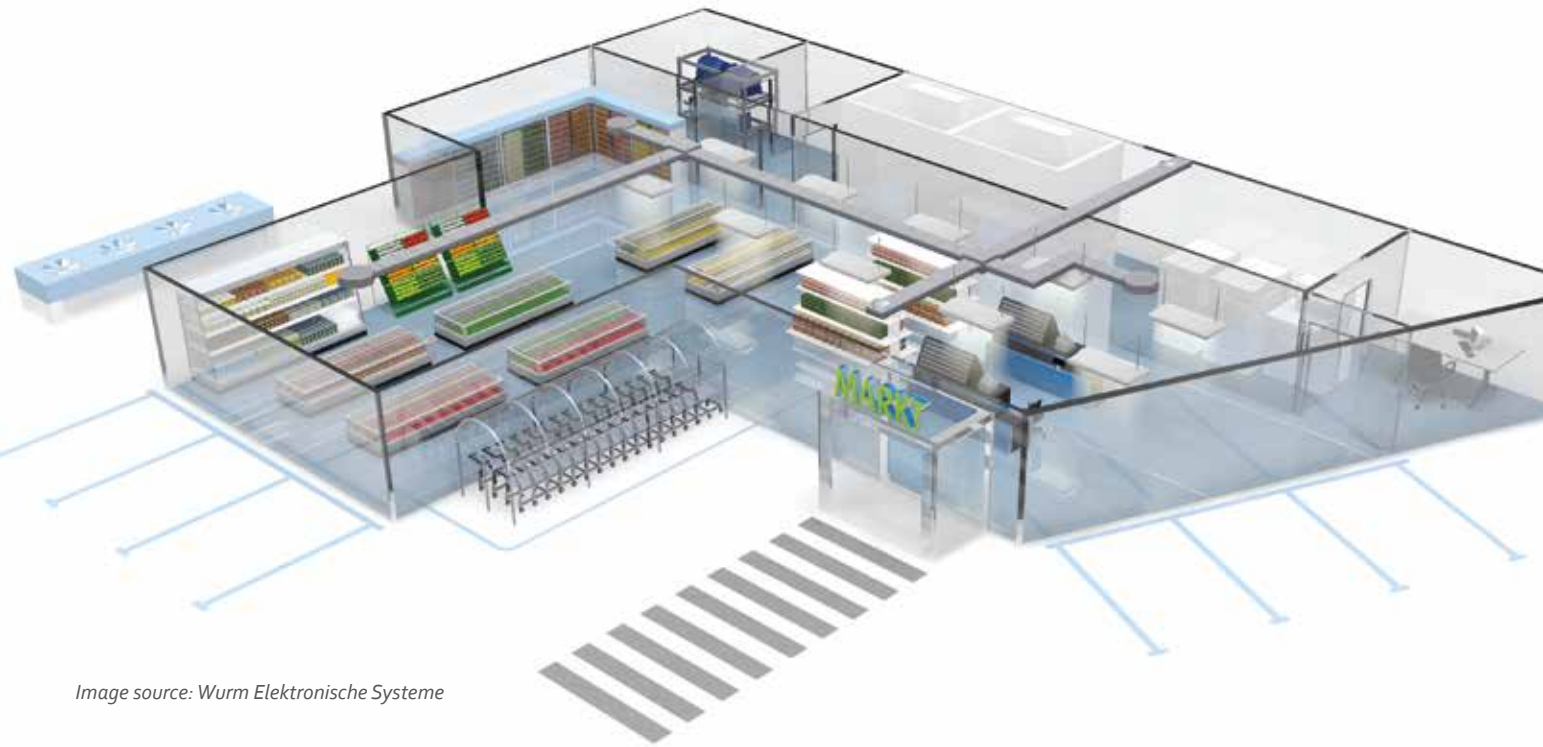


Image source: Wurm Elektronische Systeme



TEKO systems for active environmental protection.

The GWP is a significant indicator for global warming due to refrigerant leakages. It shows important parameter for determining the environmental friendliness of refrigeration systems in use.

The global warming effect of commercial F-gases in the average sector is four-digits above natural refrigerant solutions.

TEKO offers systems for active environmental protection with natural refrigerants (CO₂ with GWP = 1 and propane with GWP = 3).

These systems are absolutely future-proof, can be used for sure after 2030 from an environmental point of view and are not affected by the F-Gas Regulation.

Of course TEKO offers also systems with other refrigerants, such as LOW-GWP refrigerants.

Requirements of a retailers:

800 to 2.500 qm.

Safe operation with always fresh and chilled goods.

Commercial refrigeration.

- Cabinets for medium temperatures (glazed or unglazed)
- Low temperature refrigerated islands (MT + LT)
- Semi high cooling baskets
- Fruit and vegetables / containers
- Cooling units / MT cabinets
- Switchable cooling islands / cooling furnitures (2. setpoint)
- LT cabinets / MT combi set
- Cold rooms (1-2 LT and 2-5 MT)

Temperature in the Market.

- Heating
- Air conditioning

Installation of the machinery.

- Indoor or outdoor installation
- Sound insulation for noise-sensitive areas

Compliance with the operator obligations.

- HACCP – Live monitoring of foodstuff temperatures (-22 to +6 °C MT/LT)
- LT Quick frozen Foodstuffs Regulations EC 37/2005
- Fault analysis – Transparent evaluation
- Energy management (DIN ISO 50001)

Low Total Cost of Ownership.

Solution from TEKO: Tailored to the needs of retailers.

High-quality system technology produced in series. To ensure the quality of chilled goods – „Freshness First“.

Future-proof refrigeration technology.

- Standardized machine series
- Flexibly adaptable to different market concepts
- Specialist for natural refrigerants – alternative solutions with LOW-GWP refrigerants
- Long lifetime
- Compliance with legal requirements

Always correct temperatures.

Anytime correct temperature conditions in the goods as well as temperature safety at the workplace (sales and social rooms)

Heating.

Using the waste heat from the refrigeration process to support the heating system.

Air conditioning.

Air-conditioning function via refrigeration system and night flushing via building management.

Installation of refrigeration system.

TEKO offers solutions for flexible installations. Whether in machine rooms, outside the building or on the roof. Various soundproofing variants are available.

Compliance with required temperatures (HACCP).

- Integrated Wurm control system
- Platform- and location-independent processing, evaluation and qualification of large data sets
- Redundant backup via Wurm server

Energy-efficient, electricity-saving systems.

- Low maintenance and operating costs
- Operational safety – No system outage / no goods damage

CO₂ – NATURALLY FUTURE-PROOF

ROXSTA. CO₂ series solution.

Optimal solution for supermarkets / cash&carry / hypermarkets

ROXSTAcube.

- Small capacities – Series applications
- Compact design
- Indoor and outdoor installation
- Different sound insulation variants
- No machine room needed
- More storage area available

Capacities.

- MT up to 74 kW. 3 transcritical CO₂ compressors
- LT up to 9 kW. 0...1 subcritical CO₂ compressors
- Frequency converter included

ROXSTAsmart.

- Standardized, compact, easy to use
- Simple and understandable in application
- Future-oriented solution at attractive prices

Capacities.

- MT up to 112 kW
- LT up to 32 kW

ROXSTA2.0.

- Indoor or outdoor installation
- Modular installation of machine and medium pressure station
- Medium temperature cooling, low temperature cooling
- WP- and air conditioning control
- Parallel compression, Ejectors
- TEKO-construction EVALIFT & TEKOJET

Capacities.

- Medium temperature cooling up to 340 kW
- Low temperature cooling up to 180 kW

Capacities at to MT -5 °C / to LT -30 °C / t_{GC} 36°C



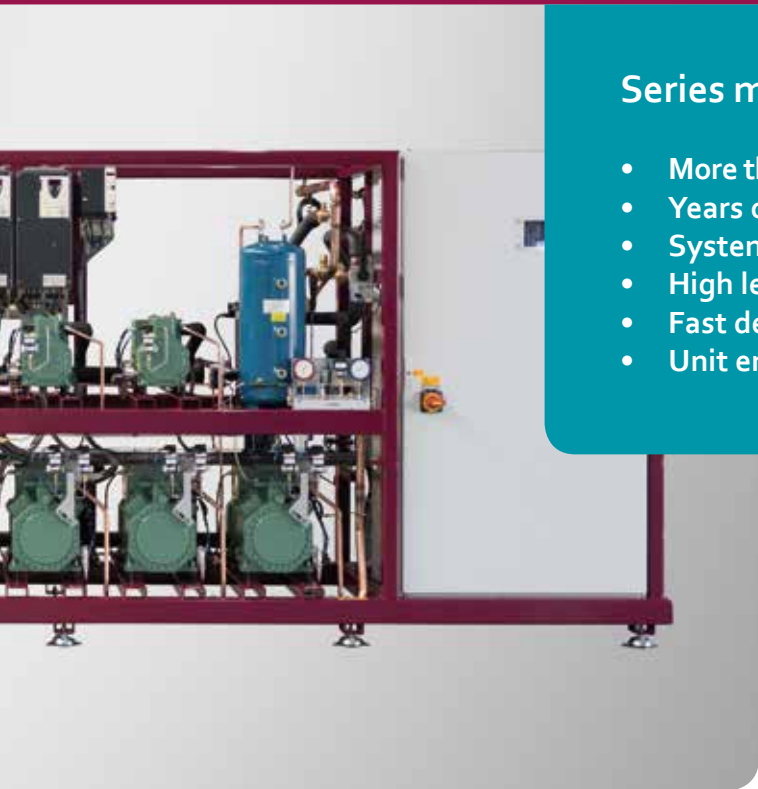
ROXSTA2.0



ROXSTAsmart



ROXSTAcube Series manufacturing



Series manufacturing at TEKO.

- More than 2.900 CO₂-units successfully running in the field
- Years of experience with transcritical CO₂-units
- System solutions for every scope of application
- High level of hermeticity
- Fast delivery
- Unit engineering with TÜV-approval

ROXSTAir.

- Extension or retrofitting of cooling applications with lower medium temperature cooling requirement
- Compact design: 965 x 1.575 mm
- For outdoor installation
- No machine room needed
- With light sound insulation
- 54 db(A) in 10 m
Sound measurements under laboratory conditions (airborne sound at 50 Hz). Despite careful control of the content, we do not assume any liability for the correctness and completeness of the data.

Capacities.

- MT up to 20 kW
- 1 transcritical CO₂ compressor
- Frequency converter included
- 2 EC fans

Capacities at to MT -5 °C / t_{GC} 36°C



ROXSTAir



Customer series pre-produced in stock

WHITELINE CO₂ HEAT EXCHANGERS



High-quality materials and well thought-out details stand for safety, simple operation, long service life and hygiene.

Cubic CO₂ evaporators for 45, 60 and 80 bar.

Safe. Robust. Hygienic.

The CO₂ evaporators in cubic design achieve a high degree of efficiency through a special pipe geometry with corresponding pipe cross sections and the use of efficient fans.

The evaporators are available in suction and pressure versions.

Strong pipe walls and fins ensure an extended service life.

Due to the generous design, the evaporators are easy to operate and install. Drip tray and fan plate can be swivelled or removed with a safety hinge and offers you full access for installation and service. You can clean the evaporators very comfortably and keep them hygienically clean.

Capacities.

- MT 1,8 up to 16 kW
- LT 1,4 up to 13 kW

Design.

- Sucking or pressing airflow
- Fin spacing: 4,2 / 6,3 / 7,0 mm
- 1 up to 4 EC- or AC-fans (1- or 3-phase)
- Diameter: 200 / 250 / 300 / 350 / 400 / 500 mm
- Drip tray single or double insulated
- Fin thickness: 0,15 up to 0,22 mm
- Pipe wall thickness: 0,41 up to 1,10 mm
- Ceiling mounts made of steel
- Optional epoxid coated fins for aggressive atmosphere applications

Gas cooler WGR for 120 bar.

Efficient. Adjustable. Flexible.

All gas coolers of the WHITELINE series contain a special copper pipe with very small diameters. An advantage of this pipe geometry is a small pipe volume, which offers a high primary surface area. The units therefore offer high efficiency with a small footprint.

EC technology offers a further plus in terms of efficiency. The Whiteline gas coolers (WGR) are equipped with continuously variable EC fans with their own control system, that adapt perfectly to the fluctuating capacity requirements of the application.

The refrigerant connections are easy to install and to process for the continuing pipelines. The fans are pre-wired in a common terminal box.

The gas coolers can be operated in horizontal and vertical air flow directions. This offers you a high degree of flexibility in installation.



Capacities.

$Q_{0\ min}$ 31 kW at 25 db(A) in 10 m

$Q_{0\ max}$ 230 kW at 40 db(A) in 10 m

Design.

- 1 to 4 EC fans (1- or 3-phase)
- Fan: \varnothing 630 / 800 / 910 mm
- Fin spacing: 2,1 mm



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