edition version 1.1

BlueLine

Cold Room series

+4 °C -20 °C









Green ICE

KW Antibacteria

APPARECCHI SCIENTIFICI KW

Cold Room series

+4 °C -20 °C



Cold Room series

+4 °C -20 °C

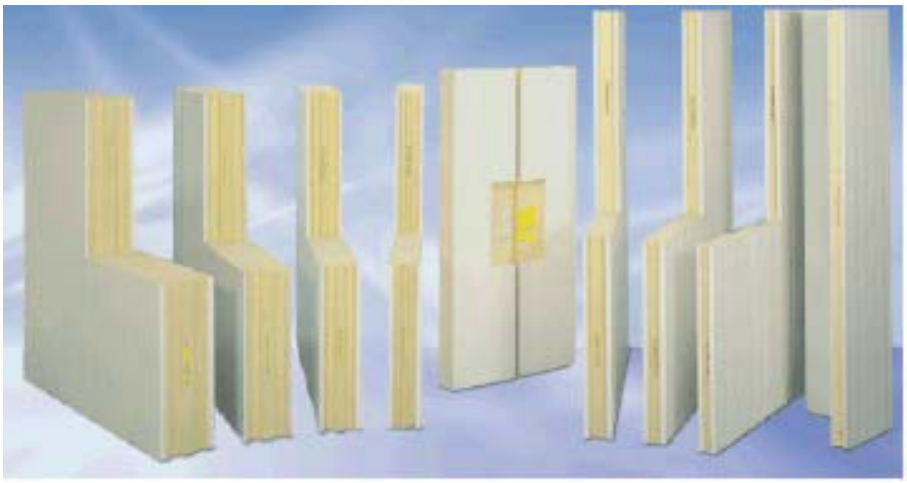
KW offers a series of positive- or negative-temperature cold rooms, characterized by a broad selection of volumes and measurements and **suitable insulation thickness** (from **60 mm.** for T +4 °C to **100 mm.** and others for T -20 °C -35 °C). The system of ***refrigeration circuit*** can be built as ***single-body on the roof***, or split (remote group).
The use of airtight and semi-sealed primary compressors and the use of high-power and efficient exchangers make these **cold rooms extremely reliable, even in critical environmental conditions.**
The materials and **the fluids being used are all natural and environmentally friendly**, and particular attention is paid to problems dealing with the ozone layer and greenhouse effect.
Regarding safety, all fluids being used are non-flammable, non-toxic and non-explosive.

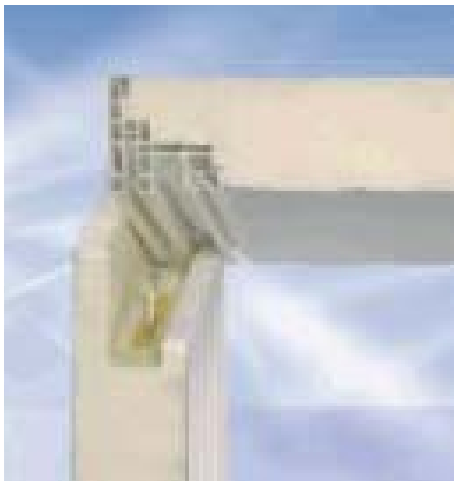
SERVICES

CONSULTING IN DESIGN, MANUFACTURING AND TRANSPORTATION ASSISTANCE IN ASSEMBLY
Our value chain does not end with delivery; it continues with our post-sales support and replacement service, all to guarantee maximum customer satisfaction.

Panels:
Panels for cold rooms with premanufactured components:
- **IN FIBREGLASS**, certified flame retardant and for use in foodstuffs
- **IN AISI 304 STAINLESS STEEL**
- **IN PRE-ENAMELLED SHEETS**
- **IN PLASTICIZED SHEETS**
- **IN WHITE ALUMINIUM**

The panels that compose these store-rooms are modular, premanufactured and type sandwich, studied for the fast construction of premises suitable to keep constant temperature, insulated by rigid polyurethane resins with very high insulation coefficient that are injected with high pressure, reaching average densities of 42 Kg/m3.
The unique male/female interlocking system with eccentric hooking between panels completely eliminates the need for iron casings and guarantees the walls will have high thermal insulation and exceptional solidity. Moreover, thanks to this important particularity, premises of any size can be rapidly set up.
The eccentric hooking is affixed before the first phase of polyurethane expansion close to the neutral axis of the panelling and along its longitudinal edge, in order to experience extremely modest thermal and mechanical stress derived from the operation of refrigeration store-rooms and small seismic phenomena.





Flame retardant: All our panels are **CLASS 2** in standard construction.
Upon request, consumers can get the highest flame-retardant classification: **CLASS 1.**

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Doors:

Swivelling



Sliding



Standard housing



Door with key lock and internal unblocking.
Micro switch on the door to activate the evaporator vents and turn on the lights; in addition, there is a manual command switch to turn on the store-room internal lights.
The internal structure comes with concave mouldings; they can be placed between wall / roof and wall / base: rounded angles, for better hygiene and cleanliness.

Internal furnishings:
-shelves in stainless steel
-shelves in aluminium and/or plastic







Possibility of side-wall access windows,
internal drawers for pharmaceutical products, etc.

Know-how developed for many years, applied technology, process automation, all these make KW's implementations the right answer to the customer's requirements.

Cold Room series

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**KW's product offering includes all types of solutions for scientific and biomedical laboratory refrigeration.
From the technical inspection at work area before drafting the project, project draft, economic offer, construction plan with planning activities, timing, etc., to the execution of IQ/OQ qualifications.**

Cold room +4 °C with 2 access doors
and 2 systems in TG execution, with QE
in pre-enamelled sheets and **NIA** control system





Preparation of the excavation to put the store-room floor

Special execution, ideal also for classified environments
in the pharmaceutical industry





Low-T (-35 °C) execution with anteroom at +4 °C

Cold Room series
+4 °C -20 °C

Completely external implementation with own roof



The refrigeration systems:
KW is attentive to energy savings.
Refrigerating systems with CE and PED (Pressure Equipment Device) certifications.
All solutions are available:
SINGLE-BODY Extremely compact refrigeration unit that can work at normal temperature (+2/+8 °C) as well as low (-20 °C) and very low (-35 °C) temperatures.

Single-body on the wall





Single-body on the roof



SPLIT
Split group (remote placement with air condensation)

Cold Room series

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Researched systems that are rapidly mounted on the roof or walls of the store-room, or with a motor condensing unit for remote placement. Silent system as per legal requirements (residential operation).

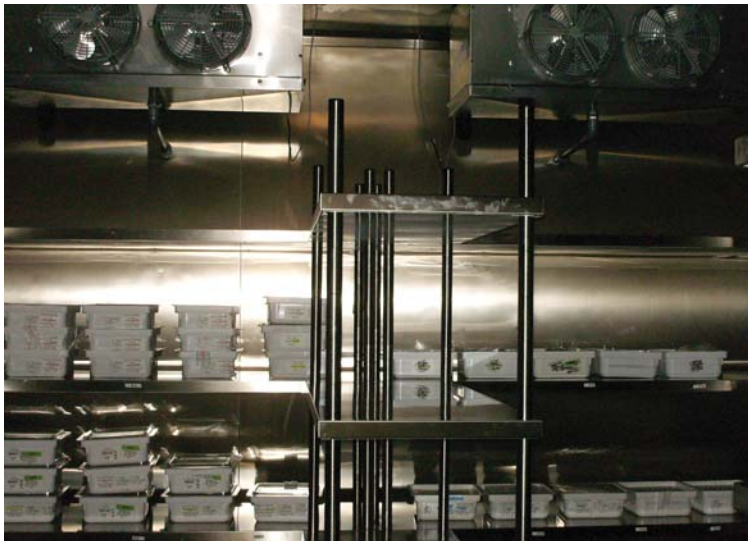
Split group (remote placement with water condensation)

Material provided for connection between the remote motor condenser and adjacent store-room systems for distances ≤ 20 m.
Copper tubes, anti-condensation insulation with aspiration tubes of suitable thickness, anti-condensation adhesive tape for finish. Discharge tubes for evaporator condensation are in smooth gray PVC, with discharge siphons in adequate sections, anchoring clamps for the discharge tube with stainless steel fastening screws, PVC reductions and curves.
Evaporator fastening brackets in zinc-plated steel, UZV brackets for tube anchoring, tube brackets in zinc-plated steel, self-tapping screws in stainless steel with screw anchors for the walls, threaded bar to attach the air evaporator complete with nuts and bolts.





Air evaporator in store room with internal in AISI 304 stainless steel



Air evaporator in store-room with internal in AISI 304 stainless steel

Cold Room series

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Airtight or semi-sealed compressors according to their power and uses.
Fully automatic electric or hot gas defrosting. Automatic evaporation of the condensation water or suitable discharge method.
Water or air **condensation**.
Dehydration filters with solid cartridges.
Expansion thermostat valve with equalizer.
Pressure valve (for systems with water condensation).
Liquid collection tank.
Solenoid valve in liquid line.
Liquid and humidity indicator.
Illumination with CE-compliant waterproof light fixture in IP55 polycarbonate.
Compensation valve facilitating to repeatedly open the door within a short time, rebalancing internal and external pressures (either in high-volume or low-temperature rooms).
Electric cabling material:
- PVC duct to contain electrical cabling, screws included
- fire-resistant electric multiple cabling to connect the motor condenser unit to the evaporator
- fire-resistant electric multiple cabling to connect the motor condenser unit to the remote electrical panel

The instrumentation is typical for **high-level** refrigerating equipment, with **electronic digital regulation** of **the temperature: NIA control system**

Control panel with **NIA** (in **TG** -twin group- implementations).
QE implemented entirely in AISI 304 stainless steel, including full housing solution with transparent framework and small front door. IP 55, or IP65, implementation.







Panel in pre-enamelled zinc sheets, including disk recorder with weekly cycle



Panel in pre-enamelled zinc sheets for the management of 2 systems at -35 °C, as well as panel systems for store-rooms at +4 °C

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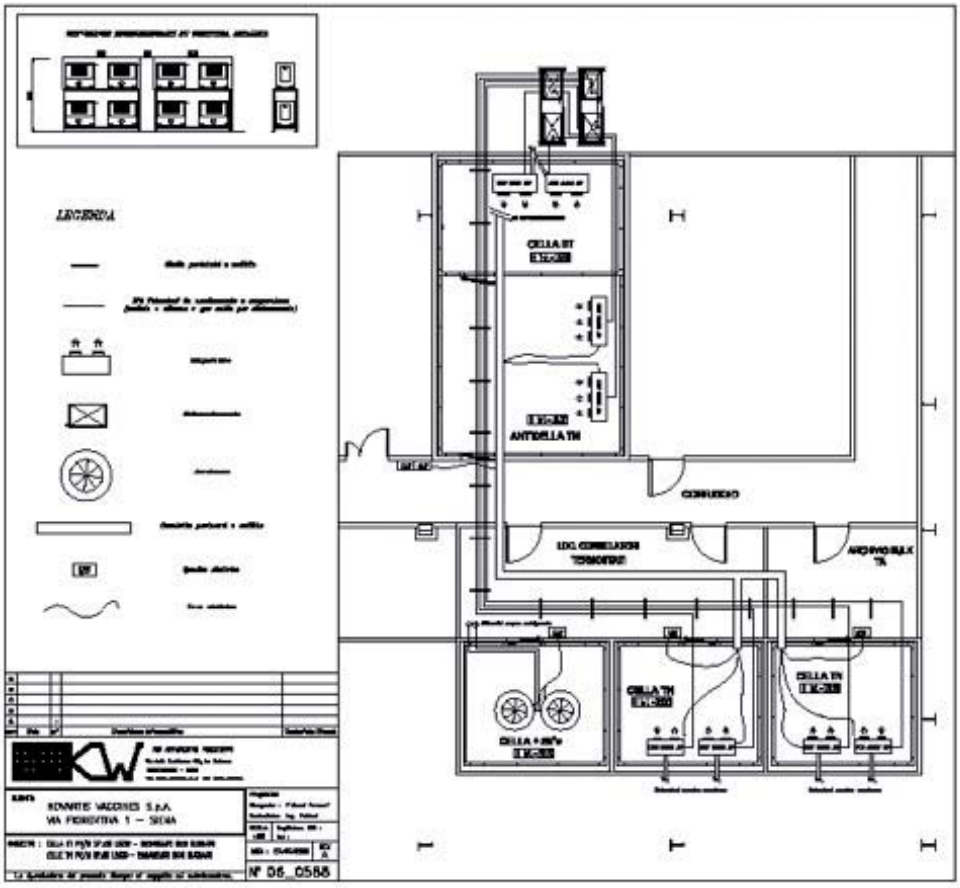
QE internal panel view. For every implementation, KW issues a certificate of compliance with CEI Regulations.





QE in plastic material

KW can furnish these cold rooms with all the accessories of the KLAB line (see pages on this line),
especially regarding FAT, SAT, IQ, OQ, and PQ protocols and activities.



Example of implementation design

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Tender Commercial Office: **commerciale@kwkw.it**
International Sales Manager: **expdpt@kwkw.it**
Technical Support & Spare Parts: **assistenza@kwkw.it**
Service line: **service@kwkw.it**
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This catalogue is on an informative and illustrative basis, the quality of the images and the contents may have come under alterations during printing

= min./max temperature alarm

= Internal light

= DATA LOGGER function

= energy failure alarm

= Alarm broken down probe

= Open door alarm

= Lock

= Disaster Ricovery / Safety Control

= Temperature recorder

= Wheels



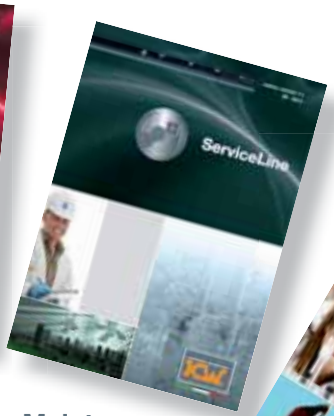
Cold storage equipment



Incubation and microbiological test equipment



Ovens, drying and sterilizing equipment



Maintenance, IQ,OQ,PQ, hardware and software for equipment management



Medical devices for transfusion centres

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ISO 9001:2008 ISO 13485:2003 ISO 14001:2004 OHSAS 18001 2007

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