

EQUIPMENT CATALOG

FOR INDUSTRIAL REFRIGERATION INSTALLATIONS

BERLING GROUP

SUPPLIER OF PROFESSIONAL EQUIPMENT
AND COMPONENTS FOR REFRIGERATION SYSTEMS

➤ Qualified engineering staff provides professional consulting and precise selection of refrigeration equipment and components.

Installation and service is carried out by cooperating specialized companies.



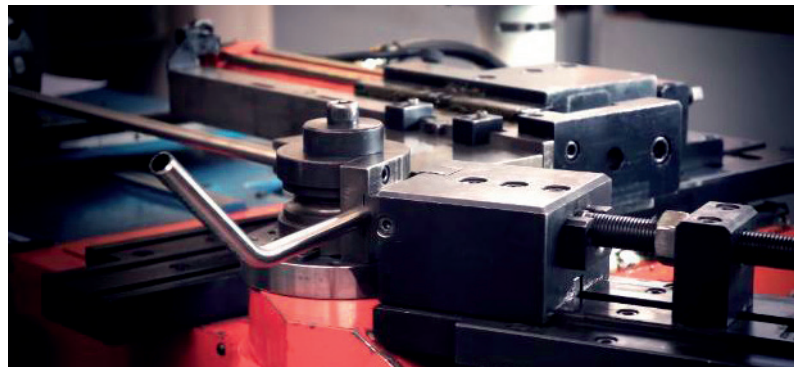
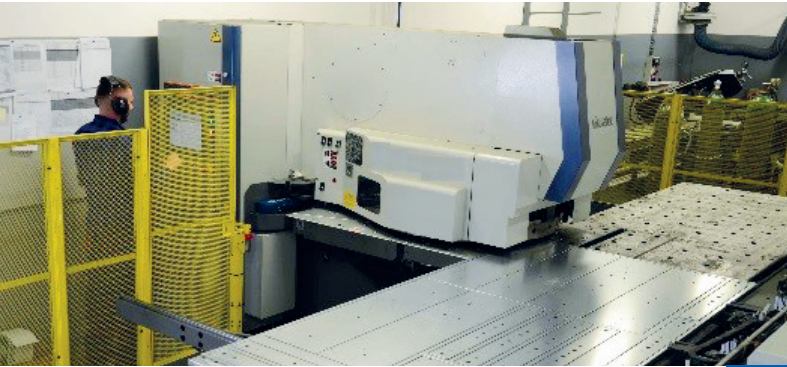
➤ BERLING S.A.
REFRIGERATION WHOLESALER
since 1993 r.

➤ ARKTON SP. Z O.O.
REFRIGERATION UNIT MANUFACTURER
since 1991 r.



ARKTON

I MANUFACTURER OF REFRIGERATION UNITS



➤ SPARE PARTS
AVAILABLE OFF-THE-SHELF

REFRIGERATION UNITS ARKTON MANUFACTURE

CO₂ REFRIGERATION UNITS (R744 CARBON DIOXIDE)



CO₂ unit applications

Fluidization tunnels, spiral tunnels, freezers, freezing and cooling chambers, plate freezing, refrigeration counters, low-temperature indirect process cooling.

CO₂ unit features

- They are not subject to F-gas Regulation.
- Versatility -one unit can supply freezers, cold stores and air conditioning.
- Energy savings compared to systems with synthetic refrigerants.
- High efficiency and energy saving.
- Highly effective heat recovery.
- Simple operation and service.
- Product safety, CO₂ does not contaminate food (it is neutral).
- Compact design.
- No need for constant supervision of units.

! REFRIGERATION UNITS SUPPLIED COMPLETELY WITH GAS COOLER, COMPONENTS, CONTROLS, AIR COOLERS, TUBES.

Completed project examples

KEBAB PRODUCTION PLANT:

Freezer rooms, blast freezers and spiral tunnel: 730 kW.
Cold rooms and production rooms: 400 kW.

MEAT PROCESSING PLANT:

Cold rooms, meat cutting and processing rooms: 700 kW.

BAKERY PRODUCTION PLANT:

Freezer rooms and blast freezers: 644 kW.
Cold rooms and production rooms: 300 kW.

SPIRAL AND FLUIDIZATION TUNNELS:
180-600 kW.

FREEZER ROOMS: 80-1500 kW.

TECHNOLOGICAL CHILLERS: 180-300 kW.

COOLING CAPACITY



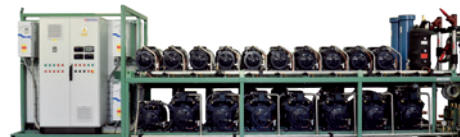
40 kW



200 kW

600 kW

3 MW



EXAMPLES OF CO₂ REFRIGERATION UNITS (R744 CARBON DIOXIDE)

CO₂ boosters two-stage units

Designed to operate in systems:

- > Low temperature (LT),
- > Low temperature (LT) combined with medium temperature (MT) systems,
- > Glycol i.e. to cool down indirect cooling medium.

Wide range of cooling capacities.

It can replace small and medium-sized ammonia systems.



Single-stage transcritical CO₂ units

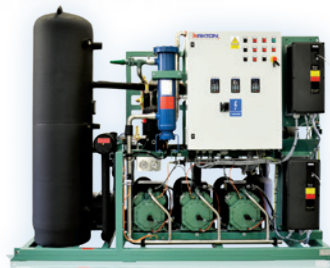
Operating in systems:

- > Medium temperature (MT)
- > High temperature (HT).



Subcritical CO₂ units

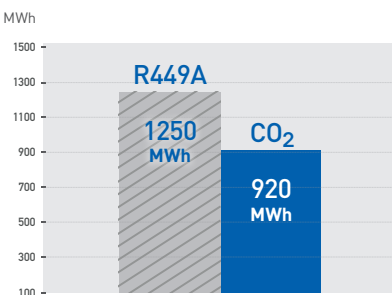
- > CO₂ refrigerant units designed for operating in a cascade system.
- > With cascade or glycol cooled condensers.
- > Designed to operate in low temperature (LT) systems.



Average annual power consumption – examples

FREEZING TUNNEL

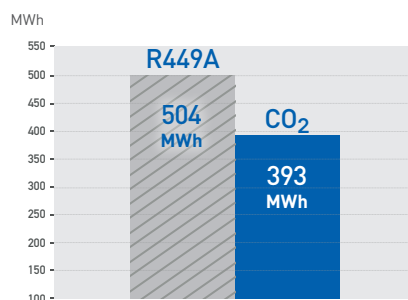
600 kW, operating time 2900 h/year



- ▨ R449A - unit with screw compressors BITZER HSN, $t_0 = -40^\circ\text{C}$
- CO₂ - booster unit with reciprocating compressors BITZER, $t_0 = -40^\circ\text{C}$

FREEZER ROOM

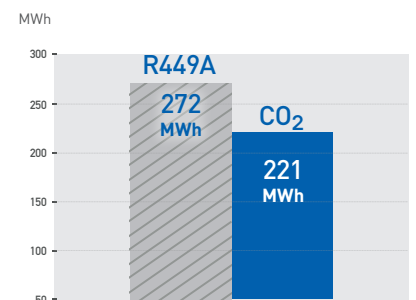
300 kW, operating time 2900 h/year



- ▨ R449A - unit with screw compressors BITZER HSN, $t_0 = -32^\circ\text{C}$
- CO₂ - booster unit with reciprocating compressors BITZER, $t_0 = -32^\circ\text{C}$

COLD STORE

300 kW, operating time 2900 h/year



- ▨ R449A - unit with screw compressors BITZER, $t_0 = -10^\circ\text{C}$
- CO₂ - booster unit with reciprocating compressors BITZER, $t_0 = -10^\circ\text{C}$

CHILLERS

WITH REFRIGERANTS: CO₂ (R744), PROPANE (R290), HFO (R1234yf/ R1234ze) AND ALL OTHER SYNTHETIC REFRIGERANTS

CO₂

Chiller applications

Cold stores, production and distribution plants, process cooling, air conditioning

Chiller features

- > High efficiency
- > Low power consumption
- > Low charge
- > Heat recovery
- > Compact design
- > High precision and wide range of cooling capacity regulation



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CHILLERS IN COMPACT AND SPLIT VERSIONS

Propane chillers (R290)



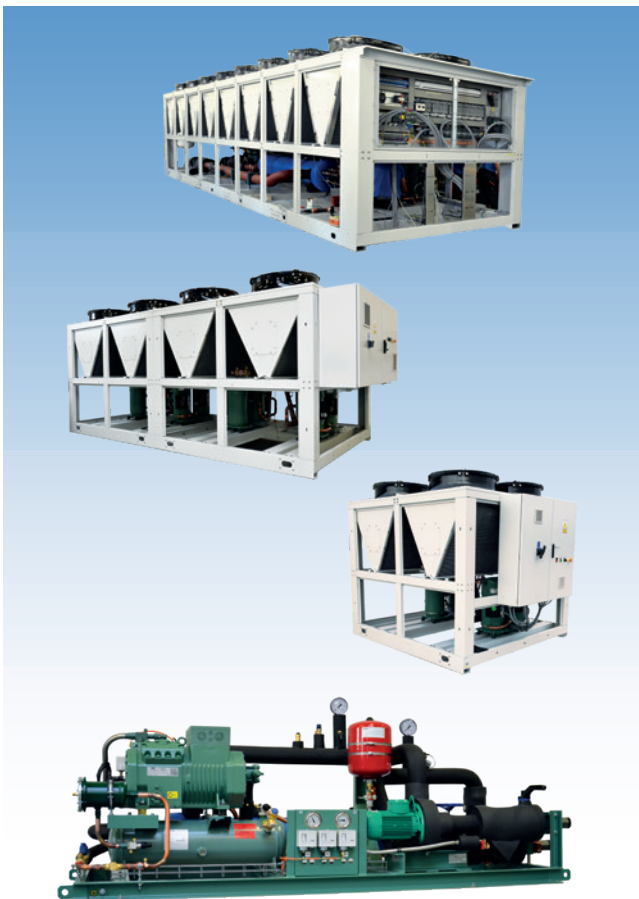
Chiller with screw compressors CSH



Transcritical CO₂ chiller



COOLING CAPACITY



3 MW
1 MW
300 kW
50 kW



HERKULES SCREW COMPRESSOR UNITS

REFRIGERANTS:
R448A, R449A, R407F, R404A.

Compressor units based on Bitzer semi-hermetic screw compressors, for low, medium and high temperature applications.

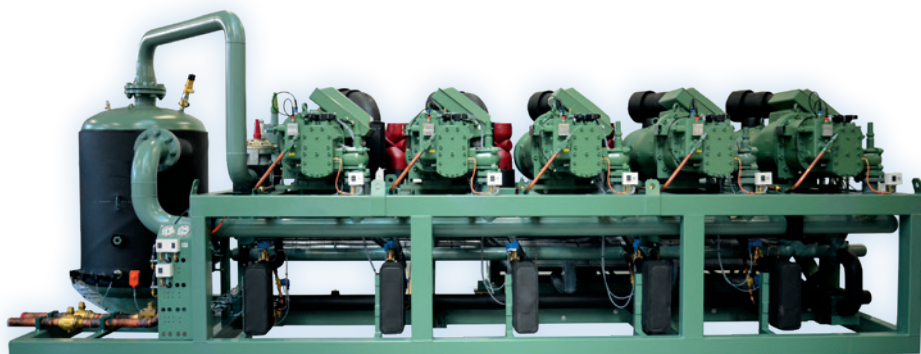
Examples of equipment options

- > Economizer
- > Refrigerant receiver
- > Heat recovery system
- > Liquid separator
- > Control cabinet
- > Capacity regulation



Screw compressor unit applications

Fluidization tunnels, spiral tunnels, large cold stores and freezers, low-temperature process cooling.



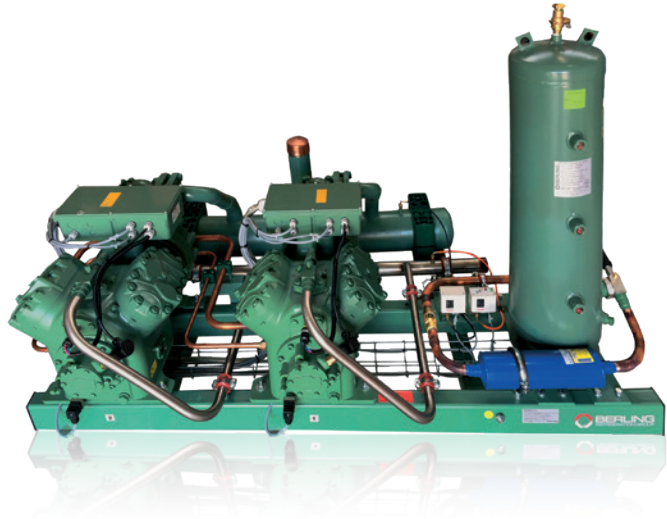
KOSMOS COMPRESSOR UNITS

REFRIGERANTS:
R134a, R448A, R449A, R407F.

Compressor units based on semi-hermetic reciprocating compressors, single or two-stage.

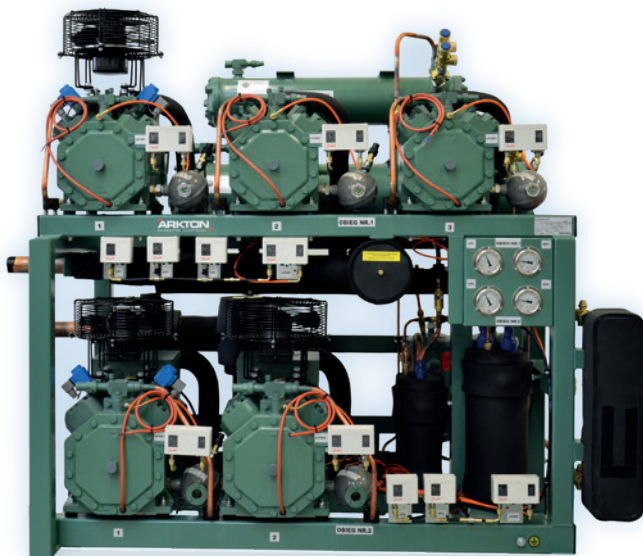
Examples of equipment options

- > Heat recovery system
- > Capacity regulation
- > Refrigerant receiver
- > Liquid separator
- > Liquid subcooler
- > Double-decker construction
- > Control cabinet



Compressor unit applications

Cold stores, freezers, processing plants, meat processing plants, shops.



TAURUS CONDENSING UNITS

REFRIGERANTS:
R134a, R448A, R449A, R407F, R404A.

Units based on single-stage or two-stage Bitzer semi-hermetic reciprocating compressors, with liquid receiver and air cooled condenser with fans.

Examples of equipment options

- > Control cabinet
- > Capacity regulation
- > Heat recovery system
- > Casing
- > Liquid separator
- > Pressure switches



Condensing unit applications

Cold stores, freezers, small processing plants, meat processing plants, small format stores, catering, hotels.

Taurus with 1-stage compressor



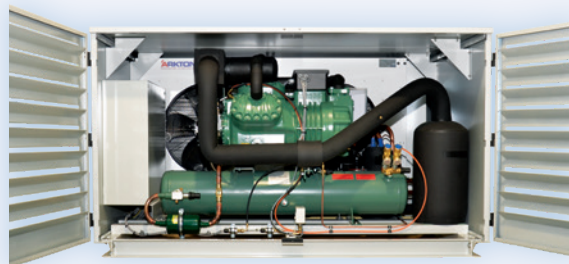
Taurus with 2-stage compressor



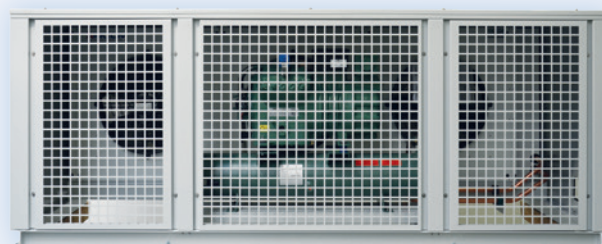
Taurus Tropic version



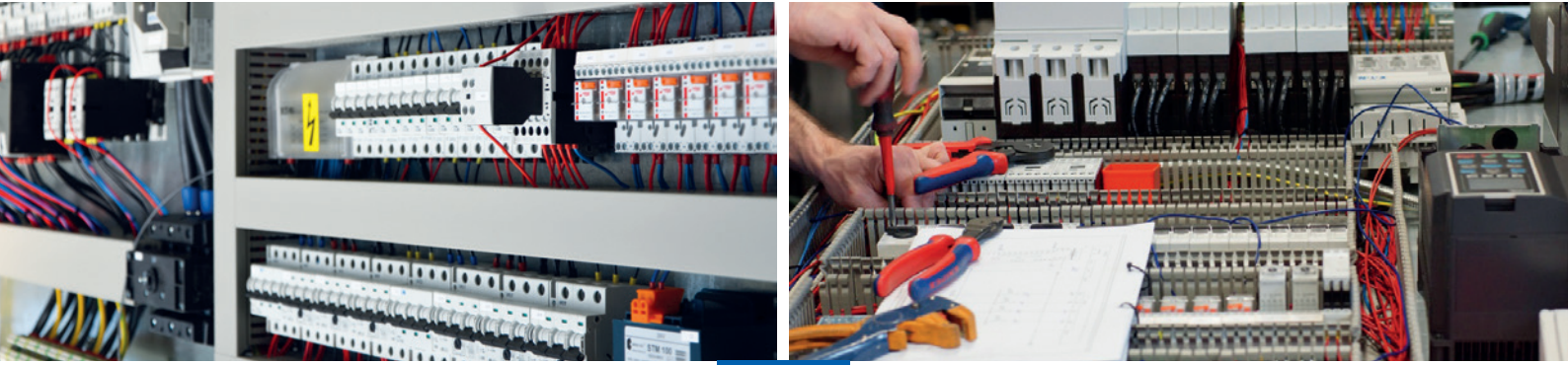
Taurus with 2-stage compressor in casing



Taurus in casing



ELECTRIC CONTROL CABINETS



AIR COOLERS - INDUSTRIAL

INDUSTRIAL AIR COOLERS:
CUBIC, CEILING DUAL FLOW
AND BLAST FREEZERS.

Industrial air coolers applications

Industrial cold stores and freezers; freezing and cooling tunnels; industrial packaging and preparation rooms; industrial staff rooms; warehouses where gentle air movement is required; spiral tunnels.

Cooling chambers - standard



Cooling chambers - production



Freezer rooms



AIR COOLERS - CUSTOM DESIGNS

INDIVIDUAL SOLUTIONS FOR EACH APPLICATION, RANGING FROM INDUSTRIAL AIR COOLERS WITH SPECIAL EQUIPMENT TO CUSTOMISED UNITS, DESIGNED TO MEET YOUR NEEDS.

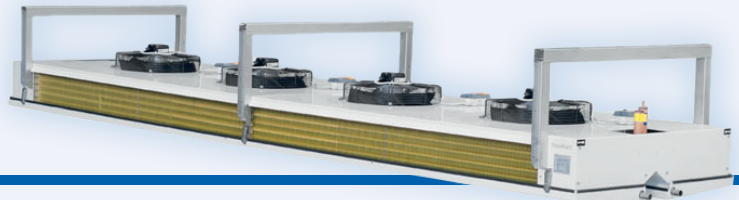
Example applications

Industrial cold stores and freezers, industrial cooling and freezing chambers, freezing tunnels, cold stores for carcasses or poultry.

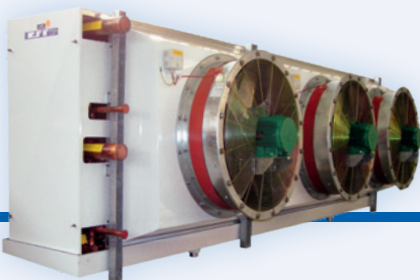
Blast freezing



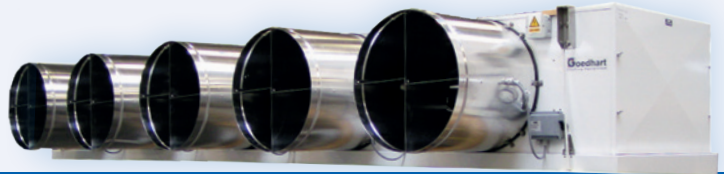
Working spaces



Reinforced fans
for intense cooling



Increased air flow



Shock cooling



Cooling of carcasses



CONDENSERS, DRY COOLERS AND GAS COOLERS

Air cooled condensers



Gas coolers



Dry coolers



Units with adiabatic system



COMPLETE EQUIPMENT AND SPARE PARTS

Components and controls



Accessories



ACR tubes and insulation



Spare parts available off-the-shelf



AUTHORIZED SERVICE

Caring for the environment.



BERLING S.A.
Al. Krakowska 80a, PL 05-552 Stefanowo
tel. +48 22 727 84 97
berling@berling.pl www.berling.pl



ARKTON SP. Z O.O.
ul. Mórkowska 36, PL 64-115 Wilkowice
tel. +48 65 52 52 830
info@arkton.pl www.arkton.pl

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